

attributes backends bibtex 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 job lang languages layouts  
lfs libraries lmx logs lpdf lpeg ltn12  
lua luatex lxml math mathematics mbox  
md5 metapost mime moduledata modules  
mplib noads node nodes number os package  
pagebuilders parametersets pdf  
pdfscanner physics profiler regimes  
resolvers scripts set socket sorters  
statistics status storage streams string  
structures table tex texconfig texio  
thirddata token tokens tracers trackers  
typesetters unicode url userdata  
utilities vf visualizers xml zip zlib

# ConTExT MkIV

# global (alias: \_G)

|                             |          |                              |          |
|-----------------------------|----------|------------------------------|----------|
| <code>_LUAVERSION</code>    | number   | <code>file</code>            | table    |
| <code>_MAJORVERSION</code>  | number   | <code>floats</code>          | table    |
| <code>_MINORVERSION</code>  | number   | <code>font</code>            | table    |
| <code>arg</code>            | table    | <code>fontloader</code>      | table    |
| <code>assert</code>         | function | <code>fonts</code>           | table    |
| <code>attributes</code>     | table    | <code>format_n</code>        | function |
| <code>backends</code>       | table    | <code>frozen</code>          | boolean  |
| <code>beginpage</code>      | function | <code>functions</code>       | table    |
| <code>bibtex</code>         | table    | <code>getmetatable</code>    | function |
| <code>bit32</code>          | table    | <code>getreadfilename</code> | function |
| <code>blobs</code>          | table    | <code>global</code>          | table    |
| <code>boolean</code>        | table    | <code>graphics</code>        | table    |
| <code>buffers</code>        | table    | <code>gzip</code>            | table    |
| <code>builders</code>       | table    | <code>img</code>             | table    |
| <code>caches</code>         | table    | <code>inspect</code>         | function |
| <code>callback</code>       | table    | <code>interactions</code>    | table    |
| <code>callbacks</code>      | table    | <code>interfaces</code>      | table    |
| <code>catcodes</code>       | table    | <code>io</code>              | table    |
| <code>characters</code>     | table    | <code>ipairs</code>          | function |
| <code>chemistry</code>      | table    | <code>job</code>             | table    |
| <code>collectgarbage</code> | function | <code>lang</code>            | table    |
| <code>commands</code>       | table    | <code>languages</code>       | table    |
| <code>containers</code>     | table    | <code>layouts</code>         | table    |
| <code>context</code>        | function | <code>lfs</code>             | table    |
| <code>converters</code>     | table    | <code>libraries</code>       | table    |
| <code>coroutine</code>      | table    | <code>lmx</code>             | table    |
| <code>ctxrunner</code>      | table    | <code>lmxconvert</code>      | function |
| <code>debug</code>          | table    | <code>lmxnew</code>          | function |
| <code>delta</code>          | number   | <code>load</code>            | function |
| <code>dimen</code>          | function | <code>loadfile</code>        | function |
| <code>dir</code>            | table    | <code>loadstring</code>      | function |
| <code>directives</code>     | table    | <code>logs</code>            | table    |
| <code>document</code>       | table    | <code>lp_fastpos_n</code>    | userdata |
| <code>documentdata</code>   | table    | <code>lp_fastpos_p</code>    | userdata |
| <code>dofile</code>         | function | <code>lpdf</code>            | table    |
| <code>endpage</code>        | function | <code>lpeg</code>            | table    |
| <code>environment</code>    | table    | <code>ltn12</code>           | table    |
| <code>epdf</code>           | table    | <code>lua</code>             | table    |
| <code>error</code>          | function | <code>luatex</code>          | table    |
| <code>experiments</code>    | table    | <code>lxml</code>            | table    |
| <code>figures</code>        | table    | <code>math</code>            | table    |

|                   |          |                  |          |
|-------------------|----------|------------------|----------|
| mathematics       | table    | setmetatable     | function |
| mbox              | table    | socket           | table    |
| md5               | table    | sorters          | table    |
| metapost          | table    | statistics       | table    |
| mime              | table    | status           | table    |
| module            | function | storage          | table    |
| moduledata        | table    | streams          | table    |
| modules           | table    | string           | table    |
| mplib             | table    | stripmath        | function |
| newline           | function | structures       | table    |
| next              | function | swiglib          | function |
| noads             | table    | table            | table    |
| node              | table    | tex              | table    |
| nodes             | table    | texconfig        | table    |
| number            | table    | texio            | table    |
| optionalrequire   | function | thirddata        | table    |
| os                | table    | toboollean       | function |
| outputpagestree   | function | token            | table    |
| package           | table    | tokens           | table    |
| pagebuilders      | table    | tonumber         | function |
| pairs             | function | tostring         | function |
| parametersets     | table    | trace_characters | boolean  |
| pattern           | userdata | traceback        | function |
| pcall             | function | tracers          | table    |
| pdf               | table    | trackers         | table    |
| pdfscanner        | table    | type             | function |
| physics           | table    | typesetters      | table    |
| print             | function | unicode          | table    |
| profiler          | table    | unpack           | function |
| protect           | function | url              | table    |
| rawequal          | function | userdata         | table    |
| rawget            | function | utf              | table    |
| rawlen            | function | utilities        | table    |
| rawset            | function | vf               | table    |
| regimes           | table    | visualizers      | table    |
| report_characters | function | xml              | table    |
| require           | function | xmlconvert       | function |
| resolve_fences    | function | xpcall           | function |
| resolvers         | table    | zip              | table    |
| scripts           | table    | zlib             | table    |
| select            | function |                  |          |
| set               | table    |                  |          |
| setcharacteralign | function |                  |          |
| setinspector      | function |                  |          |

# attributes (context)

## colorintents table

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

## colors table

- N attribute
- F cmyk
- F cmyktogray
- F cmyktorgb
- F colorcomponents
- B couple
- D data
- N default
- F defineintermediatecolor
- F definemixcolor
- F definemultitonecolor
- F defineprocesscolor
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- F forcedmodel
- F forcesupport
- F formatcolor
- F formatgray
- F gray
- F graytohsv
- F handler
- F hsvtorgay
- F hsvtorgb
- F iccprofile
- F isblack
- N main
- S model
- D models
- F mpcolor
- F mpnamedcolor

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

## define function effects table

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

## handlers table list data table names data table negatives table

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

# backends (context)

**codeinjections** table

F synchronizecolormodel

**current** string

**defaults** table

T codeinjections

T nodeinjections

T registrations

D tables

**install** function

**nodeinjections** table

F restore

F save

F transform

**nothing** function

**pdf** table

T codeinjections

F addbookmarks

F attachmentid

F clonefield

F definefield

F definefieldset

F defineviewerlayer

F embedfile

F enabletags

F exportformdata

F finalizepage

F finishreference

F getdefaultfieldvalue

F getfieldcategory

F getfieldset

F getformatoption

F getoutputfilename

F getpreviewfigure

F insertrenderingwindow

F mergereferences

F mergeviewerlayers

F prerollreference

F presetsymbol

F presetsymbollist

F processrendering

F registerdocumentcloseaction

F registerdocumentopenaction

F registeredsymbol

F registerpagecloseaction

F registerpageopenaction

F registersymbol

F setfieldcalculationset

F setfigurealternative

F setfigurecolorspace

F setfiguremask

F setformat

F setformsmethod

F setpagetransition

F setupcanvas

F setupidentity

F setxmpfile

F startlayer

F stoplayer

F supportedformats

F useviewerlayer

F validfield

F validfieldcategory

F validfieldset

S comment

T nodeinjections

F addtags

F attachfile

F 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

# bibtex (context)

**authorref** function

**authors** table

- F concat
- F inverted
- F invertedshort
- F normal
- F normalshort
- F setsettings
- F short

**authoryearref** function

**authoryearsref** function

**convert** function

**hacks** table

- F add
- F doifalreadypaced
- F filterall
- F flush
- F nofregistered
- F process
- F register
- F registerplaced
- F reset
- F resolve

**load** function

**new** function

**singularorplural** function

**statistics** table

- N nofbytes
- N nofdefinitions
- N nofshortcuts

**toxml** function



## bit32 (basic lua)

|                |          |
|----------------|----------|
| <b>arshift</b> | function |
| <b>band</b>    | function |
| <b>bnot</b>    | function |
| <b>bor</b>     | function |
| <b>btest</b>   | function |
| <b>bxor</b>    | function |
| <b>extract</b> | function |
| <b>lrotate</b> | function |
| <b>lshift</b>  | function |
| <b>replace</b> | function |
| <b>rrotate</b> | function |
| <b>rshift</b>  | 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>tohpackfast</b> | function |
| <b>tonodes</b>     | function |
| <b>tovpack</b>     | function |
| <b>tovpackfast</b> | function |
| <b>write</b>       | function |

## boolean (context)

**tocontext** function

**tonumber** function

## buffers (context)

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

# builders (context)

## **kernel**      table

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

## **paragraphs**   table

T constructors  
  N attribute  
  F define  
  F disable  
  F enable  
  F handler  
  T methods  
    F default  
    F oneline  
D names  
D numbers  
F set  
F start  
F stop  
F keeptogether  
F registertogether  
T solutions  
  T splitters  
    F define  
    F optimize  
  T registered  
    F reset  
    F set  
    F split  
    F start  
    F stop  
F tag

## **vspacing**      table

F analyze  
D categories  
F collapsevbox  
T data  
  D map  
  D skip  
  D snapmethods

F definesnapmethod  
B fixed  
F pagehandler  
F resetprevdepth  
F setmap  
F setskip  
F snapbox  
F tocategories  
F tocategory  
F vboxhandler

## caches (context)

|   |          |
|---|----------|
| <b>ask</b>                                | boolean  |
| <b>base</b>                               | string   |
| <b>collapsecontent</b>                    | function |
| <b>configfiles</b>                        | function |
| <b>contentstate</b>                       | function |
| <b>defaults</b>                           | table    |
| <b>define</b>                             | function |
| <b>direct</b>                             | boolean  |
| <b>force</b>                              | boolean  |
| <b>getfirstreadablefile</b>               | function |
| <b>getfirstreadablefile_TEST_ME_FIRST</b> | function |
| <b>getreadablepaths</b>                   | function |
| <b>getwritablepath</b>                    | function |
| <b>hashed</b>                             | function |
| <b>is_writable</b>                        | function |
| <b>loadcontent</b>                        | function |
| <b>loaddata</b>                           | function |
| <b>more</b>                               | string   |
| <b>relocate</b>                           | boolean  |
| <b>savecontent</b>                        | function |
| <b>savedata</b>                           | function |
| <b>setfirstwritablefile</b>               | function |
| <b>setluanames</b>                        | function |
| <b>tree</b>                               | string   |
| <b>treehash</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>  | number     | <b>otfscripts</b>            | data table |
| <b>adobename</b>     | function   | <b>ranges</b>                | data table |
| <b>bidirectional</b> | data table | <b>registerentities</b>      | function   |
| <b>blockrange</b>    | function   | <b>remap_hangul_syllable</b> | function   |
| <b>blocks</b>        | data table | <b>safechar</b>              | function   |
| <b>casemap</b>       | table      | <b>setcodes</b>              | function   |
| <b>categories</b>    | data table | <b>shape</b>                 | function   |
| <b>category</b>      | function   | <b>shaped</b>                | function   |
| <b>categorytags</b>  | data table | <b>shchars</b>               | data table |
| <b>combined</b>      | data table | <b>shcodes</b>               | data table |
| <b>contextname</b>   | function   | <b>showstring</b>            | function   |
| <b>data</b>          | data table | <b>specialchars</b>          | data table |
| <b>decomposed</b>    | data table | <b>specials</b>              | data table |
| <b>define</b>        | function   | <b>subscripts</b>            | table      |
| <b>description</b>   | function   | <b>superscripts</b>          | table      |
| <b>descriptions</b>  | data table | <b>synonyms</b>              | data table |
| <b>directions</b>    | table      | <b>tex</b>                   | table      |
| <b>encodes</b>       | data table | D accentmapping              |            |
| <b>entities</b>      | data table | F defineaccents              |            |
| <b>fallbacks</b>     | data table | F toutf                      |            |
| <b>filters</b>       | data table | <b>textclasses</b>           | table      |
| <b>fromnumber</b>    | function   | <b>tonumber</b>              | function   |
| <b>fschars</b>       | data table | <b>ucchars</b>               | data table |
| <b>fscodes</b>       | data table | <b>uccode</b>                | function   |
| <b>getrange</b>      | function   | <b>uccodes</b>               | data table |
| <b>graphemes</b>     | data table | <b>unicodechar</b>           | function   |
| <b>hangul</b>        | data table | <b>upper</b>                 | function   |
| <b>initialize</b>    | function   |                              |            |
| <b>is_character</b>  | data table |                              |            |
| <b>is_command</b>    | data table |                              |            |
| <b>is_letter</b>     | data table |                              |            |
| <b>is_mark</b>       | data table |                              |            |
| <b>is_spacing</b>    | data table |                              |            |
| <b>lcchars</b>       | data table |                              |            |
| <b>lccode</b>        | function   |                              |            |
| <b>lccodes</b>       | data table |                              |            |
| <b>lettered</b>      | function   |                              |            |
| <b>lower</b>         | function   |                              |            |
| <b>math</b>          | table      |                              |            |
| <b>mathpairs</b>     | data table |                              |            |
| <b>mirrors</b>       | table      |                              |            |

