

MP attributes backends bit **bit32** 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 functions global graphics  
**gzip** **img** interactions interfaces **io** jit job  
**lang** languages layouts **lfs** libraries lmx  
logs lpdf **lpeg** **ltn12** **lua** luatex lxml **math**  
mathematics mbox **md5** metapost **mime**  
moduledata modules mp **mplib** noads **node**  
nodes number objects **os** **package**  
pagebuilders parametersets **pdf** pdfscanner  
physics **profiler** publications regimes  
resolvers sandbox scripts set **socket**  
sorters statistics **status** storage streams  
**string** structures **table** **tex** **texconfig** **texio**  
thirddata tokens tracers trackers  
typesetters **unicode** url userdata utilities  
vf visualizers xml **zip** **zlib**

# ConTEXT MkIV

# global (alias: \_G)

|                       |          |                     |          |
|-----------------------|----------|---------------------|----------|
| <b>LUAEXVERSION</b>   | number   | <b>file</b>         | table    |
| <b>MP</b>             | table    | <b>floats</b>       | table    |
| <b>_LUAVERSION</b>    | number   | <b>font</b>         | table    |
| <b>_MAJORVERSION</b>  | number   | <b>fontloader</b>   | table    |
| <b>_MINORVERSION</b>  | number   | <b>fonts</b>        | table    |
| <b>arg</b>            | table    | <b>frozen</b>       | boolean  |
| <b>assert</b>         | function | <b>functions</b>    | table    |
| <b>attributes</b>     | table    | <b>gcinfo</b>       | function |
| <b>backends</b>       | table    | <b>getfenv</b>      | function |
| <b>bit</b>            | table    | <b>getmetatable</b> | function |
| <b>bit32</b>          | table    | <b>getpos</b>       | function |
| <b>blobs</b>          | table    | <b>getvpos</b>      | function |
| <b>boolean</b>        | table    | <b>global</b>       | table    |
| <b>buffers</b>        | table    | <b>graphics</b>     | table    |
| <b>builders</b>       | table    | <b>gzip</b>         | table    |
| <b>caches</b>         | table    | <b>img</b>          | table    |
| <b>callback</b>       | table    | <b>inspect</b>      | function |
| <b>callbacks</b>      | table    | <b>interactions</b> | table    |
| <b>catcodes</b>       | table    | <b>interfaces</b>   | table    |
| <b>characters</b>     | table    | <b>io</b>           | table    |
| <b>chemistry</b>      | table    | <b>ipairs</b>       | function |
| <b>collectgarbage</b> | function | <b>jit</b>          | table    |
| <b>commands</b>       | table    | <b>job</b>          | table    |
| <b>containers</b>     | table    | <b>lang</b>         | table    |
| <b>context</b>        | function | <b>languages</b>    | table    |
| <b>converters</b>     | table    | <b>last</b>         | number   |
| <b>coroutine</b>      | table    | <b>layouts</b>      | table    |
| <b>ctxrunner</b>      | table    | <b>lfs</b>          | table    |
| <b>debug</b>          | table    | <b>libraries</b>    | table    |
| <b>dimen</b>          | function | <b>lmx</b>          | table    |
| <b>dir</b>            | table    | <b>load</b>         | function |
| <b>directives</b>     | table    | <b>loadfile</b>     | function |
| <b>document</b>       | table    | <b>loadstring</b>   | function |
| <b>documentdata</b>   | table    | <b>logs</b>         | table    |
| <b>dofile</b>         | function | <b>lpdf</b>         | table    |
| <b>done</b>           | boolean  | <b>lpeg</b>         | table    |
| <b>environment</b>    | table    | <b>ltn12</b>        | table    |
| <b>epdf</b>           | table    | <b>lua</b>          | table    |
| <b>error</b>          | function | <b>luatex</b>       | table    |
| <b>experiments</b>    | table    | <b>lxml</b>         | table    |
| <b>figures</b>        | table    | <b>math</b>         | table    |

|                 |          |              |          |
|-----------------|----------|--------------|----------|
| mathematics     | table    | sandbox      | table    |
| mbox            | table    | scripts      | table    |
| md5             | table    | select       | function |
| metapost        | table    | set          | table    |
| mime            | table    | setfenv      | function |
| module          | function | setinspector | function |
| moduledata      | table    | setmetatable | function |
| modules         | table    | socket       | table    |
| mp              | function | sorters      | table    |
| mplib           | table    | statistics   | table    |
| newproxy        | function | status       | table    |
| next            | function | storage      | table    |
| noads           | table    | streams      | table    |
| node            | table    | string       | table    |
| nodes           | table    | structures   | table    |
| number          | table    | swiglib      | function |
| objects         | table    | table        | table    |
| optionalrequire | function | tex          | table    |
| os              | table    | texconfig    | table    |
| package         | table    | texio        | table    |
| pagebuilders    | table    | thirddata    | table    |
| pairs           | function | toboollean   | function |
| parametersets   | table    | tokens       | table    |
| pcall           | function | tonumber     | function |
| pdf             | table    | tostring     | function |
| pdfboolean      | function | tracers      | table    |
| pdfnull         | function | trackers     | table    |
| pdfreference    | function | type         | function |
| pdfscanner      | table    | typesetters  | table    |
| pdfverbose      | function | unicode      | table    |
| physics         | table    | unpack       | function |
| print           | function | url          | table    |
| profiler        | table    | userdata     | table    |
| publications    | table    | utf          | table    |
| rawequal        | function | utilities    | table    |
| rawget          | function | vf           | table    |
| rawlen          | function | visualizers  | table    |
| rawset          | function | xml          | table    |
| regimes         | table    | xpcall       | function |
| require         | function | zip          | table    |
| resolvers       | table    | zlib         | table    |

# 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 definemultitonecolor
- F defineprocesscolor
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- F forcedmodel
- F forcesupport
- F formatcolor
- F formatgray
- F getpagecolormodel
- F gray
- F graytohsb
- F handler
- F hstogray
- F hstorgb
- F iccprofile
- F isblack
- N main
- S model
- D models
- F mpcolor
- F mpnamedcolor

- F moptions
- U none
- F popset
- F processcolorcomponents
- F pushset
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbtocmyk
- F rgbtorgay
- F rgbtohsb
- N selector
- F setlist
- F setmodel
- F setpagecolormodel
- D sets
- F spec
- F spot
- F spotcolorname
- F spotcolorparent
- F spotcolorvalue
- B supported
- F transparencycomponents
- B triggering
- F usecolors
- F value
- D values
- B weightgray

define

effects

function

table

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

handlers

list

names

table

data table

data table

|                       |            |                          |        |
|-----------------------|------------|--------------------------|--------|
| <b>negatives</b>      | table      | U none                   |        |
| N attribute           |            | F register               |        |
| D data                |            | D registered             |        |
| F enable              |            | B supported              |        |
| F handler             |            | B triggering             |        |
| F register            |            | F value                  |        |
| D registered          |            | D values                 |        |
| F set                 |            | <b>unsetvalue</b>        | number |
| <b>numbers</b>        | data table | <b>viewerlayers</b>      | table  |
| <b>ofnode</b>         | function   | N attribute              |        |
| <b>private</b>        | function   | F cleanup                |        |
| <b>public</b>         | function   | D data                   |        |
| <b>restore</b>        | function   | F define                 |        |
| <b>save</b>           | function   | F definedlayoutcomponent |        |
| <b>showcurrent</b>    | function   | F enable                 |        |
| <b>states</b>         | table      | F forcesupport           |        |
| F disabletriggering   |            | F handler                |        |
| F enabletriggering    |            | B hasorder               |        |
| F finalize            |            | D listwise               |        |
| F initialize          |            | F register               |        |
| F process             |            | D registered             |        |
| F selective           |            | F resolve_begin          |        |
| F stacked             |            | F resolve_end            |        |
| F stacker             |            | F resolve_reset          |        |
| <b>system</b>         | function   | F resolve_step           |        |
| <b>transparencies</b> | table      | D scopes                 |        |
| N attribute           |            | F setfeatures            |        |
| D data                |            | F start                  |        |
| F enable              |            | F stop                   |        |
| F forcesupport        |            | B supported              |        |
| F handler             |            | D values                 |        |

# backends (context)

## **codeinjections** table

F boxresourcedimensions  
F registerboxresource  
F restoreboxresource

## **current** string

## **defaults** table

T codeinjections  
F gethpos  
F getmatrix  
F getpos  
F getvpos  
F hasmatrix  
T nodeinjections  
T registrations  
D tables

## **install** function

## **nodeinjections** table

F restore  
F save  
F transform

## **nothing** function

## **pdf** table

T codeinjections  
F addbookmarks  
F attachmentid  
F clonefield  
F definefield  
F definefieldset  
F defineviewerlayer  
F embedfile  
F enabletags  
F exportformdata  
F getbookmarks  
F getdefaultfieldvalue  
F getfieldcategory  
F getfieldset  
F getformatoption  
F gethpos  
F getmatrix  
F getoutputfilename  
F getpos

F getpreviewfigure  
F getvpos  
F hasmatrix  
F insertrenderingwindow  
F mergebookmarks  
F mergereferences  
F mergeviewerlayers  
F prerollreference  
F presetsymbol  
F presetsymbollist  
F processrendering  
F registerdocumentcloseaction  
F registerdocumentopenaction  
F registeredsymbol  
F registerpagecloseaction  
F registerpageopenaction  
F registersymbol  
F setfieldcalculationset  
F setfigurealternative  
F setfigurecolorspace  
F setfiguremask  
F setformat  
F setformsmethod  
F setpagetransition  
F setupcanvas  
F setupidentity  
F setxmpfile  
F startlayer  
F startunicodetoactualtext  
F stoplayer  
F stopunicodetoactualtext  
F supportedformats  
F unicodetoactualtext  
F useviewerlayer  
F validfield  
F validfieldcategory  
F validfieldset  
S comment  
T nodeinjections  
F addtags  
F annotation

F attachfile  
F changestackedlayer  
F cmykcolor  
F comment  
F destination  
F effect  
F graycolor  
F injectbitmap  
F insertmovie  
F insertsound  
F insertswf  
F insertu3d  
F knockout  
F negative  
F overprint  
F positive  
F reference  
F rgbcolor  
F spotcolor  
F startlayer

F startstackedlayer  
F stoplayer  
F stopstackedlayer  
F transparency  
F typesetfield  
T registrations  
F cmykindexcolor  
F cmykspotcolor  
F getspotcolorreference  
F grayindexcolor  
F grayspotcolor  
F rgbindexcolor  
F rgbspotcolor  
F spotcolorname  
F transparency

T tables

D vfspecials

**registrations**      table

**tables**              table

## bit (context)

|                |          |
|----------------|----------|
| <b>arshift</b> | function |
| <b>band</b>    | function |
| <b>bnot</b>    | function |
| <b>bor</b>     | function |
| <b>bswap</b>   | function |
| <b>bxor</b>    | function |

|               |          |
|---------------|----------|
| <b>lshift</b> | function |
| <b>rol</b>    | function |
| <b>ror</b>    | function |
| <b>rshift</b> | function |
| <b>tobit</b>  | function |
| <b>tohex</b>  | function |



## bit32 (basic lua)

**arshift** function

**band** function

**bnot** function

**bor** function

**btest** function

**bxor** function

**extract** function

**lrotate** function

**lshift** function

**replace** function

**rrotate** function

**rshift** function

## blobs (context)

|                   |          |
|-------------------|----------|
| <b>append</b>     | function |
| <b>dimensions</b> | function |
| <b>dispose</b>    | function |
| <b>new</b>        | function |
| <b>pack</b>       | function |
| <b>strdp</b>      | function |
| <b>strhd</b>      | function |

|                |          |
|----------------|----------|
| <b>strht</b>   | function |
| <b>strwd</b>   | function |
| <b>tohpack</b> | function |
| <b>tonodes</b> | function |
| <b>tovpack</b> | function |
| <b>write</b>   | function |

## boolean (context)

**tocontext** function

**tonumber** function

# buffers (context)

|                       |          |                  |          |
|-----------------------|----------|------------------|----------|
| <b>append</b>         | function | F define         |          |
| <b>assign</b>         | function | F hassomecontent |          |
| <b>collectcontent</b> | function | F next           |          |
| <b>erase</b>          | function | F place          |          |
| <b>exists</b>         | function | F reset          |          |
| <b>getcontent</b>     | function | F save           |          |
| <b>getlines</b>       | function | <b>prepend</b>   | function |
| <b>loadcontent</b>    | function | <b>raw</b>       | function |
| <b>parallel</b>       | table    | <b>undent</b>    | function |

# builders (context)

## kernel table

- F hyphenation
- F kerning
- F ligaturing
- F mlist\_to\_hlist
- T originals
  - F hyphenate
  - F kerning
  - F ligaturing

## paragraphs table

- T constructors
  - N attribute
  - F define
  - F disable
  - F enable
  - F handler
- T methods
  - F basic
  - F default
  - F hpack
  - F oneline
- D names
- D numbers
- F set
- F start
- F stop
- T expansion
  - F trace
- F kepttogether
- F registertogether
- T solutions
  - T splitters
    - F define
    - F optimize

- T registered
- F reset
- F set
- F split
- F start
- F stop
- F tag

## profiling table

- F add
- F distance
- F fixedprofile
- F get
- F list
- F pagehandler
- F profilebox
- F set

## vspacing table

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

## cache (context)

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

## callback (basic tex)

**find**      function  
**list**      function

**register** overloaded function

## callbacks (context)

|               |            |
|---------------|------------|
| <b>freeze</b> | function   |
| <b>known</b>  | function   |
| <b>list</b>   | data table |
| <b>pop</b>    | function   |

|                 |          |
|-----------------|----------|
| <b>push</b>     | function |
| <b>register</b> | function |
| <b>report</b>   | function |



## catcodes (context)

**names** data table

**numbers** data table

**register** function

# characters (context)

| <b>activeoffset</b>   | <b>number</b> | <b>linebreaks</b> | <b>table</b> |
|-----------------------|---------------|-------------------|--------------|
| <b>adobename</b>      | function      | S ai              |              |
| <b>bidirectional</b>  | data table    | S al              |              |
| <b>blockrange</b>     | function      | S b2              |              |
| <b>blocks</b>         | data table    | S ba              |              |
| <b>casemap</b>        | table         | S bb              |              |
| <b>categories</b>     | data table    | S bk              |              |
| <b>category</b>       | function      | S cb              |              |
| <b>categorytags</b>   | data table    | S cj              |              |
| <b>collapsed</b>      | data table    | S cl              |              |
| <b>contextname</b>    | function      | S cm              |              |
| <b>csletters</b>      | data table    | S cp              |              |
| <b>data</b>           | data table    | S cr              |              |
| <b>decomposed</b>     | data table    | S ex              |              |
| <b>description</b>    | function      | S gl              |              |
| <b>descriptions</b>   | data table    | S h2              |              |
| <b>detailtags</b>     | data table    | S h3              |              |
| <b>directions</b>     | table         | S hl              |              |
| <b>encodes</b>        | data table    | S hy              |              |
| <b>entities</b>       | data table    | S id              |              |
| <b>fallbacks</b>      | data table    | S in              |              |
| <b>filters</b>        | data table    | S is              |              |
| <b>fractions</b>      | table         | S jl              |              |
| <b>fromnumber</b>     | function      | S jt              |              |
| <b>fschars</b>        | data table    | S jv              |              |
| <b>fscodes</b>        | data table    | S lf              |              |
| <b>getrange</b>       | function      | S nl              |              |
| <b>graphemes</b>      | data table    | S ns              |              |
| <b>hangul</b>         | data table    | S nu              |              |
| <b>initialize</b>     | function      | S op              |              |
| <b>is_character</b>   | data table    | S po              |              |
| <b>is_command</b>     | data table    | S pr              |              |
| <b>is_letter</b>      | data table    | S qu              |              |
| <b>is_mark</b>        | data table    | S ri              |              |
| <b>is_punctuation</b> | data table    | S sa              |              |
| <b>is_spacing</b>     | data table    | S sg              |              |
| <b>lcchars</b>        | data table    | S sp              |              |
| <b>lccode</b>         | function      | S sy              |              |
| <b>lccodes</b>        | data table    | S wj              |              |
| <b>lettered</b>       | function      | S xx              |              |
| <b>lhash</b>          | data table    | S zw              |              |

|                              |            |                     |            |
|------------------------------|------------|---------------------|------------|
| <b>lower</b>                 | function   | T compat            |            |
| <b>math</b>                  | table      | <b>subscripts</b>   | table      |
| <b>mathpairs</b>             | data table | <b>superscripts</b> | table      |
| <b>mirrors</b>               | table      | <b>synonyms</b>     | data table |
| <b>otfscripts</b>            | data table | <b>tex</b>          | table      |
| <b>ranges</b>                | data table | D accentmapping     |            |
| <b>registerentities</b>      | function   | D commandmapping    |            |
| <b>remap_hangul_syllable</b> | function   | F defineaccents     |            |
| <b>setactivecatcodes</b>     | function   | F safechar          |            |
| <b>setlettercatcodes</b>     | function   | F toutf             |            |
| <b>shape</b>                 | function   | F toutfpattern      |            |
| <b>shaped</b>                | function   | <b>textclasses</b>  | table      |
| <b>shash</b>                 | data table | <b>tonumber</b>     | function   |
| <b>shchars</b>               | data table | <b>ucchars</b>      | data table |
| <b>shcodes</b>               | data table | <b>uccode</b>       | function   |
| <b>showstring</b>            | function   | <b>uccodes</b>      | data table |
| <b>specialchars</b>          | data table | <b>uhash</b>        | data table |
| <b>specials</b>              | data table | <b>unicodechar</b>  | function   |
| <b>splits</b>                | table      | <b>upper</b>        | function   |
| T char                       |            |                     |            |

## chemistry (context)

|                       |            |
|-----------------------|------------|
| <b>component</b>      | function   |
| <b>define</b>         | function   |
| <b>definitions</b>    | data table |
| <b>format</b>         | string     |
| <b>inlinechemical</b> | function   |
| <b>instance</b>       | string     |
| <b>method</b>         | string     |

|                       |          |
|-----------------------|----------|
| <b>molecule</b>       | function |
| <b>moleculeparser</b> | userdata |
| <b>start</b>          | function |
| <b>stop</b>           | function |
| <b>structures</b>     | number   |
| <b>undefine</b>       | function |

## containers (context)

**cleanname** function  
**content** function  
**define** function  
**is\_usable** function

**is\_valid** function  
**read** function  
**usecache** boolean  
**write** function

## converters (context)

|                           |          |                          |            |
|---------------------------|----------|--------------------------|------------|
| <b>A</b>                  | function | <b>isleapyear</b>        | function   |
| <b>A:es</b>               | function | <b>lchexnumber</b>       | function   |
| <b>AK</b>                 | function | <b>lchexnumbers</b>      | function   |
| <b>Alphabetic</b>         | function | <b>leapyear</b>          | function   |
| <b>Alphabetic:es</b>      | function | <b>lower</b>             | function   |
| <b>Character</b>          | function | <b>max</b>               | function   |
| <b>Characters</b>         | function | <b>maxchrs</b>           | function   |
| <b>I</b>                  | function | <b>minute</b>            | function   |
| <b>KA</b>                 | function | <b>month</b>             | function   |
| <b>KR</b>                 | function | <b>nicenumber</b>        | function   |
| <b>R</b>                  | function | <b>nofdays</b>           | function   |
| <b>RK</b>                 | function | <b>number</b>            | function   |
| <b>Romannumerals</b>      | function | <b>numbers</b>           | function   |
| <b>Sloviannumerals</b>    | function | <b>octnumber</b>         | function   |
| <b>Spanishnumerals</b>    | function | <b>octstringtonumber</b> | function   |
| <b>Word</b>               | function | <b>ordinal</b>           | function   |
| <b>Words</b>              | function | <b>r</b>                 | function   |
| <b>a</b>                  | function | <b>rawcharacter</b>      | function   |
| <b>a:es</b>               | function | <b>romannumerals</b>     | function   |
| <b>abjadnodotnumerals</b> | function | <b>second</b>            | function   |
| <b>abjadnumerals</b>      | function | <b>sequences</b>         | data table |
| <b>alphabetic</b>         | function | <b>settime</b>           | function   |
| <b>alphabetic:es</b>      | function | <b>sloviannumerals</b>   | function   |
| <b>character</b>          | function | <b>spanishnumerals</b>   | function   |
| <b>characters</b>         | function | <b>textime</b>           | function   |
| <b>chineseallnumerals</b> | function | <b>toabjad</b>           | function   |
| <b>chinesecapnumerals</b> | function | <b>tochinese</b>         | function   |
| <b>chinesenumerals</b>    | function | <b>toroman</b>           | function   |
| <b>chr</b>                | function | <b>totime</b>            | function   |
| <b>chrs</b>               | function | <b>uchexnumber</b>       | function   |
| <b>cn</b>                 | function | <b>uchexnumbers</b>      | function   |
| <b>cn-a</b>               | function | <b>upper</b>             | function   |
| <b>cn-c</b>               | function | <b>verbose</b>           | table      |
| <b>convert</b>            | function |                          |            |
| <b>decimals</b>           | function | D data                   |            |
| <b>define</b>             | function | F translate              |            |
| <b>hexstringtonumber</b>  | function | <b>weekday</b>           | function   |
| <b>hour</b>               | function | <b>word</b>              | function   |
| <b>i</b>                  | function | <b>words</b>             | function   |
|                           |          | <b>year</b>              | function   |

## coroutine (basic lua)

**create**    function  
**resume**   function  
**running** function

**status**   function  
**wrap**     function  
**yield**    function

# ctxrunner (context)

|                     |          |                  |            |
|---------------------|----------|------------------|------------|
| <b>load</b>         | function | <b>prepfiles</b> | data table |
| <b>preparedfile</b> | function | <b>resolve</b>   | function   |



## debug (basic lua)

|                     |          |
|---------------------|----------|
| <b>debug</b>        | function |
| <b>getfenv</b>      | function |
| <b>gethook</b>      | function |
| <b>getinfo</b>      | function |
| <b>getlocal</b>     | function |
| <b>getmetatable</b> | function |
| <b>getregistry</b>  | function |
| <b>getupvalue</b>   | function |
| <b>getuservalue</b> | function |

|                     |          |
|---------------------|----------|
| <b>setfenv</b>      | function |
| <b>sethook</b>      | function |
| <b>setlocal</b>     | function |
| <b>setmetatable</b> | function |
| <b>setupvalue</b>   | function |
| <b>setuservalue</b> | function |
| <b>traceback</b>    | function |
| <b>upvalueid</b>    | function |
| <b>upvaluejoin</b>  | function |

## dir (context)

|                       |          |
|-----------------------|----------|
| <b>collectpattern</b> | function |
| <b>current</b>        | function |
| <b>expandname</b>     | function |
| <b>found</b>          | function |
| <b>glob</b>           | function |
| <b>globfiles</b>      | function |

|                    |          |
|--------------------|----------|
| <b>globpattern</b> | function |
| <b>ls</b>          | function |
| <b>makedirs</b>    | function |
| <b>mkdirs</b>      | function |
| <b>pop</b>         | function |
| <b>push</b>        | function |

## directives (context)

|                |            |
|----------------|------------|
| <b>data</b>    | data table |
| <b>default</b> | function   |
| <b>disable</b> | function   |
| <b>done</b>    | table      |
| <b>enable</b>  | function   |
| <b>list</b>    | function   |

|                 |          |
|-----------------|----------|
| <b>name</b>     | string   |
| <b>register</b> | function |
| <b>report</b>   | function |
| <b>reset</b>    | function |
| <b>show</b>     | function |
| <b>value</b>    | function |

# document (context)

|                    |            |                           |           |            |
|--------------------|------------|---------------------------|-----------|------------|
| <b>arguments</b>   | data table |                           | D modes   |            |
| <b>files</b>       | table      |                           | D modules |            |
| <b>functions</b>   | table      | <b>setargument</b>        |           | function   |
| <b>getargument</b> | function   | <b>setcommandline</b>     |           | function   |
| <b>getfilename</b> | function   | <b>setdefaultargument</b> |           | function   |
| <b>options</b>     | table      | <b>setenvironments</b>    |           | function   |
| T commandline      |            | <b>setfilename</b>        |           | function   |
| D environments     |            | <b>setfilenames</b>       |           | function   |
| D modes            |            | <b>setmodes</b>           |           | function   |
| D modules          |            | <b>setmodules</b>         |           | function   |
| T ctxfile          |            | <b>variables</b>          |           | data table |
| D environments     |            |                           |           |            |

## environment (context)

|                            |            |                               |            |
|----------------------------|------------|-------------------------------|------------|
| <b>argument</b>            | function   | <b>luafile</b>                | function   |
| <b>arguments</b>           | data table | <b>luafilechunk</b>           | function   |
| <b>basicengines</b>        | data table | <b>maxnofruns</b>             | number     |
| <b>currentrun</b>          | number     | <b>originalarguments</b>      | data table |
| <b>default_texmfcnf</b>    | string     | <b>outputfilename</b>         | string     |
| <b>definefilefallback</b>  | function   | <b>ownbin</b>                 | string     |
| <b>definefilesynonym</b>   | function   | <b>ownmain</b>                | string     |
| <b>engineflags</b>         | data table | <b>ownname</b>                | string     |
| <b>filename</b>            | string     | <b>ownpath</b>                | string     |
| <b>files</b>               | table      | <b>prerollrun</b>             | boolean    |
| <b>filesynonyms</b>        | data table | <b>rawarguments</b>           | data table |
| <b>forcedruns</b>          | number     | <b>reconstructcommandline</b> | function   |
| <b>getargument</b>         | function   | <b>relativepath</b>           | function   |
| <b>homedir</b>             | string     | <b>setargument</b>            | function   |
| <b>initex</b>              | boolean    | <b>splitarguments</b>         | function   |
| <b>initializearguments</b> | function   | <b>suffix</b>                 | string     |
| <b>initializefilenames</b> | function   | <b>texfile</b>                | function   |
| <b>inputfilebarename</b>   | string     | <b>texmfos</b>                | string     |
| <b>inputfilename</b>       | string     | <b>texos</b>                  | string     |
| <b>inputfilesuffix</b>     | string     | <b>texroot</b>                | string     |
| <b>jobfilename</b>         | string     | <b>truefilename</b>           | function   |
| <b>jobfilesuffix</b>       | string     | <b>uselua module</b>          | function   |
| <b>jobname</b>             | string     | <b>usemodules</b>             | function   |
| <b>kindofrun</b>           | number     | <b>validengines</b>           | data table |
| <b>loadexamodes</b>        | function   | <b>version</b>                | string     |
| <b>loadluafile</b>         | function   |                               |            |

## epdf (extra tex)

**Array** function  
**Attribute** function  
**AttributeOwner\_Type** function  
**Attribute\_Type** function  
**Dict** function  
**Object** function

**PDFRectangle** function  
**StructElement\_Type** function  
**open** overloaded function  
**openMemStream** function  
**type** function

