MP attributes backends bit32 blobs boolean buffers builders caches callback callbacks catcodes characters chemistry commands containers context converters coroutine ctxrunner debug dir dircodes directives document documentdata environment experiments ffi figures file fio floats font 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 md5 metapost mime moduledata modules mp mplib noads node nodes number objects os package pagebuilders parametersets pdf pdfe pdfscanner physics publications regimes resolvers sandbox scripts set sha2 sio socket sorters statistics status storage streams string structures table tex texconditionals texconfig texconstants texifs texio texisdefined texmodes texsystemmodes thirddata token tokens tracers trackers typesetters unicode url userdata utf8 utilities vf visualizers xml zip zlib

ConTEXt MkIV

global (alias: _G)

FFISUPPORTED	function	**document**	table
INITEXMODE	boolean	**documentdata**	table
LUAMAJORVERSION	number	**dofile**	function
LUAMINORVERSION	number	**environment**	table
LUATEXCOREVERSION	number	**error**	function
LUATEXENGINE	string	**experiments**	table
LUATEXFUNCTIONALITY	number	**ffi**	table
LUATEXVERSION	number	**ffilib**	function
LUAVERSION	number	**figures**	table
MP	function	**file**	table
_LUAVERSION	number	**fio**	table
anywhere	function	**floats**	table
arg	table	**font**	table
assert	function	**fonts**	table
attributes	table	**frozen**	boolean
backends	table	**functions**	table
bit32	table	**getmetatable**	function
blobs	table	**getpos**	function
blockrequire	function	**getvpos**	function
boolean	table	**global**	table
buffers	table	**grammar_parsed_text_one_nop**	userdata
builders	table	**grammar_parsed_text_one_yes**	userdata
caches	table	**grammar_parsed_text_two_nop**	userdata
callback	table	**grammar_parsed_text_two_yes**	userdata
callbacks	table	**grammar_unparsed_text_nop**	userdata
catcodes	table	**grammar_unparsed_text_yes**	userdata
characters	table	**graphics**	table
checkimage	function	**gregorian_to_jalali**	function
chemistry	table	**gzip**	table
collectgarbage	function	**img**	table
commands	table	**inspect**	function
containers	table	**interactions**	table
context	function	**interfaces**	table
converters	table	**io**	table
coroutine	table	**ipairs**	function
ctxrunner	table	**jalali_to_gregorian**	function
debug	table	**job**	table
dimen	function	**lang**	table
dir	table	**languages**	table
dircodes	data table	**layouts**	table
directives	table	**lfs**	table

libraries	table	**rawset**	function
lmx	table	**readarray**	function
load	function	**regimes**	table
loadfile	function	**require**	function
loadstring	function	**required**	function
logs	table	**requireswiglib**	function
lpdf	table	**resolvers**	table
lpeg	table	**ruledspace**	function
ltn12	table	**sandbox**	table
lua	table	**scripts**	table
luatex	table	**select**	function
lxml	table	**set**	table
math	table	**setinspector**	function
mathematics	table	**setmetatable**	function
md5	table	**sha2**	table
metapost	table	**sio**	table
mime	table	**socket**	table
module	function	**sorters**	table
moduledata	table	**statistics**	table
modules	table	**status**	table
mp	function	**storage**	table
mplib	table	**streams**	table
next	function	**string**	table
noads	table	**structures**	table
node	table	**swiglib**	function
nodes	table	**table**	table
number	table	**tex**	table
objects	table	**texconditionals**	data table
optionalrequire	function	**texconfig**	table
os	table	**texconstants**	data table
package	table	**texifs**	data table
pagebuilders	table	**texio**	table
pairs	function	**texisdefined**	data table
parametersets	table	**texmodes**	data table
pcall	function	**texsystemmodes**	data table
pdf	table	**thirddata**	table
pdfe	table	**toboolean**	function
pdfscanner	table	**token**	table
physics	table	**tokens**	table
print	function	**tonumber**	function
publications	table	**tostring**	function
rawequal	function	**tracers**	table
rawget	function	**trackers**	table
rawlen	function	**type**	function

typesetters	table	**utilities**	table
unicode	table	**vf**	table
unpack	function	**visualizers**	table
url	table	**xml**	table
userdata	table	**xpcall**	function
utf	table	**zip**	table
utf8	table	**zlib**	table

attributes (context)

applyoverloads function
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
- D counts
- B couple
- F currentmodel
- F currentnamedmodel
- D data
- N default
- F defineintermediatecolor
- F definemultitonecolor
- F defineprocesscolor
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- F forcedmodel
- F forcesupport
- F formatcolor
- F formatgray
- F getpagecolormodel
- F gray
- F graytohsv
- F handler
- F hsvtogray
- F hsvtorgb
- F iccprofile
- F isblack
- N main

- S model
- D models
- F mpcolor
- F mpnamedcolor
- F mpoptions
- F namedcolorattributes
- N none
- F popset
- F processcolorcomponents
- F pushset
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbtocmyk
- F rgbtogray
- F rgbtohsv
- N selector
- F setlist
- F setmodel
- F setpagecolormodel
- D sets
- F spec
- F spot
- F spotcolorname
- F spotcolorparent
- F spotcolorvalue
- B supported
- F toattributes
- F transparencycomponents
- B triggering
- F usecolors
- D valid
- F value
- D values
- B weightgray

define   function
effects   table
- N attribute
- D data
- F enable

F	handler		N	darken
F	register		N	difference
D	registered		N	exclusion
D	values		N	hardlight
handlers	**table**		N	hue
list	**data table**		N	lighten
markasoverload	**function**		N	luminosity
names	**data table**		N	multiply
negatives	**table**		N	none
N	attribute		N	normal
D	data		N	overlay
F	enable		N	saturation
F	handler		N	screen
F	register		N	softlight
D	registered		N	none
F	set		F	register
numbers	**data table**		D	registered
ofnode	**function**		B	supported
private	**function**		F	toattribute
public	**function**		B	triggering
restore	**function**		F	value
save	**function**		D	values
showcurrent	**function**		**unsetvalue**	**number**
states	**table**		**viewerlayers**	**table**
F	disabletriggering		N	attribute
F	enabletriggering		F	cleanup
F	finalize		D	data
F	initialize		F	define
F	process		F	definedlayoutcomponent
F	selective		F	enable
F	stacked		F	forcesupport
F	stacker		F	handler
system	**function**		B	hasorder
tooverloads	**function**		D	listwise
transparencies	**table**		F	register
N	attribute		D	registered
D	data		F	resolve_begin
F	enable		F	resolve_end
F	forcesupport		F	resolve_reset
F	handler		F	resolve_step
T	names		D	scopes
N	color		F	setfeatures
N	colorburn		F	start
N	colordodge		F	stop

B supported

D values

backends (context)

codeinjections   table
- F boxresourcedimensions
- F registerboxresource
- F restoreboxresource

current   string

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

included   table
- B context
- B date
- B id
- B metadata
- B pdf

install   function

nodeinjections   table
- F restore
- F save
- F transform

nothing   function

pdf   table
- T codeinjections
  - F addbookmarks
  - F analyzenormalsymbol
  - F analyzesymbol
  - F attachmentid
  - F clonefield
  - F definefield
  - F definefieldset
  - F defineviewerlayer
  - F embedfile
  - F enabletags
  - F exportformdata
  - F fieldsurrounding
  - F flushmergelayer
  - F getbookmarks
  - F getdefaultfieldvalue
  - F getfieldcategory
  - F getfieldset
  - F getformatoption
  - F gethpos
  - F getinfo
  - F getmatrix
  - F getoutputfilename
  - F getpos
  - F getpreviewfigure
  - F getvpos
  - F hasmatrix
  - F insertrenderingwindow
  - F mergebookmarks
  - F mergecomments
  - F mergefields
  - F mergereferences
  - F mergeviewerlayers
  - F prerollreference
  - F presetsymbol
  - F presetsymbollist
  - F processrendering
  - F registerdocumentcloseaction
  - F registerdocumentopenaction
  - F registeredsymbol
  - F registerpagecloseaction
  - F registerpageopenaction
  - F registersymbol
  - F setfieldcalculationset
  - F setfigurealternative
  - F setfigurecolorspace
  - F setfiguremask
  - F setformat
  - F setformsmethod
  - F setpagetransition
  - F setupcanvas
  - F setupidentity
  - F setxmpfile
  - F startlayer

F	startunicodetoactualtext	F	negative
F	startunicodetoactualtextdirect	F	overprint
F	stoplayer	F	positive
F	stopunicodetoactualtext	F	reference
F	stopunicodetoactualtextdirect	F	rgbcolor
F	supportedformats	F	spotcolor
F	unicodetoactualtext	F	startlayer
F	useviewerlayer	F	startstackedlayer
F	validfield	F	stoplayer
F	validfieldcategory	F	stopstackedlayer
F	validfieldset	F	transparency
S	comment	F	typesetfield
T	nodeinjections	T	registrations
F	addtags	F	cmykindexcolor
F	annotation	F	cmykspotcolor
F	attachfile	F	getspotcolorreference
F	changestackedlayer	F	grayindexcolor
F	cmykcolor	F	grayspotcolor
F	comment	F	rgbindexcolor
F	destination	F	rgbspotcolor
F	effect	F	spotcolorname
F	graycolor	F	transparency
F	injectbitmap	T	tables
F	insertmovie	D	vfspecials
F	insertsound		

F insertswf	
F insertu3d	
F knockout	

registrations	table
tables	table
timestamp	function

bit32 (basic lua)

arshift	function		**extract**	function
band	function		**lrotate**	function
bnot	function		**lshift**	function
bor	function		**replace**	function
btest	function		**rrotate**	function
bxor	function		**rshift**	function

blobs (context)

append	function	**strht**	function
dimensions	function	**strwd**	function
dispose	function	**tohpack**	function
new	function	**tonodes**	function
pack	function	**tovpack**	function
strdp	function	**write**	function
strhd	function		

boolean (context)

tocontext   function
tonumber   function

buffers (context)

append	function	F define	
assign	function	F hassomecontent	
collectcontent	function	F next	
erase	function	F place	
exists	function	F reset	
get	function	F save	
getcontent	function	**prepend**	function
getlines	function	**raw**	function
gettexbuffer	function	**run**	function
loadcontent	function	**samplefile**	function
parallel	table	**undent**	function

builders (context)

kernel   table
- F hyphenation
- F kerning
- F ligaturing
- F mlist_to_hlist
- T originals
  - F hyphenate
  - F kerning
  - F ligaturing

paragraphs   table
- T constructors
  - N attribute
  - F define
  - F disable
  - F enable
  - F handler
  - T methods
    - F basic
    - F default
    - F hpack
    - F oneline
  - D names
  - D numbers
  - F set
  - F start
  - F stop
- T expansion
  - F trace
- F 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

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

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

caches (context)

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

callback (basic tex)

find   function   **register** overloaded function

list   function

callbacks (context)

freeze	function
known	function
list	data table
pop	function
push	function
register	function
report	function
supported	table

   B append_to_vlist_filter

   B build_page_insert

   B buildpage_filter

   B call_edit

   B contribute_filter

   B define_font

   B find_cidmap_file

   B find_data_file

   B find_enc_file

   B find_font_file

   B find_format_file

   B find_image_file

   B find_map_file

   B find_opentype_file

   B find_output_file

   B find_pk_file

   B find_read_file

   B find_truetype_file

   B find_type1_file

   B find_vf_file

   B find_write_file

   B finish_pdffile

   B finish_pdfpage

   B finish_synctex

   B font_descriptor_objnum_provider

   B glyph_not_found

   B glyph_stream_provider

   B hpack_filter

   B hpack_quality

   B hyphenate

B insert_local_par

B kerning

B ligaturing

B linebreak_filter

B mlist_to_hlist

B open_read_file

B post_linebreak_filter

B pre_dump

B pre_linebreak_filter

B pre_output_filter

B process_input_buffer

B process_jobname

B process_output_buffer

B process_rule

B read_cidmap_file

B read_data_file

B read_enc_file

B read_font_file

B read_map_file

B read_opentype_file

B read_pk_file

B read_truetype_file

B read_type1_file

B read_vf_file

B show_error_hook

B show_error_message

B show_lua_error_hook

B show_warning_message

B start_file

B start_page_number

B start_run

B stop_file

B stop_page_number

B stop_run

B vpack_filter

B vpack_quality

B wrapup_run

catcodes (context)

names	data table	**register**	function
numbers	data table		

characters (context)

activeoffset	number		
adobename	function	T anudatta	
bidi	data table	T before_half	
blockrange	function	T before_main	
blocks	data table	T before_postscript	
casemap	table	T before_subscript	
categories	data table	T below_mark	
category	function	T consonant	
categorytags	data table	T dependent_vowel	
classifiers	table	T halant	
collapsed	data table	T independent_vowel	
contextname	function	T nukta	
csletters	data table	T post_mark	
data	data table	T pre_mark	
decomposed	data table	T ra	
description	function	T stress_tone_mark	
descriptions	data table	T twopart_mark	
detailtags	data table	T vowel_modifier	
directions	table	**initialize**	function
emoji	table	**is_character**	data table
F compact		**is_command**	data table
F known		**is_letter**	data table
F resolve		**is_mark**	data table
emojized	function	**is_punctuation**	data table
enccodes	data table	**is_spacing**	data table
entities	data table	**lcchars**	data table
fallbacks	data table	**lccode**	function
filters	data table	**lccodes**	data table
fractions	table	**lettered**	function
fromnumber	function	**lhash**	data table
fschars	data table	**linebreaks**	data table
fscodes	data table	**lower**	function
getrange	function	**mathlists**	data table
graphemes	data table	**mirrors**	table
hangul	data table	**otfscripts**	data table
indicgroups	table	**private**	table
T above_mark		**ranges**	data table
T after_half		**registerentities**	function
T after_main		**remap_hangul_syllabe**	function
T after_postscript		**setactivecatcodes**	function
T after_subscript		**setlettercatcodes**	function
		shape	function

shaped	function		D accentmapping
shash	data table		D commandmapping
shchars	data table		F defineaccents
shcodes	data table		F safechar
showstring	function		F toutf
specialchars	data table		F toutfpattern
specials	data table	**textclasses**	table
splits	table	**tonumber**	function
T char		**ucchars**	data table
T compat		**uccode**	function
subscripts	table	**uccodes**	data table
superscripts	table	**uhash**	data table
synonyms	data table	**unicodechar**	function
tex	table	**upper**	function

chemistry (context)

component	function	**molecule**	function
define	function	**moleculeparser**	userdata
definitions	data table	**start**	function
format	string	**stop**	function
inlinechemical	function	**structures**	number
instance	string	**undefine**	function
method	string		

containers (context)

cleanname	function	**is_valid**	function
content	function	**read**	function
define	function	**usecache**	boolean
is_usable	function	**write**	function

converters (context)