## chemistry (context)

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

## commands (context)

|                                  |          |                                |          |
|----------------------------------|----------|--------------------------------|----------|
| <b>Alphabetic</b>                | function | <b>autonextspace</b>           | function |
| <b>Character</b>                 | function | <b>autonextstructurelevel</b>  | function |
| <b>Characters</b>                | function | <b>autosetups</b>              | function |
| <b>MPc</b>                       | function | <b>autostarttext</b>           | function |
| <b>MPd</b>                       | function | <b>autostoptext</b>            | function |
| <b>MPh</b>                       | function | <b>averagecharwidth</b>        | function |
| <b>MPLl</b>                      | function | <b>bcolumn</b>                 | function |
| <b>MPlr</b>                      | function | <b>boolcase</b>                | function |
| <b>MPls</b>                      | function | <b>boxtostring</b>             | function |
| <b>MPn</b>                       | function | <b>character</b>               | function |
| <b>MPp</b>                       | function | <b>characters</b>              | function |
| <b>MPpardata</b>                 | function | <b>chardescription</b>         | function |
| <b>MPplus</b>                    | function | <b>checkcharactersinfont</b>   | function |
| <b>MPpos</b>                     | function | <b>checkcountersetup</b>       | function |
| <b>MPposset</b>                  | function | <b>checkedconversion</b>       | function |
| <b>MPr</b>                       | function | <b>checkedpagefloat</b>        | function |
| <b>MPrest</b>                    | function | <b>checktwopassdata</b>        | function |
| <b>MPrs</b>                      | function | <b>chemicalcomponent</b>       | function |
| <b>MPul</b>                      | function | <b>chineseallnumerals</b>      | function |
| <b>MPur</b>                      | function | <b>chinesecapnumerals</b>      | function |
| <b>MPw</b>                       | function | <b>chinesenumerals</b>         | function |
| <b>MPx</b>                       | function | <b>cleanfontname</b>           | function |
| <b>MPxy</b>                      | function | <b>cleanupbox</b>              | function |
| <b>MPxywhd</b>                   | function | <b>cleanupplayers</b>          | function |
| <b>MPy</b>                       | function | <b>clonefield</b>              | function |
| <b>Romannumerals</b>             | function | <b>collectfloat</b>            | function |
| <b>abjadnodotnumerals</b>        | function | <b>collecthelp</b>             | function |
| <b>abjadnumerals</b>             | function | <b>colorcomponents</b>         | function |
| <b>addcounter</b>                | function | <b>concatcommalist</b>         | function |
| <b>addlinklistelement</b>        | function | <b>consultfloat</b>            | function |
| <b>addtojavascriptpreamble</b>   | function | <b>copyposition</b>            | function |
| <b>addtolist</b>                 | function | <b>cos</b>                     | function |
| <b>allinputpaths</b>             | function | <b>cosd</b>                    | function |
| <b>alphabetic</b>                | function | <b>countervalue</b>            | function |
| <b>analysefloatmethod</b>        | function | <b>counttwopassdata</b>        | function |
| <b>analyzelist</b>               | function | <b>currentcomponent</b>        | function |
| <b>applytochars</b>              | function | <b>currentdate</b>             | function |
| <b>applytofirstcharacter</b>     | function | <b>currentenvironment</b>      | function |
| <b>applytowords</b>              | function | <b>currentproduct</b>          | function |
| <b>assignbuffer</b>              | function | <b>currentproject</b>          | function |
| <b>autofinishstructurelevels</b> | function | <b>currentreferencedefault</b> | function |

|                                      |                       |  |                       |
|--------------------------------------|-----------------------|--|-----------------------|
| <code>currentreferenceorder</code>   | <code>function</code> | <code>definewtopasslist</code>             | <code>function</code> |
| <code>currentregime</code>           | <code>function</code> | <code>defineviewerlayer</code>             | <code>function</code> |
| <code>currentsectiontolist</code>    | <code>function</code> | <code>defrostrandomseed</code>             | <code>function</code> |
| <code>datasetvariable</code>         | <code>function</code> | <code>digits</code>                        | <code>function</code> |
| <code>dayname</code>                 | <code>function</code> | <code>disableautofontscript</code>         | <code>function</code> |
| <code>defineattribute</code>         | <code>function</code> | <code>disableparbuilder</code>             | <code>function</code> |
| <code>definebibtexsession</code>     | <code>function</code> | <code>disableregime</code>                 | <code>function</code> |
| <code>definebreakpoint</code>        | <code>function</code> | <code>disablesPELLchecking</code>          | <code>function</code> |
| <code>definebreakpoints</code>       | <code>function</code> | <code>discardfromlist</code>               | <code>function</code> |
| <code>definecharacterspacing</code>  | <code>function</code> | <code>doanalyzeframedbox</code>            | <code>function</code> |
| <code>definechemical</code>          | <code>function</code> | <code>doif</code>                          | <code>function</code> |
| <code>defineconversion</code>        | <code>function</code> | <code>doifblackelse</code>                 | <code>function</code> |
| <code>definecounter</code>           | <code>function</code> | <code>doifcommonelse</code>                | <code>function</code> |
| <code>definedviewerlayer</code>      | <code>function</code> | <code>doifcounter</code>                   | <code>function</code> |
| <code>definefallbackfamily</code>    | <code>function</code> | <code>doifdimenstringelse</code>           | <code>function</code> |
| <code>definefield</code>             | <code>function</code> | <code>doifdrawingblackelse</code>          | <code>function</code> |
| <code>definefieldset</code>          | <code>function</code> | <code>doifelse</code>                      | <code>function</code> |
| <code>definefilefallback</code>      | <code>function</code> | <code>doifelsebuffer</code>                | <code>function</code> |
| <code>definefilesynonym</code>       | <code>function</code> | <code>doifelsecontinewithfile</code>       | <code>function</code> |
| <code>definefont_one</code>          | <code>function</code> | <code>doifelsecounter</code>               | <code>function</code> |
| <code>definefont_two</code>          | <code>function</code> | <code>doifelsecurrentfonthasfeature</code> | <code>function</code> |
| <code>definefontfamily</code>        | <code>function</code> | <code>doifelseintwopassdata</code>         | <code>function</code> |
| <code>definefontfeature</code>       | <code>function</code> | <code>doifelsemarking</code>               | <code>function</code> |
| <code>definefontsolution</code>      | <code>function</code> | <code>doifelsemessage</code>               | <code>function</code> |
| <code>defineinsertion</code>         | <code>function</code> | <code>doifelsemultipar</code>              | <code>function</code> |
| <code>defineintermediatecolor</code> | <code>function</code> | <code>doifelseparallel</code>              | <code>function</code> |
| <code>definelabels</code>            | <code>function</code> | <code>doifelsepositionsused</code>         | <code>function</code> |
| <code>definelanguage</code>          | <code>function</code> | <code>doifelserangeonpage</code>           | <code>function</code> |
| <code>definelinkedlist</code>        | <code>function</code> | <code>doifelserreference</code>            | <code>function</code> |
| <code>definemarking</code>           | <code>function</code> | <code>doifelsesavedfloat</code>            | <code>function</code> |
| <code>definemetafont</code>          | <code>function</code> | <code>doifelsespaces</code>                | <code>function</code> |
| <code>definemultitonecolor</code>    | <code>function</code> | <code>doifelseutfmathabove</code>          | <code>function</code> |
| <code>definenote</code>              | <code>function</code> | <code>doifelseutfmathaccent</code>         | <code>function</code> |
| <code>defineparallel</code>          | <code>function</code> | <code>doifelseutfmathbelow</code>          | <code>function</code> |
| <code>defineparbuilder</code>        | <code>function</code> | <code>doifelsevisualizer</code>            | <code>function</code> |
| <code>defineprocesscolor</code>      | <code>function</code> | <code>doiffielddcategoryelse</code>        | <code>function</code> |
| <code>defineprogram</code>           | <code>function</code> | <code>doiffielddelse</code>                | <code>function</code> |
| <code>definereference</code>         | <code>function</code> | <code>doiffielddsetelse</code>             | <code>function</code> |
| <code>definesectionlevels</code>     | <code>function</code> | <code>doiffiledefinedelse</code>           | <code>function</code> |
| <code>defineselectfont</code>        | <code>function</code> | <code>doiffileexistelse</code>             | <code>function</code> |
| <code>definespotcolor</code>         | <code>function</code> | <code>doiffirstcharelse</code>             | <code>function</code> |
| <code>definestructureblock</code>    | <code>function</code> | <code>doifinputfileelse</code>             | <code>function</code> |
| <code>definestructureset</code>      | <code>function</code> | <code>doifinsetelse</code>                 | <code>function</code> |
| <code>definetransparency</code>      | <code>function</code> | <code>doifleapyyearelse</code>             | <code>function</code> |

|                                     |          |                                |          |
|-------------------------------------|----------|--------------------------------|----------|
| <b>doiflisthasentry</b>             | function | <b>feedback</b>                | function |
| <b>doiflisthasnumberelse</b>        | function | <b>fetchallmarks</b>           | function |
| <b>doiflisthaspageelse</b>          | function | <b>fetchmultipar</b>           | function |
| <b>doiflisthastitleelse</b>         | function | <b>fetchmultishape</b>         | function |
| <b>doiflocfileelse</b>              | function | <b>fetchonemark</b>            | function |
| <b>doifnot</b>                      | function | <b>fetchposboxes</b>           | function |
| <b>doifnotcounter</b>               | function | <b>fetchtwomarks</b>           | function |
| <b>doifnotecontent</b>              | function | <b>figurefilename</b>          | function |
| <b>doifnoteonsamepageasprevious</b> | function | <b>figurefilepath</b>          | function |
| <b>doifobjectreferencefoundelse</b> | function | <b>figurefiletype</b>          | function |
| <b>doifolderversionelse</b>         | function | <b>figurerequest</b>           | function |
| <b>doifoverlappingelse</b>          | function | <b>figurestatus</b>            | function |
| <b>doifparentfileelse</b>           | function | <b>figureused</b>              | function |
| <b>doifposition</b>                 | function | <b>figurevariable</b>          | function |
| <b>doifpositionelse</b>             | function | <b>filterdefaultreference</b>  | function |
| <b>doifpositiononpage</b>           | function | <b>filterreference</b>         | function |
| <b>doifpositionsonsamepageelse</b>  | function | <b>finalizebox</b>             | function |
| <b>doifpositionsonthispageelse</b>  | function | <b>findtwopassdata</b>         | function |
| <b>doifurldefinedelse</b>           | function | <b>firstcountervalue</b>       | function |
| <b>doprocесstypescriptfile</b>      | function | <b>firstinset</b>              | function |
| <b>doreshapeframedbox</b>           | function | <b>flushfloat</b>              | function |
| <b>dostarttextfile</b>              | function | <b>flushnotes</b>              | function |
| <b>dostoptextfile</b>               | function | <b>flushpostponedblocks</b>    | function |
| <b>ecolumn</b>                      | function | <b>flushpostponednotes</b>     | function |
| <b>elapsedtime</b>                  | function | <b>fontchar</b>                | function |
| <b>enableautofontscript</b>         | function | <b>fontcollectionclone</b>     | function |
| <b>enablecolor</b>                  | function | <b>fontcollectiondefine</b>    | function |
| <b>enablecolorintents</b>           | function | <b>fontcollectionprepare</b>   | function |
| <b>enablefontcolorschemas</b>       | function | <b>fontcollectionregister</b>  | function |
| <b>enableparbuilder</b>             | function | <b>fontcollectionreport</b>    | function |
| <b>enableregime</b>                 | function | <b>fontcollectionreset</b>     | function |
| <b>enablespellchecking</b>          | function | <b>fontlookupgetkey</b>        | function |
| <b>enabletransparency</b>           | function | <b>fontlookupgetkeyofindex</b> | function |
| <b>enhancelinkedlist</b>            | function | <b>fontlookupinitialize</b>    | function |
| <b>enhancelist</b>                  | function | <b>fontlookupnofound</b>       | function |
| <b>enhancereference</b>             | function | <b>forceendjob</b>             | function |
| <b>erasebuffer</b>                  | function | <b>forcequitjob</b>            | function |
| <b>expandcurrentreference</b>       | function | <b>format</b>                  | function |
| <b>exportformdata</b>               | function | <b>formatcolor</b>             | function |
| <b>exportreferences</b>             | function | <b>formatgray</b>              | function |
| <b>extensiblecode</b>               | function | <b>freezerandomseed</b>        | function |
| <b>feature</b>                      | function | <b>from</b>                    | function |
| <b>featureattribute</b>             | function | <b>getbidimode</b>             | function |
| <b>featurelist</b>                  | function | <b>getbuffer</b>               | function |

|                                    |          |                                |          |
|------------------------------------|----------|--------------------------------|----------|
| <b>getbufferctxlua</b>             | function | <b>incrementedcounter</b>      | function |
| <b>getbuffermkvi</b>               | function | <b>initializetexdirectives</b> | function |
| <b>getcommandline</b>              | function | <b>initializetextrackers</b>   | function |
| <b>getctxfile</b>                  | function | <b>injectcurrentreference</b>  | function |
| <b>getcurrentprefixspec</b>        | function | <b>injectreference</b>         | function |
| <b>getcurrentreferencemetadata</b> | function | <b>inlinechemical</b>          | function |
| <b>getdefaultfieldvalue</b>        | function | <b>insertattachment</b>        | function |
| <b>getfieldcategory</b>            | function | <b>insertcomment</b>           | function |
| <b>getfirstcharacter</b>           | function | <b>insertfield</b>             | function |
| <b>getfirsttwopassdata</b>         | function | <b>insertionnumber</b>         | function |
| <b>getfloatvariable</b>            | function | <b>insertrenderingwindow</b>   | function |
| <b>getinternalreference</b>        | function | <b>insertsoundclip</b>         | function |
| <b>getlasttwopassdata</b>          | function | <b>installedlanguages</b>      | function |
| <b>getmarking</b>                  | function | <b>installtexdirective</b>     | function |
| <b>getmessage</b>                  | function | <b>installtextracker</b>       | function |
| <b>getmpextensions</b>             | function | <b>languagenumber</b>          | function |
| <b>getnotestate</b>                | function | <b>lastcountervalue</b>        | function |
| <b>getplaceholderchar</b>          | function | <b>lchexnumber</b>             | function |
| <b>getprivateattribute</b>         | function | <b>lchexnumbers</b>            | function |
| <b>getprivatechar</b>              | function | <b>leapyear</b>                | function |
| <b>getprogram</b>                  | function | <b>linenumbersstageone</b>     | function |
| <b>getrandomcounta</b>             | function | <b>linenumbersstagetwo</b>     | function |
| <b>getrandomcountb</b>             | function | <b>listgroupindex</b>          | function |
| <b>getrandomseed</b>               | function | <b>listlabel</b>               | function |
| <b>getreadfilename</b>             | function | <b>listlocation</b>            | function |
| <b>getsubstring</b>                | function | <b>listprefixednumber</b>      | function |
| <b>gettexbuffer</b>                | function | <b>listprefixedpage</b>        | function |
| <b>gettwopassdata</b>              | function | <b>listrealpage</b>            | function |
| <b>gettwopassdatalist</b>          | function | <b>listsize</b>                | function |
| <b>geturl</b>                      | function | <b>listtitle</b>               | function |
| <b>grabbuffer</b>                  | function | <b>listuserdata</b>            | function |
| <b>hboxtovbox</b>                  | function | <b>loadexamodes</b>            | function |
| <b>helpaction</b>                  | function | <b>loadfontgoodies</b>         | function |
| <b>helpreference</b>               | function | <b>loadspellchecklist</b>      | function |
| <b>hexstringtonumber</b>           | function | <b>loadtypescriptfile</b>      | function |
| <b>horizontalcode</b>              | function | <b>loadvisualizer</b>          | function |
| <b>hour</b>                        | function | <b>locatefilepath</b>          | function |
| <b>hyphenatedlist</b>              | function | <b>locfilename</b>             | function |
| <b>hyphenatedurl</b>               | function | <b>makeactive</b>              | function |
| D characters                       |          | <b>markfonts</b>               | function |
| N lefthyphenmin                    |          | <b>markregionbox</b>           | function |
| D mapping                          |          | <b>math_frac</b>               | function |
| N righthyphenmin                   |          | <b>mathrenderset</b>           | function |
| F setcharacters                    |          | <b>maxitemwidth</b>            | function |