# experiments (context)

|                |            |                 |          |
|----------------|------------|-----------------|----------|
| <b>data</b>    | data table | <b>register</b> | function |
| <b>default</b> | function   | <b>report</b>   | function |
| <b>disable</b> | function   | <b>reset</b>    | function |
| <b>enable</b>  | function   | <b>show</b>     | function |
| <b>list</b>    | function   | <b>value</b>    | function |
| <b>name</b>    | string     |                 |          |

# figures (context)

|                         |            |                         |            |
|-------------------------|------------|-------------------------|------------|
| <b>applyratio</b>       | function   | <b>F ofindex</b>        |            |
| <b>badname</b>          | function   | <b>F package</b>        |            |
| <b>bases</b>            | data table | <b>F print</b>          |            |
| <b>bitmapimage</b>      | function   | <b>F scan</b>           |            |
| <b>boxnumber</b>        | number     | <b>F serialize</b>      |            |
| <b>cachepaths</b>       | data table | <b>F totable</b>        |            |
| <b>check</b>            | function   | <b>F types</b>          |            |
| <b>checkers</b>         | data table | <b>F write</b>          |            |
| <b>converters</b>       | data table | <b>include</b>          | function   |
| <b>current</b>          | function   | <b>includes</b>         | data table |
| <b>defaultdepth</b>     | number     | <b>initialize</b>       | function   |
| <b>defaultheight</b>    | number     | <b>loaded</b>           | data table |
| <b>defaultsearch</b>    | boolean    | <b>localpaths</b>       | data table |
| <b>defaultwidth</b>     | number     | <b>magics</b>           | data table |
| <b>done</b>             | function   | <b>mergegoodies</b>     | function   |
| <b>dummy</b>            | function   | <b>nofprocessed</b>     | number     |
| <b>exists</b>           | data table | <b>order</b>            | data table |
| <b>exists</b>           | function   | <b>paths</b>            | data table |
| <b>formats</b>          | data table | <b>patterns</b>         | data table |
| <b>found</b>            | data table | <b>pop</b>              | function   |
| <b>get</b>              | function   | <b>preferquality</b>    | boolean    |
| <b>getrealpage</b>      | function   | <b>programs</b>         | data table |
| <b>guess</b>            | function   | <b>push</b>             | function   |
| <b>hash</b>             | function   | <b>registerpattern</b>  | function   |
| <b>identifiers</b>      | data table | <b>registerresource</b> | function   |
| <b>identify</b>         | function   | <b>registersuffix</b>   | function   |
| <b>images</b>           | table      | <b>resources</b>        | data table |
| <b>F boxes</b>          |            | <b>scale</b>            | function   |
| <b>F check</b>          |            | <b>set</b>              | function   |
| <b>F checksize</b>      |            | <b>setlookups</b>       | function   |
| <b>F clone</b>          |            | <b>setmemstream</b>     | function   |
| <b>F copy</b>           |            | <b>setorder</b>         | function   |
| <b>F immediatewrite</b> |            | <b>setpaths</b>         | function   |
| <b>F keys</b>           |            | <b>suffixes</b>         | data table |
| <b>F new</b>            |            | <b>used</b>             | data table |
| <b>F node</b>           |            |                         |            |



## file (basic lua)

|                          |          |
|--------------------------|----------|
| <b>addsuffix</b>         | function |
| <b>basename</b>          | function |
| <b>checksum</b>          | function |
| <b>collapsepath</b>      | function |
| <b>copy</b>              | function |
| <b>dirname</b>           | function |
| <b>expandname</b>        | function |
| <b>extname</b>           | function |
| <b>is_qualified_path</b> | function |
| <b>is_readable</b>       | function |
| <b>is_rootbased_path</b> | function |
| <b>is_writable</b>       | function |
| <b>isreadable</b>        | function |
| <b>iswritable</b>        | function |
| <b>join</b>              | function |
| <b>joinpath</b>          | function |
| <b>loadchecksum</b>      | function |
| <b>nameonly</b>          | function |
| <b>nametotable</b>       | function |
| <b>needs Updating</b>    | function |

|                      |          |
|----------------------|----------|
| <b>needsupdating</b> | function |
| <b>pathpart</b>      | function |
| <b>readdata</b>      | function |
| <b>removesuffix</b>  | function |
| <b>replacesuffix</b> | function |
| <b>reslash</b>       | function |
| <b>robustname</b>    | function |
| <b>savechecksum</b>  | function |
| <b>savedata</b>      | function |
| <b>size</b>          | function |
| <b>splitbase</b>     | function |
| <b>splitname</b>     | function |
| <b>splitpath</b>     | function |
| <b>strip</b>         | function |
| <b>suffix</b>        | function |
| <b>suffixes</b>      | function |
| <b>suffixesonly</b>  | function |
| <b>suffixonly</b>    | function |
| <b>syncmtimes</b>    | function |

# floats (context)

|                         |          |                   |          |
|-------------------------|----------|-------------------|----------|
| <b>analysemethod</b>    | function | <b>nofstacked</b> | function |
| <b>checkedpagefloat</b> | function | <b>pop</b>        | function |
| <b>collect</b>          | function | <b>push</b>       | function |
| <b>consult</b>          | function | <b>resave</b>     | function |
| <b>flush</b>            | function | <b>save</b>       | function |
| <b>getvariable</b>      | function | <b>stacked</b>    | function |
| <b>hasstacked</b>       | function |                   |          |

## font (basic tex)

|                |                     |                 |                     |
|----------------|---------------------|-----------------|---------------------|
| <b>current</b> | function            | <b>id</b>       | function            |
| <b>define</b>  | function            | <b>max</b>      | function            |
| <b>each</b>    | function            | <b>nextid</b>   | function            |
| <b>fonts</b>   | table               | <b>read_tfm</b> | function            |
| <b>frozen</b>  | function            | <b>read_vf</b>  | function            |
| <b>getfont</b> | overloaded function | <b>setfont</b>  | overloaded function |

# fontloader (extra tex)

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

# fonts (context)

## analyzers

table

T features

N blwf

N fin2

N fin3

N fina

N half

N init

N isol

N med2

N medi

N pref

N pstf

N rphf

D initializers

D methods

F setstate

T states

N blwf

N fin2

N fin3

N fina

N half

N init

N isol

N mark

N med2

N medi

N pref

N pstf

N rest

N rphf

B useunicodemarks

## checkers

table

F getmissing

F missing

F placeholder

## cid

table

F getmap

F loadfile

## collections

table

F checkenabled

F clonevector

F define

T definitions

F found

F prepare

F process

F registermain

F report

F reset

T vectors

## constructors

table

F addcoreunicodes

F aftercopyingcharacters

F applymanipulators

F assignmathparameters

B autocleanup

F beforecopyingcharacters

D cache

B cacheintex

F calculatescale

F checkedfeatures

F checkedfilename

F checkvirtualids

F cleanupable

F collectprocessors

F currentfonthasfeature

D designsizes

D dontembed

F enhanceparameters

N factor

T features

D afm

D off

D tfm

F finalize

F getfeatureaction

T handlers

T afm

B autoprefixed

D cache

|                        |                                                     |
|------------------------|-----------------------------------------------------|
| D features             | T handlers                                          |
| F getkern              | F devanagari_remove_joiners                         |
| T helpdata             | F devanagari_reorder_matras                         |
| D bothkerned           | F devanagari_reorder_pre_base_reordering_consonants |
| D leftkerned           | F devanagari_reorder_reph                           |
| D ligatures            | F gpos_context                                      |
| D rightkerned          | F gpos_contextchain                                 |
| D texligatures         | F gpos_cursive                                      |
| F load                 | F gpos_mark2base                                    |
| T readers              | F gpos_mark2ligature                                |
| F getinfo              | F gpos_mark2mark                                    |
| F loadfont             | F gpos_pair                                         |
| F setfeatures          | F gpos_single                                       |
| B syncspace            | F gsub_alternate                                    |
| N version              | F gsub_context                                      |
| T otf                  | F gsub_contextchain                                 |
| F addfeature           | F gsub_ligature                                     |
| F basemodeinitializer  | F gsub_multiple                                     |
| D cache                | F gsub_reversecontextchain                          |
| F collectlookups       | F gsub_single                                       |
| T coverup              | F trigger_space_kerns                               |
| T actions              | F load                                              |
| F alternate            | F nodemodeinitializer                               |
| F chainposition        | F packoutlines                                      |
| F chainsubstitution    | D pdfcache                                          |
| F kern                 | T readers                                           |
| F ligature             | F addunicodetable                                   |
| F multiple             | D cache                                             |
| F pair                 | F cff                                               |
| F substitution         | F checkhash                                         |
| F register             | F cmap                                              |
| S stepkey              | F colr                                              |
| F dataset              | F compact                                           |
| S defaultbasealternate | F cpal                                              |
| S defaultnodealternate | F expand                                            |
| D enhancers            | F extend                                            |
| D features             | F gdef                                              |
| F featuresprocessor    | F getcomponents                                     |
| F getactualtext        | F getinfo                                           |
| F getalternate         | F glyf                                              |
| F getgsub              | F gpos                                              |
| F getkern              | F gsub                                              |
| F getmultiple          | F head                                              |
| F getsubstitution      | F hhea                                              |

|                    |                      |
|--------------------|----------------------|
| F hmtx             | F scriptandlanguage  |
| F kern             | F setdynamics        |
| F loadfont         | F setfeatures        |
| F loadshapes       | T statistics         |
| F loca             | D usedfeatures       |
| F math             | T svg                |
| F maxp             | F filterglyph        |
| F name             | F storepdfdata       |
| F os/2             | F topdf              |
| F pack             | D svgcache           |
| F post             | B svgenabled         |
| F registerextender | T tables             |
| F rehash           | D baselines          |
| T streamreader     | D features           |
| F close            | D featuretypes       |
| F getposition      | D languages          |
| F look             | D scripts            |
| F open             | F unpackoutlines     |
| F read2dot14       | N version            |
| F readbyte         | T pfb                |
| F readbytes        | T tfm                |
| F readcardinal     | D features           |
| F readcardinal1    | N maxnestingdepth    |
| F readcardinal2    | N maxnestingsize     |
| F readcardinal3    | F setfeatures        |
| F readcardinal4    | N version            |
| F readchar         | T vf                 |
| F readfixed4       | T combinations       |
| F readinteger      | F combine            |
| F readinteger1     | T combiner           |
| F readinteger2     | D commands           |
| F readinteger3     | D helpers            |
| F readinteger4     | D math               |
| F readstring       | D predefined         |
| F readtag          | N version            |
| F setposition      | D whatever           |
| F size             | F hashfeatures       |
| F skip             | F hashinstance       |
| F skiplong         | T hashmethods        |
| F skipshort        | F normal             |
| F svg              | F virtual            |
| N tableversion     | F initializefeatures |
| F unpack           | T keys               |
| N version          | T characters         |

|                          |                       |          |
|--------------------------|-----------------------|----------|
| T descriptions           | S mode                |          |
| T parameters             | S name                |          |
| S ascender               | S noglyphnames        |          |
| S descender              | S nostackmath         |          |
| S designsize             | S psname              |          |
| T expansion              | S textitalics         |          |
| S auto                   | S virtualized         |          |
| S shrink                 | D loadedfonts         |          |
| S step                   | S namemode            |          |
| S stretch                | N noffontsloaded      |          |
| S extendfactor           | N nofsharedfonts      |          |
| S factor                 | N nofsharedhashes     |          |
| S hfactor                | N nofsharedvectors    |          |
| S mathsize               | N privateoffset       |          |
| T protrusion             | D privateslots        |          |
| S auto                   | F readanddefine       |          |
| S quad                   | F registerfeature     |          |
| S scaledpoints           | F resetfeature        |          |
| S scriptpercentage       | B resolvevirtualtoo   |          |
| S scriptscriptpercentage | F scale               |          |
| S size                   | F scaled              |          |
| S slantfactor            | F setfactor           |          |
| S slantperpoint          | F setfeature          |          |
| T spacing                | F setname             |          |
| S extra                  | B sharefonts          |          |
| S shrink                 | F trytosharefont      |          |
| S stretch                | N version             |          |
| S width                  | <b>current</b>        | function |
| S units                  | <b>currentid</b>      | function |
| S vfactor                | <b>definers</b>       | table    |
| S xheight                | F addlookup           |          |
| T properties             | F analyze             |          |
| S autoitalicamount       | F applypostprocessors |          |
| S cidinfo                | F checkedmode         |          |
| S embedding              | F checkedscript       |          |
| S encodingbytes          | F current             |          |
| S filename               | S defaultlookup       |          |
| S finalized              | F define              |          |
| S fontname               | F getspecification    |          |
| S format                 | F internal            |          |
| S fullname               | F loadfont            |          |
| S hasitalics             | F makespecification   |          |
| S hasmath                | T methods             |          |
| S mathitalics            | F install             |          |



|                      |                 |
|----------------------|-----------------|
| D variants           |                 |
| F read               |                 |
| F register           |                 |
| F registered         |                 |
| F registersplit      |                 |
| F resetnullfont      |                 |
| F resolve            |                 |
| T resolvers          |                 |
| F file               |                 |
| F name               |                 |
| F spec               |                 |
| <b>definetypface</b> | <b>function</b> |
| <b>encodings</b>     | <b>table</b>    |
| T agl                |                 |
| D ctxcodes           |                 |
| D extras             |                 |
| D names              |                 |
| T synonyms           |                 |
| N Acyrillic          |                 |
| N Becyrillic         |                 |
| N Cdot               |                 |
| N Checyrillic        |                 |
| N Decyrillic         |                 |
| N Djecyrillic        |                 |
| N Dzecyrillic        |                 |
| N Dzhecyrillic       |                 |
| N Ecyrillic          |                 |
| N Edot               |                 |
| N Efcyrillic         |                 |
| N Elcyrillic         |                 |
| N Emcyrillic         |                 |
| N Encyrillic         |                 |
| N Ercyrillic         |                 |
| N Ereversedcyrillic  |                 |
| N Escyrillic         |                 |
| N Fitacyrillic       |                 |
| N Gcedilla           |                 |
| N Gdot               |                 |
| N Gecyrillic         |                 |
| N Gheupturncyrillic  |                 |
| N Gjecyrillic        |                 |
| N Hardsigncyrillic   |                 |
| N IAcyrillic         |                 |
| N IUcyrillic         |                 |

|                    |
|--------------------|
| N Icyrillic        |
| N Idot             |
| N Iecyrillic       |
| N Iicyrillic       |
| N Iishortcyrillic  |
| N Iocyrillic       |
| N Izhitsacyrillic  |
| N Jecyrillic       |
| N Kacyrillic       |
| N Kcedilla         |
| N Khacyrillic      |
| N Kjecyrillic      |
| N Lcedilla         |
| N Ljecyrillic      |
| N Ncedilla         |
| N Njecyrillic      |
| N Ocyrillic        |
| N Odblacute        |
| N Ohm              |
| N Pecyrillic       |
| N Rcedilla         |
| N Shacyrillic      |
| N Shchacyrillic    |
| N Softsigncyrillic |
| N Tcedilla         |
| N Tecyrillic       |
| N Tsecyrillic      |
| N Tshecyrillic     |
| N Ucyrillic        |
| N Udblacute        |
| N Ushortcyrillic   |
| N Vecyrillic       |
| N Yatcyrillic      |
| N Yericyrillic     |
| N Yicyrillic       |
| N Zdot             |
| N Zecyrillic       |
| N Zhecyrillic      |
| N acutecmb         |
| N acyrillic        |
| N afii00208        |
| N afii08941        |
| N afii57694        |
| N afii57695        |

|                             |                          |
|-----------------------------|--------------------------|
| N afii57700                 | N dammaarabic            |
| N afii57705                 | N dammatanaltonearabic   |
| N afii57723                 | N dargahebrew            |
| N alef                      | N dbllowline             |
| N alefmaksurainitialarabic  | N decimalseparatorarabic |
| N alefmaksuramedialarabic   | N dialytikatonos         |
| N approximatelyequal        | N dotbelowcmb            |
| N asteriskaltonearabic      | N doubleyodpatah         |
| N ayin                      | N doubleyodpatahhebrew   |
| N bet                       | N edot                   |
| N betdagesh                 | N eightarabic            |
| N blackdownpointingtriangle | N eighthnotebeamed       |
| N blackleftpointingpointer  | N etnahtafoukhhebrew     |
| N blackrectangle            | N etnahtafoukhlefthebrew |
| N blackrightpointingpointer | N etnahtahebrew          |
| N blacksmilingface          | N fathaarabic            |
| N blacksquare               | N finalkaf               |
| N blackuppointingtriangle   | N finalkafdagesh         |
| N bulletinverse             | N finalkafhebrew         |
| N cdot                      | N finalkafqamats         |
| N compass                   | N finalkafqamatshebrew   |
| N dagesh                    | N finalkafsheva          |
| N dalet                     | N finalmem               |
| N daletdagesh               | N finalnun               |
| N dalethatafpatah           | N finalpe                |
| N dalethatafpatahhebrew     | N finaltsadi             |
| N dalethatafsegol           | N fivearabic             |
| N dalethatafsegolhebrew     | N forall                 |
| N dalethebrew               | N fourarabic             |
| N dalethiriq                | N gcedilla               |
| N dalethiriqhebrew          | N gdot                   |
| N daletholam                | N gimel                  |
| N daletholamhebrew          | N gimeldagesh            |
| N daletpatah                | N gravecmb               |
| N daletpatahhebrew          | N haaltonearabic         |
| N daletqamats               | N hamzaarabic            |
| N daletqamatshebrew         | N hamzadammaarabic       |
| N daletqubuts               | N hamzadammatanarabic    |
| N daletqubutshebrew         | N hamzafathaarabic       |
| N daletsegol                | N hamzafathatanarabic    |
| N daletsegolhebrew          | N hamzalowarabic         |
| N daletsheva                | N hamzalowkasraarabic    |
| N daletshevahebrew          | N hamzalowkasratanarabic |
| N dalettsere                | N hatafpatah             |

|                            |                                 |
|----------------------------|---------------------------------|
| N hatafpatah16             | N kashidaaautosidebearingarabic |
| N hatafpatah23             | N kcedilla                      |
| N hatafpatah2f             | N lamed                         |
| N hatafpatahhebrew         | N lameddagesh                   |
| N hatafpatahnarrowhebrew   | N lamedhebrew                   |
| N hatafpatahquarterhebrew  | N lamedholam                    |
| N hatafqamats              | N lamedholamdagesh              |
| N hatafqamats1b            | N lamedholamdageshhebrew        |
| N hatafqamats28            | N laminitialarabic              |
| N hatafqamats34            | N lammeemjeeminitialarabic      |
| N hatafqamatshebrew        | N lcedilla                      |
| N hatafqamatsnarrowhebrew  | N logicalnotreversed            |
| N hatafqamatsquarterhebrew | N mahapakhhebrew                |
| N hatafsego1               | N mem                           |
| N hatafsego117             | N memdagesh                     |
| N hatafsego124             | N merkhahebrew                  |
| N hatafsego130             | N merkhakefulahebrew            |
| N hatafsego1hebrew         | N middot                        |
| N hatafsego1narrowhebrew   | N munahhebrew                   |
| N hatafsego1quarterhebrew  | N nbspace                       |
| N he                       | N ncedilla                      |
| N hedagesh                 | N newsheqelsign                 |
| N hehfinalalttwoarabic     | N ninearabic                    |
| N het                      | N noonhehinitialarabic          |
| N hiriq                    | N nun                           |
| N hiriq14                  | N nundagesh                     |
| N hiriq21                  | N odblacute                     |
| N hiriq2d                  | N onearabic                     |
| N hiriqhebrew              | N overscore                     |
| N hiriqnarrowhebrew        | N patah                         |
| N hiriqquarterhebrew       | N patah11                       |
| N holam                    | N patah1d                       |
| N holam19                  | N patah2a                       |
| N holam26                  | N patahhebrew                   |
| N holam32                  | N patahnarrowhebrew             |
| N holamhebrew              | N patahquarterhebrew            |
| N holamnarrowhebrew        | N pe                            |
| N holamquarterhebrew       | N pedagesh                      |
| N ilde                     | N qamats                        |
| N integralbottom           | N qamats10                      |
| N integraltop              | N qamats1a                      |
| N kaf                      | N qamats1c                      |
| N kafdagesh                | N qamats27                      |
| N kashidaautoarabic        | N qamats29                      |

|                            |                        |
|----------------------------|------------------------|
| N qamats33                 | N reshhatafpatahhebrew |
| N qamatsde                 | N reshhatafsegol       |
| N qamatshebrew             | N reshhatafsegolhebrew |
| N qamatsnarrowhebrew       | N reshhebrew           |
| N qamatsqatanhebrew        | N reshhiriq            |
| N qamatsqatannarrowhebrew  | N reshhiriqhebrew      |
| N qamatsqatanquarterhebrew | N reshholam            |
| N qamatsqatanwidehebrew    | N reshholamhebrew      |
| N qamatsquarterhebrew      | N reshpatah            |
| N qof                      | N reshpatahhebrew      |
| N qofdagesh                | N reshqamats           |
| N qofhatafpatah            | N reshqamatshebrew     |
| N qofhatafpatahhebrew      | N reshqubuts           |
| N qofhatafsegol            | N reshqubutshebrew     |
| N qofhatafsegolhebrew      | N reshsegol            |
| N qofhebrew                | N reshsegolhebrew      |
| N qofhiriq                 | N reshsheva            |
| N qofhiriqhebrew           | N reshshevahebrew      |
| N qofholam                 | N reshtsere            |
| N qofholamhebrew           | N reviahebrew          |
| N qofpatah                 | N samekh               |
| N qofpatahhebrew           | N samekhdagesh         |
| N qofqamats                | N segol                |
| N qofqamatshebrew          | N segol13              |
| N qofqubuts                | N segol1f              |
| N qofqubutshebrew          | N segol2c              |
| N qofsegol                 | N segolhebrew          |
| N qofsegolhebrew           | N segolnarrowhebrew    |
| N qofsheva                 | N segolquarterhebrew   |
| N qofshevahebrew           | N sevenarabic          |
| N qoftsere                 | N sfthyphen            |
| N qubuts                   | N shaddaarabic         |
| N qubuts18                 | N sheqel               |
| N qubuts25                 | N sheva                |
| N qubuts31                 | N sheva115             |
| N qubutshebrew             | N sheva15              |
| N qubutsnarrowhebrew       | N sheva22              |
| N qubutsquarterhebrew      | N sheva2e              |
| N quoteleftreversed        | N shevahebrew          |
| N rafe                     | N shevanarrowhebrew    |
| N rcedilla                 | N shevaquarterhebrew   |
| N reharabic                | N shin                 |
| N resh                     | N shindagesh           |
| N reshhatafpatah           | N shindageshshindot    |

|                            |                                  |
|----------------------------|----------------------------------|
| N shindageshsindot         | F make_unicode_vector            |
| N shinshindot              | D math                           |
| N shinsindot               | N version                        |
| N silughebrew              | <b>enhanceid</b> function        |
| N sixarabic                | <b>expansions</b> data table     |
| N tav                      | <b>formats</b> data table        |
| N tavadgesh                | <b>getalternate</b> function     |
| N tavadgesh                | <b>getdiscexpansion</b> function |
| N tcedilla                 | <b>getkern</b> function          |
| N tchehinitialarabic       | <b>getmultiple</b> function      |
| N tet                      | <b>getsubstitution</b> function  |
| N tetdagesh                | <b>getters</b> table             |
| N tevirhebrew              | T alternate                      |
| N thousandsseparatorarabic | F opentype                       |
| N threearabic              | T kern                           |
| N tildecmb                 | F opentype                       |
| N tipehahebrew             | F type1                          |
| N tsadi                    | T multiple                       |
| N tsadidagesh              | F opentype                       |
| N tsere                    | T substitution                   |
| N tsere12                  | F opentype                       |
| N tsere1e                  | <b>goodies</b> table             |
| N tsere2b                  | D colorschemes                   |
| N tserehebrew              | T data                           |
| N tserenarrowhebrew        | T dejavu-math                    |
| N tserequarterhebrew       | S author                         |
| N twoarabic                | S comment                        |
| N udblacute                | S copyright                      |
| N vav                      | B initialized                    |
| N vavdagesh                | T mathematics                    |
| N vavdagesh65              | T alternates                     |
| N vavholam                 | T dotless                        |
| N yerahbenyomohebrew       | N attribute                      |
| N yod                      | S comment                        |
| N yoddagesh                | S feature                        |
| N zayin                    | N value                          |
| N zayindagesh              | T kerns                          |
| N zdot                     | S name                           |
| N zeroarabic               | S version                        |
| D unicodes                 | D designsizes                    |
| D cache                    | D filenames                      |
| F is_known                 | F getcompositions                |
| D known                    | T list                           |
| F load                     | F compositions                   |

|                         |              |
|-------------------------|--------------|
| F designsizes           |              |
| F expansions            |              |
| F featureset            |              |
| F filenames             |              |
| F files                 |              |
| F mathematics           |              |
| F protrusions           |              |
| F solutions             |              |
| F treatments            |              |
| F typefaces             |              |
| F load                  |              |
| F prepare_features      |              |
| F register              |              |
| F registerpostprocessor |              |
| F report                |              |
| T suffixes              |              |
| <b>handlers</b>         | <b>table</b> |
| <b>hashes</b>           | <b>table</b> |
| D characters            |              |
| D csnames               |              |
| D descriptions          |              |
| D dynamics              |              |
| D emwidths              |              |
| D exheights             |              |
| D extensibles           |              |
| D features              |              |
| D identifiers           |              |
| D italics               |              |
| D lastmathids           |              |
| D marks                 |              |
| D modes                 |              |
| D originals             |              |
| D parameters            |              |
| T processes             |              |
| D properties            |              |
| D quads                 |              |
| D resources             |              |
| T setdynamics           |              |
| T shapes                |              |
| D spaces                |              |
| D spacings              |              |
| D unicodes              |              |
| D variants              |              |
| D xheights              |              |

|                           |                 |
|---------------------------|-----------------|
| <b>helpers</b>            | <b>table</b>    |
| F addprivate              |                 |
| F dimenfactor             |                 |
| F expandglyph             |                 |
| F fontpatternhassize      |                 |
| F getcoloredglyphs        |                 |
| F getdigitwidth           |                 |
| F getparameters           |                 |
| F getprivatenode          |                 |
| F hasprivate              |                 |
| F indextoslot             |                 |
| F name                    |                 |
| F nametoslot              |                 |
| F setdigitwidth           |                 |
| F splitfontpattern        |                 |
| F tochar                  |                 |
| <b>infofont</b>           | <b>function</b> |
| <b>iterators</b>          | <b>table</b>    |
| F characters              |                 |
| F descriptions            |                 |
| F glyphs                  |                 |
| <b>loggers</b>            | <b>table</b>    |
| F add_placeholders        |                 |
| D category_to_placeholder |                 |
| F format                  |                 |
| F onetimemessage          |                 |
| F register                |                 |
| F reportdefinedfonts      |                 |
| F reportusedfeatures      |                 |
| <b>mappings</b>           | <b>table</b>    |
| F addtounicode            |                 |
| F fromunicode16           |                 |
| F loadfile                |                 |
| F loadline                |                 |
| F makenameparser          |                 |
| D overloads               |                 |
| F reset                   |                 |
| F tounicode               |                 |
| F tounicode16             |                 |
| F tounicode16sequence     |                 |
| <b>metapost</b>           | <b>table</b>    |
| F boundingbox             |                 |
| F boxtomp                 |                 |
| F draw                    |                 |

|                    |                   |                      |
|--------------------|-------------------|----------------------|
| F fill             |                   | T options            |
| F maxbounds        |                   | S extras             |
| F output           |                   | S features           |
| F paths            |                   | T latinmodernmath    |
| F widthline        |                   | T options            |
| F zeroline         |                   | S extras             |
| <b>mp</b>          | <b>table</b>      | S features           |
| D cache            |                   | S goodies            |
| B inline           |                   | T lucidabrightmathot |
| N version          |                   | T options            |
| <b>names</b>       | <b>data table</b> | S extras             |
| <b>nulldata</b>    | <b>data table</b> | S features           |
| <b>protrusions</b> | <b>data table</b> | S goodies            |
| <b>readers</b>     | <b>table</b>      | T neoeuler           |
| F afm              |                   | T options            |
| F check_lua        |                   | S extras             |
| F check_tfm        |                   | S features           |
| F lua              |                   | T rm                 |
| F ofm              |                   | T features           |
| F opentype         |                   | S sc                 |
| F otf              |                   | T ss                 |
| F pfb              |                   | T features           |
| D sequence         |                   | S sc                 |
| F tfm              |                   | T texgyrebonummath   |
| F ttc              |                   | T options            |
| F ttf              |                   | S extras             |
| <b>reserveid</b>   | <b>function</b>   | S features           |
| <b>select</b>      | <b>table</b>      | T texgyredejavumath  |
| T alternatives     |                   | T options            |
| F bodyfont         |                   | S extras             |
| T data             |                   | S features           |
| F default          |                   | T texgyrepagellamath |
| T defaults         |                   | T options            |
| T asanamath        |                   | S extras             |
| T options          |                   | S features           |
| S extras           |                   | T texgyrescholamath  |
| S features         |                   | T options            |
| S goodies          |                   | S extras             |
| T cambriamath      |                   | S features           |
| T options          |                   | T texgyretermesmath  |
| S extras           |                   | T options            |
| S features         |                   | S extras             |
| S goodies          |                   | S features           |
| T dejavumath       |                   | T xitsmath           |

|                           |                         |          |
|---------------------------|-------------------------|----------|
| T options                 | F userdata              |          |
| S extras                  | <b>setdiscexpansion</b> | function |
| S features                | <b>specifiers</b>       | table    |
| S goodies                 | D contextmerged         |          |
| F definefallbackfamily    | F contextnumber         |          |
| F definefontfamily        | D contextnumbers        |          |
| F definefontfamilypreset  | D contextsetups         |          |
| T extras                  | F contexttostring       |          |
| F features                | F definecontext         |          |
| F goodies                 | F mergecontext          |          |
| F fallback                | F presetcontext         |          |
| T fallbacks               | F registercontext       |          |
| F features                | F showcontext           |          |
| F filefallback            | F splitcontext          |          |
| F fontdata                | D synonyms              |          |
| F fontfallback            | D variants              |          |
| F fontsynonym             | <b>symbols</b>          | table    |
| F goodies                 | F uselibrary            |          |
| F mathfallback            | <b>tables</b>           | table    |
| T methods                 | D data                  |          |
| F default                 | F savefont              |          |
| F file                    | F saveoriginal          |          |
| F name                    | <b>tracers</b>          | table    |
| F style                   | <b>treatments</b>       | table    |
| T presets                 | F applyfixes            |          |
| F registerfallback        | D data                  |          |
| F registerfiles           | S filename              |          |
| F registerfontalternative | F ignoredfile           |          |
| F registerfontfamily      | F report                |          |
| F textfallback            | F trace                 |          |
| F typeface                | <b>typefaces</b>        | table    |
| F typescript              |                         |          |



