MP attributes backends basexx bit32 blobs
boolean buffers builders caches callback
callbacks catcodes characters chemistry
commands containers context converters
coroutine ctxrunner debug dir directives
document documentdata drivers environment
experiments figures file fio floats font fonts
functions global graphics gzip images
interactions interfaces io job language
languages layouts lfs libraries lmx logs lpdf
lpeg lua luatex lxml math mathematics md5
metapost mime moduledata modules mp mplib
noads node nodes number objects optional os
package pagebuilders parametersets pdf
pdfdecode pdfe physics pngdecode 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 updaters url userdata utf8
utilities visualizers xcomplex xdecimal xmath
xml xzip zip zlib

ConTEXt LMTX

global (alias: _G)

CONTEXTLMTXMODE	number		**directives**	table
FFISUPPORTED	boolean		**document**	table
LUAMAJORVERSION	number		**documentdata**	table
LUAMINORVERSION	number		**dofile**	function
LUATEXENGINE	string		**drivers**	table
LUATEXFORMATID	number		**environment**	table
LUATEXFUNCTIONALITY	number		**error**	function
LUATEXVERSION	number		**experiments**	table
LUAVERSION	number		**fasttrack**	boolean
MP	function		**figures**	table
arg	table		**file**	table
asnumber_p	function		**fio**	table
assert	function		**floats**	table
attributes	table		**flushsimplerule**	function
backends	table		**flushspecialrule**	function
basexx	table		**font**	table
bit32	table		**fonts**	table
blobs	table		**functions**	table
blockrequire	function		**getmetatable**	function
boolean	table		**getscriptstatus**	function
buffers	table		**global**	table
builders	table		**graphics**	table
caches	table		**gzip**	table
callback	table		**handledefinitions**	function
callbacks	table		**handletransformstring**	function
catcodes	table		**images**	table
characters	table		**inspect**	function
checkimage	function		**interactions**	table
chemistry	table		**interfaces**	table
collectgarbage	function		**io**	table
commands	table		**ipairs**	function
containers	table		**job**	table
context	function		**language**	table
converters	table		**languages**	table
coroutine	table		**layouts**	table
createmask	function		**lfs**	table
ctxrunner	table		**libraries**	table
data	table		**lmx**	table
debug	table		**load**	function
dimen	function		**loadfile**	function
dir	table		**loadstring**	function

logs	table	**require**	function
lpdf	table	**required**	function
lpeg	table	**resolvers**	table
lua	table	**ruledspace**	function
luatex	table	**sandbox**	table
lxml	table	**scripts**	table
math	table	**select**	function
mathematics	table	**set**	table
md5	table	**setinspector**	function
metapost	table	**setmetatable**	function
mime	table	**sha2**	table
moduledata	table	**shipbox_ref_h**	number
modules	table	**shipbox_ref_v**	number
mp	function	**sio**	table
mplib	table	**socket**	table
next	function	**sorters**	table
noads	table	**statistics**	table
node	table	**status**	table
nodes	table	**storage**	table
number	table	**streams**	table
objects	table	**string**	table
optional	table	**structures**	table
optionalrequire	function	**table**	table
os	table	**tex**	table
p_number_p	userdata	**texconditionals**	data table
package	table	**texconfig**	table
pagebuilders	table	**texconstants**	data table
pairs	function	**texifs**	data table
parametersets	table	**texio**	table
pcall	function	**texisdefined**	data table
pdf	table	**texmodes**	data table
pdfdecode	table	**texsystemmodes**	data table
pdfe	table	**thirddata**	table
physics	table	**toboolean**	function
pngdecode	table	**todecimal**	function
popleaderlevel	function	**token**	table
print	function	**tokens**	table
publications	table	**tonumber**	function
pushleaderlevel	function	**tostring**	function
rawequal	function	**tracers**	table
rawget	function	**trackers**	table
rawlen	function	**type**	function
rawset	function	**typesetters**	table
regimes	table	**unpack**	function

updaters	table	**xcomplex**	table
url	table	**xdecimal**	table
userdata	table	**xmath**	table
utf	table	xml	table
utf8	table	**xpcall**	function
utilities	table	**xzip**	table
visualizers	table	**zip**	table
warn	function	**zlib**	table

attributes (context)

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

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 defineprocesscolordirect
  F definesimplegray
  F definespotcolor
  F definetransparency
  F enable
  F filter
  N forced
  F forcedmodel
  F forcesupport
  F formatcolor

F formatgray
F getpagecolormodel
F gray
F graytohsv
F handler
T helpers
  F complement
  F inbetween
  F justone
F hsvtogray
F hsvtorgb
F hwbtorgb
F iccprofile
F isblack
F labtorgb
F labtoxyz
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
F rgbtoxyz
N selector
F setlist
F setmodel
F setpagecolormodel
D sets
F spec

F	spot		F	disabletriggering
F	spotcolorname		F	enabletriggering
F	spotcolorparent		F	finalize
F	spotcolorvalue		F	initialize
B	supported		F	process
F	toattributes		F	selective
F	transparencycomponents		F	simple
B	triggering		F	stacked
F	usecolors		F	stacker

D	valid	
F	value	
D	values	
B	weightgray	
F	xyztolab	
F	xyztorgb	

system	function
tooverloads	function
transparencies	table

define	function
effects	table
N	attribute	
D	data	
F	enable	
F	handler	
F	register	
D	registered	
D	values	

N	attribute	
D	data	
F	enable	
F	forcesupport	
F	handler	
T	names	
	N	color
	N	colorburn
	N	colordodge
	N	darken
	N	difference
	N	exclusion
	N	hardlight
	N	hue
	N	lighten
	N	luminosity
	N	multiply
	N	none
	N	normal
	N	overlay
	N	saturation
	N	screen
	N	softlight

handlers	table
list	data table
markasoverload	function
names	data table
negatives	table
N	attribute	
D	data	
F	enable	
F	handler	
F	register	
D	registered	
F	set	

N	none	
F	register	
D	registered	
B	supported	
F	toattribute	
B	triggering	
F	value	
D	values	

numbers	data table
ofnode	function
private	function
public	function
restore	function
save	function
showcurrent	function
states	table

unsetvalue	number

viewerlayers table

- N attribute
- F cleanup
- D data
- F define
- F definedlayoutcomponent
- F enable
- F forcesupport
- F handler
- B hasorder
- D listwise
- F register
- D registered
- F resolve_begin
- F resolve_end
- F resolve_reset
- F resolve_step
- D scopes
- F setfeatures
- F start
- F stop
- B supported
- D values

backends (context)

closeout   function
codeinjections   table

    F boxresourcedimensions

    F registerboxresource

    F restoreboxresource

current   string
defaults   table

    T codeinjections

    T nodeinjections

    T registrations

    D tables

getcallbackstate function
included   table

    B context

    B date

    B id

    B metadata

    B pdf

install   function
latelua   function
nodeinjections   table
nothing   function
openout   function
pdf   table