|                                     |                 |                               |                 |
|-------------------------------------|-----------------|-------------------------------|-----------------|
| <b>minute</b>                       | <b>function</b> | <b>pdfstartmatrix</b>         | <b>function</b> |
| <b>mixcleanup</b>                   | <b>function</b> | <b>pdfstartmirroring</b>      | <b>function</b> |
| <b>mixfinalize</b>                  | <b>function</b> | <b>pdfstartrotation</b>       | <b>function</b> |
| <b>mixflushlist</b>                 | <b>function</b> | <b>pdfstartscaling</b>        | <b>function</b> |
| <b>mixflushrest</b>                 | <b>function</b> | <b>pdfstopmatrix</b>          | <b>function</b> |
| <b>mixgetsplit</b>                  | <b>function</b> | <b>pdfstopmirroring</b>       | <b>function</b> |
| <b>mixsetsplit</b>                  | <b>function</b> | <b>pdfstoprotation</b>        | <b>function</b> |
| <b>mixstate</b>                     | <b>function</b> | <b>pdfstopscaling</b>         | <b>function</b> |
| <b>molecule</b>                     | <b>function</b> | <b>percentageof</b>           | <b>function</b> |
| <b>month</b>                        | <b>function</b> | <b>pgfxcolorspec</b>          | <b>function</b> |
| <b>monthnmem</b>                    | <b>function</b> | <b>placeparallel</b>          | <b>function</b> |
| <b>monthname</b>                    | <b>function</b> | <b>popfloat</b>               | <b>function</b> |
| <b>mpcolor</b>                      | <b>function</b> | <b>popitaliccorrection</b>    | <b>function</b> |
| <b>mpoptions</b>                    | <b>function</b> | <b>poplist</b>                | <b>function</b> |
| <b>mprunvar</b>                     | <b>function</b> | <b>popreferenceprefix</b>     | <b>function</b> |
| <b>namedstructureuservariable</b>   | <b>function</b> | <b>popregime</b>              | <b>function</b> |
| <b>namedstructurevariable</b>       | <b>function</b> | <b>popsectionblock</b>        | <b>function</b> |
| <b>nbfs</b>                         | <b>function</b> | <b>pos</b>                    | <b>function</b> |
| <b>nextcountervalue</b>             | <b>function</b> | <b>posplus</b>                | <b>function</b> |
| <b>nextparallel</b>                 | <b>function</b> | <b>posstrut</b>               | <b>function</b> |
| <b>nofdays</b>                      | <b>function</b> | <b>postponenotes</b>          | <b>function</b> |
| <b>nofitems</b>                     | <b>function</b> | <b>poswhd</b>                 | <b>function</b> |
| <b>nofstackedfloats</b>             | <b>function</b> | <b>posxy</b>                  | <b>function</b> |
| <b>notedeltapage</b>                | <b>function</b> | <b>prepareMPvariable</b>      | <b>function</b> |
| <b>notelistindex</b>                | <b>function</b> | <b>preparebibtexsession</b>   | <b>function</b> |
| <b>notenumberpage</b>               | <b>function</b> | <b>preparedfile</b>           | <b>function</b> |
| <b>noteprefixednumber</b>           | <b>function</b> | <b>presetsymbollist</b>       | <b>function</b> |
| <b>notesymbolpage</b>               | <b>function</b> | <b>presettabulate</b>         | <b>function</b> |
| <b>notetitle</b>                    | <b>function</b> | <b>prevcountervalue</b>       | <b>function</b> |
| <b>ntimes</b>                       | <b>function</b> | <b>processbuffer</b>          | <b>function</b> |
| <b>number</b>                       | <b>function</b> | <b>processcolorcomponents</b> | <b>function</b> |
| <b>numbers</b>                      | <b>function</b> | <b>processedfile</b>          | <b>function</b> |
| <b>objectnumber</b>                 | <b>function</b> | <b>processedfiles</b>         | <b>function</b> |
| <b>objectpage</b>                   | <b>function</b> | <b>processfile</b>            | <b>function</b> |
| <b>octnumber</b>                    | <b>function</b> | <b>processfilemany</b>        | <b>function</b> |
| <b>octstringtonumber</b>            | <b>function</b> | <b>processfilenone</b>        | <b>function</b> |
| <b>ordinal</b>                      | <b>function</b> | <b>processfileonce</b>        | <b>function</b> |
| <b>overloadbookmark</b>             | <b>function</b> | <b>processlist</b>            | <b>function</b> |
| <b>page_injections_flush_after</b>  | <b>function</b> | <b>processsplit</b>           | <b>function</b> |
| <b>page_injections_flush_before</b> | <b>function</b> | <b>pushfloat</b>              | <b>function</b> |
| <b>page_injections_save</b>         | <b>function</b> | <b>pushitaliccorrection</b>   | <b>function</b> |
| <b>pagestaterealpage</b>            | <b>function</b> | <b>pushlist</b>               | <b>function</b> |
| <b>parpos</b>                       | <b>function</b> | <b>pushreferenceprefix</b>    | <b>function</b> |
| <b>pdfrotation</b>                  | <b>function</b> | <b>pushregime</b>             | <b>function</b> |



|                                   |                 |                                 |                 |
|-----------------------------------|-----------------|---------------------------------|-----------------|
| <b>pushsectionblock</b>           | <b>function</b> | <b>resetstructureprocessor</b>  | <b>function</b> |
| <b>rawcharacter</b>               | <b>function</b> | <b>resettimer</b>               | <b>function</b> |
| <b>rawcountervalue</b>            | <b>function</b> | <b>restartcounter</b>           | <b>function</b> |
| <b>rawdate</b>                    | <b>function</b> | <b>restorecounter</b>           | <b>function</b> |
| <b>referencepagestate</b>         | <b>function</b> | <b>restorecurrentattributes</b> | <b>function</b> |
| <b>referencerealpage</b>          | <b>function</b> | <b>restorenote</b>              | <b>function</b> |
| <b>registerattachment</b>         | <b>function</b> | <b>romannumerals</b>            | <b>function</b> |
| <b>registerbibtexentry</b>        | <b>function</b> | <b>runbuffer</b>                | <b>function</b> |
| <b>registerbibtexfile</b>         | <b>function</b> | <b>safechar</b>                 | <b>function</b> |
| <b>registerbookmark</b>           | <b>function</b> | <b>savebuffer</b>               | <b>function</b> |
| <b>registerbuttons</b>            | <b>function</b> | <b>savecounter</b>              | <b>function</b> |
| <b>registercolor</b>              | <b>function</b> | <b>savecurrentattributes</b>    | <b>function</b> |
| <b>registercolorintent</b>        | <b>function</b> | <b>savedlistnumber</b>          | <b>function</b> |
| <b>registeredviewerlayer</b>      | <b>function</b> | <b>savedlistprefixednumber</b>  | <b>function</b> |
| <b>registerhelp</b>               | <b>function</b> | <b>savedlisttitle</b>           | <b>function</b> |
| <b>registeritemgroup</b>          | <b>function</b> | <b>savefloat</b>                | <b>function</b> |
| <b>registerlanguagefeatures</b>   | <b>function</b> | <b>savenote</b>                 | <b>function</b> |
| <b>registerlinenumbering</b>      | <b>function</b> | <b>saveobject</b>               | <b>function</b> |
| <b>registermaintextcolor</b>      | <b>function</b> | <b>saveparallel</b>             | <b>function</b> |
| <b>registernamespace</b>          | <b>function</b> | <b>savestructureblock</b>       | <b>function</b> |
| <b>registerpostponedblock</b>     | <b>function</b> | <b>savetaggedtwopassdata</b>    | <b>function</b> |
| <b>registerrendering</b>          | <b>function</b> | <b>savetwopassdata</b>          | <b>function</b> |
| <b>registersoundclip</b>          | <b>function</b> | <b>second</b>                   | <b>function</b> |
| <b>registerstructureprocessor</b> | <b>function</b> | <b>selectstructureblock</b>     | <b>function</b> |
| <b>registertransparency</b>       | <b>function</b> | <b>setbreakpoints</b>           | <b>function</b> |
| <b>registerunit</b>               | <b>function</b> | <b>setcharacteralign</b>        | <b>function</b> |
| <b>relatemarking</b>              | <b>function</b> | <b>setcharactercasing</b>       | <b>function</b> |
| <b>remapentity</b>                | <b>function</b> | <b>setcharactercleaning</b>     | <b>function</b> |
| <b>removemissingcharacters</b>    | <b>function</b> | <b>setcharacterkerning</b>      | <b>function</b> |
| <b>renderingvar</b>               | <b>function</b> | <b>setcharacterspacing</b>      | <b>function</b> |
| <b>replacemissingcharacters</b>   | <b>function</b> | <b>setcharacterstripping</b>    | <b>function</b> |
| <b>replacepospxywhd</b>           | <b>function</b> | <b>setcloseddocumentaction</b>  | <b>function</b> |
| <b>resavefloat</b>                | <b>function</b> | <b>setclosepageaction</b>       | <b>function</b> |
| <b>resetcharacteralign</b>        | <b>function</b> | <b>setcolormodel</b>            | <b>function</b> |
| <b>resetcounter</b>               | <b>function</b> | <b>setcounter</b>               | <b>function</b> |
| <b>resetfontfeature</b>           | <b>function</b> | <b>setdataset</b>               | <b>function</b> |
| <b>resetfontsolution</b>          | <b>function</b> | <b>setdigitsmanipulation</b>    | <b>function</b> |
| <b>resetmarking</b>               | <b>function</b> | <b>setdirection</b>             | <b>function</b> |
| <b>resetmathattributes</b>        | <b>function</b> | <b>setdocumentenvironments</b>  | <b>function</b> |
| <b>resetmathitalics</b>           | <b>function</b> | <b>setdocumentfilenames</b>     | <b>function</b> |
| <b>resetnullfont</b>              | <b>function</b> | <b>setdocumentmodes</b>         | <b>function</b> |
| <b>resetparallel</b>              | <b>function</b> | <b>setdocumentmodules</b>       | <b>function</b> |
| <b>resetprevdepth</b>             | <b>function</b> | <b>setfigurelookuporder</b>     | <b>function</b> |
| <b>resetreference</b>             | <b>function</b> | <b>setfirstline</b>             | <b>function</b> |

|                                 |          |                                |          |
|---------------------------------|----------|--------------------------------|----------|
| <b>setfontfeature</b>           | function | <b>settagdescriptionsymbol</b> | function |
| <b>setfontofid</b>              | function | <b>settagfigure</b>            | function |
| <b>setfontsolution</b>          | function | <b>settaghighlight</b>         | function |
| <b>setformat</b>                | function | <b>settagitemgroup</b>         | function |
| <b>setformsmethod</b>           | function | <b>settagproperty</b>          | function |
| <b>setinitial</b>               | function | <b>settagsorting</b>           | function |
| <b>setinsertionlocation</b>     | function | <b>settagssynonym</b>          | function |
| <b>setinterfaceconstant</b>     | function | <b>settagtablecell</b>         | function |
| <b>setinterfaceelement</b>      | function | <b>settagtabulatecell</b>      | function |
| <b>setinterfacemessage</b>      | function | <b>setupbookmarks</b>          | function |
| <b>setinterfacemessages</b>     | function | <b>setupcanvas</b>             | function |
| <b>setinterfacevariable</b>     | function | <b>setupcharacterspacing</b>   | function |
| <b>setinternalreference</b>     | function | <b>setupexport</b>             | function |
| <b>setlanguageexceptions</b>    | function | <b>setupfontexpansion</b>      | function |
| <b>setlanguagesynonym</b>       | function | <b>setupfontprotrusion</b>     | function |
| <b>setlayer</b>                 | function | <b>setupidentity</b>           | function |
| <b>setmarking</b>               | function | <b>setupinsertion</b>          | function |
| <b>setmathalphabet</b>          | function | <b>setupitaliccorrection</b>   | function |
| <b>setmathalternate</b>         | function | <b>setuplinenumbering</b>      | function |
| <b>setmathattribute</b>         | function | <b>setvisual</b>               | function |
| <b>setmathdirection</b>         | function | <b>setxmpfile</b>              | function |
| <b>setmathitalics</b>           | function | <b>showassignerror</b>         | function |
| <b>setmathstyle</b>             | function | <b>showattributes</b>          | function |
| <b>setnextinternalreference</b> | function | <b>showcallbacks</b>           | function |
| <b>setnotestate</b>             | function | <b>showchardata</b>            | function |
| <b>setnotesymbolpage</b>        | function | <b>showcounter</b>             | function |
| <b>setobject</b>                | function | <b>showfontparameters</b>      | function |
| <b>setopendocumentaction</b>    | function | <b>showhyphenatedinlist</b>    | function |
| <b>setopenpageaction</b>        | function | <b>showjustification</b>       | function |
| <b>setowncounter</b>            | function | <b>showmessage</b>             | function |
| <b>setpagestate</b>             | function | <b>sin</b>                     | function |
| <b>setpagestaterealpageno</b>   | function | <b>sind</b>                    | function |
| <b>setpagetransition</b>        | function | <b>splitfilename</b>           | function |
| <b>setparbuilder</b>            | function | <b>spotcolorname</b>           | function |
| <b>setpos</b>                   | function | <b>spotcolorparent</b>         | function |
| <b>setrandomseed</b>            | function | <b>spotcolorvalue</b>          | function |
| <b>setrealign</b>               | function | <b>startchemical</b>           | function |
| <b>setreferencearguments</b>    | function | <b>startcolorset</b>           | function |
| <b>setreferenceattribute</b>    | function | <b>startcomponent</b>          | function |
| <b>setreferenceoperation</b>    | function | <b>startenvironment</b>        | function |
| <b>setsectionblock</b>          | function | <b>startfontsolution</b>       | function |
| <b>setstructureblockstate</b>   | function | <b>startparbuilder</b>         | function |
| <b>settagcombination</b>        | function | <b>startproduct</b>            | function |
| <b>settagdescription</b>        | function | <b>startproject</b>            | function |

|                                  |          |                              |          |
|----------------------------------|----------|------------------------------|----------|
| <b>startregime</b>               | function | <b>triggereffect</b>         | function |
| <b>startsectionlevel</b>         | function | <b>triggernegative</b>       | function |
| <b>starttag</b>                  | function | <b>truefilename</b>          | function |
| <b>starttext</b>                 | function | <b>typebuffer</b>            | function |
| <b>startviewerlayer</b>          | function | <b>typefile</b>              | function |
| <b>stopchemical</b>              | function | <b>typestring</b>            | function |
| <b>stopcolorset</b>              | function | <b>uchexnumber</b>           | function |
| <b>stopcomponent</b>             | function | <b>uchexnumbers</b>          | function |
| <b>stopenvironment</b>           | function | <b>undefinechemical</b>      | function |
| <b>stopfontsolution</b>          | function | <b>unicodechar</b>           | function |
| <b>stopparbuilder</b>            | function | <b>unit</b>                  | function |
| <b>stopproduct</b>               | function | <b>unloadlanguage</b>        | function |
| <b>stopproject</b>               | function | <b>useMPLibrary</b>          | function |
| <b>stopregime</b>                | function | <b>useanyfile</b>            | function |
| <b>stopsectionlevel</b>          | function | <b>usecldfile</b>            | function |
| <b>stoptag</b>                   | function | <b>usecolors</b>             | function |
| <b>stoptext</b>                  | function | <b>usecomponent</b>          | function |
| <b>stopviewerlayer</b>           | function | <b>useenvironment</b>        | function |
| <b>storejavascriptcode</b>       | function | <b>usefile</b>               | function |
| <b>storejavascriptpreamble</b>   | function | <b>usejavascriptpreamble</b> | function |
| <b>storenote</b>                 | function | <b>usejavascriptscripts</b>  | function |
| <b>strdp</b>                     | function | <b>uselibrary</b>            | function |
| <b>strhd</b>                     | function | <b>useluafile</b>            | function |
| <b>strht</b>                     | function | <b>useluamodule</b>          | function |
| <b>structureautocatcodedget</b>  | function | <b>usemodules</b>            | function |
| <b>structurecatcodedget</b>      | function | <b>usepath</b>               | function |
| <b>structuregivencatcodedget</b> | function | <b>useproduct</b>            | function |
| <b>structurenumber</b>           | function | <b>useproject</b>            | function |
| <b>structuretitle</b>            | function | <b>usesubpath</b>            | function |
| <b>structureuservariable</b>     | function | <b>usesymbols</b>            | function |
| <b>structurevariable</b>         | function | <b>usetexfile</b>            | function |
| <b>strwd</b>                     | function | <b>useurl</b>                | function |
| <b>subcountervalues</b>          | function | <b>usexmlfile</b>            | function |
| <b>synchronizecolormodel</b>     | function | <b>usezipfile</b>            | function |
| <b>synchronizemarking</b>        | function | <b>utfchar</b>               | function |
| <b>taggedmathfunction</b>        | function | <b>utfmathclass</b>          | function |
| <b>tan</b>                       | function | <b>utfmathcommand</b>        | function |
| <b>tand</b>                      | function | <b>utfmathcommandabove</b>   | function |
| <b>testcase</b>                  | function | <b>utfmathcommandbelow</b>   | function |
| <b>textime</b>                   | function | <b>utfmathfiller</b>         | function |
| <b>thefirstcharacter</b>         | function | <b>utfmathstretch</b>        | function |
| <b>theremainingcharacters</b>    | function | <b>vboxlisttohbox</b>        | function |
| <b>thetexdefinition</b>          | function | <b>verbose</b>               | function |
| <b>transparencycomponents</b>    | function | <b>visual</b>                | function |