A	function	**cn-c**	function
A:es	function	**convert**	function
A:ru	function	**decimals**	function
A:sl	function	**define**	function
AK	function	**hexstringtonumber**	function
Alphabetic	function	**hour**	function
Alphabetic:es	function	**i**	function
Alphabetic:ru	function	**isleapyear**	function
Alphabetic:sl	function	**lchexnumber**	function
Character	function	**lchexnumbers**	function
Characters	function	**leapyear**	function
I	function	**lower**	function
KA	function	**max**	function
KR	function	**maxchrs**	function
R	function	**minute**	function
RK	function	**month**	function
Romannumerals	function	**nicenumber**	function
Russiannumerals	function	**nofdays**	function
Sloveniannumerals	function	**number**	function
Spanishnumerals	function	**numbers**	function
Word	function	**octnumber**	function
Words	function	**octstringtonumber**	function
a	function	**ordinal**	function
a:es	function	**r**	function
a:ru	function	**rawcharacter**	function
a:sl	function	**romannumerals**	function
abjadnodotnumerals	function	**russiannumerals**	function
abjadnumerals	function	**second**	function
alphabetic	function	**sequences**	data table
alphabetic:es	function	**settime**	function
alphabetic:ru	function	**sloveniannumerals**	function
alphabetic:sl	function	**spaceddigits**	function
character	function	**spanishnumerals**	function
characters	function	**textime**	function
chineseallnumerals	function	**toabjad**	function
chinesecapnumerals	function	**tochinese**	function
chinesenumerals	function	**toroman**	function
chr	function	**totime**	function
chrs	function	**uchexnumber**	function
cn	function	**uchexnumbers**	function
cn-a	function	**upper**	function

verbose	table	**word**	function
D data		**words**	function
F translate		**year**	function
weekday	function		

coroutine (basic lua)

create	function	**status**	function
isyieldable	function	**wrap**	function
resume	function	**yield**	function
running	function		

ctxrunner (context)

load   function   **prepfiles**   data table
preparedfile function   **resolve**   function

debug (basic lua)

debug	function	**sethook**	function
gethook	function	**setlocal**	function
getinfo	function	**setmetatable**	function
getlocal	function	**setupvalue**	function
getmetatable	function	**setuservalue**	function
getregistry	function	**traceback**	function
getupvalue	function	**upvalueid**	function
getuservalue	function	**upvaluejoin**	function

dir (context)

collectpattern	function	**globpattern**	function
current	function	**ls**	function
expandname	function	**makedirs**	function
found	function	**mkdirs**	function
glob	function	**pop**	function
globdirs	function	**push**	function
globfiles	function		

directives (context)

data	data table	**name**	string
default	function	**register**	function
disable	function	**report**	function
done	table	**reset**	function
enable	function	**show**	function
list	function	**value**	function

document (context)

arguments	data table	D modes	
files	table	D modules	
functions	table	**setargument**	function
getargument	function	**setcommandline**	function
getfilename	function	**setdefaultargument**	function
options	table	**setenvironments**	function
T commandline		**setfilename**	function
D environments		**setfilenames**	function
D modes		**setmodes**	function
D modules		**setmodules**	function
T ctxfile		**variables**	data table
D environments			

environment (context)

argument	function	**luafile**	function
arguments	data table	**luafilechunk**	function
basicengines	data table	**luatexengine**	string
currentrun	number	**luatexfuncitonality**	number
default_texmfcnf	string	**luatexversion**	number
definefilefallback	function	**maxnofruns**	number
definefilesynonym	function	**originalarguments**	data table
engineflags	data table	**outputfilename**	string
filename	string	**ownbin**	string
files	table	**ownmain**	string
filesynonyms	data table	**ownname**	string
forcedruns	number	**ownpath**	string
getargument	function	**prerollrun**	boolean
homedir	string	**rawarguments**	data table
initex	boolean	**reconstructcommandline**	function
initexmode	boolean	**relativepath**	function
initializearguments	function	**setargument**	function
initializefilenames	function	**splitarguments**	function
inputfilebarename	string	**suffix**	string
inputfilename	string	**texfile**	function
inputfilesuffix	string	**texmfos**	string
jobfilefullname	string	**texos**	string
jobfilename	string	**texroot**	string
jobfilesuffix	string	**truefilename**	function
jobname	string	**useluamodule**	function
kindofrun	number	**usemodules**	function
loadexamodes	function	**validengines**	data table
loadluafile	function	**version**	string

experiments (context)

data	data table	**register**	function
default	function	**report**	function
disable	function	**reset**	function
enable	function	**show**	function
list	function	**value**	function
name	string		

figures (context)

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

file (basic lua)

addsuffix	function	**needsupdating**	function
basename	function	**pathpart**	function
checksum	function	**readdata**	function
collapsepath	function	**removesuffix**	function
copy	function	**replacesuffix**	function
dirname	function	**reslash**	function
expandname	function	**robustname**	function
extname	function	**savechecksum**	function
is_qualified_path	function	**savedata**	function
is_readable	function	**size**	function
is_rootbased_path	function	**splitbase**	function
is_writable	function	**splitname**	function
isreadable	function	**splitpath**	function
iswritable	function	**strip**	function
join	function	**suffix**	function
joinpath	function	**suffixes**	function
loadchecksum	function	**suffixesonly**	function
nameonly	function	**suffixonly**	function
nametotable	function	**syncmtimes**	function
needs_updating	function	**withinbase**	function

fio (extra lua)

checkpermission	function		**readfixed4**	function
getposition	function		**readinteger1**	function
read2dot14	function		**readinteger2**	function
readbytes	function		**readinteger3**	function
readbytetable	function		**readinteger4**	function
readcardinal1	function		**readintegertable**	function
readcardinal2	function		**readline**	function
readcardinal3	function		**recordfilename**	function
readcardinal4	function		**setposition**	function
readcardinaltable	function		**skipposition**	function
readfixed2	function			

floats (context)

analysemethod	function	**nofstacked**	function
checkedpagefloat	function	**pop**	function
collect	function	**push**	function
consult	function	**resave**	function
flush	function	**save**	function
getvariable	function	**stacked**	function
hasstacked	function		

font (basic tex)

addcharacters	function	**id**	function
current	function	**max**	function
define	function	**nextid**	function
each	function	**read_tfm**	function
fonts	table	**read_vf**	function
frozen	function	**setexpansion**	function
getfont	overloaded function	**setfont**	function

fonts (context)

analyzers   table
    D features
    D initializers
    D methods
    F setstate
    D states
    B useunicodemarks

checkers   table
    F getmissing
    F missing
    F placeholder

cid   table
    F getmap
    F loadfile

collections   table
    F checkenabled
    F clonevector
    F define
    T definitions
    F found
    F prepare
    F process
    F registermain
    F report
    F reset
    T vectors

constructors   table
    F addcharacters
    F addcoreunicodes
    F aftercopyingcharacters
    F applymanipulators
    F assignmathparameters
    B autocleanup
    F beforecopyingcharacters
    D cache
    B cacheintex
    F calculatescale
    F checkedfeatures
    F checkedfilename
    F cleanuptable
    F collectprocessors

F currentfonthasfeature
D designsizes
D dontembed
F enhanceparameters
T enhancers
  T afm
    F apply
    F patch
    T patches
      F register
      F report
    F register
    F report
  T otf
    F addfeature
    F apply
    F enhance
    F patch
    T patches
      F register
      F report
    F register
    F report
  T tfm
    F apply
    F patch
    T patches
      F register
      F report
    F register
    F report
N factor
T features
  D afm
  D otf
  D tfm
F finalize
F getfeatureaction
F getmathparameter
F getprivate
T handlers

```
T afm                                          F getactualtext
  B autoprefixed                               F getalternate
  D cache                                      F getgsub
  D features                                   F getkern
  F getkern                                    F getmultiple
  T helpdata                                   F getsubstitution
    D bothkerned                             T handlers
    D leftkerned                               F devanagari_remove_joiners
    D ligatures                                F devanagari_reorder_matras
    D rightkerned                              F devanagari_reorder_pre_base_reordering_consonants
    D texligatures                             F devanagari_reorder_reph
  F load                                       F gpos_context
  T readers                                    F gpos_contextchain
    F getinfo                                  F gpos_cursive
    F loadfont                                 F gpos_mark2base
    F loadshapes                               F gpos_mark2ligature
  F setfeatures                                F gpos_mark2mark
  B syncspace                                  F gpos_pair
  N version                                    F gpos_single
T otf                                          F gsub_alternate
  F addfeature                                 F gsub_context
  F basemodeinitializer                        F gsub_contextchain
  D cache                                      F gsub_ligature
  F collectlookups                             F gsub_multiple
  T coverup                                    F gsub_reversecontextchain
    T actions                                  F gsub_single
      F alternate                              F trigger_space_kerns
      F chainposition                        T helpers
      F chainsubstitution                      F blockligatures
      F kern                                   F pardirstate
      F ligature                               F txtdirstate
      F multiple                             F load
      F pair                                 F loadoutlinedata
      F single                               F loadstreamdata
      F substitution                         F modeinitializer
    F register                               D pdfcache
    S stepkey                                F plugininitializer
  F dataset                                  F pluginprocessor
  F datasetpositionprocessor                 T plugins
  S defaultbasealternate                     T readers
  S defaultnodealternate                       F addunicodetable
  D features                                   F avar
  F featuresinitializer                        F cbdt
  F featuresprocessor                          F cblc
```

```
F cff                                      F getaxisscale
F cff2                                     F getfactors
F cffcheck                                 F getscales
F checkhash                                F gotodatatable
F cmap                                     F normalizedaxis
F colr                                     T normalizedaxishash
F compact                                  F readvariationdata
F cpal                                      F reportskippedtable
F ebdt                                     F setvariabledata
F eblc                                   F hhea
F ebsc                                   F hmtx
F expand                                 F hvar
F extend                                 F kern
F fvar                                   F loadfont
F gdef                                   F loadshapes
F getcomponents                          F loca
F getinfo                                F math
F glyf                                   F maxp
F gpos                                   F mvar
T gposhandlers                           F name
  F chainedcontext                       F os/2
  F context                              F pack
  F cursive                              F parsecharstrings
  F extension                            F post
  F marktobase                           F registerextender
  F marktoligature                       F rehash
  F marktomark                           F sbix
  F pair                                 F stat
  F single                             T streamreader
F gsub                                     F close
T gsubhandlers                             F getposition
  F alternate                              F getsize
  F chainedcontext                         F look
  F context                                F open
  F extension                              F read2dot14
  F ligature                               F readbyte
  F multiple                               F readbytes
  F reversechainedcontextsingle            F readbytetable
  F single                                 F readcardinal
F gvar                                     F readcardinal1
F head                                     F readcardinal2
T helpers                                  F readcardinal2le
  F axistofactors                          F readcardinal3
  F cleanname                              F readcardinal3le
```

```
  F readcardinal4              F scriptandlanguage
  F readcardinal4le            F setdynamics
  F readcardinaltable          F setfeatures
  F readchar                   T statistics
  F readfixed2                   D usedfeatures
  F readfixed4                 F storepdfdata
  F readinteger                T svg
  F readinteger1                 F filterglyph
  F readinteger2                 F topdf
  F readinteger2le             D svgcache
  F readinteger3               B svgenabled
  F readinteger3le             T tables
  F readinteger4                 D baselines
  F readinteger4le               D features
  F readintegertable            D featuretypes
  F readsignedbyte              D languages
  F readstring                  D scripts
  F readtag                     N version
  F setposition               T pfb
  F size                        F loadvector
  F skip                      T tfm
  F skiplong                    F addtounicode
  F skipposition                D features
  F skipshort                   N maxnestingdepth
  F writebyte                   N maxnestingsize
  F writecardinal2              F reencode
  F writecardinal4              F setfeatures
  F writestring                 N version
  F svg                       T vf
  N tableversion                T combinations
  F unifymissing                F combine
  F unpack                      T combiner
  F vhea                          D commands
  F vmtx                        D helpers
  F vorg                        D math
  F vvar                        D predefined
  F woff2otf                    N version
F registerpalette               D whatever
F registerplugin              F hashfeatures
F reorderlookups              F hashinstance
T sbix                        T hashmethods
  F topdf                       F normal
D sbixcache                     F virtual
B sbixenabled                 F initializefeatures
```

```
T keys                                      S vfactor
  T characters                              S wdelta
  T descriptions                            S width
  T parameters                            S embedding
    S ascender                            S encodingbytes
    S descender                           S filename
    S designsize                          S finalized
    T expansion                           S fontname
      S auto                              S format
      S shrink                            S fullname
      S step                              S hasitalics
      S stretch                           S hasmath
    S extendfactor                        S mathitalics
    S factor                              S mode
    S hfactor                             S name
    S mathsize                            S noglyphnames
    S mode                                S nostackmath
    T protrusion                          S psname
      S auto                              S textitalics
    S quad                                S virtualized
    S scaledpoints                      D loadedfonts
    S scriptpercentage                  S namemode
    S scriptscriptpercentage            N noffontsloaded
    S size                              N nofsharedfonts
    S slantfactor                       N nofsharedhashes
    S slantperpoint                     N nofsharedvectors
    T spacing                           N privateoffset
      S extra                           D privateslots
      S shrink                          F readanddefine
      S stretch                         F registerfeature
      S width                           F resetfeature
    S units                             B resolvevirtualtoo
    S vfactor                           F scale
    S width                             F scaled
    S xheight                           F setfactor
  T properties                            F setfeature
    S autoitalicamount                  F setmathparameter
    S cidinfo                           F setname
    T effect                            B sharefonts
      S ddelta                          F trytosharefont
      S effect                          N version
      S factor                current        function
      S hdelta                currentid      function
      S hfactor               definers       table
```

F	addlookup		**getkern**	function
F	analyze		**getmultiple**	function
F	applypostprocessors		**getsubstitution**	function
F	checkedmode		**getters**	table
F	checkedscript		T alternate	
F	current		F opentype	
S	defaultlookup		T kern	
F	define		F opentype	
F	getspecification		F type1	
F	internal		T multiple	
F	loadfont		F opentype	
F	makespecification		T substitution	
T	methods		F opentype	
	F install		**goodies**	table
	D variants		D colorschemes	
F	read		T data	
F	register		T dejavu-math	
F	registered		S author	
F	registersplit		S comment	
F	resetnullfont		S copyright	
F	resolve		B initialized	
T	resolvers		T mathematics	
	F file		T alternates	
	F name		T dotless	
	F spec		S comment	
definetypeface	function		S feature	
encodings	table		N value	
T agl			T kerns	
D ctxcodes			S name	
D extras			S version	
D names			T schola-math	
D synonyms			S author	
D unicodes			S comment	
D cache			S copyright	
F is_known			B initialized	
D known			T mathematics	
F load			T alternates	
F make_unicode_vector			T dotless	
D math			S comment	
N version			S feature	
enhanceid	function		N value	
expansions	data table		T kerns	
formats	data table		S name	
getalternate	function		S version	