# functions (context)

**dummy** function

# graphics (context)

## backgrounds table

F calculatemultipar  
F fetchmultipar

F pair  
F path  
F point

## gzip (extra lua)

**close**    function  
**lines**    function  
**load**    function

**open**    function  
**save**    function  
**suffix** function

## img (basic tex)

|                       |          |                  |          |
|-----------------------|----------|------------------|----------|
| <b>boxes</b>          | function | <b>ofindex</b>   | function |
| <b>check</b>          | function | <b>package</b>   | function |
| <b>checksize</b>      | function | <b>print</b>     | function |
| <b>clone</b>          | function | <b>scan</b>      | function |
| <b>copy</b>           | function | <b>serialize</b> | function |
| <b>immediatewrite</b> | function | <b>totable</b>   | function |
| <b>keys</b>           | function | <b>types</b>     | function |
| <b>new</b>            | function | <b>write</b>     | function |
| <b>node</b>           | function |                  |          |

# interactions (context)

**attachments** data table

**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

**linkedslists** data table

**pages** table

- F setpagetransition
- F setupcanvas

**references** table

- F setcloseddocument
- F setclosepage
- F setopendocument
- F setopenpage

**renderings** data table

**soundclips** data table

# interfaces (context)

|                             |            |                             |
|-----------------------------|------------|-----------------------------|
| <b>addvalidkeys</b>         | function   | F MPplus                    |
| <b>cachedsetups</b>         | data table | F MPpos                     |
| <b>cachesetup</b>           | function   | F MPposset                  |
| <b>checkedspecification</b> | function   | F MPr                       |
| <b>complete</b>             | data table | F MPrest                    |
| <b>constants</b>            | data table | F MPrs                      |
| <b>corenamespaces</b>       | data table | F MPul                      |
| <b>currentinterface</b>     | string     | F MPur                      |
| <b>currentresponse</b>      | string     | F MPw                       |
| <b>definecommand</b>        | function   | F MPx                       |
| <b>defined</b>              | function   | F MPxy                      |
| <b>doifelsemessage</b>      | function   | F MPxywhd                   |
| <b>elements</b>             | data table | F MPy                       |
| <b>formats</b>              | data table | F Romannumerals             |
| <b>getcheckedparameters</b> | function   | F abjadnodotnumerals        |
| <b>getmessage</b>           | function   | F abjadnumerals             |
| <b>getsetupstring</b>       | function   | F addcounter                |
| <b>hashedsetups</b>         | data table | F addfeature                |
| <b>implement</b>            | function   | F addgrapheme               |
| <b>interfacedcommand</b>    | function   | F addlinklistelement        |
| <b>interfaces</b>           | table      | F addreplacements           |
| <b>invalidkey</b>           | function   | F addtocolumnset            |
| <b>message</b>              | function   | F addtojavascriptpreamble   |
| <b>namespaces</b>           | table      | F addtolist                 |
| F define                    |            | F addvalidinterfacekeys     |
| F list                      |            | F allinputpaths             |
| <b>registernamespace</b>    | function   | F alphabetic                |
| <b>scanners</b>             | table      | F analysefloatmethod        |
| F Alphabetic                |            | F analyzeitemgroup          |
| F Character                 |            | F analyzelist               |
| F Characters                |            | F analyzeregister           |
| F MPLIBconvertoutlinetext   |            | F applytobox                |
| F MPc                       |            | F applytofirstcharacter     |
| F MPd                       |            | F assignbuffer              |
| F MPH                       |            | F autofinishstructurelevels |
| F MPLl                      |            | F autonextspace             |
| F MPLr                      |            | F autonextstructurelevel    |
| F MPLs                      |            | F autosetups                |
| F MPn                       |            | F autostarttext             |
| F MPp                       |            | F autostoptext              |
| F MPpardata                 |            | F averagecharwidth          |

|                             |                          |
|-----------------------------|--------------------------|
| F bitmapimage               | F btxloadreplacementfile |
| F blockcolumnset            | F btxoneorrange          |
| F boxtostring               | F btxpreparelistentries  |
| F bposcolumn                | F btxremapauthor         |
| F bposcolumnregistered      | F btxsavedataset         |
| F btxabbreviatedjournal     | F btxsavejournallist     |
| F btxaddentry               | F btxsetdataset          |
| F btxaddjournal             | F btxsetentry            |
| F btxauthor                 | F btxsetregister         |
| F btxauthorfield            | F btxsetspecification    |
| F btxauthortoregister       | F btxsingularorplural    |
| F btxcollectlistentries     | F btxtoregister          |
| F btxcurrentfirstnames      | F btxusedataset          |
| F btxcurrentinitials        | F btxuservariable        |
| F btxcurrentjuniors         | F buildtextaccent        |
| F btxcurrentsurnames        | F character              |
| F btxcurrentvons            | F characters             |
| F btxdetail                 | F chardescription        |
| F btxdirect                 | F checkcolumnset         |
| F btxdoif                   | F checkcountersetup      |
| F btxdoifelse               | F checkedconversion      |
| F btxdoifelsecombiinlist    | F checkedpagefloat       |
| F btxdoifelsesameasprevious | F checkinjector          |
| F btxdoifelseuservariable   | F checkinterfacechain    |
| F btxdoifnot                | F checktwopassdata       |
| F btxexpandedjournal        | F chemicalcomponent      |
| F btxfetchlistentries       | F chinesenumerals        |
| F btxfield                  | F cleanfontname          |
| F btxfieldname              | F cleanupbox             |
| F btxfieldtype              | F cleanuplayers          |
| F btxfirstofrange           | F clonefield             |
| F btxflush                  | F collectfloat           |
| F btxflushlistcombi         | F collecthelp            |
| F btxflushlistentry         | F colorcomponents        |
| F btxflushmarked            | F columnsetcurrentcolumn |
| F btxflushpages             | F columnsetgoto          |
| F btxfoundname              | F columnsetnoto          |
| F btxfoundtype              | F concatcommalist        |
| F btxhandlecite             | F consultfloat           |
| F btxhandlenocite           | F convertbtxdatasettoxml |
| F btxlastofrange            | F converteddimen         |
| F btxlistvariant            | F convertmpstopdf        |
| F btxloaddefinitionfile     | F copyboxfromcache       |
| F btxloadjournallist        | F copyposition           |

|                             |                              |
|-----------------------------|------------------------------|
| F cos                       | F definelabels               |
| F cosd                      | F definelanguage             |
| F countervalue              | F definelinefiller           |
| F counttwopassdata          | F definelinkedlist           |
| F currentcomponent          | F definemarking              |
| F currentdate               | F definemetafont             |
| F currentdesignsize         | F definemultitonecolorglobal |
| F currentenvironment        | F definenamespace            |
| F currentposthyphenchar     | F definenote                 |
| F currentprehyphenchar      | F defineparallel             |
| F currentproduct            | F defineparbuilder           |
| F currentproject            | F defineprocesscolordummy    |
| F currentreferenceorder     | F defineprocesscolorglobal   |
| F currentsectiontolist      | F defineprocesscolorlocal    |
| F datasetvariable           | F defineprogram              |
| F dayname                   | F definereference            |
| F decimals                  | F defineregister             |
| F decrementcounter          | F definerule                 |
| F decrementedcounter        | F definesectionlevels        |
| F decrementsubcounter       | F defineshift                |
| F defineaccents             | F definesnapmethod           |
| F defineattribute           | F definespotcolorglobal      |
| F definebreakpoint          | F definestructureblock       |
| F definebreakpoints         | F definestructureset         |
| F definecharacterspacing    | F definetransparency         |
| F definechemical            | F definetwopasslist          |
| F definecolumnset           | F definetypface              |
| F defineconversion          | F defineviewerlayer          |
| F definecounter             | F depthnumber                |
| F definedlayoutcomponent    | F digits_normal              |
| F definefallbackfamily      | F digits_reverse             |
| F definefield               | F directboxfromcache         |
| F definefieldset            | F directcopyboxfromcache     |
| F definefilefallback        | F disableautofontscript      |
| F definefilesynonym         | F disabledirectives          |
| F definefont_one            | F disableexperiments         |
| F definefont_two            | F disablejobsave             |
| F definefontfamily          | F disableparbuilder          |
| F definefontfamilypreset    | F disableregime              |
| F definefontfeature         | F disablespellchecking       |
| F definefontsolution        | F disablestatetriggering     |
| F definehyphenationfeatures | F disablestream              |
| F defineinsertion           | F disabletrackers            |
| F defineintermediatecolor   | F discardfromlist            |



F doanalyzeframedbox  
F doifcommon  
F doifcounter  
F doifelseblack  
F doifelsebuffer  
F doifelsecharinfont  
F doifelsecommon  
F doifelsecontinuewithfile  
F doifelseconverter  
F doifelsecounter  
F doifelsecurrentfonthasfeature  
F doifelsedrawingblack  
F doifelsefieldcategory  
F doifelsefiledefined  
F doifelsefileexist  
F doifelsefirstchar  
F doifelsefontpresent  
F doifelseinelement  
F doifelseinputfile  
F doifelseinset  
F doifelseintwopassdata  
F doifelseleapyear  
F doifselisthasentry  
F doifselisthasnumber  
F doifselisthaspage  
F doifselisthastitle  
F doifselocfile  
F doifelsemarking  
F doifelsemessage  
F doifelseobject  
F doifelseobjectreference  
F doifelseolderversion  
F doifelseoverlapping  
F doifelseparallel  
F doifelseparentfile  
F doifelsepathexist  
F doifelseposition  
F doifelsepositiononpage  
F doifelsepositionsonsamepage  
F doifelsepositionsonthispage  
F doifelsepositionsused  
F doifelserangeonpage  
F doifelserreference  
F doifelserightttoleftinbox

F doifelsesame  
F doifelsestackedfloats  
F doifelsesynonymshown  
F doifelsesynonymused  
F doifelseurldefined  
F doifelseutfmathabove  
F doifelseutfmathaccent  
F doifelseutfmathbelow  
F doifelseutfmathfiller  
F doifelsevisualizer  
F doiffielddsetelse  
F doifinset  
F doifnotcommon  
F doifnotcounter  
F doifnotecontent  
F doifnoteonsamepageasprevious  
F doifnotinset  
F doifnotsame  
F doifposition  
F doifsame  
F doprocesstypescriptfile  
F doreshapeframedbox  
F dosaveposition  
F dosavepositionplus  
F dosavepositionwhd  
F dosetposition  
F dosetpositionbox  
F dosetpositionplus  
F dosetpositionstrut  
F dosetpositionwhd  
F dostarttextfile  
F dostoptextfile  
F elapsedtime  
F enableasciimode  
F enableautofences  
F enableautofontscript  
F enablebackgroundalign  
F enablebackgroundboxes  
F enablecolor  
F enablecolorintents  
F enablecrlf  
F enabledirectives  
F enableexperiments  
F enablefontcolorsschemes

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|---------------------------------|-----------------------------|
| F enableinteraction             | F figure_push               |
| F enablelinefillers             | F figure_register_page      |
| F enableparbuilder              | F figure_reset              |
| F enableregime                  | F figure_scale              |
| F enablerules                   | F figurefilename            |
| F enableshifts                  | F figurefilepath            |
| F enablespellchecking           | F figurefiletype            |
| F enablestatetriggering         | F figurerequest             |
| F enablestream                  | F figuresetdimensions       |
| F enabletrackers                | F figurestatus              |
| F enabletransparency            | F figureused                |
| F enableutf                     | F filterdefaultreference    |
| F enhancelinkedlist             | F filterreference           |
| F enhancelist                   | F finalizebox               |
| F enhancereference              | F findregisterinternal      |
| F enhanceregister               | F findtwopassdata           |
| F eposcolumn                    | F finishcolumnsetflush      |
| F eposcolumnregistered          | F finishexport              |
| F erasebuffer                   | F firstcountervalue         |
| F execute                       | F firstinset                |
| F expandcurrentreference        | F firstsubcountervalue      |
| F exportformdata                | F flushcolumnsetareas       |
| F exportreferences              | F flushcolumnsetcolumn      |
| F extendregister                | F flushcolumnsetrest        |
| F extensiblecode                | F flushfloat                |
| F fakeword                      | F flushlabeledfloat         |
| F featureattribute              | F flushnotes                |
| F featurelist                   | F flushpageinjectionsafter  |
| F feedback                      | F flushpageinjectionsbefore |
| F fetchallmarks                 | F flushpostponedblocks      |
| F fetchmultipar                 | F flushpostponednotes       |
| F fetchmultishape               | F flushstream               |
| F fetchonemark                  | F flushstreamcopy           |
| F fetchposboxes                 | F fontchar                  |
| F fetchtwomarks                 | F fontcharbyindex           |
| F figure_check                  | F fontcollectionclone       |
| F figure_done                   | F fontcollectiondefine      |
| F figure_dummy                  | F fontcollectionprepare     |
| F figure_flush_registered_pages | F fontcollectionregister    |
| F figure_identify               | F fontcollectionreport      |
| F figure_include                | F fontcollectionreset       |
| F figure_mergegoodies           | F fontlookupgetkey          |
| F figure_nof_registered_pages   | F fontlookupgetkeyofindex   |
| F figure_pop                    | F fontlookupinitialize      |

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|----------------------------------|------------------------------|
| F fontlookupnofound              | F getrandomdimen             |
| F forceendjob                    | F getrandomfloat             |
| F forcequitjob                   | F getrandomnumber            |
| F formatcolor                    | F getrandomseed              |
| F formatgray                     | F getreadfilename            |
| F from                           | F getsetupstring             |
| F frule                          | F getsomefullstructurenumber |
| F getbidimode                    | F getsomestructurenumber     |
| F getbodyfontsizes               | F getspecificstructuretitle  |
| F getboxfromcache                | F getstructurelevel          |
| F getbuffer                      | F getstructurenumber         |
| F getbuffercxtlua                | F getsubstring               |
| F getbuffermkvi                  | F gettexbuffer               |
| F getcheckedinterfaceparameters  | F gettwopassdata             |
| F getcurrentprefixspec           | F gettwopassdatalist         |
| F getcurrentreferencemetadata    | F geturl                     |
| F getdefaultfieldvalue           | F getvisual                  |
| F getdocumentargument            | F hboxtoinbox                |
| F getdocumentfilename            | F helpaction                 |
| F getelementtag                  | F helpreference              |
| F getfieldcategory               | F hexstringtonumber          |
| F getfile                        | F horizontalcode             |
| F getfirstcharacter              | F hour                       |
| F getfirsttwopassdata            | F hyphenatedlist             |
| F getfloatvariable               | F hyphenatedurl              |
| F getfullstructurenumber         | F immediatemessage           |
| F getinternalcachedlistreference | F incrementcounter           |
| F getinternallistreference       | F incrementedcounter         |
| F getlasttwopassdata             | F incrementsubcounter        |
| F getmarking                     | F initializejob              |
| F getmathdomain                  | F initializemathdomain       |
| F getmathitalics                 | F initializemathitalics      |
| F getmessage                     | F initializestream           |
| F getmpextensions                | F initializetexdirectives    |
| F getmprandomnumber              | F initializetextrackers      |
| F getnaturaldimensions           | F injectcurrentreference     |
| F getnaturalwd                   | F injectcurrentreferencehtdp |
| F getnotestate                   | F injectreference            |
| F getobjectdimensions            | F inlinechemical             |
| F getobjectreference             | F inputfilebarename          |
| F getobjectreferencepage         | F inputfilename              |
| F getprivatechar                 | F inputfilerealsuffix        |
| F getprivateglyphslot            | F inputfilesuffix            |
| F getprogram                     | F insertattachment           |

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|------------------------------|-----------------------------|
| F insertcomment              | F lpdf_addtonames           |
| F insertfield                | F lpdf_addtopageattributes  |
| F insertionnumber            | F lpdf_addtopageresources   |
| F insertrenderingwindow      | F lpdf_addtopagesattributes |
| F installedlanguages         | F lpdf_collectedresources   |
| F installtexdirective        | F lpdf_color                |
| F installtexttracker         | F luascript                 |
| F jobfilename                | F luathread                 |
| F jobfilesuffix              | F lxmlid                    |
| F languagenumber             | F markcontent               |
| F lastcountervalue           | F markingnumber             |
| F lastsubcountervalue        | F markingtitle              |
| F lchexnumber                | F markinjector              |
| F lchexnumbers               | F markregionbox             |
| F leapyear                   | F markregionboxcorrected    |
| F linenumbersstageone        | F markregionboxtagged       |
| F linenumbersstagetwo        | F markvisualfonts           |
| F listgroupindex             | F mathfraction              |
| F listlabel                  | F mathrenderset             |
| F listlocation               | F message                   |
| F listnamespaces             | F metapostescaped           |
| F listprefixednumber         | F metapostformatted         |
| F listprefixedpage           | F metapostgraphformat       |
| F listrealpage               | F minute                    |
| F listsize                   | F mixcleanup                |
| F listtitle                  | F mixfinalize               |
| F listuserdata               | F mixflushlist              |
| F loadexamodes               | F mixflushrest              |
| F loadfontgoodies            | F mixgetsplit               |
| F loadluamodule              | F mixsetsplit               |
| F loadmapfile                | F mixstate                  |
| F loadmapline                | F molecule                  |
| F loadspellchecklist         | F month                     |
| F loadtypescriptfile         | F monthmnem                 |
| F loadvisualizer             | F monthname                 |
| F locatefilepath             | F mpcolor                   |
| F locfilename                | F mpflushliteral            |
| F lower                      | F mpflushreset              |
| F lpdf_adddocumentcolorspace | F mpgettext                 |
| F lpdf_adddocumenttextstate  | F mpgraphic                 |
| F lpdf_adddocumentpattern    | F mpoptions                 |
| F lpdf_adddocumentshade      | F mprunset                  |
| F lpdf_addtocatalog          | F mpruntab                  |
| F lpdf_addtoinfo             | F mprunvar                  |

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|------------------------------|---------------------------|
| F mpsetclippath              | F pdfstopmirroring        |
| F mpsetoutercolor            | F pdfstoprotation         |
| F mpsetsxxy                  | F pdfstopscaling          |
| F mpsettext                  | F percentageof            |
| F mptexget                   | F pgfxcolorspec           |
| F mptexreset                 | F pickupbuffer            |
| F mptexset                   | F pickupmarkedcontent     |
| F mptexsetfrombuffer         | F pickuppunctuation       |
| F namedstructureuservariable | F placeparallel           |
| F namedstructurevariable     | F popfloat                |
| F naturalwd                  | F pophyphenation          |
| F nbfs                       | F popitaliccorrection     |
| F nextcountervalue           | F poplist                 |
| F nextparallel               | F poppath                 |
| F nextsubcountervalue        | F poprandomseed           |
| F nofconversions             | F popreferenceprefix      |
| F nofdays                    | F popregime               |
| F nofstackedfloats           | F popsectionblock         |
| F notedeltapage              | F postponeotes            |
| F noteinternal               | F prefixedconverted       |
| F notelistindex              | F preparecolumnsetflush   |
| F noteprefixednumber         | F presetsymbollist        |
| F notetitle                  | F presettabulate          |
| F ntimes                     | F prevcountervalue        |
| F number                     | F previoussubcountervalue |
| F numbers                    | F processbodyfontsizes    |
| F octnumber                  | F processbuffer           |
| F octstringtonumber          | F processcolorcomponents  |
| F operatingsystem            | F processedfile           |
| F ordinal                    | F processedfiles          |
| F outputfilename             | F processfile             |
| F overloadbookmark           | F processfilemany         |
| F overloaderror              | F processfilenone         |
| F overloadlowercase          | F processfileonce         |
| F overloaduppercase          | F processjob              |
| F pageofinternal             | F processlist             |
| F pagestaterealpage          | F processregister         |
| F parpos                     | F processsplit            |
| F pdfrotation                | F processsynonyms         |
| F pdfstartmatrix             | F profilebox              |
| F pdfstartmirroring          | F purefontname            |
| F pdfstartrotation           | F pushfloat               |
| F pdfstartscaling            | F pushhyphenation         |
| F pdfstopmatrix              | F pushitaliccorrection    |

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|--------------------------------|------------------------------|
| F pushlist                     | F registershownsynonym       |
| F pushpath                     | F registerstructureprocessor |
| F pushrandomseed               | F registersynonym            |
| F pushreferenceprefix          | F registerunit               |
| F pushregime                   | F registerusedsynonym        |
| F pushsectionblock             | F registeruserdata           |
| F pushstream                   | F relatemarking              |
| F putboxincache                | F renderingvar               |
| F putincolumnset               | F replacefeature             |
| F rawcharacter                 | F replacepospxywhd           |
| F rawcountervalue              | F reportstructure            |
| F rawdate                      | F resavefloat                |
| F rawsetupstring               | F resetboxesincache          |
| F rawsubcountervalue           | F resetcharacteralign        |
| F referencepagedetail          | F resetcolumnset             |
| F referencepagestate           | F resetcounter               |
| F referencerealpage            | F reseteffect                |
| F registerattachment           | F resetfeature               |
| F registerbackendsymbol        | F resetfontfeature           |
| F registerbodyfontsize         | F resetfontsolution          |
| F registerbookmark             | F resetinjector              |
| F registerbuttons              | F resetitaliccorrection      |
| F registercolorintent          | F resetmapfiles              |
| F registercolumnsetarea        | F resetmarking               |
| F registeredviewerlayer        | F resetmathattributes        |
| F registerfigurepattern        | F resetmathitalics           |
| F registerfiguresuffix         | F resetnullfont              |
| F registerfontalternative      | F resetparallel              |
| F registerfontfamily           | F resetpath                  |
| F registerhelp                 | F resetprevdepth             |
| F registerhyphenationexception | F resetreference             |
| F registerhyphenationpattern   | F resetscript                |
| F registeritemgroup            | F resetshownsynonyms         |
| F registerlanguagefeatures     | F resetstructureprocessor    |
| F registerlinenumbers          | F resetsubcounter            |
| F registermaintextcolor        | F resettimer                 |
| F registermpyfile              | F resettrackers              |
| F registernamedlua             | F resetusedsynonyms          |
| F registernamespace            | F restartcounter             |
| F registerobject               | F restartsubcounter          |
| F registerpostponedblock       | F restorecounter             |
| F registerreferencedobject     | F restorecurrentattributes   |
| F registerrendering            | F restorenote                |
| F registersection              | F restoreobject              |