|                                   |          |
|-----------------------------------|----------|
| <b>vspacing</b>                   | function |
| <b>vspacingcollapse</b>           | function |
| <b>vspacingdefine</b>             | function |
| <b>vspacingsetamount</b>          | function |
| <b>vspacingsnap</b>               | function |
| <b>way</b>                        | function |
| <b>weekday</b>                    | function |
| <b>weekdayname</b>                | function |
| <b>writestatus</b>                | function |
| <b>x_table_c</b>                  | function |
| <b>x_table_cleanup</b>            | function |
| <b>x_table_construct</b>          | function |
| <b>x_table_create</b>             | function |
| <b>x_table_flush</b>              | function |
| <b>x_table_init_construct</b>     | function |
| <b>x_table_init_reflow_height</b> | function |
| <b>x_table_init_reflow_width</b>  | function |
| <b>x_table_next_row</b>           | function |
| <b>x_table_r</b>                  | function |
| <b>x_table_reflow_height</b>      | function |
| <b>x_table_reflow_width</b>       | function |
| <b>x_table_set_construct</b>      | function |
| <b>x_table_set_reflow_height</b>  | function |
| <b>x_table_set_reflow_width</b>   | function |
| <b>year</b>                       | function |

## containers (context)

|                   |          |
|-------------------|----------|
| <b>cleannname</b> | function |
| <b>content</b>    | function |
| <b>define</b>     | function |
| <b>is_usable</b>  | function |
| <b>is_valid</b>   | function |
| <b>read</b>       | function |
| <b>usecache</b>   | boolean  |
| <b>write</b>      | function |

# converters (context)

|                           |            |                |          |
|---------------------------|------------|----------------|----------|
| <b>Alphabetic</b>         | function   | <b>verbose</b> | table    |
| <b>Character</b>          | function   | D data         |          |
| <b>Characters</b>         | function   | F translate    |          |
| <b>Romannumerals</b>      | function   | <b>weekday</b> | function |
| <b>abjadnodotnumerals</b> | function   | <b>year</b>    | function |
| <b>abjadnumerals</b>      | function   |                |          |
| <b>alphabetic</b>         | function   |                |          |
| <b>character</b>          | function   |                |          |
| <b>characters</b>         | function   |                |          |
| <b>chineseallnumerals</b> | function   |                |          |
| <b>chinesecapnumerals</b> | function   |                |          |
| <b>chinesenumerals</b>    | function   |                |          |
| <b>chr</b>                | function   |                |          |
| <b>chrs</b>               | function   |                |          |
| <b>convert</b>            | function   |                |          |
| <b>define</b>             | function   |                |          |
| <b>hexstringtonumber</b>  | function   |                |          |
| <b>hour</b>               | function   |                |          |
| <b>isleapyear</b>         | function   |                |          |
| <b>lhexnumber</b>         | function   |                |          |
| <b>lhexnumbers</b>        | function   |                |          |
| <b>leapyear</b>           | function   |                |          |
| <b>maxchrs</b>            | function   |                |          |
| <b>minute</b>             | function   |                |          |
| <b>month</b>              | function   |                |          |
| <b>nofdays</b>            | function   |                |          |
| <b>number</b>             | function   |                |          |
| <b>numbers</b>            | function   |                |          |
| <b>octnumber</b>          | function   |                |          |
| <b>octstringtonumber</b>  | function   |                |          |
| <b>ordinal</b>            | function   |                |          |
| <b>rawcharacter</b>       | function   |                |          |
| <b>romannumerals</b>      | function   |                |          |
| <b>second</b>             | function   |                |          |
| <b>sequences</b>          | data table |                |          |
| <b>textime</b>            | function   |                |          |
| <b>toabjad</b>            | function   |                |          |
| <b>tochinese</b>          | function   |                |          |
| <b>toroman</b>            | function   |                |          |
| <b>uchexnumber</b>        | function   |                |          |
| <b>uchexnumbers</b>       | function   |                |          |

## coroutine (basic lua)

|                |          |
|----------------|----------|
| <b>create</b>  | function |
| <b>resume</b>  | function |
| <b>running</b> | function |
| <b>status</b>  | function |
| <b>wrap</b>    | function |
| <b>yield</b>   | function |

## ctxrunner (context)

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



## debug (basic lua)

|                     |          |
|---------------------|----------|
| <b>debug</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>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>enable</b>   | function   |
| <b>list</b>     | function   |
| <b>name</b>     | string     |
| <b>register</b> | function   |
| <b>report</b>   | function   |
| <b>show</b>     | function   |
| <b>value</b>    | function   |

# document (context)

|                           |            |
|---------------------------|------------|
| <b>arguments</b>          | data table |
| <b>files</b>              | table      |
| <b>getargument</b>        | function   |
| <b>getfilename</b>        | function   |
| <b>options</b>            | table      |
| T cmdline                 |            |
| D environments            |            |
| D modes                   |            |
| D modules                 |            |
| T ctxfile                 |            |
| D environments            |            |
| D modes                   |            |
| D modules                 |            |
| <b>setargument</b>        | function   |
| <b>setdefaultargument</b> | function   |
| <b>setfilename</b>        | function   |
| <b>variables</b>          | data table |

## environment (context)

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

## epdf (extra tex)

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

## experiments (context)

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

## figures (context)

|                         |            |                       |            |
|-------------------------|------------|-----------------------|------------|
| <b>applyratio</b>       | function   | <b>registersuffix</b> | function   |
| <b>bases</b>            | data table | <b>resources</b>      | data table |
| <b>bitmapimage</b>      | function   | <b>scale</b>          | function   |
| <b>boxnumber</b>        | number     | <b>setlookups</b>     | function   |
| <b>cachepaths</b>       | data table | <b>setorder</b>       | function   |
| <b>check</b>            | function   | <b>setpaths</b>       | function   |
| <b>checkers</b>         | data table | <b>suffixes</b>       | data table |
| <b>converters</b>       | data table | <b>used</b>           | data table |
| <b>current</b>          | function   |                       |            |
| <b>defaultdepth</b>     | number     |                       |            |
| <b>defaultheight</b>    | number     |                       |            |
| <b>defaultsearch</b>    | boolean    |                       |            |
| <b>defaultwidth</b>     | number     |                       |            |
| <b>done</b>             | function   |                       |            |
| <b>dummy</b>            | function   |                       |            |
| <b>exists</b>           | data table |                       |            |
| <b>exists</b>           | function   |                       |            |
| <b>formats</b>          | data table |                       |            |
| <b>found</b>            | data table |                       |            |
| <b>get</b>              | function   |                       |            |
| <b>guess</b>            | function   |                       |            |
| <b>hash</b>             | function   |                       |            |
| <b>identifiers</b>      | data table |                       |            |
| <b>identify</b>         | function   |                       |            |
| <b>include</b>          | function   |                       |            |
| <b>includers</b>        | data table |                       |            |
| <b>initialize</b>       | function   |                       |            |
| <b>loaded</b>           | data table |                       |            |
| <b>localpaths</b>       | data table |                       |            |
| <b>magics</b>           | data table |                       |            |
| <b>mergegoodies</b>     | function   |                       |            |
| <b>nofprocessed</b>     | number     |                       |            |
| <b>order</b>            | data table |                       |            |
| <b>paths</b>            | data table |                       |            |
| <b>patterns</b>         | data table |                       |            |
| <b>pop</b>              | function   |                       |            |
| <b>preferquality</b>    | boolean    |                       |            |
| <b>programs</b>         | data table |                       |            |
| <b>push</b>             | function   |                       |            |
| <b>registerpattern</b>  | function   |                       |            |
| <b>registerresource</b> | function   |                       |            |



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

## font (basic tex)

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

## fontloader (extra tex)

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

# fonts (context)

|                    |       |                           |           |
|--------------------|-------|---------------------------|-----------|
| <b>analyzers</b>   | table |                           | F report  |
| T features         |       |                           | F reset   |
| N blwf             |       |                           | T vectors |
| N fina             |       | <b>constructors</b>       | table     |
| N half             |       | F aftercopyingcharacters  |           |
| N init             |       | F applymanipulators       |           |
| N isol             |       | F assignmathparameters    |           |
| N medi             |       | B autocleanup             |           |
| N pref             |       | F beforecopyingcharacters |           |
| N pstf             |       | D cache                   |           |
| N rphf             |       | F calculatyscale          |           |
| D initializers     |       | F checkedfeatures         |           |
| D methods          |       | F checkedfilename         |           |
| F setstate         |       | F checkvirtualids         |           |
| T states           |       | F cleanupable             |           |
| N blwf             |       | F collectprocessors       |           |
| N fina             |       | D designsizes             |           |
| N half             |       | D dontembed               |           |
| N init             |       | F enhanceparameters       |           |
| N isol             |       | N factor                  |           |
| N mark             |       | F finalize                |           |
| N medi             |       | F getfeatureaction        |           |
| N pref             |       | F hashfeatures            |           |
| N pstf             |       | F hashinstance            |           |
| N rest             |       | T hashmethods             |           |
| N rphf             |       | F normal                  |           |
| B useunicodemarks  |       | F virtual                 |           |
| <b>checkers</b>    | table | F initializefeatures      |           |
| F getmissing       |       | T keys                    |           |
| F missing          |       | T character               |           |
| <b>cid</b>         | table | S depth                   |           |
| F getmap           |       | S height                  |           |
| F loadfile         |       | S italic                  |           |
| <b>collections</b> | table | S width                   |           |
| F checkenabled     |       | T description             |           |
| F clonevector      |       | T boundingbox             |           |
| F define           |       | S depth                   |           |
| T definitions      |       | S height                  |           |
| F prepare          |       | S width                   |           |
| F process          |       | T parameters              |           |
| F registermain     |       | S ascender                |           |

|                          |                       |          |
|--------------------------|-----------------------|----------|
| S descender              | S encodingbytes       |          |
| S designsize             | S filename            |          |
| T expansion              | S finalized           |          |
| S auto                   | S fontname            |          |
| S shrink                 | S format              |          |
| S step                   | S fullname            |          |
| S stretch                | S hasitalics          |          |
| S extendfactor           | S hasmath             |          |
| S factor                 | S mathitalics         |          |
| S hfactor                | S mode                |          |
| S mathsize               | S name                |          |
| T protrusion             | S noglyphnames        |          |
| S auto                   | S nostackmath         |          |
| S quad                   | S psname              |          |
| S scaledpoints           | S textitalics         |          |
| S scriptpercentage       | S virtualized         |          |
| S scriptscriptpercentage | D loadedfonts         |          |
| S size                   | S namemode            |          |
| S slantfactor            | F newfeatures         |          |
| S slantperpoint          | F newhandler          |          |
| T spacing                | N privateoffset       |          |
| S extra                  | F readanddefine       |          |
| S shrink                 | F registerfeature     |          |
| S stretch                | B resolvevirtualtoo   |          |
| S width                  | F scale               |          |
| T synonyms               | F scaled              |          |
| S em                     | F setfactor           |          |
| S ex                     | F setname             |          |
| S extra_space            | N version             |          |
| S extraspace             | <b>current</b>        | function |
| S slant                  | <b>currentid</b>      | function |
| S space                  | <b>definers</b>       | table    |
| S space_shrink           | F addlookup           |          |
| S space_stretch          | F analyze             |          |
| S spaceshrink            | F applypostprocessors |          |
| S spacestretch           | F checkedmode         |          |
| S x_height               | F checkedscript       |          |
| S units                  | F current             |          |
| S vfactor                | S defaultlookup       |          |
| S xheight                | F define              |          |
| T properties             | F getspecification    |          |
| S autoitalicamount       | F internal            |          |
| T cidinfo                | F loadfont            |          |
| S embedding              | F makespecification   |          |

|                       |            |   |
|-----------------------|------------|---|
| T methods             |            | F prepare_features                                  |
| F install             |            | F register  |
| D variants            |            | F registerpostprocessor                             |
| F read                |            | F report  |
| F register            |            | <b>handlers</b>                                     |
| F registered          |            | table   |
| F registersplit       |            | T afm   |
| F resetnullfont       |            | B addkerns  |
| F resolve             |            | B addligatures                                      |
| T resolvers           |            | B addtexligatures                                   |
| F file                |            | B autoprefixed                                      |
| F name                |            | D cache   |
| F spec                |            | D features  |
| <b>definetypface</b>  | function   | T helpdata  |
| <b>encodings</b>      | table      | D bothkerned  |
| T agl                 |            | D leftkerned  |
| D cache               |            | D ligatures   |
| F is_known            |            | D rightkerned                                       |
| D known               |            | D texligatures                                      |
| F load                |            | F load  |
| F make_unicode_vector |            | F setfeatures                                       |
| D math                |            | B syncspace   |
| N version             |            | N version   |
| <b>expansions</b>     | data table | T otf   |
| <b>formats</b>        | data table | F addfeature  |
| <b>goodies</b>        | table      | D cache   |
| D colorschemes        |            | T chainhandlers                                     |
| D data                |            | F normal  |
| D designsizes         |            | F verbose   |
| D filenames           |            | F collectlookups                                    |
| F getcompositions     |            | F dataset   |
| T list                |            | S defaultbasealternate                              |
| F compositions        |            | S defaultnodealternate                              |
| F designsizes         |            | D enhancers   |
| F expansions          |            | D features  |
| F featureset          |            | F getalternate                                      |
| F filenames           |            | T glists  |
| F files               |            | T handlers  |
| F mathematics         |            | F contextchain                                      |
| F protrusions         |            | F devanagari_remove_joiners                         |
| F solutions           |            | F devanagari_reorder_matras                         |
| F treatments          |            | F devanagari_reorder_pre_base_reordering_consonants |
| F typefaces           |            | F devanagari_reorder_reph                           |
| F load                |            | F gpos_context                                      |
|                       |            | F gpos_contextchain                                 |