D	designsizes		F	checkflags
D	filenames		F	checkmerge
F	getcompositions		F	checksteps
T	list		F	collectanchors
F	load		D	commands
F	prepare_features		F	descriptiontoslot
F	register		F	dimenfactor
F	registerpostprocessor		F	expandglyph
F	report		T	extraprivates
T	suffixes		F	fontpatternhassize

handlers   table

hashes   table

D	characters		F	getcoloredglyphs
D	classes		F	getdigitwidth
D	csnames		F	getinstancespec
D	descriptions		F	getparameters
D	dynamics		F	getprivatecharornode
D	emwidths		F	getprivatenode
D	exheights		F	getprivates
D	extensibles		F	getprivateslot
D	features		F	hasprivate
D	identifiers		F	indextoslot
D	italics		F	name
D	lastmathids		F	nametoslot
D	marks		F	prependcommands
D	modes		F	privateslot
D	originals		F	setdigitwidth
D	parameters		F	splitfontpattern
T	processes		F	tochar

D	properties		**infofont**	function
D	quads		**iterators**	table
D	resources		F	characters
T	setdynamics		F	descriptions
T	shapes		F	glyphs
D	spaces		**loggers**	table
D	spacings		F	add_placeholders
T	streams		D	category_to_placeholder
D	unicodes		F	format
D	variants		F	onetimemessage
D	xheights		F	register

helpers   table

			F	reportdefinedfonts
			F	reportusedfeatures
F	addextraprivate		**mappings**	table
F	addprivate		F	addtounicode
F	appendcommands		F	fromunicode16
			F	loadfile

F	loadline		D	defaults
F	makenameparser		F	definefallbackfamily
D	overloads		F	definefontfamily
F	reset		F	definefontfamilypreset
F	tounicode		D	extras
F	tounicode16		F	fallback
F	tounicode16sequence		D	fallbacks
metapost	table		F	features
F	boundingbox		F	filefallback
F	boxtomp		F	fontdata
F	draw		F	fontfallback
F	fill		F	fontsynonym
F	maxbounds		F	goodies
F	output		F	mathfallback
F	paths		D	methods
F	widthline		D	presets
F	zeroline		F	registerfallback
mp	table		F	registerfiles
D	cache		F	registerfontalternative
B	inline		F	registerfontfamily
N	version		F	textfallback
names	data table		F	typeface
nulldata	data table		F	typescript
protrusions	data table		F	userdata
readers	table		**specifiers**	table
F	afm		D	contextmerged
F	check_lua		F	contextnumber
F	check_tfm		D	contextnumbers
F	lua		D	contextsetups
F	ofm		F	contexttostring
F	opentype		F	definecontext
F	otf		F	mergecontext
F	pfb		F	presetcontext
D	sequence		F	registercontext
F	tfm		F	showcontext
F	ttc		F	splitcontext
F	ttf		D	synonyms
F	woff		D	variants
reserveid	function		**symbols**	table
select	table		T	emoji
D	alternatives		F	checked
F	bodyfont		F	resolved
D	data		F	uselibrary
F	default		**tables**	table

D data		D data	
F savefont		S filename	
F saveoriginal		F ignoredfile	
tracers	table	F report	
treatments	table	F trace	
F applyfixes		**typefaces**	table

functions (context)

dummy function

graphics (context)

backgrounds table
   F fetchmultipar
   F pair

F path
F point

gzip (extra lua)

close   function   **open**   function

lines   function   **save**   function

load   function   **suffix** function

img (basic tex)

boxes	function	**node**	function
check	function	**ofindex**	function
checksize	function	**package**	function
clone	function	**print**	function
copy	function	**scan**	function
fields	function	**serialize**	function
immediatewrite	function	**tonode**	function
immediatewriteobject	function	**totable**	function
keys	function	**types**	function
new	function	**write**	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 setclosedocument
   F setclosepage
   F setopendocument
   F setopenpage
renderings data table
soundclips data table

interfaces (context)

_	data table		
addvalidkeys	function	**registernamespace**	function
cachedsetups	data table	**registerscanner**	function
cachesetup	function	**scanners**	data table
checkedspecification	function	**setconstant**	function
complete	data table	**setcount**	function
constants	data table	**setdimen**	function
corenamespaces	data table	**setelement**	function
currentinterface	string	**setformat**	function
currentresponse	string	**setmacro**	function
definecommand	function	**setmessage**	function
defined	function	**setmessages**	function
doifelsemessage	function	**settranslation**	function
elements	data table	**setupstrings**	data table
formats	data table	**setuserinterface**	function
getcheckedparameters	function	**setvalidkeys**	function
getmessage	function	**setvariable**	function
getnamespace	function	**showmessage**	function
getsetupstring	function	**storedscanners**	data table
hashedsetups	data table	**strings**	table
implement	function	**syntax**	data table
interfacedcommand	function	**tolist**	function
interfaces	table	**translations**	data table
invalidkey	function	**usednamespaces**	data table
message	function	**variables**	data table
namespaces	table	**writestatus**	function

io (basic lua)

ask	function	**pathseparator**	string
bytes	function	**popen**	overloaded function
characters	function	**read**	function
close	function	**readall**	function
copydata	function	**readnumber**	function
exists	function	**readstring**	function
fileseparator	string	**saved_lines**	function
flush	function	**savedata**	function
input	overloaded function	**size**	function
lines	overloaded function	**stderr**	userdata
loadchunk	function	**stdin**	userdata
loaddata	function	**stdout**	userdata
loadlines	function	**tmpfile**	function
noflines	function	**type**	function
open	overloaded function	**write**	function
output	overloaded function		

job (context)

comment	function
datasets	table
D collected	
F extend	
F getdata	
F setdata	
D tobesaved	
disablesave	function
embedded	table
D collected	
D tobesaved	
fileobjreferences	table
D collected	
D tobesaved	
files	table
D collected	
F context	
B forcerun	
F run	
D tobesaved	
getrandomseed	function
initialize	function
load	function
loadother	function
objects	table
D collected	
F get	
F number	
F page	
F save	
F set	
D tobesaved	
pack	boolean
packversion	number
pagestates	table
D collected	
F extend	
F realpage	
F setstate	
D tobesaved	
passes	table

F check	
D collected	
F count	
F define	
F find	
F first	
F get	
F getcollected	
F getdata	
F getfield	
F gettobesaved	
F inlist	
F last	
F list	
F save	
F savetagged	
D tobesaved	
positions	table
F b_column	
F b_region	
F c	
D collected	
F column	
F copy	
F depth	
F e_column	
F e_region	
F enhance	
F extra	
T free	
F get	
F getreserved	
F gettobesaved	
F hangafter	
F hangindent	
F height	
F hsize	
F leftskip	
F lowerleft	
F lowerright	
F markregionbox	

F n		F xy	
F onsamepage		F y	
F overlapping		**register**	function
F p		**save**	function
T page		**structure**	table
F paragraph		D collected	
F parindent		T components	
F position		T tobesaved	
F r		T branches	
F region		S name	
F replace		S type	
F rightskip		**variables**	table
F set		D checksums	
F setall		D collected	
F setregionbox		F getchecksum	
D tobesaved		F makechecksum	
F upperleft		F restore	
F upperright		F save	
S used		F setchecksum	
F whd		D tobesaved	
F width		**version**	number
F x			

lang (basic tex)

clean	function	**id**	function
clear_hyphenation	function	**new**	function
clear_patterns	function	**patterns**	function
exceptions	function	**postexhyphenchar**	function
gethjcode	function	**posthyphenchar**	function
hyphenate	function	**preexhyphenchar**	function
hyphenation	function	**prehyphenchar**	function
hyphenationmin	function	**sethjcode**	function

languages (context)

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

T enablers

B enables

F found

F load

T methods

N threshold

layouts (context)

status table

F isleftpage

F leftorrightpageaction

lfs (extra lua)

attributes	overloaded function	**mkdir**	overloaded function
chdir	overloaded function	**mkdirs**	function
currentdir	function	**readlink**	overloaded function
dir	overloaded function	**rmdir**	overloaded function
isdir	overloaded function	**setmode**	overloaded function
isfile	overloaded function	**shortname**	overloaded function
isfound	function	**symlinkattributes**	overloaded function
link	overloaded function	**touch**	overloaded function
lock	function	**unlock**	function
lock_dir	overloaded function		

libraries (context)

basiclua	data table	**extratex**	data table
basictex	data table	**functions**	data table
builtin	data table	**globals**	data table
extralua	data table		

lmx (context)

color	function		**loadedfile**	function
convert	function		**make**	function
convertfile	function		**new**	function
convertstring	function		**overloaderror**	function
einject	function		**popupfile**	function
eprint	function		**print**	function
escape	function		**pv**	function
finalized	function		**report**	function
finject	function		**reset**	function
fprint	function		**result**	function
get	function		**set**	function
getvariables	function		**show**	function
htmfile	function		**showdebuginfo**	function
html	table		**showerror**	function

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

Right column continued:

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)

application	function	**reportlines**	function
categories	function	**setformats**	function
direct	function	**setformatters**	function
disable	function	**setlogfile**	function
enable	function	**setmessenger**	function
exporters	table	**setprocessor**	function
extendbanner	function	**setprogram**	function
finalactions	function	**settarget**	function
flush	function	**settimedlog**	function
help	function	**settranslations**	function
loggingerrors	function	**show**	function
messenger	function	**show_close**	function
new	function	**show_load**	function
newline	function	**show_open**	function
poptarget	function	**simple**	function
pushtarget	function	**simpleline**	function
registerfinalactions	function	**simplelines**	function
report	function	**start_page_number**	function
reportbanner	function	**starterrorlogging**	function
reported	function	**startfilelogging**	function
reporter	function	**status**	function
reporters	table	**stop_page_number**	function
F banner		**stoperrorlogging**	function
F export		**stopfilelogging**	function
F help		**subdirect**	function
F info		**subreport**	function
F lines		**system**	function
F version		**texerrormessage**	function
reportline	function	**writer**	function

lpdf (context)

action	function	**docstring**	function
adddocumentcolorspace	function	**epdf**	table
adddocumentextgstate	function	F contenttotext	
adddocumentpattern	function	F expanded	
adddocumentshade	function	F getpagecontent	
addtocatalog	function	F getstructure	
addtoinfo	function	T image	
addtonames	function	F close	
addtopageattributes	function	F copy	
addtopageresources	function	F open	
addtopagesattributes	function	F query	
addxmpinfo	function	F load	
annotationspecification	function	F plugin	
array	function	T resolvers	
boolean	function	F destinations	
border	function	F embeddedfiles	
checkedkey	function	F javascripts	
checkedvalue	function	F layers	
circularshade	function	F pages	
cmykcode	function	F structure	
collectedresources	function	F widgets	
color	function	F unload	
colorspace	function	**escaped**	function
colorspaceconstants	data table	**finalizedocument**	function
colorspec	function	**finalizefonts**	function
colorvalue	function	**finalizepage**	function
colorvalues	function	**finishtransparencycode**	function
compresslevel	function	**flags**	table
constant	function	T annotations	
copyarray	function	N AutoView	
copyboolean	function	N Hidden	
copyconstant	function	N Invisible	
copydictionary	function	N Locked	
copyfloat	function	N LockedContents	
copyinteger	function	N NoRotate	
copynumber	function	N NoView	
copystring	function	N NoZoom	
copyunicode	function	N Print	
delayedobject	function	N Printable	
destinationspecification	function	N ReadOnly	
dictionary	function	N ToggleNoView	

N auto		**getvpos**	function
N hidden		**graycode**	function
N printable		**hasmatrix**	function
T widgets		**id**	function
N Comb		**includechar**	function
N CommitOnSelChange		**includefont**	function
N DoNotScroll		**injectxmpinfo**	function
N DoNotSpellCheck		**insertxmpinfo**	function
N Edit		**layerreference**	function
N FileSelect		**limited**	function
N MultiLine		**linearshade**	function
N NoExport		**literal**	function
N NoToggleToOff		**majorversion**	function
N Password		**minorversion**	function
N PopUp		**nametree**	function
N PushButton		**null**	function
N Radio		**number**	function
N RadiosInUnison		**objectcompresslevel**	function
N ReadOnly		**pagereference**	function
N Required		**patternstream**	function
N RichText		**pdfcolor**	function
N Sort		**pdftimestamp**	function
N file		**permitdetail**	function
N fixed		**protectresources**	boolean
N nocheck		**rectangle**	function
N protected		**reference**	function
N readonly		**registerannotation**	function
N required		**registerdestination**	function
N sorted		**registerdocumentfinalizer**	function
N unavailable		**registerfont**	function
flushobject	function	**registerpagefinalizer**	function
flushstreamfileobject	function	**registerpattern**	function
flushstreamobject	function	**reserveobject**	function
formats	data table	**rgbcode**	function
frombytes	function	**rotationcm**	function
fromeight	function	**setcompression**	function
frompdfdoc	function	**setdates**	function
fromsixteen	function	**settime**	function
getcompression	function	**settrailerid**	function
gethpos	function	**setversion**	function
getmatrix	function	**shareobject**	function
getmetadata	function	**shareobjectreference**	function
getpos	function	**spotcode**	function
getversion	function	**stream**	function

string	function	**transparencycode**	function
toeight	function	**transparencygroups**	table
topdfdoc	function	B none	
tosixteen	function	**transparencyvalue**	function
transform	function	**unicode**	function
transparency	function	**verbose**	function

lpeg (basic lua)