    T codeinjections

    F addbookmarks

    F analyzenormalsymbol

    F analyzesymbol

    F attachmentid

    F bitmap

    F clonefield

    F copyimage

    F definefield

    F definefieldset

    F defineviewerlayer

    F embedfile

    F embedimage

    F enabletags

    F exportformdata

    F fieldsurrounding

    F flushmergelayer

F getbookmarks

F getdefaultfieldvalue

F getfieldcategory

F getfieldset

F getformatoption

F getidentityvariable

F getinfo

F getpreviewfigure

F insertrenderingwindow

F jp2

F jpg

F maptag

F mergebookmarks

F mergecomments

F mergefields

F mergereferences

F mergeviewerlayers

F newimage

F png

F prerollreference

F presetsymbol

F presetsymbollist

F processrendering

F registerdocumentcloseaction

F registerdocumentopenaction

F registeredsymbol

F registerpagecloseaction

F registerpageopenaction

F registerpattern

F registersymbol

F scanimgage

F setattachmentsupport

F setfieldcalculationset

F setfigurealternative

F setfigurecolorspace

F setfiguremask

F setformat

F setformsmethod

F setpagetransition

F settaggingsupport

F setupidentity

```
      F setxmpfile                              F knockout
      F startlayer                              F negative
      F startunicodetoactualtext                F overprint
      F startunicodetoactualtextdirect          F positive
      F stoplayer                               F reference
      F stopunicodetoactualtext                 F rgbcolor
      F stopunicodetoactualtextdirect           F spotcolor
      F supportedformats                        F startalternate
      F unicodetoactualtext                     F startlayer
      F useviewerlayer                          F startstackedlayer
      F validfield                              F stopalternate
      F validfieldcategory                      F stoplayer
      F validfieldset                           F stopstackedlayer
      F wrapimage                               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            registrations        table
      F insertsound            tables               table
      F insertu3d              writeout             function
```

basexx (extra lua)

decode16	function	**encode16**	function
decode64	function	**encode64**	function
decode85	function	**encode85**	function
decodeLZW	function	**encodeLZW**	function
decodeRL	function	**encodeRL**	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)

checkparcontext function
checksidefloat function
kernel table
    F hyphenating
    F hyphenation
    F kerning
    F ligaturing
    F mlist_to_hlist
paragraphs table
    T constructors
     N attribute
     F define
     F disable
     F enable
     F handler
     T methods
      F 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
    D categories
    F checkstrutdepth
    F collapsevbox
    T data
     D map
     D skip
     D snapmethods
    F definesnapmethod
    B fixed
    F forcepageflush
    F forcestrutdepth
    F getnofpreviouslines
    F inject
    F injectdisable
    F injectpenalty
    F injectskip
    F pagehandler
    F pageoverflow
    F popatsame
    F pushatsame
    F setmap
    F setskip
    F snapbox
    F synchronizepage
    F tocategories
    F tocategory
    F vboxhandler

caches (context)

base	string	**loadcontent**	function
collapsecontent	function	**loaddata**	function
configfiles	function	**more**	string
contentstate	function	**savecontent**	function
defaults	table	**savedata**	function
getfirstreadablefile	function	**setfirstwritablefile**	function
getreadablepaths	function	**setluanames**	function
getwritablepath	function	**treehash**	function
hashed	function	**usedpaths**	function
is_writable	function		

callback (basic tex)

find   function

known   function

list   function

register overloaded function

usage   function

callbacks (context)

freeze   function
functions   table
    F start_page_number
    F stop_page_number
known   function
list   data table
pop   function
push   function
register   function
report   function
supported   table
    B append_to_vlist_filter
    B begin_paragraph
    B build_page_insert
    B buildpage_filter
    B contribute_filter
    B define_font
    B find_format_file
    B find_log_file
    B handle_overload
    B hpack_filter
    B hpack_quality
    B hyphenate
    B insert_par
    B intercept_lua_error

B intercept_tex_error
B kerning
B ligaturing
B linebreak_filter
B make_extensible
B mlist_to_hlist
B open_data_file
B paragraph_context
B post_linebreak_filter
B pre_dump
B pre_linebreak_filter
B pre_output_filter
B process_jobname
B show_error_message
B show_lua_call
B show_warning_message
B show_whatsit
B start_file
B start_run
B stop_file
B stop_run
B trace_memory
B vpack_filter
B vpack_quality
B wrapup_run

catcodes (context)

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

characters (context)

adobename	function
bidi	data table
blockrange	function
blocks	data table
casemap	table
categories	data table
category	function
categorytags	data table
classifiers	table
collapsed	data table
combined	data table
contextname	function
csletters	data table
data	data table
decomposed	data table
description	function
descriptions	data table
detailtags	data table
directions	table
emoji	table
F compact	
F known	
F resolve	
emojized	function
enccodes	data table
entities	data table
fallbacks	data table
filters	data table
fractions	table
fromnumber	function
fschars	data table
fscodes	data table
getrange	function
graphemes	data table
hangul	data table
indicgroups	table
T above_mark	
T after_half	
T after_main	
T after_postscript	
T after_subscript	

T anudatta	
T before_half	
T before_main	
T before_postscript	
T before_subscript	
T below_mark	
T consonant	
T dependent_vowel	
T halant	
T independent_vowel	
T nukta	
T post_mark	
T pre_mark	
T ra	
T stress_tone_mark	
T twopart_mark	
T vowel_modifier	
initialize	function
is_character	data table
is_command	data table
is_letter	data table
is_mark	data table
is_punctuation	data table
is_spacing	data table
is_symbol	data table
lcchars	data table
lccode	function
lccodes	data table
lettered	function
lhash	data table
linebreaks	data table
lower	function
mathlists	data table
mirrors	table
otfscripts	data table
private	table
ranges	data table
registerentities	function
remap_hangul_syllabe	function
setactivecatcodes	function
setlettercatcodes	function

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

chemistry (context)

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

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	**gregorian_to_hebrew**	function
Alphabetic	function	**gregorian_to_jalali**	function
Alphabetic:es	function	**hebrewnumerals**	function
Alphabetic:ru	function	**helpers**	table
Alphabetic:sl	function	**hexstringtonumber**	function
Character	function	**i**	function
Characters	function	**isleapyear**	function
I	function	**jalali_to_gregorian**	function
KA	function	**lchexnumber**	function
KR	function	**lchexnumbers**	function
R	function	**leapyear**	function
RK	function	**lower**	function
Romannumerals	function	**max**	function
Russiannumerals	function	**maxchrs**	function
Sloveniannumerals	function	**nicenumber**	function
Spanishnumerals	function	**nofdays**	function
Word	function	**number**	function
Words	function	**numbers**	function
a	function	**octnumber**	function
a:es	function	**octstringtonumber**	function
a:ru	function	**ordinal**	function
a:sl	function	**r**	function
abjadnodotnumerals	function	**rawcharacter**	function
abjadnumerals	function	**romannumerals**	function
alphabetic	function	**russiannumerals**	function
alphabetic:es	function	**sequences**	data table
alphabetic:ru	function	**settime**	function
alphabetic:sl	function	**sloveniannumerals**	function
character	function	**spaceddigits**	function
characters	function	**spanishnumerals**	function
chineseallnumerals	function	**textime**	function
chinesecapnumerals	function	**toabjad**	function
chinesenumerals	function	**tochinese**	function
chr	function	**tohebrew**	function
chrs	function	**toroman**	function
cn	function	**totime**	function
cn-a	function	**uchexnumber**	function

uchexnumbers	function			F translate	
upper	function		**weekday**	function
verbose	table		**word**	function
D data			**words**	function

coroutine (basic lua)