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|---------------------------|------------------------------|
| F reuserandomseed         | F setdestinationattribute    |
| F revivefeature           | F setdigitsmanipulation      |
| F romannumerals           | F setdirection               |
| F rounded                 | F setdocumentargument        |
| F runbuffer               | F setdocumentcommandline     |
| F runcontextjob           | F setdocumentctxfile         |
| F safechar                | F setdocumentdefaultargument |
| F savebuffer              | F setdocumentenvironments    |
| F savecounter             | F setdocumentfilename        |
| F savecurrentattributes   | F setdocumentfilenames       |
| F savedlistnumber         | F setdocumentmodes           |
| F savedlistprefixednumber | F setdocumentmodules         |
| F savedlisttitle          | F seteffect                  |
| F savefloat               | F setelementuserproperties   |
| F savefont                | F setfieldcalculationset     |
| F savemargindata          | F setfigurelookuporder       |
| F savenote                | F setfigurepaths             |
| F savepagedata            | F setfirstline               |
| F savepageinjections      | F setfontfeature             |
| F saveparallel            | F setfontofid                |
| F savespecificfloat       | F setfontsolution            |
| F savestructureblock      | F setformat                  |
| F savetaggedtwopassdata   | F setformsmethod             |
| F savetwopassdata         | F sethsizecolumnset          |
| F savevariable            | F sethsizecolumnspan         |
| F second                  | F sethyphenatedurlcharacters |
| F selectstructureblock    | F sethyphenationfeatures     |
| F setactivecatcodes       | F sethyphenationmethod       |
| F setbreakpoints          | F setinitial                 |
| F setcharacteralign       | F setinitialsectionblock     |
| F setcharactercasing      | F setinjector                |
| F setcharactercleaning    | F setinnerreferencemethod    |
| F setcharacterkerning     | F setinsertionlocation       |
| F setcharacterspacing     | F setinterfaceconstant       |
| F setcharacterstripping   | F setinterfaceelement        |
| F setclosedocumentaction  | F setinterfacemessage        |
| F setclosepageaction      | F setinterfacemessages       |
| F setcolormodel           | F setinterfacevariable       |
| F setcolumnsetarea        | F setinternalreference       |
| F setcolumnsetlines       | F setitaliccorrection        |
| F setcolumnsetproperties  | F setjavascriptpreamble      |
| F setcolumnsetstart       | F setjobcomment              |
| F setcounter              | F setlanguageexceptions      |
| F setdataset              | F setlanguagesynonym         |

F setlettercatcodes  
F setmapfile  
F setmapline  
F setmarking  
F setmathalphabet  
F setmathalternate  
F setmathattribute  
F setmathdirection  
F setmathdomain  
F setmathitalics  
F setmathstyle  
F setmpextensions  
F setnaturalwd  
F setnegative  
F setnextinternalreference  
F setnextreferenceorder  
F setnotestate  
F setopendocumentaction  
F setopenpageaction  
F setowncounter  
F setownsubcounter  
F setpagecolormodel  
F setpagestate  
F setpagestaterealpageno  
F setpagetransition  
F setparbuilder  
F setpdfcompression  
F setprofile  
F setrandomseed  
F setrealign  
F setrealspaces  
F setreferencearguments  
F setreferenceoperation  
F setregionbox  
F setregionboxtagged  
F setregistermethod  
F setreplacements  
F setscript  
F setsectionblock  
F setsectionentry  
F setstructureblockstate  
F setstructurelevel  
F setstructurenumber  
F setsubcounter

F settagaspect  
F settagcombination  
F settagdelimitedsymbol  
F settagfigure  
F settaggedmetadata  
F settaghighlight  
F settagitem  
F settagitemgroup  
F settaglist  
F settagnotation  
F settagnotationsymbol  
F settagproperty  
F settagproperty\_b  
F settagproperty\_n  
F settagregister  
F settagsorting  
F settagsubsentencesymbol  
F settagsynonym  
F settagtablecell  
F settagtabulatecell  
F setupbookmarks  
F setupcanvas  
F setupcharacterspacing  
F setupexport  
F setupfontexpansion  
F setupfontprotrusion  
F setupidentity  
F setupinsertion  
F setupitaliccorrection  
F setuplinenumbering  
F setuserinterface  
F setvalidinterfacekeys  
F setvisual  
F setvisualfont  
F setvisualalllayer  
F setvisuals  
F setvsizecolumnset  
F setxmpfile  
F showassignerror  
F showattributes  
F showcounter  
F showdebuginfo  
F showdirectives  
F showdiscretionaries



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|------------------------|-----------------------------|
| F showexperiments      | F stopstream                |
| F showhyphenatedinlist | F stoptag                   |
| F showhyphenationtrace | F stoptext                  |
| F showinjector         | F stopviewerlayer           |
| F showjustification    | F storejavascriptcode       |
| F showlogcategories    | F storejavascriptpreamble   |
| F showmessage          | F storenote                 |
| F showtrackers         | F storeregister             |
| F sin                  | F strdp                     |
| F sind                 | F strhd                     |
| F splitfilename        | F strht                     |
| F spotcolorname        | F strip                     |
| F spotcolorparent      | F structureautocatcodedget  |
| F spotcolorvalue       | F structurecatcodedget      |
| F startactualtext      | F structuregivencatcodedget |
| F startchemical        | F structurenumber           |
| F startcolorset        | F structuretitle            |
| F startcomponent       | F structureuservariable     |
| F startenvironment     | F structurevariable         |
| F startfontsolution    | F strwd                     |
| F startparbuilder      | F subcountervalue           |
| F startproduct         | F subcountervalues          |
| F startproject         | F subsubcountervalues       |
| F startregime          | F subtractfeature           |
| F startsectionlevel    | F synchronizemarking        |
| F startstream          | F synchronizestream         |
| F starttag             | F synonymmeaning            |
| F starttag_c           | F synonymname               |
| F starttag_d           | F systemlog                 |
| F starttag_u           | F tagmfunctionlab           |
| F starttext            | F tagmfunctiontxt           |
| F startviewerlayer     | F tan                       |
| F step                 | F tand                      |
| F stopactualtext       | F texdefinition_one         |
| F stopchemical         | F texdefinition_two         |
| F stopcolorset         | F textime                   |
| F stopcomponent        | F thefirstcharacter         |
| F stopenvironment      | F themaxboxwidth            |
| F stopfontsolution     | F theremainingcharacters    |
| F stopparbuilder       | F tochar                    |
| F stopproduct          | F transparencycomponents    |
| F stopproject          | F triggerpagebuilder        |
| F stopregime           | F truefilename              |
| F stopsectionlevel     | F type                      |

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|-------------------------|-------------------------------------|
| F typebuffer            | F utfmathcommandfiller              |
| F typefile              | F utfmathfiller                     |
| F uchar                 | F utfmathstretch                    |
| F uchexnumber           | F vboxlisttohbox                    |
| F uchexnumbers          | F verbose                           |
| F undefinechemical      | F vspacing                          |
| F unicodechar           | F vspacingcollapse                  |
| F unihex                | F vspacingcollapseonly              |
| F unit_normal           | F vspacingdefine                    |
| F unit_reverse          | F vspacingsetamount                 |
| F unloadlanguage        | F vspacingsnap                      |
| F upper                 | F way                               |
| F useMPLibrary          | F weekday                           |
| F useanyfile            | F weekdayname                       |
| F useanyfileonce        | F writestatus                       |
| F usecldfile            | F x_table_c                         |
| F usecldfileonce        | F x_table_cleanup                   |
| F usecolors             | F x_table_construct                 |
| F usecomponent          | F x_table_create                    |
| F useenvironment        | F x_table_finish_row                |
| F usefigurebase         | F x_table_flush                     |
| F usefile               | F x_table_init_construct            |
| F usejavascriptpreamble | F x_table_init_reflow_height        |
| F usejavascriptscripts  | F x_table_init_reflow_height_option |
| F useluafile            | F x_table_init_reflow_width         |
| F useluafileonce        | F x_table_init_reflow_width_option  |
| F uselumodule           | F x_table_next_row                  |
| F usemodules            | F x_table_next_row_option           |
| F usepath               | F x_table_r                         |
| F useproduct            | F x_table_reflow_height             |
| F useproject            | F x_table_reflow_width              |
| F usesubpath            | F x_table_set_construct             |
| F usesymbols            | F x_table_set_reflow_height         |
| F usetexfile            | F x_table_set_reflow_width          |
| F usetexfileonce        | F xmladdindex                       |
| F useurl                | F xmllaftersetup                    |
| F usexmlfile            | F xmlall                            |
| F usexmlfileonce        | F xmlappendsetup                    |
| F usezipfile            | F xmlapplyselectors                 |
| F utfchar               | F xmlatt                            |
| F utfmathclass          | F xmlattdef                         |
| F utfmathcommand        | F xmlattribute                      |
| F utfmathcommandabove   | F xmlattributedef                   |
| F utfmathcommandbelow   | F xmlbadinclusions                  |

|                        |                       |
|------------------------|-----------------------|
| F xmlbeforesetup       | F xmlindex            |
| F xmlchainatt          | F xmlinlineverbatim   |
| F xmlchainattdef       | F xmlinstalldirective |
| F xmlchecknamespace    | F xmllast             |
| F xmlcommand           | F xmllastatt          |
| F xmlconcat            | F xmllastmatch        |
| F xmlconcatrange       | F xmlload             |
| F xmlcontext           | F xmlloadbuffer       |
| F xmlcount             | F xmlloaddata         |
| F xmldelete            | F xmlloaddirectives   |
| F xmldirect            | F xmlloadentities     |
| F xmldirectives        | F xmlmain             |
| F xmldirectivesafter   | F xmlmatch            |
| F xmldirectivesbefore  | F xmlname             |
| F xmldisplayverbatim   | F xmlnamespace        |
| F xmldoif              | F xmlnonamespace      |
| F xmldoifelse          | F xmlpath             |
| F xmldoifelseempty     | F xmlpos              |
| F xmldoifelseselfempty | F xmlprependsetup     |
| F xmldoifelsestext     | F xmlpure             |
| F xmldoifempty         | F xmlraw              |
| F xmldoifnot           | F xmlrawtex           |
| F xmldoifnotempty      | F xmlrefatt           |
| F xmldoifnotselfempty  | F xmlregisterns       |
| F xmldoifnottext       | F xmlremapname        |
| F xmldoifselfempty     | F xmlremapnamespace   |
| F xmldoiftext          | F xmlremovesetup      |
| F xmlelement           | F xmlresetinjectors   |
| F xmlfilter            | F xmlresetsetups      |
| F xmlfilterlist        | F xmlsave             |
| F xmlfirst             | F xmlsetcommandtonone |
| F xmlflush             | F xmlsetcommandtotext |
| F xmlflushcontext      | F xmlsetentity        |
| F xmlflushlinewise     | F xmlsetinjectors     |
| F xmlflushpure         | F xmlsetsetup         |
| F xmlflushsetups       | F xmlsnippet          |
| F xmlflushspacewise    | F xmlstartraw         |
| F xmlflushtext         | F xmlstarttiming      |
| F xmlfunction          | F xmlstopraw          |
| F xmlgetindex          | F xmlstoptiming       |
| F xmlinclude           | F xmlstrip            |
| F xmlincludeoptions    | F xmlstripanywhere    |
| F xmlinclusion         | F xmlstrippolines     |
| F xmlinclusions        | F xmlstripped         |

|                                   |          |                         |            |
|-----------------------------------|----------|-------------------------|------------|
| <code>F xmlstrippednolines</code> |          | <b>setmacro</b>         | function   |
| <code>F xmltag</code>             |          | <b>setmessage</b>       | function   |
| <code>F xmltexentity</code>       |          | <b>setmessages</b>      | function   |
| <code>F xmltext</code>            |          | <b>settranslation</b>   | function   |
| <code>F xmltobuffer</code>        |          | <b>setupstrings</b>     | data table |
| <code>F xmltobufferverbose</code> |          | <b>setuserinterface</b> | function   |
| <code>F xmltofile</code>          |          | <b>setvalidkeys</b>     | function   |
| <code>F xmltoparameters</code>    |          | <b>setvariable</b>      | function   |
| <code>F xmlverbatim</code>        |          | <b>showmessage</b>      | function   |
| <code>F xmlwithindex</code>       |          | <b>storedscanners</b>   | data table |
| <code>F year</code>               |          | <b>strings</b>          | table      |
| <b>setconstant</b>                | function | <b>syntax</b>           | data table |
| <b>setcount</b>                   | function | <b>tolist</b>           | function   |
| <b>setdimen</b>                   | function | <b>translations</b>     | data table |
| <b>setelement</b>                 | function | <b>variables</b>        | data table |
| <b>setformat</b>                  | function | <b>writestatus</b>      | function   |

## io (basic lua)

|                      |                     |                      |                     |
|----------------------|---------------------|----------------------|---------------------|
| <b>ask</b>           | function            | <b>pathseparator</b> | string              |
| <b>bytes</b>         | function            | <b>popen</b>         | overloaded function |
| <b>characters</b>    | function            | <b>read</b>          | function            |
| <b>close</b>         | function            | <b>readall</b>       | function            |
| <b>exists</b>        | function            | <b>readnumber</b>    | function            |
| <b>fileseparator</b> | string              | <b>readstring</b>    | function            |
| <b>flush</b>         | function            | <b>savedata</b>      | function            |
| <b>input</b>         | overloaded function | <b>size</b>          | function            |
| <b>lines</b>         | overloaded function | <b>stderr</b>        | userdata            |
| <b>loadchunk</b>     | function            | <b>stdin</b>         | userdata            |
| <b>loaddata</b>      | function            | <b>stdout</b>        | userdata            |
| <b>loadlines</b>     | function            | <b>tmpfile</b>       | function            |
| <b>noflines</b>      | function            | <b>type</b>          | function            |
| <b>open</b>          | overloaded function | <b>write</b>         | function            |
| <b>output</b>        | overloaded function |                      |                     |

# jit (context)

|               |          |                    |          |
|---------------|----------|--------------------|----------|
| <b>arch</b>   | string   |                    | F start  |
| <b>attach</b> | function | <b>os</b>          | string   |
| <b>flush</b>  | function | <b>status</b>      | function |
| <b>off</b>    | function | <b>version</b>     | string   |
| <b>on</b>     | function | <b>version_num</b> | number   |
| <b>opt</b>    | table    |                    |          |

# job (context)

|                          |          |                  |       |
|--------------------------|----------|------------------|-------|
| <b>comment</b>           | function | F find           |       |
| <b>datasets</b>          | table    | F first          |       |
| D collected              |          | F get            |       |
| F extend                 |          | F getcollected   |       |
| F getdata                |          | F getdata        |       |
| F setdata                |          | F getfield       |       |
| D tobesaved              |          | F gettobesaved   |       |
| <b>disablesave</b>       | function | F inlist         |       |
| <b>fileobjreferences</b> | table    | F last           |       |
| D collected              |          | F list           |       |
| D tobesaved              |          | F save           |       |
| <b>files</b>             | table    | F savetagged     |       |
| D collected              |          | D tobesaved      |       |
| F context                |          | <b>positions</b> | table |
| B forcerun               |          | F b_column       |       |
| F run                    |          | F b_region       |       |
| D tobesaved              |          | F c              |       |
| <b>initialize</b>        | function | D collected      |       |
| <b>load</b>              | function | F column         |       |
| <b>loadother</b>         | function | F copy           |       |
| <b>objects</b>           | table    | F depth          |       |
| D collected              |          | F e_column       |       |
| F get                    |          | F e_region       |       |
| F number                 |          | F enhance        |       |
| F page                   |          | F extra          |       |
| F save                   |          | F get            |       |
| F set                    |          | F getreserved    |       |
| D tobesaved              |          | F gettobesaved   |       |
| <b>pack</b>              | boolean  | F hangafter      |       |
| <b>packversion</b>       | number   | F hangindent     |       |
| <b>pagestates</b>        | table    | F height         |       |
| D collected              |          | F hsize          |       |
| F extend                 |          | F leftskip       |       |
| F realpage               |          | F lowerleft      |       |
| F setstate               |          | F lowerright     |       |
| D tobesaved              |          | F markregionbox  |       |
| <b>passes</b>            | table    | F n              |       |
| F check                  |          | F onsamepage     |       |
| D collected              |          | F overlapping    |       |
| F count                  |          | F p              |       |
| F define                 |          | F page           |       |

F paragraph  
F parindent  
F position  
F r  
F region  
F replace  
F rightskip  
F set  
F setall  
F setdim  
F setregionbox  
D tobesaved  
F upperleft  
F upperright  
S used  
F width  
F x  
F xy  
F y

|                  |          |
|------------------|----------|
| <b>register</b>  | function |
| <b>save</b>      | function |
| <b>structure</b> | table    |
| D collected      |          |
| T components     |          |
| T tobesaved      |          |
| T branches       |          |
| S name           |          |
| S type           |          |
| <b>variables</b> | table    |
| D checksums      |          |
| D collected      |          |
| F getchecksum    |          |
| F makechecksum   |          |
| F restore        |          |
| F save           |          |
| F setchecksum    |          |
| D tobesaved      |          |
| <b>version</b>   | number   |



## lang (basic tex)

|                          |          |
|--------------------------|----------|
| <b>clean</b>             | function |
| <b>clear_hyphenation</b> | function |
| <b>clear_patterns</b>    | function |
| <b>exceptions</b>        | function |
| <b>gethjcode</b>         | function |
| <b>hyphenate</b>         | function |
| <b>hyphenation</b>       | function |
| <b>hyphenationmin</b>    | function |

|                         |          |
|-------------------------|----------|
| <b>id</b>               | function |
| <b>new</b>              | function |
| <b>patterns</b>         | function |
| <b>postexhyphenchar</b> | function |
| <b>posthyphenchar</b>   | function |
| <b>preexhyphenchar</b>  | function |
| <b>prehyphenchar</b>    | function |
| <b>sethjcode</b>        | function |

# languages (context)

|                        |            |                                 |            |
|------------------------|------------|---------------------------------|------------|
| <b>associate</b>       | function   | F registerpattern               |            |
| <b>associated</b>      | data table | F setfeatures                   |            |
| <b>association</b>     | function   | <b>installed</b>                | function   |
| <b>counters</b>        | data table | <b>labels</b>                   | table      |
| <b>current</b>         | function   | F define                        |            |
| <b>data</b>            | data table | F split                         |            |
| <b>decimals</b>        | data table | <b>loadable</b>                 | function   |
| <b>define</b>          | function   | <b>loadwords</b>                | function   |
| <b>expand</b>          | function   | <b>logger</b>                   | table      |
| <b>expanders</b>       | table      | F report                        |            |
| <b>frequencies</b>     | table      | <b>numbers</b>                  | data table |
| F averagecharwidth     |            | <b>postexhyphenchar</b>         | function   |
| F getdata              |            | <b>posthyphenchar</b>           | function   |
| <b>getdata</b>         | function   | <b>preexhyphenchar</b>          | function   |
| <b>getnumber</b>       | function   | <b>prehyphenchar</b>            | function   |
| <b>hyphenate</b>       | function   | <b>registered</b>               | data table |
| <b>hyphenators</b>     | table      | <b>replacements</b>             | table      |
| T dictionaries         |            | F add                           |            |
| D featuresets          |            | F handler                       |            |
| F handler              |            | F set                           |            |
| T methods              |            | <b>serializediscretionary</b>   | function   |
| F expanded             |            | <b>setexceptions</b>            | function   |
| B none                 |            | <b>setsynonym</b>               | function   |
| F original             |            | <b>showdiscretionaries</b>      | function   |
| F tex                  |            | <b>unload</b>                   | function   |
| F traditional          |            | <b>urls</b>                     | table      |
| B optimize             |            | D characters                    |            |
| F popmethod            |            | N lefthyphenmin                 |            |
| F pushmethod           |            | D mapping                       |            |
| F setmethod            |            | B packslashes                   |            |
| F setup                |            | N righthyphenmin                |            |
| F showhyphenationtrace |            | F setcharacters                 |            |
| T traditional          |            | <b>version</b>                  | number     |
| F definefeatures       |            | <b>visualizediscretionaries</b> | function   |
| F gettrace             |            | <b>words</b>                    | table      |
| F hyphenate            |            | F check                         |            |
| F injecthyphens        |            | T data                          |            |
| F installmethod        |            | F disable                       |            |
| F lasttrace            |            | F enable                        |            |
| F loadpatterns         |            | T enablers                      |            |
| F registerexception    |            | B enables                       |            |

F found

T methods

F load

N threshold

# layouts (context)

|               |              |                         |
|---------------|--------------|-------------------------|
| <b>status</b> | table        | F leftorrightpageaction |
|               | F isleftpage |                         |

## lfs (extra lua)

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

# libraries (context)

**basiclua** data table

**basictex** data table

**builtin** data table

**extralua** data table

**extratex** data table

**functions** data table

**globals** data table

## lmx (context)

|                          |          |
|--------------------------|----------|
| <b>color</b>             | function |
| <b>convert</b>           | function |
| <b>convertfile</b>       | function |
| <b>convertstring</b>     | function |
| <b>einject</b>           | function |
| <b>eprint</b>            | function |
| <b>escape</b>            | function |
| <b>finalized</b>         | function |
| <b>finject</b>           | function |
| <b>fprint</b>            | function |
| <b>get</b>               | function |
| <b>getvariables</b>      | function |
| <b>htmfile</b>           | function |
| <b>html</b>              | table    |
| F a                      |          |
| F td                     |          |
| F th                     |          |
| <b>include</b>           | function |
| <b>inherited</b>         | table    |
| S color-background-four  |          |
| S color-background-one   |          |
| S color-background-three |          |
| S color-background-two   |          |
| S title                  |          |
| <b>initialize</b>        | function |
| <b>inject</b>            | function |
| <b>lmxfile</b>           | function |

|                           |          |
|---------------------------|----------|
| <b>loadedfile</b>         | function |
| <b>make</b>               | function |
| <b>new</b>                | function |
| <b>overloaderror</b>      | function |
| <b>popupfile</b>          | function |
| <b>print</b>              | function |
| <b>pv</b>                 | function |
| <b>report</b>             | function |
| <b>reset</b>              | function |
| <b>result</b>             | function |
| <b>set</b>                | function |
| <b>show</b>               | function |
| <b>showdebuginfo</b>      | function |
| <b>showerror</b>          | function |
| <b>stripcss</b>           | function |
| <b>tv</b>                 | function |
| <b>type</b>               | function |
| <b>urlescape</b>          | function |
| <b>variable</b>           | function |
| <b>variables</b>          | table    |
| S color-background-blue   |          |
| S color-background-body   |          |
| S color-background-green  |          |
| S color-background-main   |          |
| S color-background-purple |          |
| S color-background-yellow |          |
| S title-default           |          |

# logs (context)

|                     |          |
|---------------------|----------|
| <b>application</b>  | function |
| <b>categories</b>   | function |
| <b>direct</b>       | function |
| <b>disable</b>      | function |
| <b>enable</b>       | function |
| <b>exporters</b>    | table    |
| <b>extendbanner</b> | function |
| <b>flush</b>        | function |
| <b>help</b>         | function |
| <b>messenger</b>    | function |
| <b>new</b>          | function |
| <b>newline</b>      | function |
| <b>poptarget</b>    | function |
| <b>pushtarget</b>   | function |
| <b>report</b>       | function |
| <b>reportbanner</b> | function |
| <b>reporter</b>     | function |
| <b>reporters</b>    | table    |
| F banner            |          |
| F export            |          |
| F help              |          |
| F info              |          |
| F lines             |          |
| F version           |          |
| <b>reportline</b>   | function |

|                          |          |
|--------------------------|----------|
| <b>reportlines</b>       | function |
| <b>setformats</b>        | function |
| <b>setformatters</b>     | function |
| <b>setlogfile</b>        | function |
| <b>setmessenger</b>      | function |
| <b>setprocessor</b>      | function |
| <b>setprogram</b>        | function |
| <b>settarget</b>         | function |
| <b>settimedlog</b>       | function |
| <b>settranslations</b>   | function |
| <b>show</b>              | function |
| <b>show_close</b>        | function |
| <b>show_load</b>         | function |
| <b>show_open</b>         | function |
| <b>simple</b>            | function |
| <b>simpleline</b>        | function |
| <b>simplelines</b>       | function |
| <b>start_page_number</b> | function |
| <b>status</b>            | function |
| <b>stop_page_number</b>  | function |
| <b>subdirect</b>         | function |
| <b>subreport</b>         | function |
| <b>system</b>            | function |
| <b>texerrormessage</b>   | function |
| <b>writer</b>            | function |



# lpdf (context)

|                                 |            |                                  |            |
|---------------------------------|------------|----------------------------------|------------|
| <b>action</b>                   | function   | <b>finalizedocument</b>          | function   |
| <b>adddocumentcolorspace</b>    | function   | <b>finalizepage</b>              | function   |
| <b>adddocumenttextgstate</b>    | function   | <b>finishtransparencycode</b>    | function   |
| <b>adddocumentpattern</b>       | function   | <b>flushobject</b>               | function   |
| <b>adddocumentshade</b>         | function   | <b>flushstreamfileobject</b>     | function   |
| <b>addtocatalog</b>             | function   | <b>flushstreamobject</b>         | function   |
| <b>addtoinfo</b>                | function   | <b>formats</b>                   | data table |
| <b>addtonames</b>               | function   | <b>frompdfdoc</b>                | function   |
| <b>addtopageattributes</b>      | function   | <b>fromsixteen</b>               | function   |
| <b>addtopageresources</b>       | function   | <b>gethpos</b>                   | function   |
| <b>addtopagesattributes</b>     | function   | <b>getmatrix</b>                 | function   |
| <b>addtxmpinfo</b>              | function   | <b>getpos</b>                    | function   |
| <b>annotationspecification</b>  | function   | <b>getvpos</b>                   | function   |
| <b>array</b>                    | function   | <b>graycode</b>                  | function   |
| <b>boolean</b>                  | function   | <b>hasmatrix</b>                 | function   |
| <b>border</b>                   | function   | <b>id</b>                        | function   |
| <b>checkedkey</b>               | function   | <b>injecttxmpinfo</b>            | function   |
| <b>checkedvalue</b>             | function   | <b>inserttxmpinfo</b>            | function   |
| <b>circularshade</b>            | function   | <b>layerreference</b>            | function   |
| <b>cmykcode</b>                 | function   | <b>limited</b>                   | function   |
| <b>collectedresources</b>       | function   | <b>linearshade</b>               | function   |
| <b>color</b>                    | function   | <b>nametree</b>                  | function   |
| <b>colorspace</b>               | function   | <b>null</b>                      | function   |
| <b>colorspaceconstants</b>      | data table | <b>number</b>                    | function   |
| <b>colorspec</b>                | function   | <b>pagereference</b>             | function   |
| <b>colorvalue</b>               | function   | <b>pdfcolor</b>                  | function   |
| <b>colorvalues</b>              | function   | <b>pdftimestamp</b>              | function   |
| <b>constant</b>                 | function   | <b>permitdetail</b>              | function   |
| <b>delayedobject</b>            | function   | <b>protectresources</b>          | boolean    |
| <b>destinationspecification</b> | function   | <b>rectangle</b>                 | function   |
| <b>dictionary</b>               | function   | <b>reference</b>                 | function   |
| <b>docstring</b>                | function   | <b>registerannotation</b>        | function   |
| <b>epdf</b>                     | table      | <b>registerdestination</b>       | function   |
| F contenttotext                 |            | <b>registerdocumentfinalizer</b> | function   |
| F expand                        |            | <b>registerpagefinalizer</b>     | function   |
| F expanded                      |            | <b>reserveobject</b>             | function   |
| F getpagecontent                |            | <b>rgbcode</b>                   | function   |
| F getstructure                  |            | <b>rotationcm</b>                | function   |
| F load                          |            | <b>setdates</b>                  | function   |
| F unload                        |            | <b>settime</b>                   | function   |
| <b>escaped</b>                  | function   | <b>settrailerid</b>              | function   |

|                             |          |                           |          |
|-----------------------------|----------|---------------------------|----------|
| <b>shareobject</b>          | function | <b>transform</b>          | function |
| <b>shareobjectreference</b> | function | <b>transparency</b>       | function |
| <b>spotcode</b>             | function | <b>transparencycode</b>   | function |
| <b>stream</b>               | function | <b>transparencygroups</b> | table    |
| <b>string</b>               | function | <b>B none</b>             |          |
| <b>timestamp</b>            | function | <b>transparencyvalue</b>  | function |
| <b>toeight</b>              | function | <b>unicode</b>            | function |
| <b>topdfdoc</b>             | function | <b>verbose</b>            | function |
| <b>tosixteen</b>            | function |                           |          |