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

bytecode	table	F loaded	
bytedata	data table	F required	
bytedone	table	F reset	
B page-cst		F resolvestring	
collectgarbage	function	F resolving	
delay	function	**mask**	string
finalize	function	**messages**	data table
firstbytecode	number	**name**	table
flush	function	**newtable**	function
flushdelayed	function	**numbers**	data table
get_functions_table	function	**registercode**	function
getbytecode	function	**registeredcodes**	function
getcalllevel	function	**registerfinalizer**	function
getluaname	function	**registername**	function
getstacktop	function	**setbytecode**	function
lastbytecode	number	**setluaname**	function
macros	table	**startupfile**	string
B enabled		**version**	string

luatex (context)

cleanuptempfiles	function	F	enable
currentfile	function	F	finish
registerdumpactions	function	F	pause
registerpageactions	function	F	registerdisabler
registerstartactions	function	F	registerenabler
registerstopactions	function	F	resetfilename
registertempfile	function	F	resume
starttime	number	F	setfilename
synctex	table	F	setup
F blockfilename		F	start
F collect		F	stop
F disable		F	wrapup

lxml (context)

addindex	function		**flush**	function
all	function		**flushlinewise**	function
applyfunction	function		**flushsetups**	function
applyselectors	function		**flushspacewise**	function
att	function		~~**get_id**~~	~~function~~
attribute	function		**getid**	function
badinclusions	function		**getindex**	function
chainattribute	function		**id**	function
checkindex	function		**idsplitter**	userdata
collected	function		**include**	function
command	function		**inclusion**	function
concat	function		**inclusions**	function
concatrange	function		**index**	function
content	function		**inlineverbatim**	function
context	function		**installsetup**	function
convert	function		**last**	function
count	function		**lastatt**	function
delete	function		**lastmatch**	function
direct	function		**lastpar**	function
directives	table		**load**	function
F after			**loadbuffer**	function
F before			**loaddata**	function
F handle			**loaded**	table
F load			**main**	function
F setup			**match**	function
displayverbatim	function		**name**	function
doif	function		**namespace**	function
doifelse	function		**nonspace**	function
doifelseempty	function		**par**	function
doifelsetext	function		**param**	function
doifempty	function		**parameter**	function
doifnot	function		**path**	function
doifnotempty	function		**popmatch**	function
doifnottext	function		**pos**	function
doiftext	function		**position**	function
element	function		**pure**	function
elements	function		**pushmatch**	function
entities	data table		**raw**	function
filter	function		**rawroot**	function
filterlist	function		**rawtex**	function
first	function		**refatt**	function

register	function		F compare	
registerentity	function		F flush	
removesetup	function		F reset	
resetcdata	function		F show	
resetsetups	function		F sort	
resolvedentity	function	**splitid**	function
root	function	**startraw**	function
save	function	**startunescaped**	function
serialize	function	**stopraw**	function
setaction	function	**stopunescaped**	function
setatt	function	**store**	function
setattribute	function	**strip**	function
setcdata	function	**stripped**	function
setcommandtonone	function	**tag**	function
setcommandtotext	function	**text**	function
setpar	function	**tobuffer**	function
setparam	function	**tofile**	function
setparameter	function	**toparameters**	function
setsetup	function	**toverbatim**	function
snippet	function	**verbatim**	function
sorters	table	**withindex**	function
F add		**xmltexhandler**	data table

math (basic lua)

abs	function		**maxinteger**	number
acos	function		**min**	function
asin	function		**mininteger**	number
atan	function		**mod**	function
atan2	function		**modf**	function
ceil	function		**odd**	function
ceiling	function		**pi**	number
cos	function		**pow**	function
cosd	function		**rad**	function
cosh	function		**random**	overloaded function
deg	function		**randomseed**	function
div	function		**round**	function
even	function		**setrandomseedi**	function
exp	function		**sin**	function
floor	function		**sind**	function
fmod	function		**sinh**	function
frexp	function		**sqrt**	function
huge	number		**tan**	function
initialseed	number		**tand**	function
ldexp	function		**tanh**	function
log	function		**tointeger**	function
log10	function		**type**	function
max	function		**ult**	function

mathematics (context)

addfallbacks	function	**mapremap**	data table
alphabets	data table	**overloaddimensions**	function
alternatives	data table	**overloadparameters**	function
big	function	**privatebase**	number
boldmap	data table	**registerdomain**	function
categories	table	**registerfallbackid**	function
D functions		**remapalphabets**	function
charactersets	data table	**renderings**	table
checkaccentbaseheight	function	D mappings	
checkprivateparameters	function	D numbers	
classes	data table	D sets	
codes	data table	**renderset**	function
define	function	**resetattributes**	function
dimensions	function	**resetitalics**	function
domains	table	**resolvefallbacks**	function
extensiblecode	function	**scaleparameters**	function
extensibles	data table	**setdomain**	function
extrabase	number	**setitalics**	function
extras	table	**setridofprime**	function
F add		**sets**	data table
F copy		**styles**	data table
fallbacks	table	**syncboth**	function
F apply		**syncname**	function
F install		**syncstyle**	function
fallbackstyleattr	function	**toname**	function
families	data table	**tostyle**	function
finishfallbacks	function	**tweakaftercopyingfont**	function
gaps	data table	**tweakbeforecopyingfont**	function
getboth	function	**tweaks**	table
getdomain	function	**utfmathaccent**	function
getitalics	function	**utfmathclass**	function
getridofprime	function	**utfmathcommand**	function
getstyle	function	**utfmathfiller**	function
horizontalcode	function	**utfmathstretch**	function
initializeparameters	function	**virtualize**	function
makefont	function	**virtualized**	data table

md5 (extra lua)

HEX	function		**hex**	function
crypt	function		**sum**	function
dec	function		**sumHEXA**	overloaded function
decrypt	function		**sumhexa**	overloaded function
exor	function			

metapost (context)

analyzeplugins	function		**getstatistics**	function
checkformat	function		**gettext**	function
checktexts	function		**graphic**	function
cm	function		**graphic_base_pass**	function
collapse	boolean		**installplugin**	function
colorinitializer	function		**intermediate**	table
comment	function		T actions	
convert	function		F makempy	
defaultformat	string		**isobject**	function
defaultinstance	string		**lastlog**	string
defaultmethod	string		**load**	function
directrun	function		**makempy**	table
escaped	function		N nofconverted	
exectime	table		F processgraphics	
extensiondata	data table		F registerfile	
filterclippath	function		**maketext**	function
flush	function		**metafun**	table
flushers	table		F interpolate	
T pdf			F topath	
F comment			**method**	number
F flushfigure			**mptopdf**	table
F startfigure			F convertmpstopdf	
F stopfigure			N nofconverted	
F textfigure			**n**	number
flushliteral	function		**nofscriptruns**	function
flushnormalpath	function		**nvformat**	function
flushreset	function		**optimize**	boolean
fonts	table		**parse**	function
F define			**pdfliterals**	function
T flusher			**pluginactions**	function
F flushfigure			**popformat**	function
F startfigure			**popscriptrunner**	function
F stopfigure			**popvariable**	function
N instances			**popvariables**	function
F process			**preparetextextsdata**	function
format_number	function		**process**	function
format_string	function		**processplugins**	function
formatnumber	function		**processspecial**	function
getclippath	function		**properties**	table
getextensions	function		**pushformat**	function
getjobdata	function		**pushscriptrunner**	function

pushvariable	function		**stopgraphic**	function
pushvariables	function		**svformat**	function
quickanddirty	function		**sxsy**	function
reducetogray	boolean		**tex**	table
reporterror	function		F get	
reset	function		F reset	
resetlastlog	function		F set	
resetplugins	function		F setfrombuffer	
run	function		**texerrors**	boolean
runscript	function		**texexp**	function
scripterror	function		**theclippath**	function
setextensions	function		**tographic**	function
setoutercolor	function		**totable**	function
settext	function		**unload**	function
setvariable	function		**untagvariable**	function
showlog	boolean		**use_one_pass**	boolean
simple	function		**variables**	table
startgraphic	function			

mime (extra lua)

b64	function	**qp**	function
decode	function	**qpwrp**	function
decodet	table	**stuff**	function
F base64		**unb64**	function
F quoted-printable		**unqp**	function
dot	function	**wrap**	function
encode	function	**wrapt**	table
encodet	table	F base64	
F base64		F default	
F quoted-printable		F quoted-printable	
eol	function	F text	
normalize	function	**wrp**	function

mp (context)

BackSpace	function	**OuterMarginWidth**	function
BaseLineSkip	function	**OverlayDepth**	function
BodyFontSize	function	**OverlayHeight**	function
BottomDistance	function	**OverlayLineWidth**	function
BottomHeight	function	**OverlayOffset**	function
BottomSpace	function	**OverlayWidth**	function
CurrentColumn	function	**PageDepth**	function
CurrentHeight	function	**PageFraction**	function
CurrentWidth	function	**PageNumber**	function
CutSpace	function	**PageOffset**	function
EmWidth	function	**PaperBleed**	function
ExHeight	function	**PaperHeight**	function
FooterDistance	function	**PaperWidth**	function
FooterHeight	function	**PrintPaperHeight**	function
HSize	function	**PrintPaperWidth**	function
HeaderDistance	function	**RealPageNumber**	function
HeaderHeight	function	**RightEdgeDistance**	function
InPageBody	function	**RightEdgeWidth**	function
InnerEdgeDistance	function	**RightMarginDistance**	function
InnerEdgeWidth	function	**RightMarginWidth**	function
InnerMarginDistance	function	**SpineWidth**	function
InnerMarginWidth	function	**StrutDepth**	function
LastPageNumber	function	**StrutHeight**	function
LayoutColumnDistance	function	**SubPageNumber**	function
LayoutColumnWidth	function	**TextHeight**	function
LayoutColumns	function	**TextWidth**	function
LeftEdgeDistance	function	**TopDistance**	function
LeftEdgeWidth	function	**TopHeight**	function
LeftMarginDistance	function	**TopSkip**	function
LeftMarginWidth	function	**TopSpace**	function
LineHeight	function	**VSize**	function
MakeupHeight	function	**_f_**	function
MakeupWidth	function	**_get_count_**	function
NOfColumns	function	**_get_dimen_**	function
NOfPages	function	**_get_macro_**	function
NOfSubPages	function	**_get_toks_**	function
OnOddPage	function	**_set_count_**	function
OnRightPage	function	**_set_dimen_**	function
OuterEdgeDistance	function	**_set_macro_**	function
OuterEdgeWidth	function	**_set_toks_**	function
OuterMarginDistance	function	**aux**	table

F boolean		**isarray**	function
F flush		**isobject**	function
F fprint		**mf_blob_add**	function
F integer		**mf_blob_dimensions**	function
F number		**mf_blob_index**	function
F numeric		**mf_blob_new**	function
F pair		**mf_blob_raw_content**	function
F pairpoints		**mf_blob_raw_dimensions**	function
F path		**mf_blob_raw_reset**	function
F pathpoints		**mf_blob_raw_toutf**	function
F points		**mf_blob_raw_wipe**	function
F print		**mf_blob_size**	function
F quadruple		**mf_blob_width**	function
F quadruplepoints		**mf_default_color_model**	function
F quoted		**mf_external_figure**	function
F size		**mf_finish_saving_data**	function
F triplet		**mf_formatted_text**	function
F tripletpoints		**mf_get_outline_text**	function
F vprint		**mf_graphic_text**	function
boolean	function	**mf_inject_blob**	function
cleaned	function	**mf_made_text**	function
dataset	function	**mf_named_color**	function
datasets	table	**mf_outline_text**	function
F load		**mf_path_left**	function
dimension	function	**mf_path_length**	function
disposehash	function	**mf_path_point**	function
flush	function	**mf_path_reset**	function
format	function	**mf_path_right**	function
formatted	function	**mf_save_data**	function
fprint	function	**mf_some_text**	function
fromhash	function	**mf_start_saving_data**	function
get	table	**mf_stop_saving_data**	function
F boolean		**mf_tb_dimensions**	function
F number		**mf_tt_dimensions**	function
F numeric		**mf_tt_initialize**	function
F path		**mode**	function
F string		**n**	function
getcount	function	**newhash**	function
getdimen	function	**number**	function
getmacro	function	**numeric**	function
gettoks	function	**pair**	function
graphformat	function	**pairpoints**	function
inhash	function	**path**	function
integer	function	**pathleft**	function

pathlength	function	**quadruple**	function
pathpoint	function	**quadruplepoints**	function
pathpoints	function	**quoted**	function
pathreset	function	**report**	function
pathright	function	**set**	table
points	function	F path	
positionanchor	function	**setcount**	function
positionbox	function	**setdimen**	function
positioncurve	function	**setmacro**	function
positionpage	function	**settoks**	function
positionpath	function	**size**	function
positionpxy	function	**systemmode**	function
positionregion	function	**texstr**	function
positionwhd	function	**texvar**	function
positionxy	function	**tohash**	function
prefix	function	**triplet**	function
print	function	**tripletpoints**	function
processingmode	function	**vprint**	function

mplib (extra tex)

char_depth	function	**get_number**	function
char_height	function	**get_numeric**	function
char_width	function	**get_path**	function
execute	function	**get_string**	function
fields	function	**new**	overloaded function
finder	function	**pen_info**	function
finders	table	**preprocessed**	function
F file		**solve_path**	function
F mpstemplate		**statistics**	function
finish	function	**version**	function
get_boolean	function		

noads (context)

handlers   table
- F align
- F alternates
- F autofences
- F classes
- F collapse
- F domains
- F families
- F fixscripts
- F italics
- F kernpairs
- F makeup
- F relocate
- F render
- F resize
- F showtree
- F tags
- F unscript
- F variants

process   function
processnested   function
processors   table
- F mlist_to_hlist
- T unscript

processouter   function

node (basic tex)

check_discretionaries	function
check_discretionary	function
copy	function
copy_list	function
count	function
current_attr	function
dimensions	function
direct	table

- F check_discretionaries
- F check_discretionary
- F copy
- F copy_list
- F count
- F current_attr
- F dimensions
- F effective_glue
- F end_of_math
- F find_attribute
- F first_glyph
- F flatten_discretionaries
- F flush_list
- F flush_node
- F flush_properties_table
- F free
- F get_attribute
- F get_properties_table
- F get_synctex_fields
- F getattributelist
- F getboth
- F getbox
- F getchar
- F getcomponents
- F getdepth
- F getdir
- F getdirection
- F getdisc
- F getfam
- F getfield
- F getfont
- F getglue
- F getheight

- F getid
- F getkern
- F getlang
- F getleader
- F getlist
- F getnext
- F getnucleus
- F getoffsets
- F getpenalty
- F getprev
- F getproperty
- F getshift
- F getsub
- F getsubtype
- F getsup
- F getwhd
- F getwidth
- F has_attribute
- F has_field
- F has_glyph
- F hpack
- F insert_after
- F insert_before
- F is_char
- F is_direct
- F is_glyph
- F is_node
- F is_zero_glue
- F kerning
- F last_node
- F length
- F ligaturing
- F new
- F prepend_prevdepth
- F protect_glyph
- F protect_glyphs
- F protrusion_skippable
- F rangedimensions
- F remove
- F set_attribute
- F set_properties_mode