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

ctxrunner (context)

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

data (context)

action   function   **prerolled** string
depth   number   **width**   number
height   number

debug (basic lua)

getinfo   function   **traceback** function
sethook   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	**register**	function
default	function	**report**	function
disable	function	**reset**	function
done	table	**show**	function
enable	function	**value**	function
list	function	**values**	function
name	string		

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

      D environments

      D modes

      D modules

    T ctxfile

      D environments

setfilename	function
setfilenames	function
setmodes	function
setmodules	function
variables	data table

documentdata (context)

variable function

drivers (context)

convert	function		F popleaderlevel
converters	table		F pushleaderlevel
F engine			F rule
F lmtx			F simplerule
enable	function		F specialrule
gethpos	function		F updatefontstate
getpos	function		T whatsit
getrpos	function		S name
getvpos	function		T json
helpers	table		T actions
install	function		F cleanup
instances	table		F convert
T default			F finalize
T actions			F initialize
F convert			F outputfilename
F outputfilename			F prepare
T flushers			F wrapup
F popleaderlevel			T flushers
F pushleaderlevel			F character
T whatsit			F popleaderlevel
S name			F pushleaderlevel
T empty			F rule
T actions			F simplerule
F convert			F specialrule
F prepare			F updatefontstate
T flushers			T whatsit
F popleaderlevel			S name
F pushleaderlevel			T lua
T whatsit			T actions
S name			F cleanup
T js			F convert
T actions			F finalize
F cleanup			F initialize
F convert			F outputfilename
F finalize			F prepare
F initialize			F wrapup
F outputfilename			T flushers
F prepare			F character
F wrapup			F popleaderlevel
T flushers			F pushleaderlevel
F character			F rule

```
  F simplerule                              S name
  F specialrule                           T pdf
  F updatefontstate                         T actions
  T whatsit                                   F cleanup
S name                                        F convert
T mpo                                         F finalize
  T actions                                   F initialize
    F finalize                                F outputfilename
    F initialize                              F prepare
  T flushers                                  F wrapup
    F character                             T flushers
    F popleaderlevel                          F character
    F pushleaderlevel                         F fontchar
    F rule                                    F group
    F simplerule                              F image
    F specialrule                             F literal
    T whatsit                                 F popleaderlevel
  S name                                      F poporientation
T mps                                         F pushleaderlevel
  T actions                                   F pushorientation
    F cleanup                                 F restore
    F convert                                 F rule
    F finalize                                F save
    F initialize                              F setmatrix
    F outputfilename                          F setstate
    F prepare                                 F simplerule
    F wrapup                                  F specialrule
  T flushers                                  F startclipping
    F character                               F startmatrix
    F popleaderlevel                          F startmirroring
    F pushleaderlevel                         F startrotation
    F rule                                    F startscaling
    F simplerule                              F stopclipping
    F specialrule                             F stopmatrix
    F updatefontstate                         F stopmirroring
    T whatsit                                 F stoprotation
  S name                                      F stopscaling
T none                                        F updatefontstate
  T actions                                   T whatsit
  T flushers                                S name
    F popleaderlevel              lmtxversion      number
    F pushleaderlevel             outputfilename   function
    T whatsit                     report           function
```

environment (context)

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

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	**values**	function

figures (context)

applyratio	function		F	scan
badname	function		F	serialize
bases	data table		T	sizes
bitmapimage	function		B	art
boxnumber	number		B	bleed
cachepaths	data table		B	crop
check	function		B	media
checkers	data table		B	none
converters	data table		B	trim
current	function		F	storedata
defaultdepth	number		F	totable
defaultheight	number		T	types
defaultsearch	boolean		N	jbig2
defaultwidth	number		N	jp2
done	function		N	jpg
dummy	function		N	none
existers	data table		N	pdf
exists	function		N	png
formats	data table		N	stream
found	data table		F	wrap
get	function		**include**	function
getinfo	function		**includers**	data table
getpdfinfo	function		**initialize**	function
getrealpage	function		**loaded**	data table
guess	function		**localpaths**	data table
guessfromstring	function		**magics**	data table
hash	function		**mergegoodies**	function
identifiers	data table		**nofmissing**	number
identify	function		**nofprocessed**	number
images	table		**order**	data table
F	check		**paths**	data table
F	checksize		**patterns**	data table
F	copy		**pop**	function
F	create		**preferquality**	boolean
F	embed		**programs**	data table
F	embedfromstore		**push**	function
F	fetchdata		**registerpattern**	function
T	keys		**registerresource**	function
F	print		**registersuffix**	function
F	resetdata		**remappers**	data table
F	resetstore		**resources**	data table

scale	function	**setpaths**	function
set	function	**suffixes**	data table
setlookups	function	**used**	data table
setorder	function		

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)

getposition	function	**readinteger2le**	function
read2dot14	function	**readinteger3**	function
readbytes	function	**readinteger3le**	function
readbytetable	function	**readinteger4**	function
readcardinal1	function	**readinteger4le**	function
readcardinal1le	function	**readintegertable**	function
readcardinal2	function	**readline**	function
readcardinal2le	function	**setposition**	function
readcardinal3	function	**skipposition**	function
readcardinal3le	function	**writecardinal1**	function
readcardinal4	function	**writecardinal1le**	function
readcardinal4le	function	**writecardinal2**	function
readcardinaltable	function	**writecardinal2le**	function
readfixed2	function	**writecardinal3**	function
readfixed4	function	**writecardinal3le**	function
readinteger1	function	**writecardinal4**	function
readinteger1le	function	**writecardinal4le**	function
readinteger2	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
getfont	function	**setfont**	function
getfontdimen	function	**setfontdimen**	function

fonts (context)

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

checkers   table
- F getmissing
- D mapping
- 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 register
- F registermain
- F report
- F reset
- T vectors

constructors   table
- F addcharacters
- F addcoreunicodes
- F aftercopyingcharacters
- F applyfinalizers
- F applymanipulators
- F assignmathparameters
- F beforecopyingcharacters
- D cache
- F calculatescale
- F checkedfeatures
- F checkedfilename
- F collectprocessors

- F currentfonthasfeature
- D designsizes
- 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 avar	F head
F cbdt	T helpers
F cblc	F axistofactors
F cff	F cleanname
F cff2	F getaxisscale
F cffcheck	F getfactors
T cffencoder	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 readcardinal1le
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 readinteger1le
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 writecardinal1
F writecardinal1le
F writecardinal2
F writecardinal2le
F writecardinal3
F writecardinal3le
F writecardinal4
F writecardinal4le
F writeinteger1
F writeinteger1le
F writeinteger2
F writeinteger2le
F writeinteger3