## lpeg (basic lua)

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

# ltn12 (extra lua)

**BLOCKSIZE**    number

**filter**        table

    F chain

    F cycle

**pump**          table

    F all

    F step

**sink**           table

    F chain

    F error

    F file

    F null

    F simplify

    F table

**source**        table

    F cat

    F chain

    F empty

    F error

    F file

    F rewind

    F simplify

    F string

# lua (basic tex)

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

# luatex (context)

**cleanuptempfiles**      function  
**registerdumpactions**    function  
**registerpageactions**    function  
**registerstartactions**   function

**registerstopactions**    function  
**registertempfile**       function  
**starttime**               number

# lxml (context)

|                          |            |                         |          |
|--------------------------|------------|-------------------------|----------|
| <b>addindex</b>          | function   | <b>flush</b>            | function |
| <b>all</b>               | function   | <b>flushlinewise</b>    | function |
| <b>applyfunction</b>     | function   | <b>flushsetups</b>      | function |
| <b>applyselectors</b>    | function   | <b>flushspacewise</b>   | function |
| <b>att</b>               | function   | <b>get_id</b>           | function |
| <b>attribute</b>         | function   | <b>getid</b>            | function |
| <b>badinclusions</b>     | function   | <b>getindex</b>         | function |
| <b>chainattribute</b>    | function   | <b>id</b>               | function |
| <b>checkindex</b>        | function   | <b>idsplitter</b>       | userdata |
| <b>collected</b>         | function   | <b>include</b>          | function |
| <b>command</b>           | function   | <b>inclusion</b>        | function |
| <b>concat</b>            | function   | <b>inclusions</b>       | function |
| <b>concatrange</b>       | function   | <b>index</b>            | function |
| <b>content</b>           | function   | <b>inlineverbatimim</b> | function |
| <b>context</b>           | function   | <b>installsetup</b>     | function |
| <b>convert</b>           | function   | <b>last</b>             | function |
| <b>count</b>             | function   | <b>lastatt</b>          | function |
| <b>delete</b>            | function   | <b>lastmatch</b>        | function |
| <b>direct</b>            | function   | <b>load</b>             | function |
| <b>directives</b>        | table      | <b>loadbuffer</b>       | function |
| F after                  |            | <b>loaddata</b>         | function |
| F before                 |            | <b>loaded</b>           | table    |
| F handle                 |            | <b>main</b>             | function |
| F load                   |            | <b>match</b>            | function |
| F setup                  |            | <b>name</b>             | function |
| <b>displayverbatimim</b> | function   | <b>namespace</b>        | function |
| <b>doif</b>              | function   | <b>nonspace</b>         | function |
| <b>doifelse</b>          | function   | <b>path</b>             | function |
| <b>doifelseempty</b>     | function   | <b>pos</b>              | function |
| <b>doifelsetext</b>      | function   | <b>position</b>         | function |
| <b>doifempty</b>         | function   | <b>pure</b>             | function |
| <b>doifnot</b>           | function   | <b>raw</b>              | function |
| <b>doifnotempty</b>      | function   | <b>rawroot</b>          | function |
| <b>doifnottext</b>       | function   | <b>rawtex</b>           | function |
| <b>doiftext</b>          | function   | <b>refatt</b>           | function |
| <b>element</b>           | function   | <b>register</b>         | function |
| <b>elements</b>          | function   | <b>registerentity</b>   | function |
| <b>entities</b>          | data table | <b>removesetup</b>      | function |
| <b>filter</b>            | function   | <b>resetcdata</b>       | function |
| <b>filterlist</b>        | function   | <b>resetsetups</b>      | function |
| <b>first</b>             | function   | <b>resolvedentity</b>   | function |

|                         |          |
|-------------------------|----------|
| <b>root</b>             | function |
| <b>save</b>             | function |
| <b>serialize</b>        | function |
| <b>setaction</b>        | function |
| <b>setcdata</b>         | function |
| <b>setcommandtonone</b> | function |
| <b>setcommandtotext</b> | function |
| <b>setsetup</b>         | function |
| <b>snippet</b>          | function |
| <b>sorters</b>          | table    |
| F add                   |          |
| F compare               |          |
| F flush                 |          |
| F reset                 |          |
| F show                  |          |
| F sort                  |          |
| <b>splitid</b>          | function |

|                      |            |
|----------------------|------------|
| <b>startraw</b>      | function   |
| <b>startunesaped</b> | function   |
| <b>stopraw</b>       | function   |
| <b>stopunesaped</b>  | function   |
| <b>store</b>         | function   |
| <b>strip</b>         | function   |
| <b>stripped</b>      | function   |
| <b>tag</b>           | function   |
| <b>text</b>          | function   |
| <b>tobuffer</b>      | function   |
| <b>tofile</b>        | function   |
| <b>toparameters</b>  | function   |
| <b>toverbatim</b>    | function   |
| <b>verbatim</b>      | function   |
| <b>withindex</b>     | function   |
| <b>xmltexhandler</b> | data table |



## math (basic lua)

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

# mathematics (context)

|                               |            |                               |            |
|-------------------------------|------------|-------------------------------|------------|
| <b>addfallbacks</b>           | function   | <b>makefont</b>               | function   |
| <b>alphabets</b>              | data table | <b>mapremap</b>               | data table |
| <b>alternatives</b>           | data table | <b>overloadadditions</b>      | function   |
| <b>big</b>                    | function   | <b>overloadparameters</b>     | function   |
| <b>boldmap</b>                | data table | <b>privatebase</b>            | number     |
| <b>categories</b>             | table      | <b>registerdomain</b>         | function   |
| D functions                   |            | <b>remapalphabets</b>         | function   |
| <b>charactersets</b>          | data table | <b>renderings</b>             | table      |
| <b>checkaccentbaseheight</b>  | function   | D mappings                    |            |
| <b>checkprivateparameters</b> | function   | D numbers                     |            |
| <b>classes</b>                | data table | D sets                        |            |
| <b>codes</b>                  | data table | <b>renderset</b>              | function   |
| <b>define</b>                 | function   | <b>resetattributes</b>        | function   |
| <b>dimensions</b>             | function   | <b>resetitalics</b>           | function   |
| <b>domains</b>                | table      | <b>scaleparameters</b>        | function   |
| <b>extensiblecode</b>         | function   | <b>setalternate</b>           | function   |
| <b>extensibles</b>            | data table | <b>setdomain</b>              | function   |
| <b>extrabase</b>              | number     | <b>setitalics</b>             | function   |
| <b>extras</b>                 | table      | <b>sets</b>                   | data table |
| F add                         |            | <b>styles</b>                 | data table |
| F copy                        |            | <b>syncboth</b>               | function   |
| <b>fallbacks</b>              | table      | <b>syncname</b>               | function   |
| F apply                       |            | <b>syncstyle</b>              | function   |
| F install                     |            | <b>toname</b>                 | function   |
| <b>fallbackstyleattr</b>      | function   | <b>tostyle</b>                | function   |
| <b>families</b>               | data table | <b>tweakaftercopyingfont</b>  | function   |
| <b>gaps</b>                   | data table | <b>tweakbeforecopyingfont</b> | function   |
| <b>getboth</b>                | function   | <b>tweaks</b>                 | table      |
| <b>getdomain</b>              | function   | <b>utfmathaccent</b>          | function   |
| <b>getitalics</b>             | function   | <b>utfmathclass</b>           | function   |
| <b>getstyle</b>               | function   | <b>utfmathcommand</b>         | function   |
| <b>horizontalcode</b>         | function   | <b>utfmathfiller</b>          | function   |
| <b>initializeparameters</b>   | function   | <b>utfmathstretch</b>         | function   |
| <b>injectfallbacks</b>        | function   |                               |            |

## mbox (context)

|                      |          |
|----------------------|----------|
| <b>parse</b>         | function |
| <b>parse_from</b>    | function |
| <b>parse_header</b>  | function |
| <b>parse_headers</b> | function |

|                      |          |
|----------------------|----------|
| <b>parse_message</b> | function |
| <b>split_headers</b> | function |
| <b>split_mbox</b>    | function |
| <b>split_message</b> | function |

## md5 (extra lua)

|                |          |
|----------------|----------|
| <b>HEX</b>     | function |
| <b>crypt</b>   | function |
| <b>dec</b>     | function |
| <b>decrypt</b> | function |

|                |          |
|----------------|----------|
| <b>exor</b>    | function |
| <b>hex</b>     | function |
| <b>sum</b>     | function |
| <b>sumhexa</b> | function |

# metapost (context)

|                         |            |                               |          |
|-------------------------|------------|-------------------------------|----------|
| <b>analyzeplugins</b>   | function   | <b>gettext</b>                | function |
| <b>checkformat</b>      | function   | <b>graphic</b>                | function |
| <b>checktexts</b>       | function   | <b>graphic_base_pass</b>      | function |
| <b>collapse</b>         | boolean    | <b>initializescriptrunner</b> | function |
| <b>colorinitializer</b> | function   | <b>instance</b>               | function |
| <b>convert</b>          | function   | <b>intermediate</b>           | table    |
| <b>defaultformat</b>    | string     | T actions                     |          |
| <b>defaultinstance</b>  | string     | F makempy                     |          |
| <b>defaultmethod</b>    | string     | <b>lastlog</b>                | string   |
| <b>directrun</b>        | function   | <b>load</b>                   | function |
| <b>escaped</b>          | function   | <b>makempy</b>                | table    |
| <b>exectime</b>         | table      | N nofconverted                |          |
| <b>extensiondata</b>    | data table | F processgraphics             |          |
| <b>filterclippath</b>   | function   | F registerfile                |          |
| <b>flush</b>            | function   | <b>maketext</b>               | function |
| <b>flushers</b>         | table      | <b>metafun</b>                | table    |
| T pdf                   |            | F interpolate                 |          |
| F comment               |            | F topath                      |          |
| F flushfigure           |            | <b>method</b>                 | number   |
| F startfigure           |            | <b>mptopdf</b>                | table    |
| F stopfigure            |            | F convertmpstopdf             |          |
| F textfigure            |            | N nofconverted                |          |
| <b>flushliteral</b>     | function   | <b>n</b>                      | number   |
| <b>flushnormalpath</b>  | function   | <b>nvformat</b>               | function |
| <b>flushreset</b>       | function   | <b>optimize</b>               | boolean  |
| <b>fonts</b>            | table      | <b>parse</b>                  | function |
| F define                |            | <b>pdfliterals</b>            | function |
| T flusher               |            | <b>pluginactions</b>          | function |
| F flushfigure           |            | <b>process</b>                | function |
| F startfigure           |            | <b>processplugins</b>         | function |
| F stopfigure            |            | <b>processspecial</b>         | function |
| N instances             |            | <b>properties</b>             | table    |
| F process               |            | <b>quickanddirty</b>          | function |
| <b>format</b>           | function   | <b>reducetogray</b>           | boolean  |
| <b>format_number</b>    | function   | <b>reporterror</b>            | function |
| <b>format_string</b>    | function   | <b>reset</b>                  | function |
| <b>formatnumber</b>     | function   | <b>resetlastlog</b>           | function |
| <b>getclippath</b>      | function   | <b>resetplugins</b>           | function |
| <b>getextensions</b>    | function   | <b>runscript</b>              | function |
| <b>getjobdata</b>       | function   | <b>scripterror</b>            | function |
| <b>getstatistics</b>    | function   | <b>setextensions</b>          | function |

**setoutercolor**

**settext**

**showlog**

**simple**

**svformat**

**tex**

F get

F reset

F set

function

function

boolean

function

function

table

F setfrombuffer

**texerrors**

**texttextsdata**

**theclippath**

**totable**

**unload**

**untagvariable**

**variables**

boolean

function

function

function

function

function

table

## 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

## mp (context)

|                             |          |                            |          |
|-----------------------------|----------|----------------------------|----------|
| <b>BackSpace</b>            | function | <b>OverlayDepth</b>        | function |
| <b>BaselineSkip</b>         | function | <b>OverlayHeight</b>       | function |
| <b>BodyFontSize</b>         | function | <b>OverlayLineWidth</b>    | function |
| <b>BottomDistance</b>       | function | <b>OverlayOffset</b>       | function |
| <b>BottomHeight</b>         | function | <b>OverlayWidth</b>        | function |
| <b>BottomSpace</b>          | function | <b>PageDepth</b>           | function |
| <b>CurrentColumn</b>        | function | <b>PageFraction</b>        | function |
| <b>CurrentHeight</b>        | function | <b>PageNumber</b>          | function |
| <b>CurrentWidth</b>         | function | <b>PageOffset</b>          | function |
| <b>CutSpace</b>             | function | <b>PaperBleed</b>          | function |
| <b>EmWidth</b>              | function | <b>PaperHeight</b>         | function |
| <b>ExHeight</b>             | function | <b>PaperWidth</b>          | function |
| <b>FooterDistance</b>       | function | <b>PrintPaperHeight</b>    | function |
| <b>FooterHeight</b>         | function | <b>PrintPaperWidth</b>     | function |
| <b>HSize</b>                | function | <b>RealPageNumber</b>      | function |
| <b>HeaderDistance</b>       | function | <b>RightEdgeDistance</b>   | function |
| <b>HeaderHeight</b>         | function | <b>RightEdgeWidth</b>      | function |
| <b>InPageBody</b>           | function | <b>RightMarginDistance</b> | function |
| <b>InnerEdgeDistance</b>    | function | <b>RightMarginWidth</b>    | function |
| <b>InnerEdgeWidth</b>       | function | <b>SpineWidth</b>          | function |
| <b>InnerMarginDistance</b>  | function | <b>StrutDepth</b>          | function |
| <b>InnerMarginWidth</b>     | function | <b>StrutHeight</b>         | function |
| <b>LastPageNumber</b>       | function | <b>TextHeight</b>          | function |
| <b>LayoutColumnDistance</b> | function | <b>TextWidth</b>           | function |
| <b>LayoutColumnWidth</b>    | function | <b>TopDistance</b>         | function |
| <b>LayoutColumns</b>        | function | <b>TopHeight</b>           | function |
| <b>LeftEdgeDistance</b>     | function | <b>TopSkip</b>             | function |
| <b>LeftEdgeWidth</b>        | function | <b>TopSpace</b>            | function |
| <b>LeftMarginDistance</b>   | function | <b>VSize</b>               | function |
| <b>LeftMarginWidth</b>      | function | <b>_f_</b>                 | function |
| <b>LineHeight</b>           | function | <b>boolean</b>             | function |
| <b>MakeupHeight</b>         | function | <b>dataset</b>             | function |
| <b>MakeupWidth</b>          | function | <b>datasets</b>            | table    |
| <b>NOfColumns</b>           | function | <b>F load</b>              |          |
| <b>NOfPages</b>             | function | <b>defaultcolormodel</b>   | function |
| <b>OnOddPage</b>            | function | <b>format</b>              | function |
| <b>OnRightPage</b>          | function | <b>formatted</b>           | function |
| <b>OuterEdgeDistance</b>    | function | <b>get</b>                 | table    |
| <b>OuterEdgeWidth</b>       | function | <b>F boolean</b>           |          |
| <b>OuterMarginDistance</b>  | function | <b>F number</b>            |          |
| <b>OuterMarginWidth</b>     | function | <b>F numeric</b>           |          |



|                               |                       |                            |                       |
|-------------------------------|-----------------------|----------------------------|-----------------------|
| <code>F string</code>         |                       | <code>quoted</code>        | <code>function</code> |
| <code>get_outline_text</code> | <code>function</code> | <code>report</code>        | <code>function</code> |
| <code>graphformat</code>      | <code>function</code> | <code>size</code>          | <code>function</code> |
| <code>n</code>                | <code>function</code> | <code>tb_dimensions</code> | <code>function</code> |
| <code>numeric</code>          | <code>function</code> | <code>triplet</code>       | <code>function</code> |
| <code>pair</code>             | <code>function</code> | <code>tt_dimensions</code> | <code>function</code> |
| <code>path</code>             | <code>function</code> | <code>tt_initialize</code> | <code>function</code> |
| <code>print</code>            | <code>function</code> |                            |                       |
| <code>quadruple</code>        | <code>function</code> |                            |                       |

## mplib (extra tex)

|                    |          |                     |                     |
|--------------------|----------|---------------------|---------------------|
| <b>fields</b>      | function | <b>get_numeric</b>  | function            |
| <b>finder</b>      | function | <b>get_string</b>   | function            |
| <b>finders</b>     | table    | <b>new</b>          | overloaded function |
| F file             |          | <b>pen_info</b>     | function            |
| <b>get_boolean</b> | function | <b>preprocessed</b> | function            |
| <b>get_number</b>  | function | <b>version</b>      | function            |

# noads (context)

**handlers**            table

- F alternates
- F autofences
- F classes
- F collapse
- F domains
- F families
- F italics
- F relocate
- F render
- F resize
- F showtree
- F tags

F unscript

F variants

**process**            function

**processnested**    function

**processors**        table

T autofences

T collapse

F mlist\_to\_hlist

T relocate

T render

T resize

T unscript

**processouter**     function

# node (basic tex)

|                          |                 |                        |
|--------------------------|-----------------|------------------------|
| <b>copy</b>              | <b>function</b> | F insert_before        |
| <b>copy_list</b>         | <b>function</b> | F is_char              |
| <b>count</b>             | <b>function</b> | F is_direct            |
| <b>current_attr</b>      | <b>function</b> | F is_glyph             |
| <b>dimensions</b>        | <b>function</b> | F is_node              |
| <b>direct</b>            | <b>table</b>    | F is_zero_glue         |
| F copy                   |                 | F kerning              |
| F copy_list              |                 | F last_node            |
| F count                  |                 | F length               |
| F current_attr           |                 | F ligaturing           |
| F dimensions             |                 | F new                  |
| F do_ligature_n          |                 | F protect_glyph        |
| F effective_glue         |                 | F protect_glyphs       |
| F end_of_math            |                 | F protrusion_skippable |
| F find_attribute         |                 | F remove               |
| F first_glyph            |                 | F set_attribute        |
| F flush_list             |                 | F set_properties_mode  |
| F flush_node             |                 | F setboth              |
| F flush_properties_table |                 | F setbox               |
| F free                   |                 | F setchar              |
| F get_attribute          |                 | F setdisc              |
| F get_properties_table   |                 | F setfield             |
| F getboth                |                 | F setglue              |
| F getbox                 |                 | F setleader            |
| F getchar                |                 | F setlink              |
| F getdisc                |                 | F setlist              |
| F getfield               |                 | F setnext              |
| F getfont                |                 | F setprev              |
| F getglue                |                 | F setproperty          |
| F getid                  |                 | F setsubtype           |
| F getleader              |                 | F slide                |
| F getlist                |                 | F tail                 |
| F getnext                |                 | F todirect             |
| F getprev                |                 | F tonode               |
| F getproperty            |                 | F toString             |
| F getsubtype             |                 | F traverse             |
| F has_attribute          |                 | F traverse_char        |
| F has_field              |                 | F traverse_id          |
| F has_glyph              |                 | F unprotect_glyphs     |
| F hpack                  |                 | F unset_attribute      |
| F insert_after           |                 | F usedlist             |

|                               |          |                             |          |
|-------------------------------|----------|-----------------------------|----------|
| F vpack                       |          | <b>is_zero_glue</b>         | function |
| F write                       |          | <b>kerning</b>              | function |
| <b>do_ligature_n</b>          | function | <b>last_node</b>            | function |
| <b>effective_glue</b>         | function | <b>length</b>               | function |
| <b>end_of_math</b>            | function | <b>ligaturing</b>           | function |
| <b>family_font</b>            | function | <b>mlist_to_hlist</b>       | function |
| <b>fields</b>                 | function | <b>new</b>                  | function |
| <b>find_attribute</b>         | function | <b>next</b>                 | function |
| <b>first_glyph</b>            | function | <b>prev</b>                 | function |
| <b>flush_list</b>             | function | <b>protect_glyph</b>        | function |
| <b>flush_node</b>             | function | <b>protect_glyphs</b>       | function |
| <b>flush_properties_table</b> | function | <b>protrusion_skippable</b> | function |
| <b>free</b>                   | function | <b>remove</b>               | function |
| <b>get_attribute</b>          | function | <b>set_attribute</b>        | function |
| <b>get_properties_table</b>   | function | <b>set_properties_mode</b>  | function |
| <b>getboth</b>                | function | <b>setboth</b>              | function |
| <b>getchar</b>                | function | <b>setfield</b>             | function |
| <b>getdisc</b>                | function | <b>setglue</b>              | function |
| <b>getfield</b>               | function | <b>setlink</b>              | function |
| <b>getfont</b>                | function | <b>setnext</b>              | function |
| <b>getglue</b>                | function | <b>setprev</b>              | function |
| <b>getid</b>                  | function | <b>setProperty</b>          | function |
| <b>getleader</b>              | function | <b>slide</b>                | function |
| <b>getlist</b>                | function | <b>subtype</b>              | function |
| <b>getnext</b>                | function | <b>subtypes</b>             | function |
| <b>getprev</b>                | function | <b>tail</b>                 | function |
| <b>getproperty</b>            | function | <b>tostring</b>             | function |
| <b>getsubtype</b>             | function | <b>traverse</b>             | function |
| <b>has_attribute</b>          | function | <b>traverse_char</b>        | function |
| <b>has_field</b>              | function | <b>traverse_id</b>          | function |
| <b>has_glyph</b>              | function | <b>type</b>                 | function |
| <b>hpack</b>                  | function | <b>types</b>                | function |
| <b>id</b>                     | function | <b>unprotect_glyphs</b>     | function |
| <b>insert_after</b>           | function | <b>unset_attribute</b>      | function |
| <b>insert_before</b>          | function | <b>usedlist</b>             | function |
| <b>is_char</b>                | function | <b>vpack</b>                | function |
| <b>is_glyph</b>               | function | <b>whatsits</b>             | function |
| <b>is_node</b>                | function | <b>write</b>                | function |

# nodes (context)

|                           |            |                               |            |
|---------------------------|------------|-------------------------------|------------|
| <b>accentcodes</b>        | data table | <b>firstcharinbox</b>         | function   |
| <b>aligned</b>            | function   | <b>firstdirinbox</b>          | function   |
| <b>append</b>             | function   | <b>firstglyph</b>             | function   |
| <b>astable</b>            | function   | <b>flush_list</b>             | function   |
| <b>basepoints</b>         | function   | <b>flush_node</b>             | function   |
| <b>boundarycodes</b>      | data table | <b>free</b>                   | function   |
| <b>boxes</b>              | table      | <b>fullhpack</b>              | function   |
| F dimensions              |            | <b>getbox</b>                 | function   |
| F direct                  |            | <b>getchar</b>                | function   |
| F reset                   |            | <b>getdisc</b>                | function   |
| F restore                 |            | <b>getfield</b>               | function   |
| F save                    |            | <b>getfont</b>                | function   |
| <b>builders</b>           | table      | <b>getglue</b>                | function   |
| F buildpage_filter        |            | <b>getid</b>                  | function   |
| F vpack_filter            |            | <b>getleader</b>              | function   |
| <b>codes</b>              | data table | <b>getlist</b>                | function   |
| <b>concat</b>             | function   | <b>getnext</b>                | function   |
| <b>copy</b>               | function   | <b>getprev</b>                | function   |
| <b>copy_list</b>          | function   | <b>getskip</b>                | function   |
| <b>count</b>              | function   | <b>getsubtype</b>             | function   |
| <b>current_attr</b>       | function   | <b>gluecodes</b>              | data table |
| <b>delete</b>             | function   | <b>glyphcodes</b>             | data table |
| <b>destinations</b>       | table      | <b>glyphdir_is_equal</b>      | data table |
| N attribute               |            | <b>glyphdir_is_opposite</b>   | data table |
| T done                    |            | <b>glyphdir_is_orthogonal</b> | data table |
| F handler                 |            | <b>handlers</b>               | table      |
| T stack                   |            | F accessibility               |            |
| <b>dimensionfields</b>    | data table | F alignbackgrounds            |            |
| <b>dimensions</b>         | function   | F backgrounds                 |            |
| <b>dir_is_pop</b>         | data table | F characters                  |            |
| <b>dir_negation</b>       | data table | F checkforleaks               |            |
| <b>disccodes</b>          | data table | F checkglyphs                 |            |
| <b>discretionarycodes</b> | data table | F cleanupbox                  |            |
| <b>do_ligature_n</b>      | function   | F cleanuppage                 |            |
| <b>effective_glue</b>     | function   | F export                      |            |
| <b>end_of_math</b>        | function   | F finalize                    |            |
| <b>fencecodes</b>         | data table | F migrate                     |            |
| <b>fields</b>             | function   | F protectglyphs               |            |
| <b>fillcodes</b>          | data table | F stripping                   |            |
| <b>first_glyph</b>        | function   | F unprotectglyphs             |            |
| <b>firstcharacter</b>     | function   | <b>has_attribute</b>          | function   |

|                                |            |                        |            |
|--------------------------------|------------|------------------------|------------|
| <b>has_field</b>               | function   | F define               |            |
| <b>has_glyph</b>               | function   | F enable               |            |
| <b>hpack</b>                   | function   | F handler              |            |
| <b>idstousing</b>              | function   | <b>lines</b>           | table      |
| <b>ignorablefields</b>         | data table | T boxed                |            |
| <b>injections</b>              | table      | F register             |            |
| F copy                         |            | F setup                |            |
| F getligaindex                 |            | F stage_one            |            |
| F handler                      |            | F stage_two            |            |
| F installnewkern               |            | D data                 |            |
| F keepcounts                   |            | F finalize             |            |
| F reset                        |            | F number               |            |
| F resetcounts                  |            | N scratchbox           |            |
| F setcursive                   |            | <b>link</b>            | function   |
| F setkern                      |            | <b>linked</b>          | function   |
| F setligaindex                 |            | <b>list</b>            | function   |
| F setmark                      |            | <b>listablefields</b>  | data table |
| F setpair                      |            | <b>listcodes</b>       | data table |
| F setspacekerns                |            | <b>listtutf</b>        | function   |
| <b>insert_after</b>            | function   | <b>load</b>            | function   |
| <b>insert_before</b>           | function   | <b>locate</b>          | function   |
| <b>insert_list_after</b>       | function   | <b>margincodes</b>     | data table |
| <b>installattributehandler</b> | function   | <b>marginkerncodes</b> | data table |
| <b>is_char</b>                 | function   | <b>markers</b>         | table      |
| <b>is_direct</b>               | function   | F get                  |            |
| <b>is_display_math</b>         | function   | <b>mathcodes</b>       | data table |
| <b>is_glyph</b>                | function   | <b>maxboxwidth</b>     | function   |
| <b>is_mirrored</b>             | data table | <b>mlist_to_hlist</b>  | function   |
| <b>is_node</b>                 | function   | <b>new</b>             | function   |
| <b>is_nut</b>                  | function   | <b>noadcodes</b>       | data table |
| <b>is_rotated</b>              | data table | <b>nodecodes</b>       | data table |
| <b>is_zero_glue</b>            | function   | <b>nopts</b>           | function   |
| <b>ischar</b>                  | function   | <b>nuts</b>            | table      |
| <b>isglyph</b>                 | function   | F append               |            |
| <b>kerncodes</b>               | data table | F concat               |            |
| <b>kerning</b>                 | function   | F copy                 |            |
| <b>keys</b>                    | table      | F copy_list            |            |
| T whatsit                      |            | F copy_properties      |            |
| <b>last_node</b>               | function   | F copyvisual           |            |
| <b>leadercodes</b>             | data table | F count                |            |
| <b>leftmarginwidth</b>         | function   | F current_attr         |            |
| <b>ligaturing</b>              | function   | F delete               |            |
| <b>linefillers</b>             | table      | F dimensions           |            |
| D data                         |            | F do_ligature_n        |            |

|                     |                     |
|---------------------|---------------------|
| F effective_glue    | F last_node         |
| F end_of_math       | F leftmarginwidth   |
| F first_glyph       | F ligaturing        |
| F firstcharacter    | F link              |
| F firstcharinbox    | F linked            |
| F firstglyph        | F locate            |
| F flush_list        | F mlist_to_hlist    |
| F flush_node        | F nestedtracedslide |
| F free              | F new               |
| F fullhpack         | T pool              |
| F getattr           | F baselineskip      |
| F getattribute      | F boundary          |
| F getboth           | F cleanup           |
| F getbox            | F disc              |
| F getchar           | F emptyrule         |
| F getdisc           | F fontkern          |
| F getfield          | F glue              |
| F getfont           | F gluespec          |
| F getglue           | F glyph             |
| F getid             | F hlist             |
| F getleader         | F italickern        |
| F getlist           | F kern              |
| F getnext           | F latelua           |
| F getprev           | F lateluafunction   |
| F getprop           | F leftmarginkern    |
| F getskip           | F leftskip          |
| F getsubtype        | F lineskip          |
| F has_attribute     | F negatedglue       |
| F has_field         | F noad              |
| F has_glyph         | F pdfannotation     |
| F hpack             | F pdfdestination    |
| F insert_after      | F pdfdirect         |
| F insert_before     | F pdfliteral        |
| F insert_list_after | F pdfrestore        |
| F is_char           | F pdfsave           |
| F is_direct         | F pdfsetmatrix      |
| F is_display_math   | F penalty           |
| F is_glyph          | F register          |
| F is_node           | F rightmarginkern   |
| F is_nut            | F rightskip         |
| F is_zero_glue      | F rule              |
| F ischar            | F shrink            |
| F isglyph           | F special           |
| F kerning           | F stretch           |