F set_synctex_fields	F unprotect_glyphs	
F setattributelist	F unset_attribute	
F setboth	F usedlist	
F setbox	F uses_font	
F setchar	F vpack	
F setcomponents	F write	
F setdepth	**effective_glue**	function
F setdir	**end_of_math**	function
F setdirection	**family_font**	function
F setdisc	**fields**	function
F setfam	**find_attribute**	function
F setfield	**first_glyph**	function
F setfont	**fix_node_lists**	function
F setglue	**flatten_discretionaries**	function
F setheight	**flush_list**	function
F setkern	**flush_node**	function
F setlang	**flush_properties_table**	function
F setleader	**free**	function
F setlink	**get_attribute**	function
F setlist	**get_properties_table**	function
F setnext	**getboth**	function
F setnucleus	**getchar**	function
F setoffsets	**getdisc**	function
F setpenalty	**getfield**	function
F setprev	**getfont**	function
F setproperty	**getglue**	function
F setshift	**getid**	function
F setsplit	**getleader**	function
F setsub	**getlist**	function
F setsubtype	**getnext**	function
F setsup	**getprev**	function
F setwhd	**getproperty**	function
F setwidth	**getsubtype**	function
F slide	**getwhd**	function
F tail	**has_attribute**	function
F todirect	**has_field**	function
F tonode	**has_glyph**	function
F tostring	**hpack**	function
F traverse	**id**	function
F traverse_char	**insert_after**	function
F traverse_glyph	**insert_before**	function
F traverse_id	**is_char**	function
F traverse_list	**is_glyph**	function
F unprotect_glyph	**is_node**	function

is_zero_glue	function	**slide**	function
kerning	function	**subtype**	function
last_node	function	**subtypes**	function
length	function	**tail**	function
ligaturing	function	**tostring**	function
mlist_to_hlist	function	**traverse**	function
new	function	**traverse_char**	function
next	function	**traverse_glyph**	function
prepend_prevdepth	function	**traverse_id**	function
prev	function	**traverse_list**	function
protect_glyph	function	**type**	function
protect_glyphs	function	**types**	function
protrusion_skippable	function	**unprotect_glyph**	function
rangedimensions	function	**unprotect_glyphs**	function
remove	function	**unset_attribute**	function
set_attribute	function	**usedlist**	function
set_properties_mode	function	**uses_font**	function
setfield	function	**values**	function
setglue	function	**vpack**	function
setproperty	function	**whatsits**	function
setwhd	function	**write**	function

nodes (context)

accentcodes	data table	**disccodes**	data table
aligned	function	**discretionarycodes**	data table
append	function	**effective_glue**	function
apply	function	**end_of_math**	function
applyvisuals	function	**fencecodes**	data table
astable	function	**fields**	function
basepoints	function	**fillcodes**	data table
boundarycodes	data table	**find_attribute**	function
boxes	table	**first_glyph**	function
F dimensions		**firstcharacter**	function
F direct		**firstcharinbox**	function
F found		**firstdirinbox**	function
F reset		**firstglyph**	function
F restore		**flatten_discretionaries**	function
F save		**flush**	function
builders	table	**flush_list**	function
F buildpage_filter		**flush_node**	function
F vpack_filter		**free**	function
check_discretionaries	function	**fullhpack**	function
codes	data table	**getattr**	function
concat	function	**getattribute**	function
copy	function	**getbox**	function
copy_list	function	**getchar**	function
copy_node	function	**getdisc**	function
count	function	**getfield**	function
countall	function	**getfont**	function
current_attr	function	**getglue**	function
delete	function	**getid**	function
destinations	table	**getleader**	function
N attribute		**getlist**	function
T done		**getnext**	function
F handler		**getprev**	function
T stack		**getsubtype**	function
dimensionfields	data table	**getwhd**	function
dimensions	function	**gluecodes**	data table
dir_is_pop	data table	**gluevalues**	data table
dir_negation	data table	**glyphcodes**	data table
dircodes	data table	**glyphdir_is_equal**	data table
directioncodes	data table	**glyphdir_is_opposite**	data table
directionvalues	data table	**glyphdir_is_orthogonal**	data table
dirvalues	data table	**handlers**	table

F	accessibility	**insert_list_after**	function
F	backgrounds	**installattributehandler**	function
F	backgroundspage	**is_char**	function
F	backgroundsvbox	**is_direct**	function
F	characters	**is_display_math**	function
F	checkforleaks	**is_glyph**	function
F	checkglyphs	**is_mirrored**	data table
F	cleanupbox	**is_node**	function
F	cleanuppage	**is_nut**	function
F	export	**is_rotated**	data table
F	finalizebox	**is_zero_glue**	function
F	flatten	**ischar**	function
F	flattenline	**isglyph**	function
F	migrate	**kerncodes**	data table
F	protectglyphs	**kerning**	function
F	stripping	**keys**	table
F	textbackgrounds	T whatsit	
F	unprotectglyphs	**last_node**	function
has_attribute	function	**leadercodes**	data table
has_field	function	**leftmarginwidth**	function
has_glyph	function	**length**	function
hpack	function	**ligaturing**	function
idstostring	function	**linefillers**	table
ignorablefields	data table	D data	
injections	table	F define	
F	copy	F enable	
F	getligaindex	F filler	
F	getthreshold	F handler	
F	handler	**lines**	table
F	installgetspaceboth	T boxed	
F	installnewkern	F register	
F	isspace	F setup	
F	keepcounts	F stage_one	
F	reset	F stage_two	
F	resetcounts	D data	
F	setcursive	F finalize	
F	setkern	F number	
F	setligaindex	N scratchbox	
F	setmark	**link**	function
F	setmove	**linked**	function
F	setposition	**list**	function
F	setspacekerns	**listablefields**	data table
insert_after	function	**listcodes**	data table
insert_before	function	**listtoutf**	function

literalvalues	data table		F end_of_math
load	function		F find_attribute
locate	function		F first_glyph
margincodes	data table		F firstcharacter
marginkerncodes	data table		F firstcharinbox
markers	table		F firstglyph
F get			F flatten_discretionaries
mathcodes	data table		F flush
maxboxwidth	function		F flush_list
mlist_to_hlist	function		F flush_node
new	function		F free
noadcodes	data table		F fullhpack
noadoptions	table		F get_components
N axis			F get_synctex_fields
N exact			F getattr
N left			F getattribute
N middle			F getattributelist
N no_axis			F getattrlist
N right			F getboth
N set			F getbox
N unused_1			F getboxglue
N unused_2			F getchar
nodecodes	data table		F getcomponents
nopts	function		F getdepth
nuts	table		F getdir
F append			F getdirection
F apply			F getdisc
F applyvisuals			F getdiscretionary
F check_discretionaries			F getfam
F concat			F getfield
F copy			F getfont
F copy_list			F getglue
F copy_no_components			F getheight
F copy_node			F getid
F copy_only_glyphs			F getkern
F copy_properties			F getlang
F copyvisual			F getlanguage
F count			F getleader
F count_components			F getlist
F countall			F getnext
F current_attr			F getnucleus
F delete			F getoffsets
F dimensions			F getpenalty
F effective_glue			F getprev

F getprop
F getshift
F getsub
F getsubtype
F getsup
F getsurround
F getwhd
F getwidth
F has_attribute
F has_field
F has_glyph
F hpack
F insert_after
F insert_before
F insert_list_after
F is_char
F is_direct
F is_display_math
F is_glyph
F is_node
F is_nut
F is_zero_glue
F ischar
F isdone
F isglyph
F kerning
F last_node
F leftmarginwidth
F length
F ligaturing
F link
F linked
F locate
F mlist_to_hlist
F nestedtracedslide
F new
T pool
  F accent
  F baselineskip
  F boundary
  F choice
  F cleanup
  F delim
  F delimiter

F direction
F disc
F emptyrule
F fence
F fontkern
F fraction
F glue
F gluespec
F glyph
F hlist
F italickern
F kern
F latelua
F lateluafunction
F leader
F leftmarginkern
F leftskip
F lineskip
F mathchar
F mathtextchar
F negatedglue
F noad
F outlinerule
F pdfannotation
F pdfdestination
F pdfdirectliteral
F pdfliteral
F pdforiginliteral
F pdfpageliteral
F pdfrawliteral
F pdfrestore
F pdfsave
F pdfsetmatrix
F penalty
F radical
F register
F rightmarginkern
F rightskip
F rule
F shrink
F special
F stretch
F subbox
F submlist

F temp
F textdir
F usage
F userattributes
T userids
  N margins.inline
  N property
  N splitters.one
  N splitters.two
F userlist
F userlua
F usernumber
F userrule
F userstring
F usertokens
F vlist
F wordboundary
F prepend
F processranges
F processwords
F protect_glyph
F protect_glyphs
F protrusion_skippable
F rangedimensions
F rawprop
F reference
F rehpack
F remove
F repackhlist
F replace
F rightmarginwidth
T rules
  F userrule
F set_attribute
F set_components
F set_synctex_fields
F setattr
F setattribute
F setattributelist
F setattributes
F setattrlist
F setboth
F setbox
F setboxglue

F setchar
F setcomponents
F setdepth
F setdir
F setdirection
F setdisc
F setdiscretionary
F setfam
F setfield
F setfont
F setglue
F setheight
F setkern
F setlang
F setlanguage
F setleader
F setlink
F setlist
F setnext
F setnucleus
F setoffsets
F setpenalty
F setprev
F setprop
F setshift
F setsplit
F setsub
F setsubtype
F setsup
F setsurround
F setunsetattributes
F setvisual
F setvisuals
F setwhd
F setwidth
F slide
F somepenalty
F somespace
F splitbox
F striprange
F tail
F take_components
F takeattr
F takebox

F	takelist	**packlist**	function
F	theprop	**pardir_is_equal**	data table
F	tonode	**pardir_is_opposite**	data table
F	tonodes	**pardir_is_parallel**	data table
F	tonut	**partextdir_is_equal**	data table
F	tosequence	**pdfliteralvalues**	data table
F	tostring	**penaltycodes**	data table
F	tracedslide	**plugindata**	table
F	traverse	F finalizer	
F	traverse_char	F initializer	
F	traverse_glyph	S name	
F	traverse_id	T namespace	
F	traverse_list	N attribute	
T	traversers	D data	
F	boundary	F enable	
F	char	F handler	
F	disc	F register	
F	glue	D registered	
F	glyph	D values	
F	hlist	F processor	
F	list	**points**	function
F	next	**pool**	table
F	node	F baselineskip	
F	vlist	F cleanup	
F	whatsit	F glyph	
T	typesetters	F hlist	
F	tohbox	F kern	
F	tohpack	F latelua	
F	tonodes	F lineskip	
F	tovbox	F pdfdirectliteral	
F	tovpack	F pdforiginliteral	
F	unprotect_glyph	F pdfrestore	
F	unprotect_glyphs	F pdfsave	
F	unset_attribute	F pdfsetmatrix	
F	unsetattribute	F register	
F	unsetattributes	F rule	
F	untracedslide	F special	
F	use_components	F usage	
F	usedlist	F usernumber	
F	uses_font	F vlist	
F	vianodes	**prepend**	function
F	vianuts	**print**	function
F	vpack	**processors**	table
F	write	F contribute_filter	

B enabled		**save**	function
F hpack_filter		**serialize**	function
F post_linebreak_filter		**serializebox**	function
F pre_linebreak_filter		**set_attribute**	function
F tracer		**setattr**	function
properties	table	**setattribute**	function
T actions		**setattributes**	function
F delayed		**setboth**	function
F fdelayed		**setbox**	function
F immediate		**setboxtonaturalwd**	function
F attach		**setfield**	function
T data		**setglue**	function
F delayed		**setlink**	function
protect_glyph	function	**setlist**	function
protect_glyphs	function	**setnext**	function
protrusion_skippable	function	**setprev**	function
pts	function	**setunsetattributes**	function
radicalcodes	data table	**setwhd**	function
rangedimensions	function	**shifts**	table
reference	function	D data	
references	table	F define	
N attribute		F enable	
T done		F handler	
F handler			
T stack		**show**	function
rehpack	function	**showboxes**	function
remove	function	**showcodes**	function
repackhlist	function	**showlist**	function
replace	function	**showsimplelist**	function
report	function	**skipcodes**	data table
rightmarginwidth	function	**skipvalues**	data table
rulecodes	data table	**slide**	function
rules	table	**snapshots**	table
D data		F getparameters	
F define		F getsamples	
F enable		F resetsamples	
F handler		F takesample	
T ruleactions		**somepenalty**	function
F box		**somespace**	function
F draw		**splitbox**	function
F fill		**stripdiscretionaries**	function
F mp		**stripping**	table
F stroke		T glyphs	
F userrule		F set	
		tail	function

takeattr	function		T characters	
takebox	function		F collect	
tasks	table		F equal	
F actions			F start	
F appendaction			F string	
F disableaction			F unicodes	
F disablegroup			T colors	
F enableaction			F reset	
F enablegroup			F set	
F freeze			F setlist	
F freezegroup			F fontchar	
F new			T frequencies	
F prependaction			F register	
F removeaction			T pool	
F replaceaction			T nodes	
F restart			F rule	
F setaction			T nuts	
F showactions			F rule	
F table			F resetproperties	
textdir_is_equal	data table		F rule	
textdir_is_is	data table		F setlist	
textdir_is_opposite	data table		F setproperties	
textdir_is_parallel	data table		F start	
tobasepoints	function		T steppers	
tocentimeters	function		F check	
tociceros	function		F codes	
todidots	function		F features	
todimen	function		F font	
toinches	function		F glyphs	
tomillimeters	function		F message	
tonewciceros	function		F messages	
tonewdidots	function		F nofsteps	
tonode	function		F register	
tonodes	function		F reset	
tonut	function		F start	
topicas	function		F stop	
topoints	function		F stop	
toscaledpoints	function		T transparencies	
tosequence	function		F reset	
tostring	function		F set	
totable	function		F setlist	
totree	function		**traverse**	function
toutf	function		**traverse_char**	function
tracers	table		**traverse_glyph**	function

traverse_id	function	**usedlist**	function
traverse_list	function	**usercodes**	data table
traversers	table	**uses_font**	function
F char		**vianodes**	function
F glyph		**vianuts**	function
F list		**visualizebox**	function
F node		**visualizers**	table
typesetters	table	F attribute	
F hbox		T attributes	
F hpack		F box	
F tohbox		F handler	
F tohpack		F markfonts	
F tonodes		F setfont	
F tovbox		F setlayer	
F tovpack		F setruledglyph	
F vpack		F setvisual	
unprotect_glyph	function	**vpack**	function
unprotect_glyphs	function	**whatcodes**	data table
unset_attribute	function	**whatsitcodes**	data table
unsetattribute	function	**write**	function
unsetattributes	function		

number (context)

	function	**tocentimeters**	function
basepoints	function	**tociceros**	function
bytetodecimal	function	**tocontext**	function
compactfloat	function	**todidots**	function
decimaltobyte	function	**todimen**	function
dimenfactors	data table	**toevenhex**	function
formatted	function	**toinches**	function
formattedfloat	function	**tomillimeters**	function
maxdimen	number	**tonewciceros**	function
nopts	function	**tonewdidots**	function
percent	function	**tonumberf**	function
points	function	**tonumberg**	function
pts	function	**topicas**	function
signed	function	**topoints**	function
sparseexponent	function	**toscaled**	function
splitdimen	function	**toscaledpoints**	function
tobasepoints	function	**valid**	function
tobitstring	function		

objects (context)

data	table	**page**	function
dimensions	function	**reference**	function
found	function	**register**	function
n	number	**restore**	function

os (basic lua)

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

package (basic lua)

config	string		**luapaths**	function
cpath	string		**path**	overloaded string
extralibpath	function		**poplibpath**	function
extralibpaths	function		**popluapath**	function
extraluapath	function		**preload**	table
extraluapaths	function		**pushlibpath**	function
helpers	table		**pushluapath**	function
libpaths	function		**searchers**	table
loaded	table		**searchpath**	function
loaders	table		**seeall**	function
loadlib	function			

pagebuilders (context)