F writeinteger3le
F writeinteger4
F writeinteger4le
F writestring
F stripredundant
F svg
N tableversion
F unifymissing
F unpack
F vhea
F vmtx
F vorg
F vvar
F woff2otf
F registerpalette
F registerplugin
F reorderlookups
F scriptandlanguage
F setdynamics
F setfeatures
T statistics
D usedfeatures
D svgcache
B svgenabled
T tables
D baselines
D features
D featuretypes
D languages
D scripts
N version
T pfb
F loadvector
T tfm
D cache
D features
N maxnestingdepth
N maxnestingsize
T readers
F loadpk
F loadtfm
F loadtfmvf
F loadvf
F pktopdf

```
  F showpk                              F applypostprocessors
  F reencode                            F checkedmode
  F setfeatures                         F checkedscript
  N version                             S defaultlookup
T vf                                    F define
  T combinations                        F getspecification
  F combine                             F internal
  T combiner                            F loadfont
    D commands                          F makespecification
  D helpers                             T methods
  D math                                  F install
  N version                               D variants
  D whatever                            F read
F hashfeatures                          F register
F hashinstance                          F registered
T hashmethods                           F registersplit
  F normal                              F resetnullfont
  F virtual                             F resolve
F initializefeatures                    T resolvers
D loadedfonts                             F file
N noffontsloaded                          F name
N nofsharedfonts                          F spec
N nofsharedhashes              definetypeface        function
N nofsharedvectors             dropins               table
N privateoffset                         F clone
D privateslots                          F getshape
F readanddefine                         F getshapes
F registerfeature                       F nextid
F resetfeature                          F provide
B resolvevirtualtoo                     F registerglyph
F scale                                 F registerglyphs
F scaled                                F swap
F setfactor                             F swapone
F setfeature                   encodings             table
F setmathparameter                      T agl
F setname                                 D ctxcodes
B sharefonts                              D extras
F trytosharefont                          D names
N version                                 D synonyms
current          function                 D unicodes
currentid        function               D cache
definers         table                  F is_known
  F addlookup                           D known
  F analyze                             F load
```

F	make_unicode_vector		
D	math		
N	version		

enhanceid function
expansions data table
formats data table
getalternate function
getindices function
getkern function
getmultiple function
getsubstitution function
getters table

T	alternate
F	opentype
T	kern
F	opentype
F	type1
F	type3
T	multiple
F	opentype
T	substitution
F	opentype

goodies table

D	colorschemes
T	data
T	dejavu-math
S	author
S	comment
S	copyright
B	initialized
T	mathematics
T	alternates
T	dotless
S	comment
S	feature
N	value
T	kerns
T	*:0x1D449
T	bottomright
S	name
S	version
D	designsizes
D	filenames
F	getcompositions

T	list
F	load
F	prepare_features
F	register
F	registerpostprocessor
F	report
T	suffixes

handlers table
hashes table

D	characters
D	classes
D	csnames
D	descriptions
D	dynamics
D	emwidths
D	exheights
D	extensibles
D	features
D	identifiers
D	italics
D	lastmathids
D	marks
D	mathparameters
D	modes
D	originals
D	parameters
T	processes
D	properties
D	quads
D	resources
T	setdynamics
T	shapes
D	spaces
D	spacings
T	streams
D	unicodes
D	variants
D	xheights

helpers table

F	addextraprivate
F	addprivate
F	appendcommands
F	appendcommandtable
F	checkflags

F	checkmerge		**infofont**	function
F	checksteps		**iterators**	table
F	collectanchors		F	characters
F	combineglyphs		F	descriptions
D	commands		F	glyphs
F	composecharacters		**loggers**	table
F	descriptiontoslot		F	format
F	dimenfactor		F	onetimemessage
F	expandglyph		F	register
T	extraprivates		F	reportdefinedfonts
F	fontpatternhassize		F	reportusedfeatures
F	getcoloredglyphs		**mappings**	table
F	getdigitwidth		F	addtounicode
F	getinstancespec		F	fromunicode16
F	getparameters		F	getentry
F	getprivatecharornode		F	loadfile
F	getprivatenode		F	loadline
F	getprivates		F	makenameparser
F	getprivateslot		D	overloads
F	hasprivate		F	reset
F	indextoslot		F	tounicode
F	mathscriptslots		F	tounicode16
F	name		F	tounicode16sequence
F	nametoslot		**metapost**	table
F	newprivateslot		F	boundingbox
F	prependcommands		F	boxtomp
F	prependcommandtable		F	draw
F	privateslot		F	fill
F	registerglyphbox		F	glyph
F	scalecommands		F	maxbounds
F	setboxglyph		F	paths
F	setboxglyphs		F	widthline
F	setdigitwidth		F	zeroline
F	setmetaglyph		**names**	data table
F	setmetaglyphs		**nulldata**	data table
F	splitfontpattern		**privateoffsets**	table
F	tochar		B	keepnames
T	vfinjectors		N	mathbase
F	pdf		N	mathextrabase
F	startcolor		N	textbase
F	stopcolor		N	textextrabase
T	vfspecials		**protrusions**	data table
T	backgrounds		**readers**	table
T	outlines		F	afm

F	check_lua	F	registerfontalternative
F	check_tfm	F	registerfontfamily
F	lua	F	textfallback
F	ofm	F	typeface
F	opentype	F	typescript
F	otf	F	userdata

select	**table**	
D	alternatives	
F	bodyfont	

reserveid   function

select   table

D alternatives

F bodyfont

D data

F default

D defaults

F definefallbackfamily

F definefontfamily

F definefontfamilypreset

D extras

F fallback

D fallbacks

F features

F filefallback

F fontdata

F fontfallback

F fontsynonym

F goodies

F mathfallback

D methods

D presets

F registerfallback

F registerfiles

specifiers   table

D contextmerged

F contextnumber

D contextnumbers

D contextsetups

F contexttostring

F definecontext

F mergecontext

F presetcontext

F registercontext

F showcontext

F splitcontext

D synonyms

D variants

symbols   table

T emoji

  F checked

  F resolved

F uselibrary

tables   table

tracers   table

treatments   table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

typefaces   table

functions (context)

dummy function

graphics (context)

backgrounds table
    F fetchmultipar
    F pair
    F path
    F point
bitmaps table
    F flush
    F new

    F placeholder
    F tocontext
identifiers table
    F bitmap
    F jp2
    F jpg
    F png
identify function

gzip (extra lua)

compress	function	**load**	function
compressed	function	**save**	function
decompress	function	**suffix**	function

images (context)

check	function		B crop	
checksize	function		B media	
copy	function		B none	
create	function		B trim	
embed	function	**storedata**	function	
embedfromstore	function	**totable**	function	
fetchdata	function	**types**	table	
keys	table	N jbig2		
print	function	N jp2		
resetdata	function	N jpg		
resetstore	function	N none		
scan	function	N pdf		
serialize	function	N png		
sizes	table	N stream		
B art		**wrap**	function	
B bleed				