|                            |                               |
|----------------------------|-------------------------------|
| F gpos_cursive             | D dynamics                    |
| F gpos_mark2base           | D emwidths                    |
| F gpos_mark2ligature       | D exheights                   |
| F gpos_mark2mark           | D extensibles                 |
| F gpos_pair                | D features                    |
| F gpos_single              | D identifiers                 |
| F gsub_alternate           | D italics                     |
| F gsub_context             | D lastmathids                 |
| F gsub_contextchain        | D marks                       |
| F gsub_ligature            | D parameters                  |
| F gsub_multiple            | T processes                   |
| F gsub_reversecontextchain | D properties                  |
| F gsub_single              | D quads                       |
| F load                     | D resources                   |
| F scriptandlanguage        | T setdynamics                 |
| F setcontextchain          | D spaces                      |
| F setdynamics              | D spacings                    |
| F setfeatures              | D unicodes                    |
| T statistics               | D xheights                    |
| D usedfeatures             | <b>helpers</b> <b>table</b>   |
| T tables                   | F addprivate                  |
| D baselines                | F dimenfactor                 |
| D features                 | F expandglyph                 |
| D languages                | F fontpatternhassize          |
| D scripts                  | F getdigitwidth               |
| N version                  | F getparameters               |
| T pfb                      | F getprivatenode              |
| T tfm                      | F hasprivate                  |
| D features                 | F name                        |
| F setfeatures              | F nametoslot                  |
| T vf                       | F setdigitwidth               |
| T combinations             | F splitfontpattern            |
| F combine                  | <b>iterators</b> <b>table</b> |
| T combiner                 | F characters                  |
| D commands                 | F descriptions                |
| F find                     | F glyphs                      |
| D helpers                  | <b>loggers</b> <b>table</b>   |
| D math                     | F add_placeholders            |
| D predefined               | T category_to_placeholder     |
| D whatever                 | S ll                          |
| <b>hashes</b> <b>table</b> | S lm                          |
| D characters               | S lo                          |
| D csnames                  | S lt                          |
| D descriptions             | S lu                          |



|                       |            |                    |       |
|-----------------------|------------|--------------------|-------|
| S mc                  |            | F lua              |       |
| S me                  |            | F opentype         |       |
| S mn                  |            | F otf              |       |
| S nd                  |            | F pfb              |       |
| S nl                  |            | D sequence         |       |
| S no                  |            | F tfm              |       |
| S pc                  |            | F ttc              |       |
| S pd                  |            | F ttf              |       |
| S pe                  |            | <b>select</b>      | table |
| S pf                  |            | T data             |       |
| S pi                  |            | F definetypeface   |       |
| S po                  |            | T fallbacks        |       |
| S ps                  |            | F filterinput      |       |
| S sc                  |            | T methods          |       |
| S sk                  |            | F default          |       |
| S sm                  |            | F features         |       |
| S so                  |            | F file             |       |
| F format              |            | F goodies          |       |
| F onetimemessage      |            | F name             |       |
| F register            |            | F selectfont       |       |
| F reportdefinedfonts  |            | F simplefonts      |       |
| F reportusedfeatures  |            | F spec             |       |
| <b>mappings</b>       | table      | F style            |       |
| F addtounicode        |            | F registerfallback |       |
| F fromunicodel6       |            | F searchfiles      |       |
| F loadfile            |            | <b>specifiers</b>  | table |
| F loadline            |            | D contextmerged    |       |
| F loadlumtable        |            | F contextnumber    |       |
| F makenameparser      |            | D contextnumbers   |       |
| F reset               |            | D contextsetups    |       |
| F tounicodel6         |            | F contexttostring  |       |
| F tounicodel6sequence |            | F definecontext    |       |
| <b>mp</b>             | table      | F mergecontext     |       |
| D cache               |            | F presetcontext    |       |
| B inline              |            | F registercontext  |       |
| N version             |            | F showcontext      |       |
| <b>names</b>          | data table | F splitcontext     |       |
| <b>nulldata</b>       | data table | D synonyms         |       |
| <b>protrusions</b>    | data table | D variants         |       |
| <b>readers</b>        | table      | <b>symbols</b>     | table |
| F afm                 |            | F uselibrary       |       |
| F check_lua           |            | <b>tables</b>      | table |
| F check_tfm           |            | <b>tracers</b>     | table |
| F dfont               |            | <b>treatments</b>  | table |

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

**typefaces**

data table

# functions (context)

**dummy** function

# graphics (context)

## **backgrounds** table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

|               |          |
|---------------|----------|
| <b>close</b>  | function |
| <b>lines</b>  | function |
| <b>load</b>   | function |
| <b>open</b>   | function |
| <b>save</b>   | function |
| <b>suffix</b> | function |

## img (basic tex)

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

**linkedlists** 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   |
| <b>cachedsetups</b>         | data table |
| <b>cachesetup</b>           | function   |
| <b>checkedspecification</b> | function   |
| <b>complete</b>             | data table |
| <b>constants</b>            | data table |
| <b>corenamespaces</b>       | data table |
| <b>definecommand</b>        | function   |
| <b>doifelsemessage</b>      | function   |
| <b>elements</b>             | data table |
| <b>formats</b>              | data table |
| <b>getcheckedparameters</b> | function   |
| <b>getmessage</b>           | function   |
| <b>hashedsetups</b>         | data table |
| <b>interfacedcommand</b>    | function   |
| <b>interfaces</b>           | table      |
| <b>invalidkey</b>           | function   |
| <b>is_command</b>           | function   |
| <b>namespaces</b>           | table      |
| F define                    |            |
| F list                      |            |
| <b>registernamespace</b>    | function   |
| <b>setconstant</b>          | function   |
| <b>setelement</b>           | function   |
| <b>setformat</b>            | function   |
| <b>setmessage</b>           | function   |
| <b>setmessages</b>          | function   |
| <b>settranslation</b>       | function   |
| <b>setuserinterface</b>     | function   |
| <b>setvalidkeys</b>         | function   |
| <b>setvariable</b>          | function   |
| <b>showmessage</b>          | function   |
| <b>syntax</b>               | data table |
| <b>tolist</b>               | function   |
| <b>translations</b>         | data table |
| <b>variables</b>            | data table |



## io (basic lua)

|                      |                     |
|----------------------|---------------------|
| <b>ask</b>           | function            |
| <b>bytes</b>         | function            |
| <b>characters</b>    | function            |
| <b>close</b>         | function            |
| <b>exists</b>        | function            |
| <b>fileseparator</b> | string              |
| <b>flush</b>         | function            |
| <b>i_limiter</b>     | function            |
| <b>i_limiters</b>    | table               |
| T paranoid           |                     |
| <b>input</b>         | function            |
| <b>limiter</b>       | function            |
| <b>lines</b>         | function            |
| <b>loadchunk</b>     | function            |
| <b>loaddata</b>      | function            |
| <b>loadlines</b>     | function            |
| <b>noflines</b>      | function            |
| <b>o_limiter</b>     | function            |
| <b>o_limiters</b>    | table               |
| T paranoid           |                     |
| <b>open</b>          | overloaded function |
| <b>output</b>        | function            |
| <b>pathseparator</b> | string              |
| <b>popen</b>         | overloaded function |
| <b>read</b>          | function            |
| <b>readall</b>       | function            |
| <b>readnumber</b>    | function            |
| <b>readstring</b>    | function            |
| <b>savadata</b>      | function            |
| <b>size</b>          | function            |
| <b>stderr</b>        | userdata            |
| <b>stdin</b>         | userdata            |
| <b>stdout</b>        | userdata            |
| <b>tmpfile</b>       | function            |
| <b>type</b>          | function            |
| <b>write</b>         | function            |

# job (context)

|                 |          |
|-----------------|----------|
| <b>comment</b>  | function |
| <b>datasets</b> | table    |
| D collected     |          |
| F extend        |          |
| F getdata       |          |
| F setdata       |          |
| D tobesaved     |          |

|                    |          |
|--------------------|----------|
| <b>disablesave</b> | function |
| <b>files</b>       | table    |
| D collected        |          |
| F context          |          |
| B forcerun         |          |
| F run              |          |
| D tobesaved        |          |

|                   |          |
|-------------------|----------|
| <b>initialize</b> | function |
| <b>load</b>       | function |
| <b>loadother</b>  | function |
| <b>objects</b>    | table    |
| D collected       |          |
| F get             |          |
| F number          |          |
| F page            |          |
| F save            |          |
| F set             |          |
| D tobesaved       |          |

|                    |         |
|--------------------|---------|
| <b>pack</b>        | boolean |
| <b>packversion</b> | number  |
| <b>pagestates</b>  | table   |
| D collected        |         |
| F extend           |         |
| F realpage         |         |
| F setstate         |         |
| D tobesaved        |         |

|               |       |
|---------------|-------|
| <b>passes</b> | table |
| F check       |       |
| D collected   |       |
| F count       |       |
| F define      |       |
| F find        |       |
| F first       |       |
| F get         |       |

|                  |                 |
|------------------|-----------------|
|                  | F getcollected  |
|                  | F getdata       |
|                  | F getfield      |
|                  | F gettobesaved  |
|                  | F inlist        |
|                  | F last          |
|                  | F list          |
|                  | F save          |
|                  | F savetagged    |
|                  | D tobesaved     |
| <b>positions</b> | table           |
|                  | F b_col         |
|                  | F b_region      |
|                  | F c             |
|                  | D collected     |
|                  | F column        |
|                  | F copy          |
|                  | F depth         |
|                  | F e_col         |
|                  | F e_region      |
|                  | F enhance       |
|                  | F extra         |
|                  | F get           |
|                  | F getreserved   |
|                  | F hangafter     |
|                  | F hangindent    |
|                  | F height        |
|                  | F hsize         |
|                  | F leftskip      |
|                  | F lowerleft     |
|                  | F lowerright    |
|                  | F markregionbox |
|                  | F n             |
|                  | F onsamepage    |
|                  | F overlapping   |
|                  | F p             |
|                  | F page          |
|                  | F paragraph     |
|                  | F parindent     |
|                  | F position      |
|                  | F r             |

- F region
- F replace
- F rightskip
- F set
- F setall
- F setdim
- D tobesaved
- F upperleft
- F upperright
- F width
- F x
- F xy
- F y
- register**        function
- save**            function
- structure**      table
  - D collected
  - T components
  - T tobesaved
  - T branches
  - S name
  - S type
- variables**      table
  - D checksums
  - D collected
  - F getchecksum
  - F makechecksum
  - F save
  - F setchecksum
  - D tobesaved
- version**        number

## lang (basic tex)

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

# languages (context)

|                    |            |
|--------------------|------------|
| <b>associate</b>   | function   |
| <b>associated</b>  | data table |
| <b>association</b> | function   |
| <b>counters</b>    | data table |
| <b>current</b>     | function   |
| <b>data</b>        | data table |
| <b>define</b>      | function   |
| <b>frequencies</b> | table      |

F averagecharwidth

F getdata

|                  |          |
|------------------|----------|
| <b>getnumber</b> | function |
| <b>hyphenate</b> | function |
| <b>installed</b> | function |
| <b>labels</b>    | table    |

F define

F split

|                      |          |
|----------------------|----------|
| <b>lefthyphenmin</b> | function |
| <b>loadable</b>      | function |
| <b>loadwords</b>     | function |
| <b>logger</b>        | table    |

F report

|                        |            |
|------------------------|------------|
| <b>numbers</b>         | data table |
| <b>posthyphenchar</b>  | function   |
| <b>prehyphenchar</b>   | function   |
| <b>registered</b>      | data table |
| <b>rightthyphenmin</b> | function   |
| <b>setexceptions</b>   | function   |
| <b>setsynonym</b>      | function   |
| <b>unload</b>          | function   |
| <b>version</b>         | number     |
| <b>words</b>           | table      |

F check

T data

F disable

F enable

T enablers

B enables

F found

F load

T methods

N threshold

# layouts (context)

**status** table

F isleftpage

F leftorrightpagection

## lfs (extra lua)

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

## libraries (context)

|                  |            |
|------------------|------------|
| <b>basiclua</b>  | data table |
| <b>basictex</b>  | data table |
| <b>builtin</b>   | data table |
| <b>extralua</b>  | data table |
| <b>extratex</b>  | data table |
| <b>functions</b> | data table |
| <b>globals</b>   | data table |



# lmx (context)

**color** function  
**convert** function  
**convertfile** function  
**convertstring** function  
**einject** function  
**eprint** function  
**escape** function  
**finalized** function  
**finject** function  
**fprint** function  
**get** function  
**getvariables** function  
**htmfile** function  
**html** table

F a

F td

F th

**include** function  
**inherited** table

S color-background-four

S color-background-one

S color-background-three

S color-background-two

S title

**initialize** function  
**inject** function  
**lmxfile** function  
**loadedfile** function  
**new** function  
**overloaderror** function  
**popupfile** function  
**print** function  
**pv** function  
**report** function  
**reset** function  
**result** function  
**set** function  
**show** function  
**showdebuginfo** function  
**showerror** function  
**stripcss** function

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

## lpeg (basic lua)

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

# luatex (context)

|                             |          |
|-----------------------------|----------|
| <b>cleanuptempfiles</b>     | function |
| <b>registerstartactions</b> | function |
| <b>registerstopactions</b>  | function |
| <b>registertempfile</b>     | function |
| <b>starttime</b>            | number   |