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

- F sethsize
- F sethspan
- F setlines
- F setproperties
- F setstart
- F setvsize

injections   table
- F flushafter
- F flushbefore
- F save

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

pdf (basic tex)

disablecommand	function	**gettrailer**	function
fontname	function	**gettrailerid**	function
fontobjnum	function	**getvpos**	function
fontsize	function	**getxformattributes**	function
getcatalog	function	**getxformmargin**	function
getcompresslevel	function	**getxformname**	function
getcreationdate	function	**getxformresources**	function
getdecimaldigits	function	**hasmatrix**	function
getdestmargin	function	**immediateobj**	function
getfontname	function	**includechar**	function
getfontobjnum	function	**includefont**	function
getfontsize	function	**mapfile**	function
getgentounicode	function	**mapline**	function
gethpos	function	**maxobjnum**	function
getignoreunknownimages	function	**newcolorstack**	function
getimageresolution	function	**obj**	function
getinclusionerrorlevel	function	**objtype**	function
getinfo	function	**pageref**	function
getlastannot	function	**print**	function
getlastlink	function	**refobj**	function
getlastobj	function	**registerannot**	overloaded function
getlinkmargin	function	**reserveobj**	function
getmajorversion	function	**setcatalog**	overloaded function
getmatrix	function	**setcompresslevel**	function
getmaxobjnum	function	**setdecimaldigits**	function
getminorversion	function	**setdestmargin**	function
getnames	function	**setfontattributes**	function
getobjcompresslevel	function	**setgentounicode**	function
getobjtype	function	**setignoreunknownimages**	function
getomitcidset	function	**setimageresolution**	function
getorigin	function	**setinclusionerrorlevel**	function
getpageattributes	function	**setinfo**	overloaded function
getpageref	function	**setlinkmargin**	function
getpageresources	function	**setmajorversion**	function
getpagesattributes	function	**setminorversion**	function
getpkresolution	function	**setnames**	overloaded function
getpos	function	**setobjcompresslevel**	function
getrecompress	function	**setomitcidset**	function
getretval	function	**setorigin**	function
getsuppressoptionalinfo	function	**setpageattributes**	overloaded function
getthreadmargin	function	**setpageresources**	overloaded function

setpagesattributes	overloaded function	**settrailerid**	overloaded function
setpkresolution	function	**setxformattributes**	function
setrecompress	function	**setxformmargin**	function
setsuppressoptionalinfo	function	**setxformresources**	function
setthreadmargin	function	**xformname**	function
settrailer	overloaded function		

pdfe (context)

arraytotable	function	**getnofpages**	function
close	function	**getnumber**	function
closestream	function	**getpage**	function
dictionarytotable	function	**getpages**	function
encryptioncodes	data table	**getsize**	function
getarray	function	**getstatus**	function
getboolean	function	**getstream**	function
getbox	function	**getstring**	function
getcatalog	function	**gettrailer**	function
getdictionary	function	**getversion**	function
getfromarray	function	**new**	function
getfromdictionary	function	**objectcodes**	data table
getfromreference	function	**open**	function
getfromstream	function	**openstream**	function
getinfo	function	**pagestotable**	function
getinteger	function	**readfromstream**	function
getmemoryusage	function	**readwholestream**	function
getname	function	**type**	function
getnofobjects	function	**unencrypt**	function

pdfscanner (context)

scan function

physics (context)

units table   D tables

    F registerunit

publications (context)

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

T sets		
T author		
T editionset		
T virtual		
T demo-a		
S category		
T extra		
T fields		
S author		
S institution		
S organization		
S subtitle		
S title		
S year		
T optional		
T required		
T sets		
T author		
T virtual		
T demo-b		
S category		
T extra		
T fields		
S author		
S institution		
S organization		
S subtitle		
S title		
S year		
T optional		
T required		
T sets		
T authors		
T virtual		
S comment		
S copyright		
T fields		
S name		
T types		
S author		
S editor		
S keywords		
S number		
S page		

S pages		
S volume		
S version		
D virtual		
T virtualfields		
B authornum		
B authoryear		
B authoryears		
B num		
B suffix		
datasets	table	
detailed	table	
endnotes_to_btx	function	
enhancer	table	
S arguments		
T askip		
B dirty		
T gskip		
T kind		
T list		
T system		
T order		
enhancers	table	
F details		
F order		
F suffixes		
finder	function	
firstofrange	function	
found	function	
get	function	
getcasted	function	
getdetail	function	
getdirect	function	
getfaster	function	
getfield	function	
getfuzzy	function	
getindex	function	
inspectors	data table	
journals	table	
F abbreviated		
F add		
F expanded		
F load		
F save		

lastofrange	function		F refman	
lists	table		F registercleaner	
F collectentries			F xml	
F combiinlist		**loadreplacementfile**	function
F fetchentries		**new**	function
F filterall		**okay**	function
F flushcombi		**oneorrange**	function
F flushentry		**parenttag**	function
F flushtag		**permitted**	function
T methods		**prerollcmdstring**	function
F dataset		**refman_to_btx**	function
F force		**resolvedname**	function
F global		**save**	function
F local		**savers**	table
F nofregistered			F bib	
F prepareentries			F lua	
F register			F xml	
F sameasprevious		**search**	function
T sorters		**setcategory**	function
F cite		**setspecification**	function
F dataset		**singularorplural**	function
F default		**sortedentries**	function
F index		**sortmethods**	table
F list			T authoryear	
F reference			T sequence	
F short		**specifications**	table
F used			T default	
F uservariable			S author	
listvariants	table		S comment	
F default			S copyright	
F index			S name	
F num			S version	
F short			D virtual	
F tag		**splitauthor**	function
load	function	**splitoneauthor**	function
loadbibdata	function	**statistics**	table
loaddefinitionfile	function		N nofbytes	
loaders	table		N nofdatasets	
F bbl			N nofdefinitions	
F bib			N nofshortcuts	
F buffer		**tables**	table
F endnote			D implicits	
F json			D origins	
F lua			D privates	

D	sets	F	showtables
D	specials	F	showvariants
D	types	**typesetters**	table
D	virtuals	F	author
tags	function	F	string
tracers	table	**usedataset**	function
F	showdatasetauthors	**usedentries**	function
F	showdatasetcompleteness	**writers**	table
F	showdatasetfields	F	author
F	showentry	F	keyword
F	showfields	F	pagenumber
F	showhashedauthors	F	range

regimes (context)

backmapping	data table	**mapping**	data table
cleanup	function	**pop**	function
disable	function	**process**	function
enable	function	**push**	function
fromregime	function	**toregime**	function
list	function	**translate**	function

resolvers (context)

allprefixes	function	**findpath**	function
appendhash	function	**findtexfile**	function
automount	function	**findwildcardfile**	function
automounted	table	**findwildcardfiles**	function
booleanvariable	function	**formatofsuffix**	function
cacheversion	string	**formatofvariable**	function
checkedvariable	function	**formats**	data table
cleanedpathlist	function	**foundintree**	function
cleanpath	function	**foundintrees**	function
cleanpathlist	function	**generators**	data table
concatinators	data table	**get_from_content**	function
configbanner	string	**getenv**	function
configurationfiles	function	**getextrapaths**	function
criticalvars	data table	**getfilehashes**	function
dangerous	data table	**gethashes**	function
datastate	function	**getownpath**	function
defaultsuffixes	table	**getreadfilename**	function
dowithfilesandreport	function	**hashers**	data table
dowithfilesintree	function	**homedir**	string
dowithpath	function	**initialized**	function
dowithvariable	function	**inputstack**	table
env	function	**installinputfilehandler**	function
executers	table	**installinputlinehandler**	function
expandbraces	function	**jobpath**	function
expandedpathfromlist	function	**jobs**	table
expandedpathlist	function	F currentcomponent	
expandedpathlistfromvariable	function	F currentenvironment	
expandpath	function	F currentproduct	
expandpathfromvariable	function	F currentproject	
expansion	function	F justacomponent	
extendtexmfvariable	function	D processors	
filtered_from_content	function	F productcomponent	
~~**find_file**~~	~~function~~	F usefile	
~~**find_files**~~	~~function~~	**joinpath**	function
findbinfile	function	**knownvariables**	function
findctxfile	function	**load**	function
finders	data table	**loadbinfile**	function
findfile	function	**loaders**	data table
findfiles	function	**loadlualib**	function
findgivenfile	function	**loadtexfile**	function
findgivenfiles	function	**loadtime**	function

locateformat	function	**savers**	data table
locators	data table	**scandata**	function
luacnffallback	string	**scanfiles**	function
luacnfname	string	**schemes**	table
luacnfspec	string		
luacnfstate	string	T cleaners	
macros	table	F md5	
F convertfile		F none	
F decodecomment		F strip	
F enablecomment		F cleanname	
F encodecomment		F fetchstring	
F preprocessed		F fetchtable	
F processmk		F install	
F processmkvi		**setdynamic**	function
F version		**setenv**	function
maxreadlevel	number	**setmemstream**	function
methodhandler	function	**showpath**	function
openbinfile	function	**simplescanfiles**	function
openers	data table	**splitconfigurationpath**	function
openfile	function	**splitexpansions**	function
opentexfile	function	**splitmethod**	function
ownpath	string	**splitpath**	function
popextrapath	function	**stackpath**	function
poppath	function	**starttiming**	function
prefixes	data table	**stoptiming**	function
prependhash	function	**suffixes**	data table
pushextrapath	function	**suffixmap**	data table
pushpath	function	**suffixofformat**	function
registerextrapath	function	**texdatablob**	function
registerfile	function	**toppath**	function
registerfilehash	function	**unexpandedpath**	function
registerintrees	function	**unexpandedpathlist**	function
registermethod	function	**unresolve**	function
registerzipfile	function	**updaterelations**	function
relations	data table	**updatescript**	function
renew	function	**uselibrary**	function
renewcache	function	**usertypes**	data table
repath	function	**usezipfile**	function
reset	function	**validatedpath**	function
resetextrapaths	function	**variable**	function
resetmemstream	function	**variableofformat**	function
resetresolve	function	**variableofformatorsuffix**	function
resolve	function	**wildcardpattern**	function

sandbox (context)

disablelibraries	function	**possiblepath**	function
disablerunners	function	**redefine**	function
enable	function	**register**	function
filehandlerone	function	**registerbinary**	function
filehandlertwo	function	**registerlibrary**	function
finalizer	function	**registerroot**	function
getrunner	function	**registerrunner**	function
initializer	function	**report**	function
iohandler	function	**setfilenamelogger**	function
logcalls	function	**setlogger**	function
logfiles	function	**setreporter**	function
original	function	**settrace**	function
overload	function	**validfilename**	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	**tonumber**	function
create	function	**totable**	function
tolist	function		

sha2 (context)

digest256 function

digest384 function

digest512 function

sio (context)

read2dot14	function	**readfixed2**	function
readbytes	function	**readfixed4**	function
readbytetable	function	**readinteger1**	function
readcardinal1	function	**readinteger2**	function
readcardinal2	function	**readinteger3**	function
readcardinal3	function	**readinteger4**	function
readcardinal4	function	**readintegertable**	function
readcardinaltable	function		

socket (extra lua)

BLOCKSIZE	number	S	cc
_DATAGRAMSIZE	number	S	comments
_DEBUG	boolean	S	connection
_SETSIZE	number	S	content-description
_SOCKETINVALID	number	S	content-disposition
bind	function	S	content-encoding
choose	function	S	content-id
connect	function	S	content-language
connect4	function	S	content-length
connect6	function	S	content-location
dns	table	S	content-md5
F getaddrinfo		S	content-range
F gethostname		S	content-transfer-encoding
F getnameinfo		S	content-type
F tohostname		S	cookie
F toip		S	date
ftp	table	S	diagnostic-code
S PASSWORD		S	dsn-gateway
N TIMEOUT		S	etag
S USER		S	expect
F command		S	expires
F genericform		S	final-log-id
F get		S	final-recipient
F open		S	from
F put		S	host
gettime	function	S	if-match
headers	table	S	if-modified-since
T canonic		S	if-none-match
S accept		S	if-range
S accept-charset		S	if-unmodified-since
S accept-encoding		S	in-reply-to
S accept-language		S	keywords
S accept-ranges		S	last-attempt-date
S action		S	last-modified
S age		S	location
S allow		S	max-forwards
S alternate-recipient		S	message-id
S arrival-date		S	mime-version
S authorization		S	original-envelope-id
S bcc		S	original-recipient
S cache-control		S	pragma

S proxy-authenticate	F b64
S proxy-authorization	F decode
S range	T decodet
S received	F base64
S received-from-mta	F quoted-printable
S references	F dot
S referer	F encode
S remote-mta	T encodet
S reply-to	F base64
S reporting-mta	F quoted-printable
S resent-bcc	F eol
S resent-cc	F normalize
S resent-date	F qp
S resent-from	F qpwrp
S resent-message-id	F stuff
S resent-reply-to	F unb64
S resent-sender	F unqp
S resent-to	F wrap
S retry-after	T wrapt
S return-path	F base64
S sender	F default
S server	F quoted-printable
S smtp-remote-recipient	F text
S status	F wrp