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)

arrays	table	**namesofscanners**	table
cachedsetups	data table	**namespaces**	table
cachesetup	function	F define	
cardinals	table	F list	
checkedspecification	function	**numbers**	table
complete	data table	**registernamespace**	function
constants	data table	**registerscanner**	function
corenamespaces	data table	**scanners**	data table
currentinterface	string	**setconstant**	function
currentresponse	string	**setcount**	function
definecommand	function	**setdimen**	function
defined	function	**setelement**	function
doifelsemessage	function	**setformat**	function
elements	data table	**setmacro**	function
floats	table	**setmessage**	function
formats	data table	**setmessages**	function
getmessage	function	**settranslation**	function
getnamespace	function	**setupstrings**	data table
getsetupstring	function	**setvariable**	function
hashedsetups	data table	**showmessage**	function
implement	function	**storedscanners**	data table
integers	table	**tolist**	function
interfacedcommand	function	**translations**	data table
interfaces	table	**usednamespaces**	data table
knownscanner	function	**variables**	data table
message	function	**writestatus**	function
nameofscanner	function		

io (basic lua)

ask	function	**output**	overloaded function
bytes	function	**pathseparator**	string
characters	function	**popen**	overloaded function
close	function	**read**	function
copydata	function	**readall**	function
exists	function	**readnumber**	function
fileseparator	string	**readstring**	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
newreader	function	**type**	function
noflines	function	**write**	function
open	overloaded function		

job (context)

comment	function		D tobesaved	
datasets	table		**parwrappers**	table
D collected			D collected	
F extend			D tobesaved	
F getdata			**passes**	table
F setdata			F check	
D tobesaved			D collected	
disablesave	function		F count	
embedded	table		F define	
D collected			F find	
D tobesaved			F first	
fileobjreferences	table		F get	
D collected			F getcollected	
D tobesaved			F getdata	
files	table		F getfield	
D collected			F gettobesaved	
F context			F inlist	
B forcerun			F last	
F run			F list	
D tobesaved			F save	
getrandomseed	function		F savetagged	
initialize	function		D tobesaved	
load	function		**positions**	table
loadother	function		F b_column	
objects	table		F b_region	
D collected			F c	
F get			D collected	
F number			F column	
F page			F columnofpos	
F save			F copy	
F set			F depth	
D tobesaved			F e_column	
pack	boolean		F e_region	
packversion	number		F enhance	
pagestates	table		F extra	
D collected			F get	
F countervalue			F getfree	
F extend			F gethpos	
F realpage			F getpos	
F realpageorder			F getreserved	
F setstate			F getrpos	

F	gettobesaved		F	settobesaved
F	getvpos		D	tobesaved
F	hangafter		F	upperleft
F	hangindent		F	upperright
F	height		F	used
F	hsize		F	whd
N	lastx		F	width
N	lasty		F	x
F	leftskip		F	xy
F	lowerleft		F	y
F	lowerright			
F	markregionbox			

register function

save function

structure table

- D collected
- T components
- T tobesaved
  - T branches
  - S name
  - S type

variables table

- D checksums
- D collected
- F getchecksum
- F makechecksum
- F restore
- F save
- F setchecksum
- D tobesaved

version number

F	n
F	onsamepage
F	overlapping
F	p
F	page
T	pagedata
F	paragraph
F	parindent
F	position
F	r
F	region
F	registerhandlers
F	replace
F	rightskip
F	set
F	setall
F	setregionbox
F	setspec

language (basic tex)

clean	function	**id**	function
clear_hyphenation	function	**new**	function
clear_patterns	function	**patterns**	function
current	function	**postexhyphenchar**	function
gethjcode	function	**posthyphenchar**	function
has_language	function	**preexhyphenchar**	function
hyphenate	function	**prehyphenchar**	function
hyphenation	function	**sethjcode**	function
hyphenationmin	function	**setwordhandler**	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	**setoptionhandler**	function
	F tex	**setsynonym**	function
	F traditional	**setwordhandler**	function
	F popmethod	**showdiscretionaries**	function
	F pushmethod	**transliteration**	table
	F setmethod		F define
	F setup		F handler
	F showhyphenationtrace		F set
	T traditional	**unload**	function
	F definefeatures	**urls**	table
	F gettrace		D characters
	F hyphenate		N lefthyphenmin
	F injecthyphens		D mapping
	F installmethod		B packslashes
	F lasttrace		N righthyphenmin
	F loadpatterns		F setcharacters
	F registerexception	**version**	number

visualizediscretionaries function
words table

F check
T data
F disable
F enable

T enablers
B enables
F found
F load
T methods
N threshold

layouts (context)

getcanvas	function	**status**	table
getpagedimensions	function	F isleftpage	
setupcanvas	function	F leftorrightpageaction	

lfs (extra lua)

attributes	overloaded function	**iswriteablefile**	function
chdir	overloaded function	**link**	overloaded function
currentdir	function	**mkdir**	overloaded function
dir	overloaded function	**mkdirs**	function
isdir	overloaded function	**modification**	function
isfile	overloaded function	**readlink**	function
isfound	function	**rmdir**	overloaded function
isreadabledir	function	**setexecutable**	function
isreadablefile	function	**symlink**	function
iswriteabledir	function	**touch**	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	**showerror**	function
html	table	**stripcss**	function
		tv	function
		type	function
		urlescape	function
		variable	function
		variables	table

html table
   F a
   F td
   F th
include function
inherited table
   S color-background-four
   S color-background-one
   S color-background-three
   S color-background-two
   S title
initialize function
inject function
lmxfile function

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	**setformatters**	function
categories	function	**setlogfile**	function
direct	function	**setmessenger**	function
disable	function	**setprocessor**	function
enable	function	**settarget**	function
finalactions	function	**settimedlog**	function
flush	function	**settranslations**	function
loggingerrors	function	**show**	function
messenger	function	**start_page_number**	function
new	function	**start_run**	function
newline	function	**starterrorlogging**	function
poptarget	function	**startfilelogging**	function
private	table	**status**	function
F enablepagetiming		**stop_page_number**	function
F getpagetiming		**stoperrorlogging**	function
pushtarget	function	**stopfilelogging**	function
registerfinalactions	function	**subdirect**	function
report	function	**subreport**	function
reporter	function	**texerrormessage**	function
setformats	function	**writer**	function

lpdf (context)

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

N NoRotate		F color_indirect	
N NoView		**formats**	data table
N NoZoom		**frombytes**	function
N Print		**fromeight**	function
N Printable		**frompdfdoc**	function
N ReadOnly		**fromsixteen**	function
N ToggleNoView		**getcatalog**	function
N auto		**getcompression**	function
N hidden		**getfontname**	function
N printable		**getfontobjectnumber**	function
T widgets		**getinfo**	function
N Comb		**getmatrix**	function
N CommitOnSelChange		**getmetadata**	function
N DoNotScroll		**getnofpages**	function
N DoNotSpellCheck		**getpageproperties**	function
N Edit		**getpagereference**	function
N FileSelect		**getpagetags**	function
N MultiLine		**getpos**	function
N NoExport		**getversion**	function
N NoToggleToOff		**getxformname**	function
N Password		**graycode**	function
N PopUp		**hasmatrix**	function
N PushButton		**id**	function
N Radio		**immediateobject**	function
N RadiosInUnison		**includeimage**	function
N ReadOnly		**injectors**	table
N Required		F bitmap	
N RichText		F jp2	
N Sort		F jpg	
N file		F png	
N fixed		**injectxmpinfo**	function
N nocheck		**insertxmpinfo**	function
N protected		**lastreferredpage**	function
N readonly		**layerreference**	function
N required		**limited**	function
N sorted		**linearshade**	function
N unavailable		**literal**	function
flushfonts	function	**majorversion**	function
flushgroup	function	**makenametree**	function
flushobject	function	**minorversion**	function
flushstreamfileobject	function	**nofpages**	function
flushstreamobject	function	**null**	function
fonts	table	**number**	function
F color_direct		**object**	function