# lxml (context)

|                        |            |
|------------------------|------------|
| <b>addindex</b>        | function   |
| <b>all</b>             | function   |
| <b>applyfunction</b>   | function   |
| <b>att</b>             | function   |
| <b>attribute</b>       | function   |
| <b>chainattribute</b>  | function   |
| <b>checkindex</b>      | function   |
| <b>collected</b>       | function   |
| <b>command</b>         | function   |
| <b>concat</b>          | function   |
| <b>concatrange</b>     | function   |
| <b>content</b>         | function   |
| <b>context</b>         | function   |
| <b>convert</b>         | function   |
| <b>count</b>           | function   |
| <b>delete</b>          | function   |
| <b>direct</b>          | function   |
| <b>directives</b>      | table      |
| F after                |            |
| F before               |            |
| F handle               |            |
| F load                 |            |
| F setup                |            |
| <b>displayverbatim</b> | function   |
| <b>doif</b>            | function   |
| <b>doifelse</b>        | function   |
| <b>doifsettext</b>     | function   |
| <b>doifnot</b>         | function   |
| <b>doifnottext</b>     | function   |
| <b>doiftext</b>        | function   |
| <b>element</b>         | function   |
| <b>elements</b>        | function   |
| <b>entities</b>        | data table |
| <b>filter</b>          | function   |
| <b>filterlist</b>      | function   |
| <b>first</b>           | function   |
| <b>flush</b>           | function   |
| <b>flushlinewise</b>   | function   |
| <b>flushsetups</b>     | function   |
| <b>flushspacewise</b>  | function   |
| <b>get_id</b>          | function   |

|                         |          |
|-------------------------|----------|
| <b>getid</b>            | function |
| <b>getindex</b>         | function |
| <b>id</b>               | function |
| <b>idsplitter</b>       | userdata |
| <b>include</b>          | function |
| <b>index</b>            | function |
| <b>info</b>             | function |
| <b>inlineverbatim</b>   | function |
| <b>installsetup</b>     | function |
| <b>last</b>             | function |
| <b>load</b>             | function |
| <b>loadbuffer</b>       | function |
| <b>loaddata</b>         | function |
| <b>loaded</b>           | table    |
| <b>loadregistered</b>   | function |
| <b>main</b>             | function |
| <b>match</b>            | function |
| <b>name</b>             | function |
| <b>namespace</b>        | function |
| <b>nonspace</b>         | function |
| <b>pos</b>              | function |
| <b>position</b>         | function |
| <b>raw</b>              | function |
| <b>rawroot</b>          | function |
| <b>register</b>         | function |
| <b>registerentity</b>   | function |
| <b>removesetup</b>      | function |
| <b>resetcdata</b>       | function |
| <b>resetsetups</b>      | function |
| <b>resolvedentity</b>   | function |
| <b>root</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>stopraw</b>       | function   |
| <b>store</b>         | function   |
| <b>strip</b>         | function   |
| <b>stripped</b>      | function   |
| <b>tag</b>           | function   |
| <b>text</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>acos</b>           | function |
| <b>asin</b>           | function |
| <b>atan</b>           | function |
| <b>atan2</b>          | function |
| <b>ceil</b>           | function |
| <b>cos</b>            | function |
| <b>cosd</b>           | function |
| <b>cosh</b>           | function |
| <b>deg</b>            | function |
| <b>div</b>            | function |
| <b>even</b>           | function |
| <b>exp</b>            | function |
| <b>floor</b>          | function |
| <b>fmod</b>           | function |
| <b>frexp</b>          | function |
| <b>huge</b>           | number   |
| <b>initialseed</b>    | number   |
| <b>ldexp</b>          | function |
| <b>log</b>            | function |
| <b>max</b>            | function |
| <b>min</b>            | function |
| <b>mod</b>            | function |
| <b>modf</b>           | function |
| <b>odd</b>            | function |
| <b>pi</b>             | number   |
| <b>pow</b>            | function |
| <b>rad</b>            | function |
| <b>random</b>         | function |
| <b>randomseed</b>     | function |
| <b>round</b>          | function |
| <b>setrandomseedi</b> | function |
| <b>sin</b>            | function |
| <b>sind</b>           | function |
| <b>sinh</b>           | function |
| <b>sqrt</b>           | function |
| <b>tan</b>            | function |
| <b>tand</b>           | function |
| <b>tanh</b>           | function |

# mathematics (context)

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

**analyzeplugins** function  
**checkformat** function  
**checktexts** function  
**collapse** boolean  
**colorinitializer** function  
**convert** function  
**defaultformat** string  
**defaultinstance** string  
**defaultmethod** string  
**directrun** function  
**edefsxsy** function  
**escaped** function  
**exectime** table  
**extensiondata** data table  
**filterclippath** function  
**finder** function  
**flush** function  
**flushers** table  
    T pdf  
    F comment  
    F flushfigure  
    F startfigure  
    F stopfigure  
    F textfigure  
**flushliteral** function  
**flushnormalpath** function  
**flushreset** function  
**fonts** table  
    F define  
    T flusher  
        F flushfigure  
        F startfigure  
        F stopfigure  
    N instances  
    F process  
**format** function  
**format\_number** function  
**format\_string** function  
**formatnumber** function  
**getclippath** function  
**getextensions** function

**gettext** function  
**graphic** function  
**graphic\_base\_pass** function  
**instance** function  
**intermediate** table  
    T actions  
    F makempy  
**lastlog** string  
**llx** number  
**lly** number  
**load** function  
**makempy** table  
    N nofconverted  
    F processgraphics  
**metafun** table  
    F interpolate  
    F topath  
**method** number  
**mptopdf** table  
    F convertmptstopdf  
    N nofconverted  
**multipass** boolean  
**n** number  
**nvformat** function  
**optimize** boolean  
**parse** function  
**pdfliterals** function  
**pluginactions** function  
**process** function  
**processplugins** function  
**quickanddirty** function  
**reducetogray** boolean  
**reporterror** function  
**reset** function  
**resetlastlog** function  
**resetplugins** function  
**resettetexts** function  
**setextensions** function  
**setoutercolor** function  
**settext** function  
**settexttexts** function

|                      |          |
|----------------------|----------|
| <b>showlog</b>       | boolean  |
| <b>svformat</b>      | function |
| <b>tex</b>           | table    |
| F get                |          |
| F reset              |          |
| F set                |          |
| <b>texerrors</b>     | boolean  |
| <b>textextsdata</b>  | function |
| <b>theclippath</b>   | function |
| <b>totable</b>       | function |
| <b>unload</b>        | function |
| <b>untagvariable</b> | function |
| <b>urx</b>           | number   |
| <b>ury</b>           | number   |
| <b>variables</b>     | 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



## mplib (extra tex)

|                     |          |
|---------------------|----------|
| <b>fields</b>       | function |
| <b>finders</b>      | table    |
| <b>F</b>            | file     |
| <b>new</b>          | function |
| <b>pen_info</b>     | function |
| <b>preprocessed</b> | function |
| <b>version</b>      | function |

# noads (context)

**handlers**      table

- F check
- F classes
- F collapse
- F families
- F italics
- F relocate
- F render
- F resize
- F showtree
- F tags
- F unscript
- F variants

**process**          function

**processors**    table

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

## node (basic tex)

|                        |          |                        |          |
|------------------------|----------|------------------------|----------|
| <b>copy</b>            | function | F set_attribute        |          |
| <b>copy_list</b>       | function | F setbox               |          |
| <b>count</b>           | function | F setfield             |          |
| <b>current_attr</b>    | function | F slide                |          |
| <b>dimensions</b>      | function | F tail                 |          |
| <b>direct</b>          | table    | F todirect             |          |
| F copy                 |          | F tonode               |          |
| F copy_list            |          | F toString             |          |
| F count                |          | F traverse             |          |
| F current_attr         |          | F traverse_id          |          |
| F dimensions           |          | F unprotect_glyphs     |          |
| F do_ligature_n        |          | F unset_attribute      |          |
| F end_of_math          |          | F usedlist             |          |
| F first_glyph          |          | F vpack                |          |
| F flush_list           |          | F write                |          |
| F flush_node           |          | <b>do_ligature_n</b>   | function |
| F free                 |          | <b>end_of_math</b>     | function |
| F getbox               |          | <b>family_font</b>     | function |
| F getchar              |          | <b>fields</b>          | function |
| F getfield             |          | <b>first_character</b> | function |
| F getfont              |          | <b>first_glyph</b>     | function |
| F getid                |          | <b>flush_list</b>      | function |
| F getleader            |          | <b>flush_node</b>      | function |
| F getlist              |          | <b>free</b>            | function |
| F getnext              |          | <b>getchar</b>         | function |
| F getprev              |          | <b>getfield</b>        | function |
| F getsubtype           |          | <b>getfont</b>         | function |
| F has_attribute        |          | <b>getid</b>           | function |
| F has_field            |          | <b>getleader</b>       | function |
| F has_glyph            |          | <b>getlist</b>         | function |
| F hpack                |          | <b>getnext</b>         | function |
| F insert_after         |          | <b>getprev</b>         | function |
| F insert_before        |          | <b>getsubtype</b>      | function |
| F is_direct            |          | <b>has_attribute</b>   | function |
| F is_node              |          | <b>has_field</b>       | function |
| F last_node            |          | <b>has_glyph</b>       | function |
| F length               |          | <b>hpack</b>           | function |
| F new                  |          | <b>id</b>              | function |
| F protect_glyphs       |          | <b>insert_after</b>    | function |
| F protrusion_skippable |          | <b>insert_before</b>   | function |
| F remove               |          | <b>is_node</b>         | function |

|                             |          |
|-----------------------------|----------|
| <b>kerning</b>              | function |
| <b>last_node</b>            | function |
| <b>length</b>               | function |
| <b>ligaturing</b>           | function |
| <b>mlist_to_hlist</b>       | function |
| <b>new</b>                  | function |
| <b>next</b>                 | function |
| <b>prev</b>                 | function |
| <b>protect_glyphs</b>       | function |
| <b>protrusion_skippable</b> | function |
| <b>remove</b>               | function |
| <b>set_attribute</b>        | function |
| <b>setfield</b>             | function |
| <b>slide</b>                | function |
| <b>subtype</b>              | function |
| <b>tail</b>                 | function |
| <b>tostring</b>             | function |
| <b>traverse</b>             | function |
| <b>traverse_id</b>          | function |
| <b>type</b>                 | function |
| <b>types</b>                | function |
| <b>unprotect_glyphs</b>     | function |
| <b>unset_attribute</b>      | function |
| <b>usedlist</b>             | function |
| <b>vpack</b>                | function |
| <b>whatsits</b>             | function |
| <b>write</b>                | function |

## nodes (context)

|                           |            |                               |            |
|---------------------------|------------|-------------------------------|------------|
| <b>accentcodes</b>        | data table | <b>getattribute</b>           | function   |
| <b>aligned</b>            | function   | <b>getbox</b>                 | function   |
| <b>append</b>             | function   | <b>getchar</b>                | function   |
| <b>astable</b>            | function   | <b>getfield</b>               | function   |
| <b>basepoints</b>         | function   | <b>getfont</b>                | function   |
| <b>builders</b>           | table      | <b>getid</b>                  | function   |
| F buildpage_filter        |            | <b>getleader</b>              | function   |
| F vpack_filter            |            | <b>getlist</b>                | function   |
| <b>codes</b>              | data table | <b>getnext</b>                | function   |
| <b>concat</b>             | function   | <b>getprev</b>                | function   |
| <b>copy</b>               | function   | <b>getskip</b>                | function   |
| <b>copy_list</b>          | function   | <b>getsubtype</b>             | function   |
| <b>count</b>              | function   | <b>gluecodes</b>              | data table |
| <b>current_attr</b>       | function   | <b>glyphcodes</b>             | data table |
| <b>delete</b>             | function   | <b>glyphdir_is_equal</b>      | data table |
| <b>destinations</b>       | table      | <b>glyphdir_is_opposite</b>   | data table |
| N attribute               |            | <b>glyphdir_is_orthogonal</b> | data table |
| T done                    |            | <b>gonuts</b>                 | boolean    |
| 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>end_of_math</b>        | function   | F export                      |            |
| <b>fasthpack</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_character</b>    | function   | F unprotectglyphs             |            |
| <b>first_glyph</b>        | function   | <b>has_attribute</b>          | function   |
| <b>firstcharacter</b>     | function   | <b>has_field</b>              | function   |
| <b>firstcharinbox</b>     | function   | <b>has_glyph</b>              | function   |
| <b>firstglyph</b>         | function   | <b>hpack</b>                  | function   |
| <b>flush_list</b>         | function   | <b>idstosting</b>             | function   |
| <b>flush_node</b>         | function   | <b>ignorablefields</b>        | data table |
| <b>free</b>               | function   | <b>injections</b>             | table      |
| <b>getattr</b>            | function   | F handler                     |            |

|                                |            |                       |            |
|--------------------------------|------------|-----------------------|------------|
| F installnewkern               |            | <b>mathcodes</b>      | data table |
| F setcursive                   |            | <b>mlist_to_hlist</b> | function   |
| F setkern                      |            | <b>new</b>            | function   |
| F setmark                      |            | <b>noadcodes</b>      | data table |
| F setpair                      |            | <b>nodecodes</b>      | data table |
| <b>insert_after</b>            | function   | <b>nopts</b>          | function   |
| <b>insert_before</b>           | function   | <b>nuts</b>           | table      |
| <b>insert_list_after</b>       | function   | F append              |            |
| <b>installattributehandler</b> | function   | F concat              |            |
| <b>is_direct</b>               | function   | F copy                |            |
| <b>is_display_math</b>         | function   | F copy_list           |            |
| <b>is_mirrored</b>             | data table | F count               |            |
| <b>is_node</b>                 | function   | F current_attr        |            |
| <b>is_nut</b>                  | function   | F delete              |            |
| <b>is_rotated</b>              | data table | F dimensions          |            |
| <b>kerncodes</b>               | data table | F do_ligature_n       |            |
| <b>kerining</b>                | function   | F end_of_math         |            |
| <b>keys</b>                    | table      | F fasthpack           |            |
| T whatsit                      |            | F first_glyph         |            |
| <b>last_node</b>               | function   | F firstcharacter      |            |
| <b>leftmarginwidth</b>         | function   | F firstcharinbox      |            |
| <b>ligaturing</b>              | function   | F firstglyph          |            |
| <b>lines</b>                   | table      | F flush_list          |            |
| T boxed                        |            | F flush_node          |            |
| F register                     |            | F free                |            |
| F setup                        |            | F getattr             |            |
| F stage_one                    |            | F getattribute        |            |
| F stage_two                    |            | F getbox              |            |
| F stage_zero                   |            | F getchar             |            |
| D data                         |            | F getfield            |            |
| F finalize                     |            | F getfont             |            |
| F number                       |            | F getid               |            |
| N scratchbox                   |            | F getleader           |            |
| <b>link</b>                    | function   | F getlist             |            |
| <b>linked</b>                  | function   | F getnext             |            |
| <b>list</b>                    | function   | F getprev             |            |
| <b>listablefields</b>          | data table | F getskip             |            |
| <b>listcodes</b>               | data table | F getsubtype          |            |
| <b>listtoutf</b>               | function   | F has_attribute       |            |
| <b>load</b>                    | function   | F has_field           |            |
| <b>locate</b>                  | function   | F has_glyph           |            |
| <b>margincodes</b>             | data table | F hpack               |            |
| <b>markers</b>                 | table      | F insert_after        |            |
| F get                          |            | F insert_before       |            |

|                     |                        |
|---------------------|------------------------|
| F insert_list_after | F temp                 |
| F is_direct         | F textdir              |
| F is_display_math   | F usage                |
| F is_node           | T usersids             |
| F is_nut            | N margins.inline       |
| F kerning           | N splitters.one        |
| F last_node         | N splitters.two        |
| F leftmarginwidth   | F userlist             |
| F ligaturing        | F usernumber           |
| F link              | F userstring           |
| F linked            | F usertokens           |
| F locate            | F vlist                |
| F mlist_to_hlist    | F zeroglue             |
| F new               | F prepend              |
| T pool              | F protect_glyphs       |
| F baselineskip      | F protrusion_skippable |
| F cleanup           | F reference            |
| F disc              | F remove               |
| F fontkern          | F repackhlist          |
| F glue              | F replace              |
| F gluespec          | F rightmarginwidth     |
| F glyph             | F set_attribute        |
| F hlist             | F setattr              |
| F kern              | F setattribute         |
| F latelua           | F setattributes        |
| F leftmarginkern    | F setbox               |
| F leftskip          | F setfield             |
| F lineskip          | F setunsetattributes   |
| F noad              | F slide                |
| F pdfannotation     | F somepenalty          |
| F pdfdestination    | F somespace            |
| F pdfdirect         | F tail                 |
| F pdfliteral        | F tonode               |
| F pdfrestore        | F tonodes              |
| F pdfsave           | F tonut                |
| F pdfsetmatrix      | F toString             |
| F penalty           | F traverse             |
| F register          | F traverse_id          |
| F rightmarginkern   | T typesetters          |
| F rightskip         | F fast_hpack           |
| F rule              | F hpack                |
| F shrink            | F tohpack              |
| F special           | F tohpackfast          |
| F stretch           | F tonodes              |