S subject	**newtry** function
S te	**protect** function
S to	**select** function
S trailer	**sink** function
S transfer-encoding	**sinkt** table
S upgrade	F close-when-done
S user-agent	F default
S vary	F http-chunked
S via	F keep-open
S warning	**skip** function
S will-retry-until	**sleep** function
S www-authenticate	**smtp** table
S x-mailer	S DOMAIN
http table	N PORT
N TIMEOUT	S SERVER
S USERAGENT	N TIMEOUT
F genericform	S ZONE
F open	F message
F request	F open
mime table	F send

source	function		**try**	function
sourcet	table		**udp**	function
F by-length			**udp4**	function
F default			**udp6**	function
F http-chunked			**url**	table
F until-closed			F absolute	
tcp	function		F build	
tcp4	function		F build_path	
tcp6	function		F escape	
tp	table		F parse	
N TIMEOUT			F parse_path	
F connect			F unescape	

sorters (context)

basicsorter	function	B pm	
comparers	table	B uc	
F basic		B zc	
constants	table	B zm	
S defaultdigits		**definitions**	data table
S defaultlanguage		**firstofsplit**	function
S defaultmethod		**packch**	function
N digitsmaximum		**packuc**	function
N digitsoffset		**replacementlist**	function
N ignoredoffset		**setlanguage**	function
N replacementoffset		**sort**	function
T validmethods		**splitters**	table
B ch		F utf	
B mc		**strip**	function
B mm		**tracers**	data table
B pc		**update**	function

statistics (context)

callbacks	function	**register**	function
checkfmtstatus	function	**resettiming**	function
currenttime	function	**runtime**	function
elapsed	function	**savefmtstatus**	function
elapsedindeed	function	**show**	function
elapsedseconds	function	**starttiming**	function
elapsedtime	function	**stoptiming**	function
enable	boolean	**threshold**	number
formatruntime	function	**timed**	function
hastiming	function	**tracefunction**	function
memused	function		

status (basic tex)

list   function   **setexitcode**   function
resetmessages function

storage (context)

allocate	function	**noftables**	number
data	table	**register**	function
mark	function	**shared**	data table
marked	function	**storedfunctions**	data table
max	number	**strip**	boolean
min	number	**tofmodules**	number
nofmodules	number	**toftables**	number

streams (context)

collect	function	**push**	function
disable	function	**start**	function
enable	function	**stop**	function
flush	function	**synchronize**	function
initialize	function		

string (basic lua)

autodouble	function	**quote**	function
autosingle	function	**quoted**	function
booleanstring	function	**rep**	function
byte	function	**replacenewlines**	function
bytepairs	function	**reverse**	function
bytes	function	**split**	function
bytetable	function	**splitlines**	function
char	function	**splitup**	function
characterpairs	function	**strip**	function
characters	function	**sub**	function
checkedsplit	function	**tformat**	function
collapsespaces	function	**toHEX**	function
containsws	function	**toboolean**	function
count	function	**tobytes**	function
dump	function	**tocontext**	function
escapedpattern	function	**todec**	function
explode	function	**todimen**	function
find	function	**tohex**	function
format	function	**tonodes**	function
formatter	function	**topattern**	function
formatters	function	**totable**	function
fullstrip	function	**toutf**	function
gmatch	function	**tracedchar**	function
gsub	function	**tracedchars**	table
is_boolean	function	**unpack**	function
is_empty	function	**unquote**	function
itself	function	**unquoted**	function
len	function	**upper**	function
limit	function	**utfcharacter**	function
longtostring	function	**utfcharacters**	function
lower	function	**utflength**	function
match	function	**utfpadd**	function
nospaces	function	**utfpadding**	function
nspaces	table	**utfvalue**	function
optionalquoted	function	**utfvalues**	function
pack	function	**valid**	function
packsize	function		

structures (context)

atlocation   function
blocks   table
   D collected
   F define
   F print
   F save
   F select
   F setstate
   D states
   D tobesaved
bookmarks   table
   T extras
    F get
    F mergesections
    F register
    F reset
    F tosections
   F finalize
   F flatten
   F installhandler
   F merge
   S method
   F overload
   F place
   F register
   F setup
counters   table
   F add
   F analyze
   F check
   D collected
   F compact
   F converted
   F currentvalue
   D data
   F define
   F first
   F get
   F last
   F next
   F prev

   F previous
   F raw
   F record
   F reset
   F restart
   F restore
   F save
   F set
   F setlevel
   F setoffset
   F setown
   F setstate
   F setvalue
   T specials
    F userpage
   F subs
   D tobesaved
   F value
   F way
currentsectionnumber   function
descriptions   table
documents   table
   D data
   F initialize
   F preset
   F reset
floats   table
formulas   table
helpers   table
   F analyze
   F formulanumber
   F merged
   F page
   F pageofinternal
   F prefix
   F prefixlastpage
   F prefixpage
   F simplify
   F title
   F touserdata
inserts   table

D	data	F	savedlistnumber
F	define	F	savedlistprefixednumber
F	getdata	F	savedlisttitle
F	getlocation	D	sectionblocks
F	getname	F	sectionnumber
F	getnumber	F	size
F	setlocation	F	title
F	setup	D	tobesaved
D	stored	F	userdata

itemgroups table

lists table

		F	uservalue
F	addto	**marks** table
F	analyze	D	data
B	autoreorder	F	define
D	cached	F	exists
D	collected	F	fetch
F	discard	F	fetchallmarks
F	enhance	F	fetched
T	enhancers	F	fetchonemark
F	filter	F	fetchtwomarks
F	formulanumber	F	get
F	getresult	F	number
F	groupindex	F	relate
F	hasnumberdata	F	reset
F	haspagedata	F	set
F	hastitledata	F	show
F	iscached	F	synchronize
D	kinds	F	title
F	label	T	tracers
F	location		F showtable

notes table

D	names	F	check_spacing
F	number	F	checkpagechange
D	ordered	F	define
F	page	F	doifonsamepageasprevious
F	popnesting	F	get
F	prefix	F	getdeltapage
F	prefixednumber	F	getinternal
F	prefixedpage	F	getn
F	process	F	getstate
D	pushed	F	hascontent
F	pushnesting	F	internal
F	realpage	F	internalid
F	reordered	F	listindex
T	result	T	numbers

F setandgetattribute	F filter
F setcomponent	F filtercollected
F setinternalreference	F finalize
F setlinkmethod	F findinternal
F setnextinternal	F flush
F setnextorder	F get
F setreferencerealpage	F prepare
D specials	F process
F splitcomponent	F setmethod
F splitprefix	F sort
F splitreference	F store
F synchronizepage	D tobesaved
T testrunners	F unique
F inner	F userdata

sections   table

F special	F autodepth
F special operation	F cct
F special operation with arguments	D collected
T testspecials	F current
F deltapage	F currentblock
F i	F currentid
F internal	F currentlevel
F page	F currentsectionindex
F realpage	F depthnumber
F section	F finddata
F userpage	F findnumber
D tobereferred	F fullnumber
D tobesaved	F getcurrentlevel
D tracedpages	F getlevel
T urls	F getnumber
T data	F internalreference
F define	D levelmap
F found	D levels
F get	F matchingtilldepth
F untex	F numberatdepth
D usedinternals	F numbers
D usedviews	F popblock
F valid	F prefixedconverted

registers   table

F analyze	F pushblock
D collected	F register
F compare	D registered
F define	F reportstructure
F enhance	F save
F extend	T sectionblockdata

T bodypart		F sort	
S bookmark		F synonym	
F set		D tobesaved	
F setblock		**tags**	table
F setchecker		F elementtag	
F setentry		F finishexport	
F setinitialblock		F getid	
F setlevel		F getmetadata	
F setnumber		F handler	
F showstructure		F initializeexport	
F structuredata		D labels	
F title		F last	
D tobesaved		F lastinchain	
F typesetnumber		F locatedtag	
F userdata		T patterns	
B verbose		U splitter	
sets	table	D properties	
F define		F registermetadata	
F get		F restart	
F getall		F setaspect	
D setlist		F setattributehash	
specials	table	F setcombination	
D collected		F setconstruct	
F retrieve		F setfigure	
F store		F setfloat	
D tobesaved		F setformulacontent	
synonyms	table	F sethighlight	
F analyzed		F setitem	
D collected		F setitemgroup	
F compare		F setlist	
F define		F setnotation	
F filter		F setnotationsymbol	
F finalize		F setproperty	
F flush		F setregister	
F isshown		F setsorting	
F isused		F setsynonym	
F meaning		F settablecell	
F prepare		F settabulatecell	
F process		F settagdelimitedsymbol	
F register		F settagsubsentencesymbol	
F registershown		F setupexport	
F registerused		F setuserproperties	
F resetshown		D specifications	
F resetused		F start	

F stop
F strip
D taglist

T usewithcare
T images

table (basic lua)

allkeys	function	**prepend**	function
append	function	**print**	function
are_equal	function	**remove**	function
collapsed	function	**reverse**	function
collapsedhash	function	**reversed**	function
compact	function	**save**	function
concat	function	**sequenced**	function
contains	function	**serialize**	function
copy	function	**setmetatablecall**	function
count	function	**setmetatableindex**	function
derive	function	**setmetatableindices**	function
deserialize	function	**setmetatablekey**	function
drop	function	**setmetatablenewindex**	function
fastcopy	function	**sort**	function
fastserialize	function	**sorted**	function
filtered	function	**sortedhash**	function
flattened	function	**sortedhashkeys**	function
fromhash	function	**sortedhashonly**	function
getmetatablekey	function	**sortedindexonly**	function
getn	function	**sortedkeys**	function
has_one_entry	function	**sortedpairs**	function
hashed	function	**sparse**	function
identical	function	**strip**	function
imerge	function	**sub**	function
imerged	function	**swapped**	function
insert	function	**tocontext**	function
is_empty	function	**tocsv**	function
is_simple_table	function	**tofile**	function
keys	function	**tohandle**	function
load	function	**tohash**	function
loweredkeys	function	**toxml**	function
makeweak	function	**twowaymapper**	function
merge	function	**unique**	function
merged	function	**unnest**	function
mirrored	function	**unpack**	function
move	function	**values**	function
pack	function		

tex (basic tex)

attribute	table	**getmathcodes**	function
badness	function	**getmuglue**	function
box	table	**getmuskip**	function
catcode	table	**getnest**	function
conditionals	data table	**getpagestate**	function
constants	data table	**getsfcode**	function
count	table	**getskip**	function
cprint	function	**gettoks**	function
ctdcatcodes	number	**getuccode**	function
ctxcatcodes	number	**glue**	table
definefont	function	**hashtokens**	function
delcode	table	**ifs**	data table
dimen	table	**inicatcodes**	number
directives	data table	**init_rand**	function
enableprimitives	function	**isattribute**	function
error	function	**isbox**	function
extraprimitives	function	**iscount**	overloaded function
finish	function	**isdefined**	function
fontidentifier	function	**isdimen**	overloaded function
fontname	function	**isglue**	function
force_synctex_line	function	**ismuglue**	function
force_synctex_tag	function	**ismuskip**	overloaded function
forcehmode	function	**isskip**	overloaded function
fprint	function	**istoken**	function
get	function	**istoks**	function
get_synctex_line	function	**lccode**	table
get_synctex_mode	function	**linebreak**	function
get_synctex_tag	function	**lists**	table
getattribute	function	**lua_math_random**	function
getbox	function	**lua_math_randomseed**	function
getboxresourcedimensions	function	**luacatcodes**	number
getcatcode	function	**mathcode**	table
getcount	function	**modes**	data table
getdelcode	function	**muglue**	table
getdelcodes	function	**muskip**	table
getdimen	function	**nest**	table
getglue	function	**nilcatcodes**	number
getlccode	function	**normal_rand**	function
getlist	function	**notcatcodes**	number
getmath	function	**number**	function
getmathcode	function	**primitives**	function

print	function	**setsfcode**	function
prtcatcodes	number	**setskip**	function
resetparagraph	function	**settoks**	function
romannumeral	function	**setuccode**	function
round	function	**sfcode**	table
run	function	**shipout**	function
runtoks	function	**show_context**	function
saveboxresource	function	**skip**	table
scale	function	**sp**	function
scantoks	function	**splitbox**	function
set	function	**sprint**	function
set_synctex_line	function	**systemmodes**	data table
set_synctex_mode	function	**takebox**	function
set_synctex_no_files	function	**texcatcodes**	number
set_synctex_tag	function	**toks**	table
setattribute	function	**tpacatcodes**	number
setbox	function	**tpbcatcodes**	number
setcatcode	function	**tprint**	function
setcount	function	**trackers**	data table
setdelcode	function	**triggerbuildpage**	function
setdimen	function	**txtcatcodes**	number
setglue	function	**type**	function
setlccode	function	**uccode**	table
setlist	function	**uniform_rand**	function
setmath	function	**uniformdeviate**	function
setmathcode	function	**uprint**	function
setmuglue	function	**useboxresource**	function
setmuskip	function	**vrbcatcodes**	number
setnest	function	**write**	function

texconfig (basic tex)

error_line	number	**max_print_line**	number
expand_depth	number	**max_strings**	number
formatname	string	**nest_size**	number
half_error_line	number	**param_size**	number
hash_extra	number	**save_size**	number
init	overloaded function	**shell_escape**	string
kpse_init	boolean	**stack_size**	overloaded number
max_in_open	number		

texio (basic tex)

closeinput function   **write**   function
setescape   function   **write_nl**   function

token (basic tex)

biggest_char	function	**new**	function
command_id	function	**put_next**	function
commands	function	**scan_argument**	function
create	function	**scan_code**	function
expand	function	**scan_csname**	function
get_active	function	**scan_dimen**	function
get_cmdname	function	**scan_float**	function
get_command	function	**scan_glue**	function
get_csname	function	**scan_int**	function
get_expandable	function	**scan_keyword**	function
get_id	function	**scan_keyword_cs**	function
get_index	function	**scan_real**	function
get_macro	function	**scan_string**	function
get_meaning	function	**scan_token**	function
get_mode	function	**scan_toks**	function
get_next	function	**scan_word**	function
get_protected	function	**set_char**	function
get_tok	function	**set_lua**	function
is_defined	function	**set_macro**	function
is_token	function	**type**	function

tokens (context)

astable   function
bgroup   userdata
bits   table

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

cache   table

  U NC
  U NR
  U bf
  U color
  U colordefalc
  U colordefflc
  U colordefflt
  U colordefrlt
  U dofinishreference
  U dostarttext
  U finishjob
  U firstofoneargument
  U firstoftwoarguments
  U gobbleoneargument
  U goto
  U iftrue
  U input

  U loadfoundtypescriptfile
  U resetctxscanner
  U rlap
  U scratchcounter
  U scratchdimen
  U scratchmuskip
  U scratchskip
  U scratchtoken
  U secondoftwoarguments
  U setfalsevalue
  U setsectionblock
  U setupsystem
  U startcolumns
  U starttabulate
  U starttitle
  U startxtitle
  U stopcolumns
  U stoptabulate
  U stoptitle
  U stopxtitle
  U texsetup

collectors table

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

commands data table
compile function
constant function
converters table

  S toboolean
  S todimen
  S toglue
  S tonumber
  S tostring

create   function

defined	function
egroup	userdata
getters	table

F box
F count
F dimen
F glue
F macro
F meaning
F skip
F token

hbox	userdata
isdefined	function
istoken	function
letter	function
letters	function
new	function
other	function
pickup	function
presets	table

T 1 string
T 2 strings
T 3 strings
T 4 strings
T 5 strings
T 6 strings
T 7 strings
T 8 strings

printlist	function
scanners	table

F argument
F boolean
F code
F conditional
F count
F csname
F dimen
F dimension
F float
F glue
F integer
F keyword
F keywordcs
F list