objectcompresslevel	function		**setomitcharset**	function
pagereference	function		**setomitcidset**	function
patternstream	function		**setpageorder**	function
pdfcolor	function		**setpagetag**	function
pdftimestamp	function		**settime**	function
pdfvfimage	function		**setversion**	function
permitdetail	function		**shareobject**	function
print	function		**shareobjectreference**	function
procset	function		**spotcode**	function
protectresources	boolean		**stream**	function
rectangle	function		**string**	function
reference	function		**toeight**	function
registerannotation	function		**topdfdoc**	function
registerdestination	function		**tosixteen**	function
registerdocumentfinalizer	function		**transparency**	function
registerfont	function		**transparencycode**	function
registerpagefinalizer	function		**transparencygroups**	table
registerpattern	function		B none	
reserveobject	function		**transparencyvalue**	function
rgbcode	function		**unicode**	function
rotationcm	function		**usedcharacters**	table
setcompression	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		

lua (basic tex)

bytecode	table	**macros**	table
bytedata	data table	B enabled	
bytedone	table	F loaded	
callbytecode	function	F required	
delay	function	F reset	
finalize	function	F resolvestring	
firstbytecode	number	F resolving	
flush	function	F showdefinitions	
flushdelayed	function	**messages**	data table
get_functions_table	function	**newindex**	function
getbytecode	function	**newtable**	function
getcurrenttime	function	**numbers**	data table
getfunctionstable	overloaded function	**registercode**	function
getpreciseseconds	function	**registeredcodes**	function
getpreciseticks	function	**registerfinalizer**	function
getruntime	function	**registername**	function
getstacktop	function	**setbytecode**	function
getstartupfile	function	**setexitcode**	function
getversion	function	**startupfile**	string
lastbytecode	number	**version**	string

luatex (context)

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

lxml (context)

addindex	function		**first**	function
all	function		**flush**	function
applyfunction	function		**flushlinewise**	function
applyselectors	function		**flushsetups**	function
att	function		**flushspacewise**	function
attribute	function		~~**get_id**~~	~~function~~
badinclusions	function		**getid**	function
chainattribute	function		**getindex**	function
checkindex	function		**id**	function
collected	function		**idsplitter**	userdata
command	function		**include**	function
concat	function		**inclusion**	function
concatrange	function		**inclusions**	function
content	function		**index**	function
context	function		**inlineverbatim**	function
convert	function		**installsetup**	function
count	function		**last**	function
delete	function		**lastatt**	function
depth	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

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

math (basic lua)

abs	function	**min**	function
acos	function	**mininteger**	number
asin	function	**mod**	function
atan	function	**modf**	function
atan2	function	**odd**	function
ceil	function	**pi**	number
ceiling	function	**pow**	function
cos	function	**rad**	function
cosd	function	**random**	overloaded function
cosh	function	**randomseed**	function
deg	function	**round**	function
div	function	**setrandomseedi**	function
even	function	**sin**	function
exp	function	**sind**	function
floor	function	**sinh**	function
fmod	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
maxinteger	number		

mathematics (context)

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

md5 (extra lua)

HEX   function   **sum**   function
dec   function   **sumHEXA** function
hex   function   **sumhexa** function

metapost (context)

checkformat	function
cm	function
codes	table

N addto

N ampersand

N and

N assignment

N atleast

N begingroup

N btex

N capsule

N colon

N comma

N controls

N curl

N cycle

N declare

N def

N definedmacro

N delimiters

N endgroup

N equals

N etex

N everyjob

N exitif

N expandafter

N fi_or_else

N if

N input

N interim

N internal

N iteration

N join

N leftbrace

N leftbracket

N leftdelimiter

N let

N macrospecial

N maketext

N message

N mode

N newinternal

N nullary

N numeric

N of

N ofbinary

N outertag

N parametertype

N plus_or_minus

N primarybinary

N primarydef

N protection

N randomseed

N relax

N repeat_loop

N rightbrace

N rightbracket

N rightdelimiter

N runscript

N save

N scantokens

N scope

N secondarybinary

N secondarydef

N semicolon

N setbounds

N shipout

N show

N skip

N slash

N step

N stop

N str

N string

N tag

N tension

N tertiarybinary

N tertiarydef

N thingstoadd

N to

N unary

N undefinedcs

	N until	**includesvgbuffer**	function
	N void	**includesvgfile**	function
	N with	**installplugin**	function
	N within	**isobject**	function
	N write	**knownparameters**	table
colorinitializer	function	**lastlog**	string
convert	function	**load**	function
currentmpx	function	**maketext**	function
currentmpxstatus	function	**metafonts**	table
defaultformat	string	**metafun**	table
defaultinstance	string		F interpolate
defaultmethod	string		F topath
directrun	function	**mptopdf**	table
escaped	function		F convertmpstopdf
exectime	table		N nofconverted
extensiondata	data table		
filterclippath	function	**n**	number
flush	function	**nofruns**	number
flushers	table	**nofscriptruns**	function
	T pdf	**nvformat**	function
	F flushfigure	**pdfliterals**	function
	F startfigure	**pluginactions**	function
	F stopfigure	**popformat**	function
	F textfigure	**popscriptrunner**	function
	F tocomment	**popvariable**	function
flushnormalpath	function	**popvariables**	function
fonts	table	**preparetextextsdata**	function
	F define	**process**	function
format_number	function	**processing**	function
format_string	function	**processplugins**	function
formatnumber	function	**properties**	table
getbendtolerance	function	**pushformat**	function
getclippath	function	**pushscriptrunner**	function
getextensions	function	**pushvariable**	function
getextradata	function	**pushvariables**	function
gethashentries	function	**reducetogray**	boolean
getinstancenames	function	**registerscript**	function
getjobdata	function	**remappedtext**	function
getparameter	function	**remaptext**	function
getparameterset	function	**reporterror**	function
getstatistics	function	**reportsvgfonts**	function
gettext	function	**reset**	function
graphic	function	**resetlastlog**	function
graphic_base_pass	function	**resetplugins**	function
		run	function

runscript	function		F get	
scanparameters	function		F reset	
scripterror	function		F set	
scriptindex	function		F setfrombuffer	
setbendtolerance	function		**texerrors**	boolean
setextensions	function		**texexp**	function
setoutercolor	function		**theclippath**	function
setparameterset	function		**tographic**	function
settext	function		**totable**	function
setvariable	function		**types**	table
showlog	boolean		N boolean	
showsvgpage	function		N cmykcolor	
simple	function		N color	
splitprescript	function		N dependent	
startgraphic	function		N independent	
startsvghashing	function		N known	
stopgraphic	function		N numeric	
stopsvghashing	function		N pair	
svformat	function		N path	
svgcolorremapper	function		N pen	
svgfactors	table		N picture	
N %			N protodependent	
N bp			N string	
N cm			N structured	
N em			N suffixedmacro	
N ex			N tokenlist	
N in			N transform	
N mm			N unknownboolean	
N pc			N unknownpath	
N pt			N unknownpen	
N px			N unknownpicture	
svgglyphtomp	function		N unknownstring	
svgshapestomp	function		N unsuffixedmacro	
svgshapestopdf	function		N vacuous	
svgsplitcolor	function		**typesvgpage**	function
svgtomp	function		**unload**	function
svgtopdf	function		**untagvariable**	function
sxsy	function		**variables**	table
tex	table			

mime (extra lua)