|                            |            |                             |          |
|----------------------------|------------|-----------------------------|----------|
| F tovpack                  |            | F register                  |          |
| F tovpackfast              |            | F rule                      |          |
| F vpack                    |            | F special                   |          |
| F unprotect_glyphs         |            | F usage                     |          |
| F unset_attribute          |            | T usersids                  |          |
| F unsetattribute           |            | N margins.inline            |          |
| F unsetattributes          |            | N splitters.one             |          |
| F usedlist                 |            | N splitters.two             |          |
| F vianodes                 |            | <b>prepend</b>              | function |
| F vianuts                  |            | <b>print</b>                | function |
| F vpack                    |            | <b>processors</b>           | table    |
| F writable_spec            |            | B enabled                   |          |
| F write                    |            | F hpack_filter              |          |
| <b>packlist</b>            | function   | F post_linebreak_filter     |          |
| <b>pardir_is_equal</b>     | data table | F pre_linebreak_filter      |          |
| <b>pardir_is_opposite</b>  | data table | F tracer                    |          |
| <b>pardir_is_parallel</b>  | data table | <b>processwords</b>         | function |
| <b>partextdir_is_equal</b> | data table | <b>protect_glyphs</b>       | function |
| <b>penaltycodes</b>        | data table | <b>protrusion_skippable</b> | function |
| <b>plugindata</b>          | table      | <b>pts</b>                  | function |
| F finalizer                |            | <b>reference</b>            | function |
| F initializer              |            | <b>references</b>           | table    |
| S name                     |            | N attribute                 |          |
| T namespace                |            | T done                      |          |
| N attribute                |            | F handler                   |          |
| D data                     |            | T stack                     |          |
| F enable                   |            | <b>remove</b>               | function |
| F handler                  |            | <b>repackhlist</b>          | function |
| F register                 |            | <b>replace</b>              | function |
| D registered               |            | <b>report</b>               | function |
| D values                   |            | <b>rightmarginwidth</b>     | function |
| F processor                |            | <b>rules</b>                | table    |
| <b>points</b>              | function   | D data                      |          |
| <b>pool</b>                | table      | F define                    |          |
| F baselineskip             |            | F enable                    |          |
| F cleanup                  |            | F handler                   |          |
| F glyph                    |            | <b>save</b>                 | function |
| F kern                     |            | <b>serialize</b>            | function |
| F latelua                  |            | <b>serializebox</b>         | function |
| F lineskip                 |            | <b>set_attribute</b>        | function |
| F pdfannotation            |            | <b>setattr</b>              | function |
| F pdfdestination           |            | <b>setattribute</b>         | function |
| F pdfliteral               |            | <b>setattributes</b>        | function |
| F pdfsetmatrix             |            | <b>setbox</b>               | function |



|                           |            |                            |            |
|---------------------------|------------|----------------------------|------------|
| <b>setfield</b>           | function   | <b>texmdir_is_opposite</b> | data table |
| <b>setunsetattributes</b> | function   | <b>texmdir_is_parallel</b> | data table |
| <b>shifts</b>             | table      | <b>tobasepoints</b>        | function   |
| D data                    |            | <b>tocentimeters</b>       | function   |
| F define                  |            | <b>tociceros</b>           | function   |
| F enable                  |            | <b>todidots</b>            | function   |
| F handler                 |            | <b>todimen</b>             | function   |
| <b>show</b>               | function   | <b>toinches</b>            | function   |
| <b>showboxes</b>          | function   | <b>tomillimeters</b>       | function   |
| <b>showcodes</b>          | function   | <b>tonewciceros</b>        | function   |
| <b>showlist</b>           | function   | <b>tonewdidots</b>         | function   |
| <b>showsimplelist</b>     | function   | <b>tonode</b>              | function   |
| <b>skipcodes</b>          | data table | <b>tonodes</b>             | function   |
| <b>slide</b>              | function   | <b>tonut</b>               | function   |
| <b>snapshots</b>          | table      | <b>topicas</b>             | function   |
| F getparameters           |            | <b>topoints</b>            | function   |
| F getsamples              |            | <b>toscaledpoints</b>      | function   |
| F resetsamples            |            | <b>tosequence</b>          | function   |
| F takesample              |            | <b>tostring</b>            | function   |
| <b>somepenalty</b>        | function   | <b>totable</b>             | function   |
| <b>somespace</b>          | function   | <b>totree</b>              | function   |
| <b>stripping</b>          | table      | <b>toutf</b>               | function   |
| T glyphs                  |            | <b>tracers</b>             | table      |
| F set                     |            | T characters               |            |
| <b>striprange</b>         | function   | F collect                  |            |
| <b>tail</b>               | function   | F equal                    |            |
| <b>tasks</b>              | table      | F indices                  |            |
| 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 restart                 |            | T nodes                    |            |
| F setaction               |            | F rule                     |            |
| F showactions             |            | T nuts                     |            |
| F table                   |            | F rule                     |            |
| <b>texmdir_is_equal</b>   | data table | F resetproperties          |            |
| <b>texmdir_is_is</b>      | data table | F rule                     |            |

|                         |          |                      |            |
|-------------------------|----------|----------------------|------------|
| F setlist               |          | F setlayer           |            |
| F setproperties         |          | F setvisual          |            |
| F start                 |          | <b>vpack</b>         | function   |
| T steppers              |          | <b>whatcodes</b>     | data table |
| F check                 |          | <b>whatsitcodes</b>  | data table |
| F codes                 |          | <b>writable_spec</b> | function   |
| F features              |          | <b>write</b>         | function   |
| F font                  |          |                      |            |
| F glyphs                |          |                      |            |
| F message               |          |                      |            |
| F messages              |          |                      |            |
| F nofsteps              |          |                      |            |
| F register              |          |                      |            |
| F reset                 |          |                      |            |
| F start                 |          |                      |            |
| F stop                  |          |                      |            |
| F stop                  |          |                      |            |
| T transparencies        |          |                      |            |
| F reset                 |          |                      |            |
| F set                   |          |                      |            |
| F setlist               |          |                      |            |
| <b>traverse</b>         | function |                      |            |
| <b>traverse_id</b>      | function |                      |            |
| <b>typesetters</b>      | table    |                      |            |
| F hpack                 |          |                      |            |
| F tohpack               |          |                      |            |
| F tohpackfast           |          |                      |            |
| F tonodes               |          |                      |            |
| F tovpack               |          |                      |            |
| F tovpackfast           |          |                      |            |
| F vpack                 |          |                      |            |
| <b>unprotect_glyphs</b> | function |                      |            |
| <b>unset_attribute</b>  | function |                      |            |
| <b>unsetattribute</b>   | function |                      |            |
| <b>unsetattributes</b>  | function |                      |            |
| <b>usedlist</b>         | function |                      |            |
| <b>vianodes</b>         | function |                      |            |
| <b>vianuts</b>          | function |                      |            |
| <b>visualizebox</b>     | function |                      |            |
| <b>visualizers</b>      | table    |                      |            |
| F box                   |          |                      |            |
| F handler               |          |                      |            |
| F markfonts             |          |                      |            |
| F setfont               |          |                      |            |

## number (context)

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

## os (basic lua)

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

## package (basic lua)

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

# pagebuilders (context)

## **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>immediateobj</b>    | function |
| <b>mapfile</b>         | function |
| <b>mapline</b>         | function |
| <b>maxobjnum</b>       | function |
| <b>obj</b>             | function |
| <b>objtype</b>         | function |
| <b>pageattributes</b>  | string   |
| <b>pageref</b>         | function |
| <b>pageresources</b>   | string   |
| <b>pagesattributes</b> | string   |
| <b>pdfmapfile</b>      | function |
| <b>pdfmapline</b>      | function |
| <b>print</b>           | function |
| <b>refobj</b>          | function |
| <b>registerannot</b>   | function |
| <b>reserveobj</b>      | function |

# pdfscanner (context)

**scan** function



# physics (context)

**units** table

D tables

## profiler (extra lua)

**pause**    function  
**resume**   function  
**start**    function  
**stop**     function

## regimes (context)

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

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

**variableofformatorsuffix**

function

**wildcardpattern**

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)

**comparers**      table

  F basic

**constants**      table

  S defaultdigits

  S defaultlanguage

  S defaultmethod

  N digitmaximum

  N digitsoffset

  N ignoredoffset

  N replacementoffset

**definitions**    data table

**firstofsplit**   function

**setlanguage**   function

**sort**            function

**splitters**      table

  F utf

**strip**           function

**tracers**        data table

**update**         function

## statistics (context)

|                       |          |
|-----------------------|----------|
| <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

## storage (context)

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

**autodouble**        function  
**autosingle**       function  
**booleanstring**    function  
**byte**             function  
**bytepairs**        function  
**bytes**             function  
**char**             function  
**characterpairs**   function  
**characters**       function  
**checkedsplit**     function  
**collapsespaces**   function  
**count**            function  
**dump**             function  
**escapedpattern**   function  
**explode**          function  
**find**             function  
**format**           function  
**formatter**        function  
**formatters**       function

```
F {t},
F %t (%t)
F %-t--cycle
F %-10s: %s
F %-15s :
F %-15s : %s
F %-15s >
F %-15s >
F %-15s > %s
F %-15s > %s
F %-15s > %s >
F %-15s > %s >
F %-15s > %s > %s
F %.3f %.3f %.3f %.3f k %.3f %.3f %.3f %.3f K
F %.3f %.3f %.3f rg %.3f %.3f %.3f RG
F %.3f g %.3f G
F %0.1fpt
F %0.8f %0.8f %0.8f %0.8f
F %U
F %U (%s)
F %a loaded
```

```
F %f %f %f %f %f %f %f cm
F %l,
F %p
F %q,
F %s
F %S %s
F %S %S %s
F %S %S %S %t
F %S %S %S %S
F %S Tc %S w %S Tr
F %s mul
F %s%s%s
F %s,
F %s--%s
F %s->%s->%s
F %s->%s->%s->%s->%s->%s->%s
F %s:%s
F %s:%s:%s
F %s=%q
F %s={
F %w%l,
F %w%q,
F %w%S,
F %w[%l]=%l,
F %w[%l]=%q,
F %w[%l]=%s,
F %w[%l]={
F %w[%l]={%, t },
F %w[%l]={},
F %w[%q]=%l,
F %w[%q]=%q,
F %w[%q]=%s,
F %w[%q]={
F %w[%q]={%, t },
F %w[%q]={},
F %w[%s]=%l,
F %w[%s]=%q,
F %w[%s]=%s,
F %w[%s]={
F %w[%s]={%, t },
F %w[%s]={},
```





```

F pdf: q 1 0 %f 1 0 0 cm
F pospages[%s] := %s ; posboxes[%s] := (%p,%p)--(%p,%p)--(%p,%p)--(%p,%p)
F processed mkvi file %a, delta %s
F q %f %f %f %f %f %f cm
F r:s:s:s
F r=%1.3f%sg=%1.3f%sb=%1.3f
F region:%s
F return {
F return {%t}
F s:%s
F s=%1.3f
F setbounds currentpicture to multibox ;
F unknown reference %a
F using file %a
F visualizers.%s
F w:%s
F {
F }

gmatch      function
gsub        function
is_boolean  function
is_empty    function
itself      function
len         function
limit       function
longtostring function
lower       function
match       function
nspaces     table
quote       function
quoted      function
rep         function
reverse     function
split       function
splitlines  function
splitup     function
strip       function
sub         function
tformat     function
toboollean  function
tocontext   function
todimen     function
tonodes     function
topattern   function

```

```

totable      function
toupper      function
tracedchar   function
tracedchars  table
unquote      function
unquoted     function
upper        function
utfcharacters function
utfvalues    function
valid        function

```

# structures (context)

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

F setup  
D stored  
**itemgroups**                      table  
F maxwidth  
F nofitems  
F register

**lists**                                      table  
F addto  
F analyze  
B autoreorder  
D cached  
D collected  
F discard  
F enhance  
T enhancers  
F filter  
F filtercollected  
F formulanumber  
F groupindex  
F hasnumberdata  
F haspagedata  
F hastitledata  
D internals  
F iscached  
F label  
F location  
F number  
D ordered  
F page  
F popnesting  
F prefix  
F prefixednumber  
F prefixedpage  
F process  
D pushed  
F pushnesting  
F realpage  
F reordered  
T result  
D sectionblocks  
F sectionnumber  
F size  
F title  
D tobesaved

F userdata  
F uservalue  
**marks**                                      table  
D data  
F define  
F exists  
F fetch  
F fetchallmarks  
F fetched  
F fetchonemark  
F fetchtwomarks  
F get  
F number  
F relate  
F reset  
F set  
F show  
F synchronize  
F title  
T tracers  
F showtable

**notes**                                      table  
F checkpagechange  
F define  
F doifonsamepageasprevious  
F get  
F getdeltapage  
F getn  
F getnumberpage  
F getstate  
F getsymbolpage  
F hascontent  
F internal  
F internalid  
F listindex  
F ordered  
F postpone  
F resetpostponed  
F restore  
F save  
F setstate  
F setsymbolpage  
D states  
F store

## pages

F analyze  
D collected  
F is\_odd  
F number  
F save  
D tobesaved

## table

## references

F analyze  
F checkedfile  
F checkedfileorurl  
F checkedprogram  
F checkedrealpage  
F checkedurl  
D collected  
U componentsplitter  
F currentmetadata  
F currentorder  
D currentset  
F define  
D defined  
D derived  
F enableinteraction  
F enhance  
D executors  
F expandcurrent  
F export  
T files  
  T data  
    F define  
    F get  
F filter  
F filterdefault  
D filters  
F from  
F get  
F getcurrentmetadata  
F getcurrentprefixspec  
F getinnermethod  
F getinternalreference  
D handlers  
F identify  
F import  
F inject