F temp  
 F textdir  
 F usage  
 F userattributes  
 T userids  
   N margins.inline  
   N property  
   N splitters.one  
   N splitters.two  
 F userlist  
 F userlua  
 F usernumber  
 F userrule  
 F userstring  
 F usertokens  
 F vlist  
 F wordboundary  
 F zeroglue  
 F prepend  
 F protect\_glyph  
 F protect\_glyphs  
 F protrusion\_skippable  
 F rawprop  
 F reference  
 F rehpack  
 F remove  
 F repackhlist  
 F replace  
 F rightmarginwidth  
 F set\_attribute  
 F setattr  
 F setattribute  
 F setattributes  
 F setboth  
 F setbox  
 F setchar  
 F setdisc  
 F setfield  
 F setglue  
 F setleader  
 F setlink  
 F setlist  
 F setnext  
 F setprev

F setprop  
 F setsubtype  
 F setunsetattributes  
 F setvisual  
 F setvisuals  
 F slide  
 F somepenalty  
 F somespace  
 F splitbox  
 F tail  
 F takebox  
 F takelist  
 F theprop  
 F tonode  
 F tonodes  
 F tonut  
 F tosequence  
 F toString  
 F tracedslide  
 F traverse  
 F traverse\_char  
 F traverse\_id  
 T typesetters  
   F tohbox  
   F tohpack  
   F tonodes  
   F tovbox  
   F tovpack  
 F unprotect\_glyphs  
 F unset\_attribute  
 F unsetattribute  
 F unsetattributes  
 F untracedslide  
 F usedlist  
 F vianodes  
 F vianuts  
 F vpack  
 F write

**packlist**  
**pardir\_is\_equal**  
**pardir\_is\_opposite**  
**pardir\_is\_parallel**  
**partextdir\_is\_equal**  
**penaltycodes**

function  
 data table  
 data table  
 data table  
 data table  
 data table

|                         |          |                            |            |
|-------------------------|----------|----------------------------|------------|
| <b>plugindata</b>       | table    | F delayed                  |            |
| F finalizer             |          | F fdelayed                 |            |
| F initializer           |          | F immediate                |            |
| S name                  |          | F attach                   |            |
| T namespace             |          | T data                     |            |
| N attribute             |          | F delayed                  |            |
| D data                  |          | <b>protect_glyph</b>       | function   |
| F enable                |          | <b>protect_glyphs</b>      | function   |
| F handler               |          | <b>protrusion_skipable</b> | function   |
| F register              |          | <b>pts</b>                 | function   |
| D registered            |          | <b>radicalcodes</b>        | data table |
| D values                |          | <b>reference</b>           | function   |
| F processor             |          | <b>references</b>          | table      |
| <b>points</b>           | function | N attribute                |            |
| <b>pool</b>             | table    | T done                     |            |
| F baselineskip          |          | F handler                  |            |
| F cleanup               |          | T stack                    |            |
| F glyph                 |          | <b>rehpack</b>             | function   |
| F hlist                 |          | <b>remove</b>              | function   |
| F kern                  |          | <b>repackhlist</b>         | function   |
| F latelua               |          | <b>replace</b>             | function   |
| F lateluafunction       |          | <b>report</b>              | function   |
| F lineskip              |          | <b>rightmarginwidth</b>    | function   |
| F pdfdirect             |          | <b>rulecodes</b>           | data table |
| F pdfliteral            |          | <b>rules</b>               | table      |
| F pdfrestore            |          | D data                     |            |
| F pdfsave               |          | F define                   |            |
| F pdfsetmatrix          |          | F enable                   |            |
| F register              |          | F handler                  |            |
| F rule                  |          | T ruleactions              |            |
| F special               |          | F draw                     |            |
| F usage                 |          | F fill                     |            |
| F usernumber            |          | F mp                       |            |
|                         |          | F stroke                   |            |
|                         |          | F userrule                 |            |
| <b>prepend</b>          | function | <b>save</b>                | function   |
| <b>print</b>            | function | <b>serialize</b>           | function   |
| <b>processors</b>       | table    | <b>serializebox</b>        | function   |
| B enabled               |          | <b>set_attribute</b>       | function   |
| F hpack_filter          |          | <b>setattributes</b>       | function   |
| F post_linebreak_filter |          | <b>setbox</b>              | function   |
| F pre_linebreak_filter  |          | <b>setboxtonaturalwd</b>   | function   |
| F tracer                |          | <b>setfield</b>            | function   |
| <b>processwords</b>     | function | <b>setglue</b>             | function   |
| <b>properties</b>       | table    |                            |            |
| T actions               |          |                            |            |

|                             |            |                            |            |
|-----------------------------|------------|----------------------------|------------|
| <b>setunsetattributes</b>   | function   | F table                    |            |
| <b>shifts</b>               | table      | <b>textdir_is_equal</b>    | data table |
| D data                      |            | <b>textdir_is_is</b>       | data table |
| F define                    |            | <b>textdir_is_opposite</b> | data table |
| F enable                    |            | <b>textdir_is_parallel</b> | data table |
| F handler                   |            | <b>tobasepoints</b>        | function   |
| <b>show</b>                 | function   | <b>tocentimeters</b>       | function   |
| <b>showboxes</b>            | function   | <b>tociceros</b>           | function   |
| <b>showcodes</b>            | function   | <b>todidots</b>            | function   |
| <b>showlist</b>             | function   | <b>todimen</b>             | function   |
| <b>showsimplelist</b>       | function   | <b>toinches</b>            | function   |
| <b>skipcodes</b>            | data table | <b>tomillimeters</b>       | function   |
| <b>slide</b>                | function   | <b>tonewciceros</b>        | function   |
| <b>snapshots</b>            | table      | <b>tonewdidots</b>         | function   |
| F getparameters             |            | <b>tonode</b>              | function   |
| F getsamples                |            | <b>tonodes</b>             | function   |
| F resetsamples              |            | <b>tonut</b>               | function   |
| F takesample                |            | <b>topicas</b>             | function   |
| <b>somepenalty</b>          | function   | <b>topoints</b>            | function   |
| <b>somespace</b>            | function   | <b>toscaledpoints</b>      | function   |
| <b>splitbox</b>             | function   | <b>tosequence</b>          | function   |
| <b>stripdiscretionaries</b> | function   | <b>tostring</b>            | function   |
| <b>stripping</b>            | table      | <b>totable</b>             | function   |
| T glyphs                    |            | <b>totree</b>              | function   |
| F set                       |            | <b>toutf</b>               | function   |
| <b>striprange</b>           | function   | <b>tracers</b>             | table      |
| <b>tail</b>                 | function   | T characters               |            |
| <b>takebox</b>              | function   | F collect                  |            |
| <b>tasks</b>                | table      | F equal                    |            |
| F actions                   |            | F start                    |            |
| F appendaction              |            | F string                   |            |
| F disableaction             |            | F unicodes                 |            |
| F disablegroup              |            | T colors                   |            |
| F enableaction              |            | F reset                    |            |
| F enablegroup               |            | F set                      |            |
| F freeze                    |            | F setlist                  |            |
| F freezegroup               |            | F fontchar                 |            |
| F new                       |            | T frequencies              |            |
| F prependaction             |            | F register                 |            |
| F removeaction              |            | T pool                     |            |
| F replaceaction             |            | T nodes                    |            |
| F restart                   |            | F rule                     |            |
| F setaction                 |            | T nuts                     |            |
| F showactions               |            | F rule                     |            |

|                      |          |                         |            |
|----------------------|----------|-------------------------|------------|
| F resetproperties    |          | F tonodes               |            |
| F rule               |          | F tovbox                |            |
| F setlist            |          | F tovpack               |            |
| F setproperties      |          | F vpack                 |            |
| F start              |          | <b>unprotect_glyphs</b> | function   |
| T steppers           |          | <b>unset_attribute</b>  | function   |
| F check              |          | <b>unsetattribute</b>   | function   |
| F codes              |          | <b>unsetattributes</b>  | function   |
| F features           |          | <b>usedlist</b>         | function   |
| F font               |          | <b>usercodes</b>        | data table |
| F glyphs             |          | <b>vianodes</b>         | function   |
| F message            |          | <b>vianuts</b>          | function   |
| F messages           |          | <b>visualizebox</b>     | function   |
| F nofsteps           |          | <b>visualizers</b>      | table      |
| F register           |          | F box                   |            |
| F reset              |          | F handler               |            |
| F start              |          | F markfonts             |            |
| F stop               |          | F setfont               |            |
| F stop               |          | F setlayer              |            |
| T transparencies     |          | F setvisual             |            |
| F reset              |          | <b>vpack</b>            | function   |
| F set                |          | <b>whatcodes</b>        | data table |
| F setlist            |          | <b>whatsitcodes</b>     | data table |
| <b>traverse</b>      | function | <b>whatsitters</b>      | table      |
| <b>traverse_char</b> | function | T getters               |            |
| <b>traverse_id</b>   | function | T dimensions            |            |
| <b>typesetters</b>   | table    | T width                 |            |
| F hbox               |          | T setters               |            |
| F hpack              |          | T dimensions            |            |
| F tohbox             |          | T width                 |            |
| F tohpack            |          | <b>write</b>            | function   |

## number (context)

|                       |            |                       |          |
|-----------------------|------------|-----------------------|----------|
|                       | function   | <b>tobitstring</b>    | function |
| <b>basepoints</b>     | function   | <b>tocentimeters</b>  | function |
| <b>bit</b>            | function   | <b>tociceros</b>      | function |
| <b>bits</b>           | function   | <b>todidots</b>       | function |
| <b>clearbit</b>       | function   | <b>todimen</b>        | function |
| <b>dimenfactors</b>   | data table | <b>toevenhex</b>      | function |
| <b>formatted</b>      | function   | <b>toinches</b>       | function |
| <b>hasbit</b>         | function   | <b>tomillimeters</b>  | function |
| <b>maxdimen</b>       | number     | <b>tonewciceros</b>   | function |
| <b>nopts</b>          | function   | <b>tonewdidots</b>    | function |
| <b>percent</b>        | function   | <b>tonumberf</b>      | function |
| <b>points</b>         | function   | <b>tonumberg</b>      | function |
| <b>pts</b>            | function   | <b>topicsas</b>       | function |
| <b>setbit</b>         | function   | <b>topoints</b>       | function |
| <b>signed</b>         | function   | <b>toscaled</b>       | function |
| <b>sparseexponent</b> | function   | <b>toscaledpoints</b> | function |
| <b>splitdimen</b>     | function   | <b>toset</b>          | function |
| <b>tobasepoints</b>   | function   | <b>valid</b>          | function |

## objects (context)

|                   |          |                  |          |
|-------------------|----------|------------------|----------|
| <b>data</b>       | table    | <b>page</b>      | function |
| <b>dimensions</b> | function | <b>reference</b> | function |
| <b>found</b>      | function | <b>register</b>  | function |
| <b>n</b>          | number   | <b>restore</b>   | function |

## os (basic lua)

|                     |                     |                      |                     |
|---------------------|---------------------|----------------------|---------------------|
| <b>__getenv__</b>   | function            | <b>remove</b>        | overloaded function |
| <b>__setenv__</b>   | function            | <b>rename</b>        | overloaded function |
| <b>binsuffix</b>    | string              | <b>resolvers</b>     | table               |
| <b>binsuffixes</b>  | table               | <b>  F bits</b>      |                     |
| <b>clock</b>        | function            | <b>resultof</b>      | function            |
| <b>converttime</b>  | function            | <b>runtime</b>       | function            |
| <b>date</b>         | function            | <b>selfdir</b>       | string              |
| <b>difftime</b>     | function            | <b>setenv</b>        | overloaded function |
| <b>env</b>          | data table          | <b>setlocale</b>     | overloaded function |
| <b>exec</b>         | overloaded function | <b>sleep</b>         | function            |
| <b>execute</b>      | overloaded function | <b>spawn</b>         | overloaded function |
| <b>exit</b>         | function            | <b>time</b>          | function            |
| <b>fulltime</b>     | function            | <b>times</b>         | function            |
| <b>getenv</b>       | overloaded function | <b>timezone</b>      | function            |
| <b>gettimeofday</b> | function            | <b>tmpdir</b>        | function            |
| <b>isleapyear</b>   | function            | <b>tmpname</b>       | function            |
| <b>launch</b>       | function            | <b>today</b>         | function            |
| <b>libsuffix</b>    | string              | <b>type</b>          | string              |
| <b>localtime</b>    | function            | <b>uname</b>         | function            |
| <b>name</b>         | string              | <b>uuid</b>          | function            |
| <b>newline</b>      | string              | <b>validdatetime</b> | function            |
| <b>nofdays</b>      | function            | <b>weekday</b>       | function            |
| <b>now</b>          | function            | <b>where</b>         | function            |
| <b>platform</b>     | string              | <b>which</b>         | function            |

## package (basic lua)

|                      |          |                   |          |
|----------------------|----------|-------------------|----------|
| <b>config</b>        | string   | <b>loaded</b>     | table    |
| <b>cpath</b>         | string   | <b>loaders</b>    | table    |
| <b>extralibpath</b>  | function | <b>loadlib</b>    | function |
| <b>extralibpaths</b> | function | <b>luapaths</b>   | function |
| <b>extralupath</b>   | function | <b>path</b>       | string   |
| <b>extralupaths</b>  | function | <b>preload</b>    | table    |
| <b>helpers</b>       | table    | <b>searchpath</b> | function |
| <b>libpaths</b>      | function | <b>seeall</b>     | function |



# pagebuilders (context)

## columnsets      table

- F add
- F block
- F check
- F currentcolumn
- F define
- F finishflush
- F flushareas
- F flushcolumn
- F flushrest
- F goto
- F noto
- F prepareflush
- F put
- F registerarea
- F reset
- F setarea

- F sethsize
- F sethspace
- F setlines
- F setproperties
- F setstart
- F setvsize

## injections      table

- F flushafter
- F flushbefore
- F save

## mixedcolumns      table

- F cleanup
- F finalize
- F getlist
- F getrest
- F getsplit
- F setsplit

## pdf (basic tex)

|                                |          |                                |                     |
|--------------------------------|----------|--------------------------------|---------------------|
| <b>fontname</b>                | function | <b>immediateobj</b>            | function            |
| <b>fontobjnum</b>              | function | <b>mapfile</b>                 | function            |
| <b>fontsize</b>                | function | <b>mapline</b>                 | function            |
| <b>getcatalog</b>              | function | <b>maxobjnum</b>               | function            |
| <b>getcompresslevel</b>        | function | <b>newcolorstack</b>           | function            |
| <b>getdecimaldigits</b>        | function | <b>obj</b>                     | function            |
| <b>getdestmargin</b>           | function | <b>objtype</b>                 | function            |
| <b>gethpos</b>                 | function | <b>pageref</b>                 | function            |
| <b>getignoreunknownimages</b>  | function | <b>print</b>                   | function            |
| <b>getimageresolution</b>      | function | <b>refobj</b>                  | function            |
| <b>getinclusionerrorlevel</b>  | function | <b>registerannot</b>           | overloaded function |
| <b>getinfo</b>                 | function | <b>reserveobj</b>              | function            |
| <b>getlastannot</b>            | function | <b>setcatalog</b>              | overloaded function |
| <b>getlastlink</b>             | function | <b>setcompresslevel</b>        | function            |
| <b>getlastobj</b>              | function | <b>setdecimaldigits</b>        | function            |
| <b>getlinkmargin</b>           | function | <b>setdestmargin</b>           | function            |
| <b>getmajorversion</b>         | function | <b>setignoreunknownimages</b>  | function            |
| <b>getmatrix</b>               | function | <b>setimageresolution</b>      | function            |
| <b>getminorversion</b>         | function | <b>setinclusionerrorlevel</b>  | function            |
| <b>getnames</b>                | function | <b>setinfo</b>                 | overloaded function |
| <b>getobjcompresslevel</b>     | function | <b>setlinkmargin</b>           | function            |
| <b>getorigin</b>               | function | <b>setmajorversion</b>         | function            |
| <b>getpageattributes</b>       | function | <b>setminorversion</b>         | function            |
| <b>getpageresources</b>        | function | <b>setnames</b>                | overloaded function |
| <b>getpagesattributes</b>      | function | <b>setobjcompresslevel</b>     | function            |
| <b>getpkresolution</b>         | function | <b>setorigin</b>               | function            |
| <b>getpos</b>                  | function | <b>setpageattributes</b>       | overloaded function |
| <b>getretval</b>               | function | <b>setpageresources</b>        | overloaded function |
| <b>getsuppressoptionalinfo</b> | function | <b>setpagesattributes</b>      | overloaded function |
| <b>getthreadmargin</b>         | function | <b>setpkresolution</b>         | function            |
| <b>gettrailer</b>              | function | <b>setsuppressoptionalinfo</b> | function            |
| <b>gettrailerid</b>            | function | <b>setthreadmargin</b>         | function            |
| <b>getversion</b>              | function | <b>settrailer</b>              | overloaded function |
| <b>getvpos</b>                 | function | <b>settrailerid</b>            | function            |
| <b>getxformattributes</b>      | function | <b>setxformattributes</b>      | function            |
| <b>getxformmargin</b>          | function | <b>setxformmargin</b>          | function            |
| <b>getxformresources</b>       | function | <b>setxformresources</b>       | function            |
| <b>hasmatrix</b>               | function | <b>xformname</b>               | function            |

# pdfscanner (context)

**scan** function

# physics (context)

**units** table

F registerunit

D tables

## profiler (extra lua)

**pause**    function  
**resume**   function

**start**    function  
**stop**     function

# publications (context)

|                             |            |              |
|-----------------------------|------------|--------------|
| <b>addtexentry</b>          | function   | S author     |
| <b>analyze</b>              | function   | T categories |
| <b>anywhere</b>             | function   | T article    |
| <b>authorcache</b>          | data table | S category   |
| <b>authorcollapsers</b>     | data table | T extra      |
| <b>authorhashers</b>        | table      | T fields     |
| F invertedshort             |            | S author     |
| F normal                    |            | S editor     |
| F normalinverted            |            | S journal    |
| F normalshort               |            | S keywords   |
| F short                     |            | S number     |
| <b>authormap</b>            | data table | S pages      |
| <b>authortoregister</b>     | function   | S title      |
| <b>casters</b>              | table      | S volume     |
| F author                    |            | S year       |
| F keyword                   |            | T optional   |
| F pagenumber                |            | T required   |
| F range                     |            | T sets       |
| <b>checkeddataset</b>       | function   | T author     |
| <b>citevariants</b>         | table      | T virtual    |
| F author                    |            | T book       |
| F authornum                 |            | S category   |
| F authoryear                |            | T extra      |
| F authoryears               |            | T fields     |
| F category                  |            | S address    |
| F default                   |            | S author     |
| F entry                     |            | S edition    |
| F index                     |            | S editor     |
| F keywords                  |            | S keywords   |
| F num                       |            | S number     |
| F page                      |            | S publisher  |
| F short                     |            | S subtitle   |
| F tag                       |            | S title      |
| F textnum                   |            | S volume     |
| F year                      |            | S year       |
| <b>collected</b>            | data table | T optional   |
| <b>components</b>           | table      | T required   |
| F author                    |            | T sets       |
| <b>concatstate</b>          | function   | T author     |
| <b>converttoxml</b>         | function   | T editionset |
| <b>currentspecification</b> | table      | T virtual    |

|                |                        |            |
|----------------|------------------------|------------|
| T demo-a       | T virtualfields        |            |
| S category     | B authornum            |            |
| T extra        | B authoryear           |            |
| T fields       | B authoryears          |            |
| S author       | B num                  |            |
| S institution  | B suffix               |            |
| S organization | <b>datasets</b>        | table      |
| S subtitle     | <b>detailed</b>        | table      |
| S title        | <b>endnotes_to_btx</b> | function   |
| S year         | <b>enhancer</b>        | table      |
| T optional     | S arguments            |            |
| T required     | T askip                |            |
| T sets         | B dirty                |            |
| T author       | T gskip                |            |
| T virtual      | T kind                 |            |
| T demo-b       | T list                 |            |
| S category     | T system               |            |
| T extra        | T order                |            |
| T fields       | <b>enhancers</b>       | table      |
| S author       | F details              |            |
| S institution  | F order                |            |
| S organization | F suffixes             |            |
| S subtitle     | <b>finder</b>          | function   |
| S title        | <b>firstofrange</b>    | function   |
| S year         | <b>found</b>           | function   |
| T optional     | <b>get</b>             | function   |
| T required     | <b>getcasted</b>       | function   |
| T sets         | <b>getdetail</b>       | function   |
| T authors      | <b>getdirect</b>       | function   |
| T virtual      | <b>getfaster</b>       | function   |
| S comment      | <b>getfield</b>        | function   |
| S copyright    | <b>getfuzzy</b>        | function   |
| T fields       | <b>getindex</b>        | function   |
| S name         | <b>inspectors</b>      | data table |
| T types        | <b>journals</b>        | table      |
| S author       | F abbreviated          |            |
| S editor       | F add                  |            |
| S keywords     | F expanded             |            |
| S number       | F load                 |            |
| S page         | F save                 |            |
| S pages        | <b>lastofrange</b>     | function   |
| S volume       | <b>lists</b>           | table      |
| S version      | F collectentries       |            |
| D virtual      | F combiinlist          |            |

|                            |          |                           |          |
|----------------------------|----------|---------------------------|----------|
| F fetchentries             |          | <b>okay</b>               | function |
| F filterall                |          | <b>oneorange</b>          | function |
| F flushcombi               |          | <b>parenttag</b>          | function |
| F flushentry               |          | <b>permitted</b>          | function |
| T methods                  |          | <b>refman_to_btx</b>      | function |
| F dataset                  |          | <b>resolvedname</b>       | function |
| F force                    |          | <b>save</b>               | function |
| F global                   |          | <b>search</b>             | function |
| F local                    |          | <b>setcategory</b>        | function |
| F nofreeregistered         |          | <b>setspecification</b>   | function |
| F prepareentries           |          | <b>singularorplural</b>   | function |
| F register                 |          | <b>sortedentries</b>      | function |
| F sameasprevious           |          | <b>sortmethods</b>        | table    |
| T sorters                  |          | T authoryear              |          |
| F cite                     |          | T sequence                |          |
| F dataset                  |          | <b>specifications</b>     | table    |
| F default                  |          | T default                 |          |
| F index                    |          | S author                  |          |
| F list                     |          | S comment                 |          |
| F reference                |          | S copyright               |          |
| F short                    |          | S name                    |          |
| F used                     |          | S version                 |          |
| F uservariable             |          | D virtual                 |          |
| <b>listvariants</b>        | table    | <b>splitauthor</b>        | function |
| F default                  |          | <b>splitoneauthor</b>     | function |
| F index                    |          | <b>statistics</b>         | table    |
| F num                      |          | N nofbytes                |          |
| F page                     |          | N nofdatasets             |          |
| F short                    |          | N nofdefinitions          |          |
| F tag                      |          | N nofshortcuts            |          |
| <b>load</b>                | function | <b>tables</b>             | table    |
| <b>loadbibdata</b>         | function | D implicits               |          |
| <b>loaddefinitionfile</b>  | function | D origins                 |          |
| <b>loaders</b>             | table    | D privates                |          |
| F bbl                      |          | D sets                    |          |
| F bib                      |          | D specials                |          |
| F buffer                   |          | D types                   |          |
| F endnote                  |          | D virtuals                |          |
| F lua                      |          | <b>tags</b>               | function |
| F refman                   |          | <b>tracers</b>            | table    |
| F registercleaner          |          | F showdatasetauthors      |          |
| F xml                      |          | F showdatasetcompleteness |          |
| <b>loadreplacementfile</b> | function | F showdatasetfields       |          |
| <b>new</b>                 | function | F showentry               |          |



|                     |       |                    |          |
|---------------------|-------|--------------------|----------|
| F showfields        |       | <b>usedataset</b>  | function |
| F showhashedauthors |       | <b>usedentries</b> | function |
| F showtables        |       | <b>writers</b>     | table    |
| F showvariants      |       | F author           |          |
| <b>typesetters</b>  | table | F keyword          |          |
| F author            |       | F pagenumber       |          |
| F string            |       | F range            |          |

## regimes (context)

|                   |          |
|-------------------|----------|
| <b>cleanup</b>    | function |
| <b>disable</b>    | function |
| <b>enable</b>     | function |
| <b>fromregime</b> | function |
| <b>pop</b>        | function |

|                  |          |
|------------------|----------|
| <b>process</b>   | function |
| <b>push</b>      | function |
| <b>toregime</b>  | function |
| <b>translate</b> | function |