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

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

mp (context)

autoinject	function	**direct3**	function
aux	table	**direct4**	function
F boolean		**disposehash**	function
F color		**draw**	function
F direct		**fill**	function
F direct1		**flatten**	function
F direct2		**flush**	function
F direct3		**format**	function
F direct4		**formatted**	function
F draw		**fprint**	function
F fill		**fromhash**	function
F flush		**get**	table
F fprint		F hashentry	
F integer		**graphformat**	function
F number		**inhash**	function
F numeric		**inject**	function
F pair		F boolean	
F pairpoints		F cmykcolor	
F path		F color	
F pathpoints		F integer	
F points		F number	
F print		F numeric	
F quadruple		F pair	
F quadruplepoints		F path	
F quoted		F quadruplet	
F size		F string	
F string		F transform	
F transform		F triplet	
F triplet		F whatever	
F tripletpoints		**integer**	function
F vprint		**isarray**	function
boolean	function	**isobject**	function
cleaned	function	**lmt_color_functions**	table
color	function	F shade	
dataset	function	F step	
datasets	function	**lmt_contours_bitmap_get**	function
F load		**lmt_contours_bitmap_set**	function
dimension	function	**lmt_contours_cleanup**	function
direct	function	**lmt_contours_color**	function
direct1	function	**lmt_contours_edge_get_band**	function
direct2	function	**lmt_contours_edge_get_cell**	function

lmt_contours_edge_paths	function	**mf_inject_blob**	function
lmt_contours_edge_set	function	**mf_map_move**	function
lmt_contours_edge_set_by_band	function	**mf_map_text**	function
lmt_contours_edge_set_by_cell	function	**mf_named_color**	function
lmt_contours_format	function	**mf_outline_text**	function
lmt_contours_function	function	**mf_save_data**	function
lmt_contours_maxmean	function	**mf_script_index**	function
lmt_contours_maxz	function	**mf_start_saving_data**	function
lmt_contours_minmean	function	**mf_stop_saving_data**	function
lmt_contours_minz	function	**mf_tb_dimensions**	function
lmt_contours_nofvalues	function	**mf_tt_dimensions**	function
lmt_contours_nx	function	**mf_tt_initialize**	function
lmt_contours_ny	function	**mode**	function
lmt_contours_range	function	**n**	function
lmt_contours_shade_paths	function	**newhash**	function
lmt_contours_shade_set	function	**number**	function
lmt_contours_shape_paths	function	**numeric**	function
lmt_contours_start	function	**pair**	function
lmt_contours_stop	function	**pairpoints**	function
lmt_contours_value	function	**path**	function
lmt_contours_xrange	function	**pathpoints**	function
lmt_contours_yrange	function	**points**	function
lmt_function_x	function	**positionanchor**	function
lmt_mesh_set	function	**positionbox**	function
lmt_mesh_update	function	**positioncurve**	function
lmt_poisson_generate	function	**positionpage**	function
lmt_surface_do	function	**positionpath**	function
lmt_svg_include	function	**positionpxy**	function
mf_blob_add	function	**positionregion**	function
mf_blob_dimensions	function	**positionwhd**	function
mf_blob_index	function	**positionxy**	function
mf_blob_new	function	**prefix**	function
mf_blob_raw_content	function	**print**	function
mf_blob_raw_dimensions	function	**processingmode**	function
mf_blob_raw_reset	function	**quadruple**	function
mf_blob_raw_toutf	function	**quadruplepoints**	function
mf_blob_raw_wipe	function	**quoted**	function
mf_blob_size	function	**report**	function
mf_blob_width	function	**scan**	table
mf_external_figure	function	F boolean	
mf_finish_saving_data	function	F cmykcolor	
mf_formatted_text	function	F color	
mf_get_outline_text	function	F expression	
mf_graphic_text	function	F integer	

	F next		**skip**		table
	F number			F token	
	F numeric		**solve**		function
	F pair		**string**		function
	F path		**systemmode**		function
	F pen		**texstr**		function
	F property		**texvar**		function
	F string		**tohash**		function
	F symbol		**transform**		function
	F token		**triplet**		function
	F transform		**tripletpoints**		function
set		table	**vprint**		function
size		function			

mplib (extra tex)

execute	function	**inject_whatever**	function
finder	function	**new**	overloaded function
finders	table	**pen_info**	function
F file		**propertycodes**	table
F mpstemplate		**realtimelogging**	boolean
finish	function	**scan_boolean**	function
get_tolerance	function	**scan_cmykcolor**	function
getcallbackstate	function	**scan_color**	function
getcodes	function	**scan_expression**	function
getfields	function	**scan_integer**	function
gethashentries	function	**scan_next**	function
gethashentry	function	**scan_number**	function
getstates	function	**scan_numeric**	function
getstatistics	function	**scan_pair**	function
getstatus	function	**scan_path**	function
gettype	function	**scan_pen**	function
gettypes	function	**scan_property**	function
inject_boolean	function	**scan_string**	function
inject_cmykcolor	function	**scan_symbol**	function
inject_color	function	**scan_token**	function
inject_integer	function	**scan_transform**	function
inject_number	function	**set_tolerance**	function
inject_numeric	function	**showcontext**	function
inject_pair	function	**skip_token**	function
inject_path	function	**solve_path**	function
inject_string	function	**version**	function
inject_transform	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 unstack
- F variants

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

processouter   function

node (basic tex)

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

F addmargins
F addxoffset
F addxymargins
F addyoffset
F check_discretionaries
F check_discretionary
F copy
F copy_list
F copy_only
F count
F current_attributes
F dimensions
F effective_glue
F end_of_math
F exchange
F fields
F find_attribute
F find_attribute_range
F find_node
F first_glyph
F flatten_discretionaries
F flush_list
F flush_node
F free
F get_attribute
F get_attributes
F get_properties_table
F get_synctex_fields
F getattributelist
F getboth
F getbox
F getchar
F getdata