F lxmlid
F number
F real
F scanclose
F scanopen
F skip
F string
F table
F token
F tokens
F toks
F word

setters	table

F box
F char
F count
F dimen
F glue
F lua
F macro
F skip

shortcuts	table

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

F inspect

N open

F report

F scanboolean

F scanclose

F scancode

F scanconditional

F scancsname

F scandimen

F scandimension

F scaninteger

F scankeyword

F scankeywordcs

F scanlist

T scanners

  F argument

  F boolean

  F code

  F conditional

  F count

  F csname

  F dimen

  F dimension

  F float

  F glue

  F integer

  F keyword

  F keywordcs

  F list

  F lxmlid

  F number

  F real

  F scanclose

  F scanopen

  F skip

  F string

  F table

  F token

  F tokens

  F toks

  F word

F scannumber

F scanopen

F scanstring

F scantable

F scanword

F toboolean

F todimen

T tokens

  F astable

  U bgroup

  T cache

    U NC

    U NR

    U bf

    U color

    U colordefalc

    U colordefflc

    U colordefflt

    U colordefrlt

    U dofinishreference

    U dostarttext

    U finishjob

    U firstofoneargument

    U firstoftwoarguments

    U gobbleoneargument

    U goto

    U iftrue

    U input

    U loadfoundtypescriptfile

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    U scratchcounter

    U scratchdimen

    U scratchmuskip

    U scratchskip

    U scratchtoken

    U secondoftwoarguments

    U setfalsevalue

    U setsectionblock

    U setupsystem

    U startcolumns

    U starttabulate

    U starttitle

    U startxtitle

    U stopcolumns

    U stoptabulate

    U stoptitle

U stopxtitle	T setters
U texsetup	F box
T collectors	F char
F defaultwords	F count
F dowithwords	F dimen
F flush	F glue
F install	F lua
F register	F macro
F show	F skip
F test	T shortcuts
D commands	N close
F compile	F inspect
F constant	N open
T converters	F report
S toboolean	F scanboolean
S todimen	F scanclose
S toglue	F scancode
S tonumber	F scanconditional
S tostring	F scancsname
F create	F scandimen
F defined	F scandimension
U egroup	F scaninteger
T getters	F scankeyword
F box	F scankeywordcs
F count	F scanlist
F dimen	F scannumber
F glue	F scanopen
F macro	F scanstring
F meaning	F scantable
F skip	F scanword
F token	F toboolean
U hbox	F todimen
F isdefined	F tonumber
F istoken	F tostring
F letter	U vbox
F letters	U vtop
F new	F tonumber
F other	F tostring
F pickup	**vbox** userdata
T presets	**vtop** userdata
F printlist	

tracers (context)

count	function	**primitive**	function
cs	function	**printerror**	function
dimen	function	**printwarning**	function
knownlist	function	**showlines**	function
lists	table	**strings**	table
T context		S undefined	
T internals		**toks**	function
T scratch		**type**	function
name	function		

trackers (context)

data	data table	**name**	string
default	function	**register**	function
disable	function	**report**	function
done	table	**reset**	function
dumphashtofile	function	**savehash**	function
enable	function	**show**	function
list	function	**value**	function

typesetters (context)

alignments   table
    F handler
    F set

breakpoints   table
    F define
    F handler
    D mapping
    T methods
    T numbers
    F set
    F setreplacement

cases   table
    T actions
    F handler
    F register
    F set

characteralign table
    F handler
    F resetcharacteralign
    F setcharacteralign

characters   table
    F handler
    T methods
    F replacenbsp
    F replacenbspaces

checkers   table
    F handler
    F reset
    F set

cleaners   table
    F handler
    F set

digits   table
    T actions
    F handler
    F set

directions   table
    F getfences
    F getglobal
    F getmethod
    F handler

    T handlers
    F installhandler
    F processmath
    F set
    F setcolor
    F setmath
    F tomode

firstlines   table
    T actions
      F default
      F line
      F word
    F handler
    F set

fontkerns   table
    F handler

initials   table
    T actions
      F default
    F addanchortoline
    F addtoline
    F calculatedelta
    F checkline
    F handler
    F moveinline
    F normalize
    F set

injectors   table
    F check
    T list
    F mark
    F reset
    F set
    F show

italics   table
    F enablemath
    F enabletext
    F forcevariant
    F handler
    F reset
    F set

kerns   table

  D factors

  F handler

  F keepligature

  B keeptogether

  D mapping

  F set

manipulators   table

  F apply

  F applyspecification

  T methods

    F Word

    F Words

    F abbreviatedjournal

    F expandedjournal

    F lowercase

    F stripperiod

    F uppercase

  T patterns

    U list

    U pair

  F splitspecification

margins   table

  F finalhandler

  F globalhandler

  F localhandler

  F save

marksuspects   function

paragraphs   table

  F addanchortoline

  F addtoline

  F calculatedelta

  F checkline

  F handler

  F moveinline

  F normalize

  F set

periodkerns   table

  D factors

  F handler

  D mapping

  F set

processors   table

  F apply

  F register

  F reset

  F split

  F startapply

  F stopapply

  F stripped

  F tostring

rubies   table

  F attach

  F check

showsuspects   function

spacings   table

  F define

  F handler

  D mapping

  T numbers

    T frenchpunctuation

      T characters

      S name

      N number

  F reset

  F set

  F setup

wrappers   table

  F handler

xtables   table

  F cleanup

  F construct

  F create

  F finish_row

  F flush

  F initialize_construct

  F initialize_reflow_height

  F initialize_reflow_width

  F next_row

  F reflow_height

  F reflow_width

  F set_construct

  F set_reflow_height

  F set_reflow_width

unicode (extra lua)

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

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

latin1   table
- F byte
- F char
- F dump
- F find
- F format
- F gfind
- F gmatch
- F gsub
- F len
- F lower
- F match
- F rep
- F reverse
- F sub
- F upper

toutf32string function

utf8   table
- F byte
- F char
- F characters
- F chrlen
- 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_be

F utf16_to_utf8_be_t

F utf16_to_utf8_le

F utf16_to_utf8_le_t

F utf16_to_utf8_t

F utf32_to_utf8_be

F utf32_to_utf8_be_t

F utf32_to_utf8_le

F utf32_to_utf8_le_t

F utf32_to_utf8_t

F utf8_to_utf16

F utf8_to_utf16_be

F utf8_to_utf16_le

F utf8_to_utf8_t

F values

F xstring

url (context)

addscheme	function	**hashed**	function
barepath	function	**hasscheme**	function
construct	function	**query**	function
decode	function	**split**	function
encode	function	**toquery**	function
escape	function	**unescape**	function
filename	function	**unescapeget**	function

utf8 (context)

char	function	**codes**	function
charpattern	string	**len**	function
codepoint	function	**offset**	function

utilities (context)

debugger   table
- F disable
- F enable
- F savestats
- F showstats
- F showtraceback

files   table
- F close
- F getposition
- F getsize
- F look
- F open
- F read2dot14
- F readbyte
- F readbytes
- F readbytetable
- F readcardinal
- F readcardinal1
- F readcardinal2
- F readcardinal2le
- F readcardinal3
- F readcardinal3le
- F readcardinal4
- F readcardinal4le
- F readcardinaltable
- F readchar
- F readfixed2
- F readfixed4
- F readinteger
- F readinteger1
- F readinteger2
- F readinteger2le
- F readinteger3
- F readinteger3le
- F readinteger4
- F readinteger4le
- F readintegertable
- F readsignedbyte
- F readstring
- F readtag
- F setposition

- F size
- F skip
- F skiplong
- F skipposition
- F skipshort
- F writebyte
- F writecardinal2
- F writecardinal4
- F writestring

formatters   table
- F formatcolumns
- F list
- F stripzeros

garbagecollector table
- F check
- N criterium
- B enabled

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

packers   table

F hashed
F new
F pack
F simplehashed
F strip
F unpack
N version
parsers   table
F add_settings_to_array
F arguments_to_table
F array_to_string
F csvsplitter
F getparameters
F groupedsplitat
F hash_to_string
T hashes
 T settings_to_set
  T min,max,fit,broad,auto
   B auto
   B broad
   B fit
   B max
   B min
  T modern,latin-modern
   B latin-modern
   B modern
  T modern,latin-modern,modern-variable,latin-modern-variable,modern-condensed,latin-modern-condensed
   B latin-modern
   B latin-modern-condensed
   B latin-modern-variable
   B modern
   B modern-condensed
   B modern-variable
  T modern,latin-modern-designsize,latin-modern
   B latin-modern
   B latin-modern-designsize
   B modern
  T modern,modern-base
   B modern
   B modern-base
  T modern-condensed,latin-modern-condensed-designsize,latin-modern-condensed,modern-light-condensed,latin-modern-li...
   B latin-modern-condensed
   B latin-modern-condensed-designsize
   B latin-modern-light-condensed

   B modern-condensed
   B modern-light-condensed
  T modern-light,latin-modern-light-designsize,latin-mod...
   B latin-modern-light
   B latin-modern-light-designsize
   B modern-light
  T modern-mono,modern-base-mono
   B modern-base-mono
   B modern-mono
  T modern-variable,latin-modern-variable-designsize,lat...
   B latin-modern-variable
   B latin-modern-variable-designsize
   B modern-variable
  T modernvariable,modern-variable
   B modern-variable
   B modernvariable
  T modernvariablelight,modern-variable-light
   B modern-variable-light
   B modernvariablelight
  T serif,sans,mono
   B mono
   B sans
   B serif
  T text,hidden,paper,page,leftpage,rightpage
   B hidden
   B leftpage
   B page,condensed,latin-modern-condensed
   B paper
   B rightpage
   B text
F iterator
F keq_to_hash
F listitem
F make_settings_to_hash_pattern
F mergehashes
F options_to_array
F options_to_hash
T patterns
U settings_to_array
U settings_to_hash_a
U settings_to_hash,modern-light-condensed,latin-modern-li...
U settings_to_hash_c
U settings_to_hash_d
U unittotex

```
    F readinteger1                              U prune
    F readinteger2                              U prune and collapse
    F readinteger2le                            U prune and no empty
    F readinteger3                              U retain
    F readinteger3le                            U retain and collapse
    F readinteger4                              U retain and no empty
    F readinteger4le                        F striplines
    F readintegertable                      F striplong
    F readsignedbyte                        F tabtospace
    F readstring                            T tracers
    F setposition
    F size                             tables           table
    F skip                                  F accesstable
    F skipbytes                             F definedtable
    F skiplong                              F definetable
    F skipshort                             F encapsulate
strings           table                     F insertaftervalue
    F collapsecrlf                          F insertbeforevalue
    T formatters                            F migratetable
     F add                                  F removevalue
     F new                                  F replacevalue
    F newcollector
    F newrepeater                      templates         table
    F nice                                  F load
    T striplinepatterns                     F replace
     U collapse                             F replacer
                                            F resolve
```

vf (context)

char	function	**pdf**	function
down	function	**pop**	function
fontid	function	**push**	function
image	function	**right**	function
node	function	**rule**	function
nop	function	**special**	function

visualizers (context)

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

xml (context)

addentitiesdoctype	function		F padding
addspecialcode	function		F stylevalue
after	function		F todimension
all	function	**defaulthandlers**	table
applylpath	function		D file
applyselector	function		D parsedxml
assign	function		D string
attribute	function		D tex
badinclusions	function		D texline
before	function		D texspace
body	function		D verbose
builtinentities	table	**defaultprotocol**	string
	B amp	**delete**	function
	B apos	**delete_element**	~~function~~
	B gt	**despecialized**	function
	B lt	**each**	function
	B quot	**each_element**	~~function~~
cdata	function	**elements**	function
cdatatotext	function	**elementtocdata**	function
checkbom	function	**empty**	function
checkerror	function	**entities**	data table
checknamespace	function	**erase**	function
checkns	function	**errorhandler**	function
cleansed	function	**escaped**	function
collect	function	**expressions**	table
collect_elements	~~function~~		F boolean
collect_tags	function		F child
collect_texts	~~function~~		F contains
collected	function		F count
collecttexts	function		F error
content	function		F find
convert	function		F hasclass
copy	function		F idstring
count	function		F lower
cprint	function		F name
css	table		F number
	F applyselector		F oneof
	F colorspecification		F print
	F dimension		F quit
	F fontspecification		F tag
	F mappedstylevalue		F text

	F undefined	
	F upper	
fillin		function
filter		function
finalizers		table
	F paragraphs	
	T tex	
	F all	
	F attribute	
	F chainattribute	
	F chainpath	
	F command	
	F concat	
	F concatrange	
	F context	
	F count	
	F ctxtext	
	F default	
	F first	
	F function	
	F index	
	F last	
	F lettered	
	F lower	
	F lowerall	
	F match	
	F name	
	F param	
	F parameter	
	F position	
	F reverse	
	F stripped	
	F tag	
	F tags	
	F text	
	F upper	
	F upperall	
	F xml	
	T xml	
	F all	
	F att	
	F attribute	
	F attributes	
	F cdata	
	F chainattribute	
	F count	
	F default	
	F elements	
	F empty	
	F first	
	F function	
	F index	
	F last	
	F lowerall	
	F match	
	F name	
	F position	
	F reverse	
	F table	
	F tag	
	F tags	
	F text	
	F texts	
	F upperall	
first		function
found		function
functions		table
	F classes	
	F hasclass	
getbuffer		function
gethandlers		function
gethandlersfunction		function
helpers		table
	F recursetext	
include		function
inclusion		function
inclusions		function
index		function
inheritedconvert		function
inject		function
~~**inject_element**~~		~~function~~
~~**inject_element_after**~~		~~function~~
~~**inject_element_before**~~		~~function~~
injectafter		function
injectbefore		function
insert		function
insert_element		function
~~**insert_element_after**~~		~~function~~

insert_element_before	~~function~~	**registerns**	function
insertafter	function	**reindex**	function
insertbefore	function	**remap_name**	~~function~~
insertcdata	function	**remap_namespace**	~~function~~
insertcomment	function	**remap_tag**	~~function~~
inspect	function	**remapname**	function
is_valid	function	**remapnamespace**	function
kind	function	**remaptag**	function
last	function	**rename**	function
lastmatch	function	**renamespace**	function
load	function	**reparsedentitylpeg**	userdata
lpath	function	**replace**	function
lpathcached	function	**replace_element**	~~function~~
lpathcalls	function	**resetinjectors**	function
lshow	function	**resolvens**	function
makestandalone	function	**root**	function
match	function	**save**	function
name	function	**selection**	function
newhandlers	function	**separate**	function
nodesettostring	function	**serialize**	function
originalload	function	**serializetotext**	function
package	function	**setcdata**	function
parent	function	**setcomment**	function
parsedentitylpeg	userdata	**sethandlersfunction**	function
pihandlers	table	**setinjectors**	function
F injector		**setproperty**	function
F tex		**settings**	function
placeholders	table	**specialcodes**	table
F unknown_any_entity		S "	
F unknown_dec_entity		S #	
F unknown_hex_entity		S $	
popmatch	function	S %	
position	function	S &	
privatecodes	table	S '	
privatetoken	function	S <	
process	function	S >	
process_attributes	~~function~~	S \	
process_elements	~~function~~	S {	
processattributes	function	S |	
profiled	table	S }	
pure	function	S ~	
pushmatch	function	**specialhandler**	table
raw	function	**sprint**	function
registerentity	function	**string**	function

strip	function	**toxml**	function
strip_whitespace	function	**tprint**	function
stripelement	function	**traverse**	function
stripleadingspaces	function	**unescaped**	function
table	function	**unescapedentitylpeg**	userdata
text	function	**unprivatized**	function
textonly	function	**unspecialized**	function
texttocdata	function	**withelement**	function
tocdata	function	**withelements**	function
toelement	function	**wrap**	function
tostring	function	**xmlns**	table
totable	function		

zip (extra lua)

archives	table	**openarchive**	function
close	function	**openfile**	function
closearchive	function	**registeredfiles**	table
open	overloaded function	**type**	function

zlib (extra lua)

adler32	function	**decompress**	function
compress	function	**decompressobj**	function
compressobj	function	**version**	function
crc32	function		