# resolvers (context)

|                                     |            |                                |            |
|-------------------------------------|------------|--------------------------------|------------|
| <b>allprefixes</b>                  | function   | <b>findtexfile</b>             | function   |
| <b>appendhash</b>                   | function   | <b>findwildcardfile</b>        | function   |
| <b>automount</b>                    | function   | <b>findwildcardfiles</b>       | function   |
| <b>automounted</b>                  | table      | <b>formatofsuffix</b>          | function   |
| <b>booleanvariable</b>              | function   | <b>formatofvariable</b>        | function   |
| <b>cacheversion</b>                 | string     | <b>formats</b>                 | data table |
| <b>checkedvariable</b>              | function   | <b>generators</b>              | data table |
| <b>cleanedpathlist</b>              | function   | <b>get_from_content</b>        | function   |
| <b>cleanpath</b>                    | function   | <b>getenv</b>                  | function   |
| <b>cleanpathlist</b>                | function   | <b>getownpath</b>              | function   |
| <b>concatinators</b>                | data table | <b>getreadfilename</b>         | function   |
| <b>configbanner</b>                 | string     | <b>hashers</b>                 | data table |
| <b>criticalvars</b>                 | data table | <b>homedir</b>                 | string     |
| <b>dangerous</b>                    | data table | <b>inputstack</b>              | table      |
| <b>datastate</b>                    | function   | <b>installinputfilehandler</b> | function   |
| <b>defaultsuffixes</b>              | table      | <b>installinputlinehandler</b> | function   |
| <b>dowithfilesandreport</b>         | function   | <b>instance</b>                | table      |
| <b>dowithfilesintree</b>            | function   | D data                         |            |
| <b>dowithpath</b>                   | function   | B diskcache                    |            |
| <b>dowithvariable</b>               | function   | D environment                  |            |
| <b>env</b>                          | function   | D expansions                   |            |
| <b>executers</b>                    | table      | D fakepaths                    |            |
| <b>expandbraces</b>                 | function   | D files                        |            |
| <b>expandedpathfromlist</b>         | function   | B force_suffixes               |            |
| <b>expandedpathlist</b>             | function   | D found                        |            |
| <b>expandedpathlistfromvariable</b> | function   | D foundintrees                 |            |
| <b>expandpath</b>                   | function   | D hashed                       |            |
| <b>expandpathfromvariable</b>       | function   | D hashes                       |            |
| <b>expansion</b>                    | function   | D lists                        |            |
| <b>extendtexmfvariable</b>          | function   | B loaderror                    |            |
| <b>filtered_from_content</b>        | function   | D order                        |            |
| <b>find_file</b>                    | function   | D pathlists                    |            |
| <b>find_files</b>                   | function   | T pathstack                    |            |
| <b>findbinfile</b>                  | function   | B remember                     |            |
| <b>findctxfile</b>                  | function   | B renewcache                   |            |
| <b>finders</b>                      | data table | B renewtree                    |            |
| <b>findfile</b>                     | function   | B savelists                    |            |
| <b>findfiles</b>                    | function   | D setups                       |            |
| <b>findgivenfile</b>                | function   | D specification                |            |
| <b>findgivenfiles</b>               | function   | D variables                    |            |
| <b>findpath</b>                     | function   | <b>jobpath</b>                 | function   |

|                      |            |                               |            |
|----------------------|------------|-------------------------------|------------|
| <b>jobs</b>          | table      | <b>registerextrapath</b>      | function   |
| F currentcomponent   |            | <b>registerfile</b>           | function   |
| F currentenvironment |            | <b>registerfilehash</b>       | function   |
| F currentproduct     |            | <b>registerintrees</b>        | function   |
| F currentproject     |            | <b>registermethod</b>         | function   |
| F justacomponent     |            | <b>registerzipfile</b>        | function   |
| D processors         |            | <b>relations</b>              | data table |
| F productcomponent   |            | <b>renew</b>                  | function   |
| F usefile            |            | <b>repath</b>                 | function   |
| <b>joinpath</b>      | function   | <b>reset</b>                  | function   |
| <b>load</b>          | function   | <b>resetextrapath</b>         | function   |
| <b>loadbinfile</b>   | function   | <b>resetmemstream</b>         | function   |
| <b>loaders</b>       | data table | <b>resetresolve</b>           | function   |
| <b>loadlualib</b>    | function   | <b>resolve</b>                | function   |
| <b>loadtexfile</b>   | function   | <b>savers</b>                 | data table |
| <b>loadtime</b>      | function   | <b>scandata</b>               | function   |
| <b>locateformat</b>  | function   | <b>scanfiles</b>              | function   |
| <b>locators</b>      | data table | <b>schemes</b>                | table      |
| <b>luacnfname</b>    | string     | T cleaners                    |            |
| <b>luacnfspec</b>    | string     | F md5                         |            |
| <b>luacnfstate</b>   | string     | F none                        |            |
| <b>macros</b>        | table      | F strip                       |            |
| F convertfile        |            | F cleanname                   |            |
| F decodecomment      |            | F fetchstring                 |            |
| F enablecomment      |            | F fetchtable                  |            |
| F encodecomment      |            | F install                     |            |
| F preprocessed       |            | <b>setdynamic</b>             | function   |
| F processmk          |            | <b>setenv</b>                 | function   |
| F processmkvi        |            | <b>setinstance</b>            | function   |
| F version            |            | <b>setmemstream</b>           | function   |
| <b>maxreadlevel</b>  | number     | <b>showpath</b>               | function   |
| <b>methodhandler</b> | function   | <b>simplescanfiles</b>        | function   |
| <b>newinstance</b>   | function   | <b>splitconfigurationpath</b> | function   |
| <b>openbinfile</b>   | function   | <b>splitexpansions</b>        | function   |
| <b>openers</b>       | data table | <b>splitmethod</b>            | function   |
| <b>openfile</b>      | function   | <b>splitpath</b>              | function   |
| <b>opentexfile</b>   | function   | <b>stackpath</b>              | function   |
| <b>ownpath</b>       | string     | <b>suffixes</b>               | data table |
| <b>popextrapath</b>  | function   | <b>suffixmap</b>              | data table |
| <b>poppath</b>       | function   | <b>suffixofformat</b>         | function   |
| <b>prefixes</b>      | data table | <b>texdatablob</b>            | function   |
| <b>prependhash</b>   | function   | <b>toppath</b>                | function   |
| <b>pushextrapath</b> | function   | <b>unexpandedpath</b>         | function   |
| <b>pushpath</b>      | function   | <b>unexpandedpathlist</b>     | function   |

|                        |            |                                 |          |
|------------------------|------------|---------------------------------|----------|
| <b>unresolve</b>       | function   | <b>validatedpath</b>            | function |
| <b>updaterelations</b> | function   | <b>variable</b>                 | function |
| <b>updatescript</b>    | function   | <b>variableofformat</b>         | function |
| <b>uselibrary</b>      | function   | <b>variableofformatorsuffix</b> | function |
| <b>usertypes</b>       | data table | <b>wildcardpattern</b>          | function |
| <b>usezipfile</b>      | function   |                                 |          |

## sandbox (context)

|                       |          |
|-----------------------|----------|
| <b>binaryhandler</b>  | function |
| <b>disablerunners</b> | function |
| <b>enable</b>         | function |
| <b>filehandlerone</b> | function |
| <b>filehandlertwo</b> | function |
| <b>finalizer</b>      | function |
| <b>initializer</b>    | function |
| <b>iohandler</b>      | function |
| <b>logcalls</b>       | function |
| <b>logfiles</b>       | function |
| <b>original</b>       | function |
| <b>overload</b>       | function |
| <b>possiblepath</b>   | function |

|                          |          |
|--------------------------|----------|
| <b>redefine</b>          | function |
| <b>register</b>          | function |
| <b>registerbinary</b>    | function |
| <b>registerroot</b>      | function |
| <b>registerrunner</b>    | function |
| <b>report</b>            | function |
| <b>run</b>               | function |
| <b>runhandler</b>        | function |
| <b>setfilenamelogger</b> | function |
| <b>setlogger</b>         | function |
| <b>setreporter</b>       | function |
| <b>settrace</b>          | function |
| <b>validfilename</b>     | function |

# scripts (context)

**autofontfeature**    table

    F disable

    F enable

    F handler

**categorytonumber**   data table

**colors**                data table

**decomposehangul**    function

**defaults**             table

    N inter\_char\_half\_shrink\_factor

    N inter\_char\_half\_stretch\_factor

    N inter\_char\_hangul\_penalty

    N inter\_char\_quarter\_shrink\_factor

    N inter\_char\_quarter\_stretch\_factor

    N inter\_char\_shrink\_factor

    N inter\_char\_stretch\_factor

    N inter\_word\_stretch\_factor

**handlers**             data table

**hash**                  table

**injectors**            data table

**installdataset**      function

**installmethod**       function

**numbertocategory**    data table

**numbertodataset**    data table

**numbertohandler**    data table

**reset**                function

**set**                   function

**splitters**            data table

## set (context)

**contains**    function

**create**     function

**tolist**     function

**tonumber**   function

**totable**    function



# socket (extra lua)

**BLOCKSIZE** number  
**\_DEBUG** boolean  
**\_SETSIZE** number  
**bind** function  
**choose** function  
**connect** function  
**connect4** function  
**connect6** function  
**dns** table

F getaddrinfo  
F gethostname  
F getnameinfo  
F tohostname  
F toip

**ftp** table

S PASSWORD  
N PORT  
N TIMEOUT  
S USER  
F command  
F get  
F open  
F put

**gettime** function

**headers** table

T canonic  
S accept  
S accept-charset  
S accept-encoding  
S accept-language  
S accept-ranges  
S action  
S age  
S allow  
S alternate-recipient  
S arrival-date  
S authorization  
S bcc  
S cache-control  
S cc  
S comments

S connection  
S content-description  
S content-disposition  
S content-encoding  
S content-id  
S content-language  
S content-length  
S content-location  
S content-md5  
S content-range  
S content-transfer-encoding  
S content-type  
S date  
S diagnostic-code  
S dsn-gateway  
S etag  
S expect  
S expires  
S final-log-id  
S final-recipient  
S from  
S host  
S if-match  
S if-modified-since  
S if-none-match  
S if-range  
S if-unmodified-since  
S in-reply-to  
S keywords  
S last-attempt-date  
S last-modified  
S location  
S max-forwards  
S message-id  
S mime-version  
S original-envelope-id  
S original-recipient  
S pragma  
S proxy-authenticate  
S proxy-authorization  
S range

S received  
 S received-from-mta  
 S references  
 S referer  
 S remote-mta  
 S reply-to  
 S reporting-mta  
 S resent-bcc  
 S resent-cc  
 S resent-date  
 S resent-from  
 S resent-message-id  
 S resent-reply-to  
 S resent-sender  
 S resent-to  
 S retry-after  
 S return-path  
 S sender  
 S server  
 S smtp-remote-recipient  
 S status  
 S subject  
 S te  
 S to  
 S trailer  
 S transfer-encoding  
 S upgrade  
 S user-agent  
 S vary  
 S via  
 S warning  
 S will-retry-until  
 S www-authenticate  
 S x-mailer

**http**      **table**

N PORT  
 N TIMEOUT  
 S USERAGENT  
 F open  
 F request

**newtry**      **function**

**protect**      **function**  
**select**      **function**  
**sink**      **function**  
**sinkt**      **table**

F close-when-done  
 F default  
 F http-chunked  
 F keep-open

**skip**      **function**  
**sleep**      **function**  
**smtp**      **table**

S DOMAIN  
 N PORT  
 S SERVER  
 N TIMEOUT  
 S ZONE  
 F message  
 F open  
 F send

**source**      **function**  
**sourcet**      **table**

F by-length  
 F default  
 F http-chunked  
 F until-closed

**tcp**      **function**  
**tcp6**      **function**  
**tp**      **table**

N TIMEOUT  
 F connect

**try**      **function**  
**udp**      **function**  
**udp6**      **function**  
**url**      **table**

F absolute  
 F build  
 F build\_path  
 F escape  
 F parse  
 F parse\_path  
 F unescape

# sorters (context)

**basicsorter**      function

**comparers**        table

    F basic

**constants**        table

    S defaultdigits

    S defaultlanguage

    S defaultmethod

    N digitmaximum

    N digitoffset

    N ignoredoffset

    N replacementoffset

    T validmethods

        B ch

        B mc

        B mm

        B pc

    B pm

    B uc

    B zc

    B zm

**definitions**      data table

**firstofsplit**      function

**packch**            function

**packuc**            function

**setlanguage**      function

**sort**                function

**splitters**         table

    F utf

**strip**              function

**tracers**           data table

**update**            function

## statistics (context)

|                       |          |
|-----------------------|----------|
| <b>checkfmtstatus</b> | function |
| <b>elapsed</b>        | function |
| <b>elapsedindeed</b>  | function |
| <b>elapsedseconds</b> | function |
| <b>elapsedtime</b>    | function |
| <b>enable</b>         | boolean  |
| <b>formatruntime</b>  | function |
| <b>hastiming</b>      | function |
| <b>memused</b>        | function |
| <b>register</b>       | function |

|                      |          |
|----------------------|----------|
| <b>resettiming</b>   | function |
| <b>runtime</b>       | function |
| <b>savefmtstatus</b> | function |
| <b>show</b>          | function |
| <b>starttiming</b>   | function |
| <b>stoptiming</b>    | function |
| <b>threshold</b>     | number   |
| <b>timed</b>         | function |
| <b>tracefunction</b> | function |

## status (basic tex)

**list**                    function  
**resetmessages**    function

## storage (context)

|                   |          |                        |            |
|-------------------|----------|------------------------|------------|
| <b>allocate</b>   | function | <b>noftables</b>       | number     |
| <b>data</b>       | table    | <b>register</b>        | function   |
| <b>mark</b>       | function | <b>shared</b>          | data table |
| <b>marked</b>     | function | <b>storedfunctions</b> | data table |
| <b>max</b>        | number   | <b>strip</b>           | boolean    |
| <b>min</b>        | number   | <b>tofmodules</b>      | number     |
| <b>nofmodules</b> | number   | <b>toftables</b>       | number     |

## streams (context)

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

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

## string (basic lua)

|                       |          |                        |          |
|-----------------------|----------|------------------------|----------|
| <b>autodouble</b>     | function | <b>optionalquoted</b>  | function |
| <b>autosingle</b>     | function | <b>quote</b>           | function |
| <b>booleanstring</b>  | function | <b>quoted</b>          | function |
| <b>byte</b>           | function | <b>rep</b>             | function |
| <b>bytepairs</b>      | function | <b>replacenewlines</b> | function |
| <b>bytes</b>          | function | <b>reverse</b>         | function |
| <b>char</b>           | function | <b>split</b>           | function |
| <b>characterpairs</b> | function | <b>splitlines</b>      | function |
| <b>characters</b>     | function | <b>splitup</b>         | function |
| <b>checkedsplit</b>   | function | <b>strip</b>           | function |
| <b>collapsespaces</b> | function | <b>sub</b>             | function |
| <b>count</b>          | function | <b>tformat</b>         | function |
| <b>dump</b>           | function | <b>toHEX</b>           | function |
| <b>escapedpattern</b> | function | <b>toboollean</b>      | function |
| <b>explode</b>        | function | <b>tobytes</b>         | function |
| <b>find</b>           | function | <b>tocontext</b>       | function |
| <b>format</b>         | function | <b>todec</b>           | function |
| <b>formatter</b>      | function | <b>todimen</b>         | function |
| <b>formatters</b>     | function | <b>tohex</b>           | function |
| <b>fullstrip</b>      | function | <b>tonodes</b>         | function |
| <b>gmatch</b>         | function | <b>topattern</b>       | function |
| <b>gsub</b>           | function | <b>totable</b>         | function |
| <b>is_boolean</b>     | function | <b>toutf</b>           | function |
| <b>is_empty</b>       | function | <b>tracedchar</b>      | function |
| <b>itself</b>         | function | <b>tracedchars</b>     | table    |
| <b>len</b>            | function | <b>unquote</b>         | function |
| <b>limit</b>          | function | <b>unquoted</b>        | function |
| <b>longtostring</b>   | function | <b>upper</b>           | function |
| <b>lower</b>          | function | <b>utfcharacters</b>   | function |
| <b>match</b>          | function | <b>utfvalues</b>       | function |
| <b>nspace</b>         | table    | <b>valid</b>           | function |



# structures (context)

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

|                   |              |                            |              |
|-------------------|--------------|----------------------------|--------------|
| D data            |              | F savedlistnumber          |              |
| F define          |              | F savedlistprefixednumber  |              |
| F getdata         |              | F savedlisttitle           |              |
| F getlocation     |              | D sectionblocks            |              |
| F getname         |              | F sectionnumber            |              |
| F getnumber       |              | F size                     |              |
| F setlocation     |              | F title                    |              |
| F setup           |              | D tobесaved                |              |
| D stored          |              | F userdata                 |              |
|                   |              | F uservalue                |              |
| <b>itemgroups</b> | <b>table</b> | <b>marks</b>               | <b>table</b> |
| <b>lists</b>      | <b>table</b> |                            |              |
| F addto           |              | D data                     |              |
| F analyze         |              | F define                   |              |
| B autoreorder     |              | F exists                   |              |
| D cached          |              | F fetch                    |              |
| D collected       |              | F fetchallmarks            |              |
| F discard         |              | F fetched                  |              |
| F enhance         |              | F fetchonemark             |              |
| T enhancers       |              | F fetchtwomarks            |              |
| F filter          |              | F get                      |              |
| F formulainumber  |              | F number                   |              |
| F getresult       |              | F relate                   |              |
| F groupindex      |              | F reset                    |              |
| F hasnumberdata   |              | F set                      |              |
| F haspagedata     |              | F show                     |              |
| F hastitledata    |              | F synchronize              |              |
| F iscached        |              | F title                    |              |
| D kinds           |              | T tracers                  |              |
| F label           |              | F showtable                |              |
| F location        |              | <b>notes</b>               | <b>table</b> |
| D names           |              | F checkpagechange          |              |
| F number          |              | F define                   |              |
| D ordered         |              | F doifonsamepageasprevious |              |
| F page            |              | F get                      |              |
| F popnesting      |              | F getdeltapage             |              |
| F prefix          |              | F getinternal              |              |
| F prefixednumber  |              | F getn                     |              |
| F prefixedpage    |              | F getstate                 |              |
| F process         |              | F hascontent               |              |
| D pushed          |              | F internal                 |              |
| F pushnesting     |              | F internalid               |              |
| F realpage        |              | F listindex                |              |
| F reordered       |              | F ordered                  |              |
| T result          |              | F postpone                 |              |

|                     |              |                                  |
|---------------------|--------------|----------------------------------|
| F resetpostponed    |              | D flaginternals                  |
| F restore           |              | F from                           |
| F save              |              | D functions                      |
| F setstate          |              | F get                            |
| D states            |              | F getcurrentmetadata             |
| F store             |              | F getcurrentprefixspec           |
| <b>pages</b>        | <b>table</b> | F getinnermethod                 |
| F analyze           |              | F getinternalcachedlistreference |
| D collected         |              | F getinternallistreference       |
| F in_body           |              | F getinternalreference           |
| F is_odd            |              | D handlers                       |
| N nopages           |              | F identify                       |
| F number            |              | F import                         |
| F on_right          |              | F inject                         |
| F save              |              | F injectcurrentset               |
| D tobesaved         |              | S innermethod                    |
| <b>references</b>   | <b>table</b> | D internals                      |
| F analyze           |              | F load                           |
| F checkedfile       |              | F loadpresets                    |
| F checkedfileorurl  |              | F mark                           |
| F checkedprogram    |              | D pages                          |
| F checkedrealpage   |              | U prefixsplitter                 |
| F checkedurl        |              | D productdata                    |
| D collected         |              | T programs                       |
| U componentsplitter |              | T data                           |
| F currentmetadata   |              | F define                         |
| F currentorder      |              | F get                            |
| D currentset        |              | F realpageofpage                 |
| F define            |              | U referencesplitter              |
| D defined           |              | D referred                       |
| D derived           |              | F referredpage                   |
| F enableinteraction |              | F registerfinalizer              |
| F enhance           |              | F registerinitializer            |
| D executers         |              | F registerpage                   |
| F expandcurrent     |              | F reportproblems                 |
| F export            |              | F reset                          |
| T files             |              | D runners                        |
| T data              |              | F set                            |
| F define            |              | F setandgetattribute             |
| F found             |              | F setcomponent                   |
| F get               |              | F setinnermethod                 |
| F filter            |              | F setinternalreference           |
| F filterdefault     |              | F setnextinternal                |
| D filters           |              | F setnextorder                   |

F setreferencerealpage

D specials

F splitcomponent

F splitprefix

F splitreference

F synchronizepage

T testrunners

F inner

F special

F special operation

F special operation with arguments

T testspecials

F deltapage

F i

F internal

F page

F realpage

F section

F userpage

D tobereferred

D tobesaved

D tracedpages

T urls

T data

F define

F found

F get

D usedinternals

D usedviews

F valid

## registers

table

F analyze

D collected

F compare

F define

F enhance

F extend

F filter

F filtercollected

F finalize

F findinternal

F flush

F get

F prepare

F process

F setmethod

F sort

F store

D tobesaved

F unique

F userdata

## sections

table

F autodepth

F cct

D collected

F current

F currentblock

F currentid

F currentlevel

F currentsectionindex

F depthnumber

F finddata

F findnumber

F fullnumber

F getcurrentlevel

F getlevel

F getnumber

F internalreference

D levelmap

D levels

F load

F matchingtilldepth

F numberatdepth

F numbers

F popblock

F prefixedconverted

F pushblock

F register

D registered

F reportstructure

F save

T sectionblockdata

T bodypart

S bookmark

F set

F setblock

F setchecker

F setentry

|                   |                           |
|-------------------|---------------------------|
| F setinitialblock | F elementtag              |
| F setlevel        | F finishexport            |
| F setnumber       | F getid                   |
| F structuredata   | F handler                 |
| F title           | D labels                  |
| D tobesaved       | F last                    |
| F typesetnumber   | F lastinchain             |
| F userdata        | F locatedtag              |
| B verbose         | T patterns                |
| <b>sets</b>       | U splitter                |
| F define          | D properties              |
| F get             | F registermetadata        |
| F getall          | F restart                 |
| D setlist         | F setaspect               |
| <b>specials</b>   | F setattributefield       |
| D collected       | F setcombination          |
| F retrieve        | F setfigure               |
| F store           | F sethighlight            |
| D tobesaved       | F setitem                 |
| <b>synonyms</b>   | F setitemgroup            |
| F analyzed        | F setlist                 |
| D collected       | F setnotation             |
| F compare         | F setnotationsymbol       |
| F define          | F setproperty             |
| F filter          | F setregister             |
| F finalize        | F setsorting              |
| F flush           | F setsynonym              |
| F isshown         | F settablecell            |
| F isused          | F settabulatecell         |
| F meaning         | F settagdelimitedsymbol   |
| F prepare         | F settagsubsentencesymbol |
| F process         | F setupexport             |
| F register        | F setuserproperties       |
| F registershown   | D specifications          |
| F registerused    | F start                   |
| F resetshown      | F stop                    |
| F resetused       | F strip                   |
| F sort            | D taglist                 |
| F synonym         | T usewithcare             |
| D tobesaved       | T images                  |
| <b>tags</b>       |                           |

## table (basic lua)

|                        |          |                             |          |
|------------------------|----------|-----------------------------|----------|
| <b>allkeys</b>         | function | <b>prepend</b>              | function |
| <b>append</b>          | function | <b>print</b>                | function |
| <b>are_equal</b>       | function | <b>remove</b>               | function |
| <b>autokey</b>         | function | <b>reverse</b>              | function |
| <b>compact</b>         | function | <b>reversed</b>             | function |
| <b>concat</b>          | function | <b>save</b>                 | function |
| <b>contains</b>        | function | <b>sequenced</b>            | function |
| <b>copy</b>            | function | <b>serialize</b>            | function |
| <b>count</b>           | function | <b>setmetatablecall</b>     | function |
| <b>derive</b>          | function | <b>setmetatableindex</b>    | function |
| <b>deserialize</b>     | function | <b>setmetatablekey</b>      | function |
| <b>drop</b>            | function | <b>setmetatablenewindex</b> | function |
| <b>fastcopy</b>        | function | <b>sort</b>                 | function |
| <b>fastserialize</b>   | function | <b>sorted</b>               | function |
| <b>filtered</b>        | function | <b>sortedhash</b>           | function |
| <b>flattened</b>       | function | <b>sortedhashkeys</b>       | function |
| <b>foreach</b>         | function | <b>sortedhashonly</b>       | function |
| <b>foreachi</b>        | function | <b>sortedindexonly</b>      | function |
| <b>fromhash</b>        | function | <b>sortedkeys</b>           | function |
| <b>getmetatablekey</b> | function | <b>sortedpairs</b>          | function |
| <b>getn</b>            | function | <b>sparse</b>               | function |
| <b>has_one_entry</b>   | function | <b>strip</b>                | function |
| <b>identical</b>       | function | <b>sub</b>                  | function |
| <b>imerge</b>          | function | <b>swapped</b>              | function |
| <b>imerged</b>         | function | <b>tocontext</b>            | function |
| <b>insert</b>          | function | <b>tocsv</b>                | function |
| <b>is_empty</b>        | function | <b>tofile</b>               | function |
| <b>keys</b>            | function | <b>tohandle</b>             | function |
| <b>load</b>            | function | <b>tohash</b>               | function |
| <b>loweredkeys</b>     | function | <b>toxml</b>                | function |
| <b>maxn</b>            | function | <b>twowaymapper</b>         | function |
| <b>merge</b>           | function | <b>unique</b>               | function |
| <b>merged</b>          | function | <b>unnest</b>               | function |
| <b>mirrored</b>        | function | <b>unpack</b>               | function |
| <b>pack</b>            | function | <b>values</b>               | function |