## table

F injectcurrentset  
D internals  
F load  
F loadpresets  
F mark  
D pages  
U prefixsplitter  
D productdata  
T programs  
  T data  
    F define  
    F get  
F realpageofpage  
U referencesplitter  
D referred  
F referredpage  
F registerfinalizer  
F registerinitializer  
F registerpage  
F reportproblems  
F reset  
T resolvers  
  F reference  
  F section  
D runners  
F set  
F setandgetattribute  
F setcomponent  
F setinnermethod  
F setinternalreference  
F setnextinternal  
F setnextorder  
D specials  
F splitcomponent  
F splitprefix  
F splitreference  
T testrunners  
  F inner  
  F special  
  F special operation  
  F special operation with arguments  
T testspecials  
  F deltapage  
  F i

|                   |              |                     |              |
|-------------------|--------------|---------------------|--------------|
| F internal        |              | F getcurrentlevel   |              |
| F page            |              | F getlevel          |              |
| F realpage        |              | F getnumber         |              |
| F section         |              | F internalreference |              |
| F userpage        |              | D levelmap          |              |
| D tobereferred    |              | D levels            |              |
| D tobesaved       |              | F load              |              |
| T urls            |              | F matchingtilldepth |              |
| T data            |              | F numeratdepth      |              |
| F define          |              | F numbers           |              |
| F get             |              | F popblock          |              |
| F valid           |              | F prefixedconverted |              |
| F whatfrom        |              | F pushblock         |              |
| <b>registers</b>  | <b>table</b> | F register          |              |
| F analyze         |              | D registered        |              |
| F analyzed        |              | F reportstructure   |              |
| D collected       |              | F save              |              |
| F compare         |              | T sectionblockdata  |              |
| F define          |              | T bodypart          |              |
| F enhance         |              | S bookmark          |              |
| F extend          |              | F set               |              |
| F filter          |              | F setblock          |              |
| F filtercollected |              | F setchecker        |              |
| F finalize        |              | F setlevel          |              |
| F flush           |              | F setnumber         |              |
| F prepare         |              | F somelevel         |              |
| F process         |              | F structuredata     |              |
| F sort            |              | F title             |              |
| F store           |              | D tobesaved         |              |
| D tobesaved       |              | F typesetnumber     |              |
| F unique          |              | F userdata          |              |
| F userdata        |              | B verbose           |              |
| <b>sections</b>   | <b>table</b> | <b>sets</b>         | <b>table</b> |
| F autodepth       |              | F define            |              |
| F cct             |              | F get               |              |
| D collected       |              | F getall            |              |
| F current         |              | D setlist           |              |
| F currentblock    |              | <b>specials</b>     | <b>table</b> |
| F currentid       |              | D collected         |              |
| F currentlevel    |              | F retrieve          |              |
| F depthnumber     |              | F store             |              |
| F finddata        |              | D tobesaved         |              |
| F findnumber      |              | <b>synonyms</b>     | <b>table</b> |
| F fullnumber      |              | F analyzed          |              |

D collected  
F compare  
F define  
F filter  
F finalize  
F flush  
F meaning  
F prepare  
F process  
F register  
F registerused  
F sort  
F synonym  
D tobesaved

## tags

## table

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

## table (basic lua)

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



## tex (basic tex)

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

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

## texconfig (basic tex)

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

## texio (basic tex)

`write`      function

`write_nl`   function

## token (basic tex)

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

# tokens (context)

**bgroup**        table

**collectors** table

  T data

  F defaultwords

  F dowithwords

  F flush

  F handle

  F install

  F register

  T registered

  T remapper

    F convert

    T data

    F store

  F show

  T show\_methods

    F a

    F b

    F c

  F showtoken

  F test

  F trace

**egroup**        table

**hbox**          table

**letter**        function

**letters**      function

**other**         function

**vbox**          table

**vtop**          table

# tracers (context)

|                  |          |
|------------------|----------|
| <b>count</b>     | function |
| <b>cs</b>        | function |
| <b>dimen</b>     | function |
| <b>knownlist</b> | function |
| <b>lists</b>     | table    |

T context

T internals

T scratch

|                   |          |
|-------------------|----------|
| <b>name</b>       | function |
| <b>primitive</b>  | function |
| <b>printerror</b> | function |
| <b>showlines</b>  | function |
| <b>strings</b>    | table    |

S undefined

|             |          |
|-------------|----------|
| <b>toks</b> | function |
| <b>type</b> | function |

## trackers (context)

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



# typesetters (context)

|                       |       |                   |                  |
|-----------------------|-------|-------------------|------------------|
| <b>alignments</b>     | table |                   | F installhandler |
|                       |       |                   | F processmath    |
|                       |       |                   | F set            |
| <b>breakpoints</b>    | table |                   | F setcolor       |
|                       |       |                   | F setmath        |
|                       |       |                   | F tomode         |
|                       |       | <b>firstlines</b> | table            |
|                       |       |                   | T actions        |
|                       |       |                   | F default        |
|                       |       |                   | F line           |
|                       |       |                   | F word           |
|                       |       |                   | F handler        |
|                       |       |                   | F set            |
| <b>cases</b>          | table | <b>initials</b>   | table            |
|                       |       |                   | T actions        |
|                       |       |                   | F default        |
|                       |       |                   | F handler        |
|                       |       |                   | F set            |
| <b>characteralign</b> | table | <b>italics</b>    | table            |
|                       |       |                   | F forcevariant   |
|                       |       |                   | F handler        |
|                       |       |                   | F reset          |
|                       |       |                   | F set            |
| <b>characters</b>     | table | <b>kerns</b>      | table            |
|                       |       |                   | D factors        |
|                       |       |                   | F handler        |
|                       |       |                   | F keepligature   |
|                       |       |                   | B keptogether    |
|                       |       |                   | D mapping        |
|                       |       |                   | F set            |
| <b>checkers</b>       | table | <b>margins</b>    | table            |
|                       |       |                   | F finalhandler   |
|                       |       |                   | F globalhandler  |
|                       |       |                   | F ha             |
|                       |       |                   | F localhandler   |
|                       |       |                   | F save           |
| <b>cleaners</b>       | table | <b>processors</b> | table            |
|                       |       |                   | F apply          |
|                       |       |                   | F register       |
|                       |       |                   | F reset          |
|                       |       |                   | F split          |
| <b>digits</b>         | table |                   |                  |
|                       |       |                   |                  |
|                       |       |                   |                  |
| <b>directions</b>     | table |                   |                  |
|                       |       |                   |                  |
|                       |       |                   |                  |
|                       |       |                   |                  |
|                       |       |                   |                  |
|                       |       |                   |                  |

F startapply

F stopapply

F stripped

F toString

## **spacings**                      table

F define

F handler

D mapping

T numbers

  T frenchpunctuation

    T characters

      S name

      N number

F reset

F set

F setup

## **xtables**                      table

F cleanup

F construct

F create

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 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 subtituter  
F tocodes  
F toeight  
F toentities  
F toString  
F totable  
F upper  
F ustring  
F utf16\_to\_utf8

- F utf16\_to\_utf8\_be
- F utf16\_to\_utf8\_le
- F utf32\_to\_utf8
- F utf32\_to\_utf8\_be
- F utf32\_to\_utf8\_le
- F utf8\_to\_utf16
- F utf8\_to\_utf16\_be
- F utf8\_to\_utf16\_le
- F utf8\_to\_utf8
- 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>hasscheme</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

## **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 hash\_to\_string  
F iterator  
F keq\_to\_hash  
F listitem  
F make\_settings\_to\_hash\_pattern  
F mergehashes  
F options\_to\_hash  
T patterns  
U settings\_to\_array  
U settings\_to\_hash\_a  
U settings\_to\_hash\_b  
U settings\_to\_hash\_c  
U unittotex  
F process\_stripped\_settings  
F rfc4180splitter  
F runtime  
F settings\_to\_array  
F settings\_to\_array\_with\_repeat  
F settings\_to\_hash  
F settings\_to\_hash\_strict  
F settings\_to\_hash\_tolerant  
F settings\_to\_set  
F simple\_hash\_to\_string  
F splitthousands  
F stepper  
F stripped\_settings\_to\_array  
F unittotex  
F unittotxml

## **report** function

## **sequencers** table

F appendaction  
F appendgroup  
F compile  
F disableaction  
F disablegroup

|                  |       |                     |       |
|------------------|-------|---------------------|-------|
| F enableaction   |       | F encapsulate       |       |
| F enablegroup    |       | F insertaftervalue  |       |
| D functions      |       | F insertbeforevalue |       |
| F localize       |       | F migratetable      |       |
| F new            |       | F removevalue       |       |
| F nodeprocessor  |       | <b>templates</b>    | table |
| F prependaction  |       | F load              |       |
| F prependgroup   |       | F replace           |       |
| F removeaction   |       | F replacer          |       |
| F setkind        |       | F resolve           |       |
| F tostring       |       |                     |       |
| <b>setters</b>   | table |                     |       |
| F disable        |       |                     |       |
| F enable         |       |                     |       |
| F initialize     |       |                     |       |
| F list           |       |                     |       |
| F new            |       |                     |       |
| F register       |       |                     |       |
| F report         |       |                     |       |
| F reset          |       |                     |       |
| F show           |       |                     |       |
| <b>stacker</b>   | table |                     |       |
| F new            |       |                     |       |
| <b>storage</b>   | table |                     |       |
| F allocate       |       |                     |       |
| F checked        |       |                     |       |
| F mark           |       |                     |       |
| F marked         |       |                     |       |
| F setinitializer |       |                     |       |
| F sparse         |       |                     |       |
| <b>strings</b>   | table |                     |       |
| F collapsecrlf   |       |                     |       |
| T formatters     |       |                     |       |
| F add            |       |                     |       |
| F new            |       |                     |       |
| F newrepeater    |       |                     |       |
| F nice           |       |                     |       |
| F striplong      |       |                     |       |
| F tabtospace     |       |                     |       |
| T tracers        |       |                     |       |
| <b>tables</b>    | table |                     |       |
| F accesstable    |       |                     |       |
| F definedtable   |       |                     |       |
| F definetable    |       |                     |       |

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

# xml (context)

|                           |          |                        |            |
|---------------------------|----------|------------------------|------------|
| <b>addentitiesdoctype</b> | function | D tex                  |            |
| <b>after</b>              | function | D texline              |            |
| <b>all</b>                | function | D texspace             |            |
| <b>applylpath</b>         | function | D verbose              |            |
| <b>assign</b>             | function | <b>defaultprotocol</b> | string     |
| <b>attribute</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                |            |
| <b>collect_elements</b>   | function | F find                 |            |
| <b>collect_tags</b>       | function | F lower                |            |
| <b>collect_texts</b>      | function | F name                 |            |
| <b>collected</b>          | function | F number               |            |
| <b>collecttexts</b>       | function | F oneof                |            |
| <b>content</b>            | function | F print                |            |
| <b>convert</b>            | function | F quit                 |            |
| <b>copy</b>               | function | F tag                  |            |
| <b>count</b>              | function | F text                 |            |
| <b>cprint</b>             | function | F undefined            |            |
| <b>css</b>                | table    | F upper                |            |
| F colorspecification      |          | <b>fillin</b>          | function   |
| F dimension               |          | <b>filter</b>          | function   |
| F fontspecification       |          | <b>finalizers</b>      | table      |
| F padding                 |          | F paragraphs           |            |
| <b>defaulthandlers</b>    | table    | T tex                  |            |
| D file                    |          | F all                  |            |
| D parsedxml               |          | F attribute            |            |
| D string                  |          | F bibtexconcat         |            |

|                  |                              |          |
|------------------|------------------------------|----------|
| F bibtexshort    | F position                   |          |
| F chainattribute | 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>index</b>                 | function |
| F position       | <b>inheritedconvert</b>      | function |
| F reverse        | <b>inject</b>                | function |
| F stripped       | <b>inject_element</b>        | function |
| F tag            | <b>inject_element_after</b>  | function |
| F tags           | <b>inject_element_before</b> | function |
| F text           | <b>injectafter</b>           | function |
| F upper          | <b>injectbefore</b>          | function |
| F upperall       | <b>insert</b>                | function |
| T xml            | <b>insert_element</b>        | function |
| F all            | <b>insert_element_after</b>  | function |
| F att            | <b>insert_element_before</b> | function |
| F attribute      | <b>insertafter</b>           | function |
| F attributes     | <b>insertbefore</b>          | function |
| F cdata          | <b>insertcomment</b>         | function |
| F chainattribute | <b>inspect</b>               | function |
| F count          | <b>is_valid</b>              | function |
| F default        | <b>kind</b>                  | function |
| F elements       | <b>last</b>                  | function |
| F empty          | <b>load</b>                  | function |
| F first          | <b>lpath</b>                 | function |
| F function       | <b>lpathcached</b>           | function |
| F index          | <b>lpathcalls</b>            | function |
| F last           | <b>lshow</b>                 | function |
| F lowerall       | <b>makestandalone</b>        | function |
| F match          | <b>match</b>                 | function |
| F name           | <b>name</b>                  | function |

|                                      |                     |                                    |                     |
|--------------------------------------|---------------------|------------------------------------|---------------------|
| <b>newhandlers</b>                   | function            | <b>strip</b>                       | function            |
| <b>nodesettostring</b>               | function            | <del><b>strip_whitespace</b></del> | <del>function</del> |
| <b>originalload</b>                  | function            | <b>stripelement</b>                | function            |
| <b>package</b>                       | function            | <b>stripleadingspaces</b>          | function            |
| <b>parent</b>                        | function            | <b>table</b>                       | function            |
| <b>parsedentitylpeg</b>              | userdata            | <b>text</b>                        | function            |
| <b>pihandlers</b>                    | table               | <b>textonly</b>                    | function            |
| <b>placeholders</b>                  | table               | <b>texttocdata</b>                 | function            |
| F unknown_any_entity                 |                     | <b>tocdata</b>                     | function            |
| F unknown_dec_entity                 |                     | <b>toelement</b>                   | function            |
| F unknown_hex_entity                 |                     | <b>tostring</b>                    | function            |
| <b>position</b>                      | function            | <b>toxml</b>                       | function            |
| <b>privatecodes</b>                  | table               | <b>tprint</b>                      | function            |
| <b>privatetoken</b>                  | function            | <b>traverse</b>                    | function            |
| <b>process</b>                       | function            | <b>unescaped</b>                   | function            |
| <del><b>process_attributes</b></del> | <del>function</del> | <b>unprivatized</b>                | function            |
| <del><b>process_elements</b></del>   | <del>function</del> | <b>withelement</b>                 | function            |
| <b>processattributes</b>             | function            | <b>withelements</b>                | function            |
| <b>profiled</b>                      | table               | <b>wrap</b>                        | function            |
| <b>raw</b>                           | function            | <b>xmlns</b>                       | table               |
| <b>registerentity</b>                | function            |                                    |                     |
| <b>registers</b>                     | function            |                                    |                     |
| <del><b>remap_name</b></del>         | <del>function</del> |                                    |                     |
| <del><b>remap_namespace</b></del>    | <del>function</del> |                                    |                     |
| <del><b>remap_tag</b></del>          | <del>function</del> |                                    |                     |
| <b>remapname</b>                     | function            |                                    |                     |
| <b>remapnamespace</b>                | function            |                                    |                     |
| <b>remaptag</b>                      | function            |                                    |                     |
| <b>renamespace</b>                   | function            |                                    |                     |
| <b>replace</b>                       | function            |                                    |                     |
| <b>replace_element</b>               | function            |                                    |                     |
| <b>resolvens</b>                     | function            |                                    |                     |
| <b>root</b>                          | function            |                                    |                     |
| <b>save</b>                          | function            |                                    |                     |
| <b>selection</b>                     | function            |                                    |                     |
| <b>separate</b>                      | function            |                                    |                     |
| <b>serialize</b>                     | function            |                                    |                     |
| <b>setcdata</b>                      | function            |                                    |                     |
| <b>sethandlersfunction</b>           | function            |                                    |                     |
| <b>setproperty</b>                   | function            |                                    |                     |
| <b>settings</b>                      | function            |                                    |                     |
| <b>specialhandler</b>                | table               |                                    |                     |
| <b>sprint</b>                        | function            |                                    |                     |
| <b>string</b>                        | function            |                                    |                     |

## zip (extra lua)

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