## tex (basic tex)

|                                 |            |                            |                     |
|---------------------------------|------------|----------------------------|---------------------|
| <b>attribute</b>                | table      | <b>gettoks</b>             | function            |
| <b>badness</b>                  | function   | <b>getuccode</b>           | function            |
| <b>box</b>                      | table      | <b>glue</b>                | table               |
| <b>catcode</b>                  | table      | <b>hashtokens</b>          | function            |
| <b>conditionals</b>             | data table | <b>ifs</b>                 | data table          |
| <b>constants</b>                | data table | <b>inimatcodes</b>         | number              |
| <b>count</b>                    | table      | <b>init_rand</b>           | function            |
| <b>cprint</b>                   | function   | <b>isattribute</b>         | function            |
| <b>ctdcatcodes</b>              | number     | <b>isbox</b>               | function            |
| <b>ctxcatcodes</b>              | number     | <b>iscount</b>             | overloaded function |
| <b>definefont</b>               | function   | <b>isdefined</b>           | function            |
| <b>delcode</b>                  | table      | <b>isdimen</b>             | overloaded function |
| <b>dimen</b>                    | table      | <b>ismuskip</b>            | overloaded function |
| <b>directives</b>               | data table | <b>isskip</b>              | overloaded function |
| <b>enableprimitives</b>         | function   | <b>istoken</b>             | function            |
| <b>error</b>                    | function   | <b>istoks</b>              | function            |
| <b>extraprimitives</b>          | function   | <b>lccode</b>              | table               |
| <b>finish</b>                   | function   | <b>linebreak</b>           | function            |
| <b>fontidentifier</b>           | function   | <b>lists</b>               | table               |
| <b>fontname</b>                 | function   | <b>lua_math_random</b>     | function            |
| <b>fprint</b>                   | function   | <b>lua_math_randomseed</b> | function            |
| <b>get</b>                      | function   | <b>luacatcodes</b>         | number              |
| <b>getattribute</b>             | function   | <b>mathcode</b>            | table               |
| <b>getbox</b>                   | function   | <b>modes</b>               | data table          |
| <b>getboxresourcedimensions</b> | function   | <b>muglue</b>              | table               |
| <b>getcatcode</b>               | function   | <b>muskip</b>              | table               |
| <b>getcount</b>                 | function   | <b>nest</b>                | table               |
| <b>getdelcode</b>               | function   | <b>nilcatcodes</b>         | number              |
| <b>getdelcodes</b>              | function   | <b>normal_rand</b>         | function            |
| <b>getdimen</b>                 | function   | <b>notcatcodes</b>         | number              |
| <b>getglue</b>                  | function   | <b>number</b>              | function            |
| <b>getlccode</b>                | function   | <b>primitives</b>          | function            |
| <b>getlist</b>                  | function   | <b>print</b>               | function            |
| <b>getmath</b>                  | function   | <b>prtcacodes</b>          | number              |
| <b>getmathcode</b>              | function   | <b>resetparagraph</b>      | function            |
| <b>getmathcodes</b>             | function   | <b>romannumeral</b>        | function            |
| <b>getmuglue</b>                | function   | <b>round</b>               | function            |
| <b>getmuskip</b>                | function   | <b>run</b>                 | function            |
| <b>getnest</b>                  | function   | <b>saveboxresource</b>     | function            |
| <b>getsfcode</b>                | function   | <b>scale</b>               | function            |
| <b>getskip</b>                  | function   | <b>scantoks</b>            | function            |

|                     |          |                         |            |
|---------------------|----------|-------------------------|------------|
| <b>set</b>          | function | <b>skip</b>             | table      |
| <b>setattribute</b> | function | <b>sp</b>               | function   |
| <b>setbox</b>       | function | <b>splitbox</b>         | function   |
| <b>setcatcode</b>   | function | <b>sprint</b>           | function   |
| <b>setcount</b>     | function | <b>systemmodes</b>      | data table |
| <b>setdelcode</b>   | function | <b>takebox</b>          | function   |
| <b>setdimen</b>     | function | <b>texcatcodes</b>      | number     |
| <b>setglue</b>      | function | <b>toks</b>             | table      |
| <b>setlccode</b>    | function | <b>tpacatcodes</b>      | number     |
| <b>setlist</b>      | function | <b>tpbcatcodes</b>      | number     |
| <b>setmath</b>      | function | <b>tprint</b>           | function   |
| <b>setmathcode</b>  | function | <b>trackers</b>         | data table |
| <b>setmuglue</b>    | function | <b>triggerbuildpage</b> | function   |
| <b>setmuskip</b>    | function | <b>txtcatcodes</b>      | number     |
| <b>setnest</b>      | function | <b>type</b>             | function   |
| <b>setsfcode</b>    | function | <b>uccode</b>           | table      |
| <b>setskip</b>      | function | <b>uniform_rand</b>     | function   |
| <b>settoks</b>      | function | <b>uniformdeviate</b>   | function   |
| <b>setuccode</b>    | function | <b>uprint</b>           | function   |
| <b>sfcode</b>       | table    | <b>useboxresource</b>   | function   |
| <b>shipout</b>      | function | <b>vrbcatcodes</b>      | number     |
| <b>show_context</b> | function | <b>write</b>            | function   |



## texconfig (basic tex)

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

## texio (basic tex)

**setescape** function  
**write** function

**write\_nl** function

# tokens (context)

**astable** function  
**bgroup** userdata  
**bits** table

N active  
N alignment  
N begingroup  
N character  
N close  
N comment  
N endgroup  
N endoffline  
N escape  
N ignore  
N invalid  
N letter  
N mathshift  
N open  
N other  
N parameter  
N space  
N subscript  
N superscript  
N whitespace

**collectors** table

T data  
F defaultwords  
F dowithwords  
F flush  
F install  
F register  
T registered  
F show  
F test

**compile** function  
**constant** function  
**converters** table

S toboolean  
S todimen  
S toglue  
S tonumber  
S tostring

**defined** function  
**egroup** userdata  
**getters** table

F box  
F count  
F dimen  
F glue  
F skip  
F token

**hbox** userdata  
**istoken** function  
**letter** function  
**letters** function  
**other** function  
**pickup** function  
**printlist** function  
**scanners** table

F boolean  
F code  
F conditional  
F count  
F csname  
F dimen  
F dimension  
F glue  
F integer  
F keyword  
F list  
F lxmlid  
F number  
F scanclose  
F scanopen  
F skip  
F string  
F token  
F tokens  
F toks  
F word

**scantable** function  
**setters** table  
F box

|                        |                |
|------------------------|----------------|
| F count                | F conditional  |
| F dimen                | F count        |
| F glue                 | F csname       |
| F macro                | F dimen        |
| F skip                 | F dimension    |
| <b>shortcuts</b> table | F glue         |
| T bits                 | F integer      |
| N active               | F keyword      |
| N alignment            | F list         |
| N begingroup           | F lxmlid       |
| N character            | F number       |
| N close                | F scanclose    |
| N comment              | F scanopen     |
| N endgroup             | F skip         |
| N endofline            | F string       |
| N escape               | F token        |
| N ignore               | F tokens       |
| N invalid              | F toks         |
| N letter               | F word         |
| N mathshift            | F scannumber   |
| N open                 | F scanopen     |
| N other                | F scanstring   |
| N parameter            | F scanword     |
| N space                | F toboolean    |
| N subscript            | F todimen      |
| N superscript          | T tokens       |
| N whitespace           | F astable      |
| N close                | U bgroup       |
| F inspect              | T collectors   |
| N open                 | F defaultwords |
| F report               | F dowithwords  |
| F scanboolean          | F flush        |
| F scanclose            | F install      |
| F scancode             | F register     |
| F scanconditional      | F show         |
| F scanscname           | F test         |
| F scandimen            | F compile      |
| F scandimension        | F constant     |
| F scaninteger          | T converters   |
| F scankeyword          | S toboolean    |
| F scanlist             | S todimen      |
| T scanners             | S toglue       |
| F boolean              | S tonumber     |
| F code                 | S tostring     |

|             |                   |          |
|-------------|-------------------|----------|
| F defined   | N open            |          |
| U egroup    | F report          |          |
| T getters   | F scanboolean     |          |
| F box       | F scanclose       |          |
| F count     | F scancode        |          |
| F dimen     | F scanconditional |          |
| F glue      | F scansname       |          |
| F skip      | F scandimen       |          |
| F token     | F scandimension   |          |
| U hbox      | F scaninteger     |          |
| F istoken   | F scankeyword     |          |
| F letter    | F scanlist        |          |
| F letters   | F scannumber      |          |
| F other     | F scanopen        |          |
| F pickup    | F scanstring      |          |
| F printlist | F scanword        |          |
| F scantable | F toboolean       |          |
| T setters   | F todimen         |          |
| F box       | F tonumber        |          |
| F count     | F tostring        |          |
| F dimen     | U vbox            |          |
| F glue      | U vtop            |          |
| F macro     | F tonumber        |          |
| F skip      | F tostring        |          |
| T shortcuts | <b>vbox</b>       | userdata |
| N close     | <b>vtop</b>       | userdata |
| F inspect   |                   |          |

# tracers (context)

|                  |          |                     |          |
|------------------|----------|---------------------|----------|
| <b>count</b>     | function | <b>primitive</b>    | function |
| <b>cs</b>        | function | <b>printerror</b>   | function |
| <b>dimen</b>     | function | <b>printwarning</b> | function |
| <b>knownlist</b> | function | <b>showlines</b>    | function |
| <b>lists</b>     | table    | <b>strings</b>      | table    |
| T context        |          | S undefined         |          |
| T internals      |          | <b>toks</b>         | function |
| T scratch        |          | <b>type</b>         | function |
| <b>name</b>      | function |                     |          |

## trackers (context)

|                       |            |                 |          |
|-----------------------|------------|-----------------|----------|
| <b>data</b>           | data table | <b>register</b> | function |
| <b>default</b>        | function   | <b>report</b>   | function |
| <b>disable</b>        | function   | <b>reset</b>    | function |
| <b>dumphashtofile</b> | function   | <b>savehash</b> | function |
| <b>enable</b>         | function   | <b>show</b>     | function |
| <b>list</b>           | function   | <b>value</b>    | function |
| <b>name</b>           | string     |                 |          |

# typesetters (context)

|                       |       |  |                   |
|-----------------------|-------|--|-------------------|
| <b>alignments</b>     | table |  |                   |
| F handler             |       |  | T handlers        |
| F set                 |       |  | F installhandler  |
| <b>breakpoints</b>    | table |  | F processmath     |
| F define              |       |  | F set             |
| F handler             |       |  | F setcolor        |
| D mapping             |       |  | F setmath         |
| T methods             |       |  | F tomode          |
| T numbers             |       |  | <b>firstlines</b> |
| F set                 |       |  | table             |
| F setreplacement      |       |  | T actions         |
| <b>cases</b>          | table |  | F default         |
| T actions             |       |  | F line            |
| F handler             |       |  | F word            |
| F register            |       |  | F handler         |
| F set                 |       |  | F set             |
| <b>characteralign</b> | table |  | <b>initials</b>   |
| F handler             |       |  | table             |
| F resetcharacteralign |       |  | T actions         |
| F setcharacteralign   |       |  | F default         |
| <b>characters</b>     | table |  | F addanchortoline |
| F handler             |       |  | F addtoline       |
| T methods             |       |  | F calculatedelta  |
| F replacensp          |       |  | F checkline       |
| F replacenspaces      |       |  | F handler         |
| <b>checkers</b>       | table |  | F moveinline      |
| F handler             |       |  | F normalize       |
| F reset               |       |  | F set             |
| F set                 |       |  | <b>injectors</b>  |
| <b>cleaners</b>       | table |  | table             |
| F handler             |       |  | F check           |
| F set                 |       |  | T list            |
| <b>digits</b>         | table |  | F mark            |
| T actions             |       |  | F reset           |
| F handler             |       |  | F set             |
| F set                 |       |  | F show            |
| <b>directions</b>     | table |  | <b>italics</b>    |
| F getfences           |       |  | table             |
| F getglobal           |       |  | F enablemath      |
| F getmethod           |       |  | F enabletext      |
| F handler             |       |  | F forcevariant    |
|                       |       |  | F handler         |
|                       |       |  | F reset           |
|                       |       |  | F set             |
|                       |       |  | <b>kerns</b>      |
|                       |       |  | table             |
|                       |       |  | D factors         |



|                            |                 |
|----------------------------|-----------------|
| F handler                  |                 |
| F keepligature             |                 |
| B keptogether              |                 |
| D mapping                  |                 |
| F set                      |                 |
| <b>manipulators</b>        | <b>table</b>    |
| F apply                    |                 |
| F applyspecification       |                 |
| T methods                  |                 |
| F Word                     |                 |
| F Words                    |                 |
| F abbreviatedjournal       |                 |
| F expandedjournal          |                 |
| F lowercase                |                 |
| F stripperperiod           |                 |
| F uppercase                |                 |
| T patterns                 |                 |
| U list                     |                 |
| U pair                     |                 |
| F splitspecification       |                 |
| <b>margins</b>             | <b>table</b>    |
| F finalhandler             |                 |
| F globalhandler            |                 |
| F localhandler             |                 |
| F save                     |                 |
| <b>marksuspects</b>        | <b>function</b> |
| <b>paragraphs</b>          | <b>table</b>    |
| F addanchortoline          |                 |
| F addtoline                |                 |
| F calculatedelta           |                 |
| F checkline                |                 |
| F handler                  |                 |
| F moveinline               |                 |
| F normalize                |                 |
| F set                      |                 |
| <b>processors</b>          | <b>table</b>    |
| F apply                    |                 |
| F register                 |                 |
| F reset                    |                 |
| F split                    |                 |
| F startapply               |                 |
| F stopapply                |                 |
| F stripped                 |                 |
| F tostring                 |                 |
| <b>showsuspects</b>        | <b>function</b> |
| <b>spacings</b>            | <b>table</b>    |
| F define                   |                 |
| F handler                  |                 |
| D mapping                  |                 |
| T numbers                  |                 |
| T frenchpunctuation        |                 |
| T characters               |                 |
| S name                     |                 |
| N number                   |                 |
| F reset                    |                 |
| F set                      |                 |
| F setup                    |                 |
| <b>wrappers</b>            | <b>table</b>    |
| F handler                  |                 |
| <b>xtables</b>             | <b>table</b>    |
| F cleanup                  |                 |
| F construct                |                 |
| F create                   |                 |
| F finish_row               |                 |
| F flush                    |                 |
| F initialize_construct     |                 |
| F initialize_reflow_height |                 |
| F initialize_reflow_width  |                 |
| F next_row                 |                 |
| F reflow_height            |                 |
| F reflow_width             |                 |
| F set_construct            |                 |
| F set_reflow_height        |                 |
| F set_reflow_width         |                 |

# unicode (extra lua)

## ascii table

F byte  
F char  
F dump  
F find  
F format  
F gfind  
F gmatch  
F gsub  
F len  
F lower  
F match  
F rep  
F reverse  
F sub  
F upper

## grapheme table

F byte  
F char  
F dump  
F find  
F format  
F gfind  
F gmatch  
F gsub  
F len  
F lower  
F match  
F rep  
F reverse  
F sub  
F upper

## latin1 table

F byte  
F char  
F dump  
F find  
F format  
F gfind  
F gmatch  
F gsub

F len  
F lower  
F match  
F rep  
F reverse  
F sub  
F upper

## utf8 table

F byte  
F char  
F characters  
F chrln  
F count  
F dump  
F filetype  
F find  
F format  
F gfind  
F gmatch  
F gsub  
F is\_valid  
F len  
F length  
F lower  
F magic  
F match  
F remapper  
F rep  
F replacer  
F reverse  
F split  
F splitlines  
F sub  
F substituter  
F tocodes  
F toeight  
F toentities  
F tostring  
F totable  
F upper  
F ustring

F utf16\_to\_utf8\_be  
F utf16\_to\_utf8\_be\_t  
F utf16\_to\_utf8\_le  
F utf16\_to\_utf8\_le\_t  
F utf16\_to\_utf8\_t  
F utf32\_to\_utf8\_be  
F utf32\_to\_utf8\_be\_t  
F utf32\_to\_utf8\_le  
F utf32\_to\_utf8\_le\_t

F utf32\_to\_utf8\_t  
F utf8\_to\_utf16  
F utf8\_to\_utf16\_be  
F utf8\_to\_utf16\_le  
F utf8\_to\_utf8\_t  
F values  
F xstring

## url (context)

|                  |          |
|------------------|----------|
| <b>addscheme</b> | function |
| <b>barepath</b>  | function |
| <b>construct</b> | function |
| <b>escape</b>    | function |
| <b>filename</b>  | function |
| <b>hashed</b>    | function |

|                    |          |
|--------------------|----------|
| <b>hascheme</b>    | function |
| <b>query</b>       | function |
| <b>split</b>       | function |
| <b>toquery</b>     | function |
| <b>unescapeget</b> | function |

# utilities (context)

## debugger

table

F disable  
F enable  
F savestats  
F showstats  
F showtraceback

## files

table

F close  
F getposition  
F look  
F open  
F read2dot14  
F readbyte  
F readbytes  
F readcardinal  
F readcardinal1  
F readcardinal2  
F readcardinal3  
F readcardinal4  
F readchar  
F readfixed4  
F readinteger  
F readinteger1  
F readinteger2  
F readinteger3  
F readinteger4  
F readstring  
F readtag  
F setposition  
F size  
F skip  
F skiplong  
F skipshort

## formatters

table

F formatcolumns  
F list  
F stripzeros

## garbagecollector

table

F check  
N criterium  
B enabled

## lua

table

B alwaysstripcode  
F compile  
F loadedluacode  
F loadstripped  
N nofstrippedbytes  
N nofstrippedchunks  
B stripcode  
T strippedchunks  
F strippedloadstring  
T suffixes  
S lua  
S luc  
S lui  
S luj  
S luv  
S tma  
S tmc  
S tua  
S tuc

## packers

table

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

## parsers

table

F add\_settings\_to\_array  
F arguments\_to\_table  
F array\_to\_string  
F csvsplitter  
F getparameters  
F groupedsplitat  
F hash\_to\_string  
T hashes  
T settings\_to\_set  
T max,fit,broad,auto  
B auto  
B broad

|                                             |          |                  |       |
|---------------------------------------------|----------|------------------|-------|
| B fit                                       |          | F disableaction  |       |
| B max                                       |          | F disablegroup   |       |
| T text,hidden,paper,page,leftpage,rightpage |          | F enableaction   |       |
| B hidden                                    |          | F enablegroup    |       |
| B leftpage                                  |          | D functions      |       |
| B page                                      |          | F localize       |       |
| B paper                                     |          | F new            |       |
| B rightpage                                 |          | F nodeprocessor  |       |
| B text                                      |          | F prependaction  |       |
| F iterator                                  |          | F prependgroup   |       |
| F keq_to_hash                               |          | F removeaction   |       |
| F listitem                                  |          | F replaceaction  |       |
| F make_settings_to_hash_pattern             |          | F setkind        |       |
| F mergehashes                               |          | F tostring       |       |
| F options_to_array                          |          | <b>setters</b>   | table |
| F options_to_hash                           |          | F disable        |       |
| T patterns                                  |          | F enable         |       |
| U settings_to_array                         |          | F initialize     |       |
| U settings_to_hash_a                        |          | F list           |       |
| U settings_to_hash_b                        |          | F new            |       |
| U settings_to_hash_c                        |          | F register       |       |
| U unittotex                                 |          | F report         |       |
| F process_stripped_settings                 |          | F reset          |       |
| F rfc4180splitter                           |          | F show           |       |
| F runtime                                   |          | <b>stacker</b>   | table |
| F settings_to_array                         |          | F new            |       |
| F settings_to_array_obey_fences             |          | <b>storage</b>   | table |
| F settings_to_array_with_repeat             |          | F allocate       |       |
| F settings_to_hash                          |          | F checked        |       |
| F settings_to_hash_strict                   |          | F mark           |       |
| F settings_to_hash_tolerant                 |          | F marked         |       |
| F settings_to_set                           |          | F setinitializer |       |
| F simple_hash_to_string                     |          | F sparse         |       |
| F splitmethod                               |          | <b>streams</b>   | table |
| F splitthousands                            |          | F close          |       |
| F stepper                                   |          | F getposition    |       |
| F stripped_settings_to_array                |          | F look           |       |
| F unittotex                                 |          | F open           |       |
| F unittoxml                                 |          | F read2dot14     |       |
| <b>report</b>                               | function | F readbyte       |       |
| <b>sequencers</b>                           | table    | F readbytes      |       |
| F appendaction                              |          | F readcardinal   |       |
| F appendgroup                               |          | F readcardinal1  |       |
| F compile                                   |          | F readcardinal2  |       |

|                      |                        |
|----------------------|------------------------|
| F readcardinal3      | U prune and collapse   |
| F readcardinal4      | U prune and no empty   |
| F readchar           | U retain               |
| F readfixed4         | U retain and collapse  |
| F readinteger        | U retain and no empty  |
| F readinteger1       | F striplines           |
| F readinteger2       | F striplong            |
| F readinteger4       | F tabtospace           |
| F readstring         | T tracers              |
| F setposition        | <b>tables</b> table    |
| F size               | F accesstable          |
| F skip               | F definedtable         |
| F skipbytes          | F definetable          |
| F skiplong           | F encapsulate          |
| F skipshort          | F insertaftervalue     |
| <b>strings</b> table | F insertbeforevalue    |
| F collapsecrlf       | F migratetable         |
| T formatters         | F removevalue          |
| F add                | F replacevalue         |
| F new                | <b>templates</b> table |
| F newrepeater        | F load                 |
| F nice               | F replace              |
| T striplinepatterns  | F replacer             |
| U collapse           | F resolve              |
| U prune              |                        |

## vf (context)

|               |          |
|---------------|----------|
| <b>char</b>   | function |
| <b>down</b>   | function |
| <b>fontid</b> | function |
| <b>image</b>  | function |
| <b>node</b>   | function |
| <b>nop</b>    | function |

|                |          |
|----------------|----------|
| <b>pop</b>     | function |
| <b>push</b>    | function |
| <b>right</b>   | function |
| <b>rule</b>    | function |
| <b>special</b> | function |



## visualizers (context)

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

## xml (context)

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

|                  |                              |          |
|------------------|------------------------------|----------|
| F all            | F match                      |          |
| F attribute      | F name                       |          |
| F chainattribute | F position                   |          |
| F chainpath      | F reverse                    |          |
| F command        | F table                      |          |
| F concat         | F tag                        |          |
| F concatrange    | F tags                       |          |
| F context        | F text                       |          |
| F count          | F texts                      |          |
| F ctxtext        | F upperall                   |          |
| F default        | <b>first</b>                 | function |
| F first          | <b>found</b>                 | function |
| F function       | <b>functions</b>             | table    |
| F index          | <b>getbuffer</b>             | function |
| F last           | <b>gethandlers</b>           | function |
| F lettered       | <b>gethandlersfunction</b>   | function |
| F lower          | <b>helpers</b>               | table    |
| F lowerall       | F recursetext                |          |
| F match          | <b>include</b>               | function |
| F name           | <b>inclusion</b>             | function |
| F position       | <b>inclusions</b>            | function |
| F reverse        | <b>index</b>                 | function |
| F stripped       | <b>inheritedconvert</b>      | function |
| F tag            | <b>inject</b>                | function |
| F tags           | <b>inject_element</b>        | function |
| F text           | <b>inject_element_after</b>  | function |
| F upper          | <b>inject_element_before</b> | function |
| F upperall       | <b>injectafter</b>           | function |
| T xml            | <b>injectbefore</b>          | function |
| F all            | <b>insert</b>                | function |
| F att            | <b>insert_element</b>        | function |
| F attribute      | <b>insert_element_after</b>  | function |
| F attributes     | <b>insert_element_before</b> | function |
| F cdata          | <b>insertafter</b>           | function |
| F chainattribute | <b>insertbefore</b>          | function |
| F count          | <b>insertcdata</b>           | function |
| F default        | <b>insertcomment</b>         | function |
| F elements       | <b>inspect</b>               | function |
| F empty          | <b>is_valid</b>              | function |
| F first          | <b>kind</b>                  | function |
| F function       | <b>last</b>                  | function |
| F index          | <b>lastmatch</b>             | function |
| F last           | <b>load</b>                  | function |
| F lowerall       | <b>lpath</b>                 | function |

|                           |          |                            |          |
|---------------------------|----------|----------------------------|----------|
| <b>lpathcached</b>        | function | <b>selection</b>           | function |
| <b>lpathcalls</b>         | function | <b>separate</b>            | function |
| <b>lshow</b>              | function | <b>serialize</b>           | function |
| <b>makestandalone</b>     | function | <b>setcdata</b>            | function |
| <b>match</b>              | function | <b>setcomment</b>          | function |
| <b>name</b>               | function | <b>sethandlersfunction</b> | function |
| <b>newhandlers</b>        | function | <b>setinjectors</b>        | function |
| <b>nodesettostring</b>    | function | <b>setproperty</b>         | function |
| <b>originalload</b>       | function | <b>settings</b>            | function |
| <b>package</b>            | function | <b>specialcodes</b>        | table    |
| <b>parent</b>             | function | S "                        |          |
| <b>parsedentitylpeg</b>   | userdata | S #                        |          |
| <b>pihandlers</b>         | table    | S \$                       |          |
| F injector                |          | S %                        |          |
| <b>placeholders</b>       | table    | S &                        |          |
| F unknown_any_entity      |          | S '                        |          |
| F unknown_dec_entity      |          | S <                        |          |
| F unknown_hex_entity      |          | S >                        |          |
| <b>position</b>           | function | S \                        |          |
| <b>privatecodes</b>       | table    | S {                        |          |
| <b>privatetoken</b>       | function | S                          |          |
| <b>process</b>            | function | S }                        |          |
| <b>process_attributes</b> | function | S ~                        |          |
| <b>process_elements</b>   | function | <b>specialhandler</b>      | table    |
| <b>processattributes</b>  | function | <b>sprint</b>              | function |
| <b>profiled</b>           | table    | <b>string</b>              | function |
| <b>raw</b>                | function | <b>strip</b>               | function |
| <b>registerentity</b>     | function | <b>strip_whitespace</b>    | function |
| <b>registers</b>          | function | <b>stripelement</b>        | function |
| <b>reindex</b>            | function | <b>stripleadingspaces</b>  | function |
| <b>remap_name</b>         | function | <b>table</b>               | function |
| <b>remap_namespace</b>    | function | <b>text</b>                | function |
| <b>remap_tag</b>          | function | <b>textonly</b>            | function |
| <b>remapname</b>          | function | <b>texttocdata</b>         | function |
| <b>remapnamespace</b>     | function | <b>tocdata</b>             | function |
| <b>remaptag</b>           | function | <b>toelement</b>           | function |
| <b>renamespace</b>        | function | <b>tostring</b>            | function |
| <b>reparsedentitylpeg</b> | userdata | <b>totable</b>             | function |
| <b>replace</b>            | function | <b>toxml</b>               | function |
| <b>replace_element</b>    | function | <b>tprint</b>              | function |
| <b>resetinjectors</b>     | function | <b>traverse</b>            | function |
| <b>resolvens</b>          | function | <b>unescaped</b>           | function |
| <b>root</b>               | function | <b>unescapedentitylpeg</b> | userdata |
| <b>save</b>               | function | <b>unprivatized</b>        | function |

**unspecialized**  
**with****element**  
**with****elements**

function  
function  
function

**wrap**  
**xmlns**

function  
table

## zip (extra lua)

|                     |                     |                        |          |
|---------------------|---------------------|------------------------|----------|
| <b>archives</b>     | table               | <b>openarchive</b>     | function |
| <b>close</b>        | function            | <b>openfile</b>        | function |
| <b>closearchive</b> | function            | <b>registeredfiles</b> | table    |
| <b>open</b>         | overloaded function | <b>type</b>            | function |

## zlib (extra lua)

|                    |          |
|--------------------|----------|
| <b>adler32</b>     | function |
| <b>compress</b>    | function |
| <b>compressobj</b> | function |
| <b>crc32</b>       | function |

|                      |          |
|----------------------|----------|
| <b>decompress</b>    | function |
| <b>decompressobj</b> | function |
| <b>version</b>       | function |