F getdepth
F getdirection
F getdisc
F getdiscpart
F getexpansion
F getfam
F getfield
F getfont
F getglue
F getglyphdata
F getglyphdimensions
F getheight
F getid
F getindex
F getkern
F getkerndimension
F getlanguage
F getleader
F getlist
F getnext
F getnormalizedline
F getnucleus
F getoffsets
F getoptions
F getorientation
F getparstate
F getpenalty
F getpost
F getpre
F getprev
F getproperty
F getreplace
F getscale
F getscales
F getscript
F getshift
F getstate
F getsub
F getsubpre
F getsubtype
F getsup

```
F getsuppre                              F set_attribute
F gettotal                               F set_attributes
F getwhd                                 F set_synctex_fields
F getwidth                               F setattributelist
F getxscale                              F setboth
F getxyscales                            F setbox
F getyscale                              F setchar
F has_attribute                          F setdata
F has_dimensions                         F setdepth
F has_field                              F setdirection
F has_glyph                              F setdisc
F has_glyph_option                       F setdiscpart
F hpack                                  F setexpansion
F hyphenating                            F setfam
F id                                     F setfield
F ignore_math_skip                       F setfont
F insert_after                           F setglue
F insert_before                          F setglyphdata
F is_char                                F setheight
F is_direct                              F setindex
F is_glyph                               F setkern
F is_next_char                           F setlanguage
F is_next_glyph                          F setleader
F is_node                                F setlink
F is_prev_char                           F setlist
F is_prev_glyph                          F setnext
F is_valid                               F setnucleus
F is_zero_glue                           F setoffsets
F kerning                                F setoptions
F last_node                              F setorientation
F length                                 F setpenalty
F ligaturing                             F setpost
F make_extensible                        F setpre
F migrate                                F setprev
F mlist_to_hlist                         F setproperty
F naturalhsize                           F setreplace
F naturalwidth                           F setscales
F new                                    F setscript
F protect_glyph                          F setshift
F protect_glyphs                         F setsplit
F protrusion_skippable                   F setstate
F rangedimensions                        F setsub
F remove                                 F setsubpre
F reverse                                F setsubtype
```

F	setsup	**get_attribute**	function
F	setsuppre	**get_glue**	function
F	settotal	**get_properties_table**	function
F	setwhd	**getfield**	function
F	setwidth	**getproperty**	function
F	show	**has_attribute**	function
F	slide	**has_field**	function
F	start_of_par	has_glyph	function
F	subtypes	hpack	function
F	tail	hyphenating	function
F	todirect	**id**	function
F	tonode	**insert_after**	function
F	tostring	**insert_before**	function
F	tovaliddirect	**instock**	function
F	traverse	**inuse**	function
F	traverse_char	**is_node**	function
F	traverse_content	is_zero_glue	function
F	traverse_glyph	kerning	function
F	traverse_id	last_node	function
F	traverse_list	length	function
F	type	ligaturing	function
F	types	make_extensible	function
F	unprotect_glyph	mlist_to_hlist	function
F	unprotect_glyphs	**new**	function
F	unset_attribute	protect_glyph	function
F	unset_attributes	protect_glyphs	function
F	usedlist	protrusion_skippable	function
F	uses_font	rangedimensions	function
F	values	**remove**	function
F	vertical_break	**set_attribute**	function
F	vpack	set_glue	function
F	write	**setfield**	function
F	xscaled	**setproperty**	function
F	yscaled	**show**	function
effective_glue	function	slide	function
end_of_math	function	**subtypes**	function
family_font	function	**tail**	function
fields	function	tostring	function
find_attribute	function	**traverse**	function
first_glyph	function	**traverse_id**	function
flatten_discretionaries	function	**type**	function
flush_list	function	**types**	function
flush_node	function	unprotect_glyph	function
free	function	unprotect_glyphs	function

unset_attribute	function	**values**	function
usedlist	function	**vpack**	function
uses_font	function	**write**	function

nodes (context)

accentcodes	data table	**fillvalues**	data table
aligned	function	**firstcharacter**	function
append	function	**firstcharinbox**	function
apply	function	**firstdirinbox**	function
applyvisuals	function	**flush**	function
astable	function	**flush_list**	function
basepoints	function	**flush_node**	function
boundarycodes	data table	**fullhpack**	function
boxes	table	**get_attribute**	function
F dimensions		**get_properties_table**	function
F direct		**getattr**	function
F found		**getattribute**	function
F reset		**getboth**	function
F restore		**getbox**	function
F save		**getchar**	function
F savenode		**getfield**	function
builders	table	**getfont**	function
F buildpage_filter		**getid**	function
F vpack_filter		**getleader**	function
concat	function	**getlist**	function
copy	function	**getnext**	function
copy_list	function	**getprev**	function
copy_node	function	**getproperty**	function
countall	function	**getsubtype**	function
current_attributes	function	**gluecodes**	data table
delete	function	**glyphcodes**	data table
destinations	table	**handlers**	table
N attribute		F accessibility	
T done		F backgrounds	
F handler		F backgroundspage	
T stack		F backgroundsvbox	
dircodes	data table	F characters	
directioncodes	data table	F checkglyphs	
directionvalues	data table	F checkparcounter	
dirvalues	data table	F cleanuppage	
disccodes	data table	F export	
discretionarycodes	data table	F finalizebox	
fencecodes	data table	F flatten	
fields	function	F flattenline	
fieldtypes	table	F migrate	
fillcodes	data table	F protectglyphs	

F show			F define	
F showhyphenation			F enable	
F stripping			F filler	
F textbackgrounds			F handler	
F unprotectglyphs		**lines**		table
F visualizehyphenation		T boxed		
F wipe		F addlinenumbers		
has_attribute	function	F register		
has_field	function	F setup		
hpack	function	D data		
idsandsubtypes	function	F finalize		
idstostring	function	F number		
injections	table	**link**		function
F copy		**linked**		function
F getligaindex		**list**		function
F getthreshold		**listcodes**		data table
F handler		**listtoutf**		function
F installgetspaceboth		**literalvalues**		data table
F installnewkern		**locate**		function
F isspace		**markers**		table
F keepcounts		F get		
F reset		**mathcodes**		data table
F resetcounts		**maxboxwidth**		function
F setcursive		**migrations**		table
F setkern		F setinserts		
F setligaindex		F setmarks		
F setmark		**new**		function
F setmove		**noadcodes**		data table
F setposition		**noadoptions**		table
F setspacekerns		N axis		
insert_after	function	N exact		
insert_before	function	N left		
insert_list_after	function	N middle		
installattributehandler	function	N no_axis		
is_direct	function	N right		
is_display_math	function	N set		
is_node	function	N unused_1		
is_nut	function	N unused_2		
kerncodes	data table	**nodecodes**		data table
keys	table	**nopts**		function
T whatsit		**nuts**		table
leftmarginwidth	function	F addmargins		
linefillers	table	F addxoffset		
D data		F addxymargins		

F addyoffset	F getboth
F append	F getbox
F apply	F getboxglue
F applyvisuals	F getchar
F check_discretionaries	F getcomponents
T colors	F getdata
F set	F getdepth
F concat	F getdirection
F copy	F getdisc
F copy_list	F getdiscpart
F copy_no_components	F getdiscretionary
F copy_node	F getexpansion
F copy_only	F getfam
F copy_only_glyphs	F getfield
F copy_properties	F getfont
F copyvisual	F getglue
F count	F getglyphdata
F count_components	F getglyphdimensions
F countall	F getheight
F current_attributes	F getid
F delete	F getkern
F dimensions	F getkerndimension
F dirdimensions	F getlang
F effective_glue	F getlanguage
F end_of_math	F getleader
F exchange	F getlist
F find_attribute	F getnext
F first_glyph	F getnormalizedline
F firstcharacter	F getnucleus
F firstcharinbox	F getoffsets
F firstglyph	F getoptions
F flatten_discretionaries	F getorientation
F flush	F getpenalty
F flush_components	F getpost
F flush_list	F getpre
F flush_node	F getprev
F free	F getprop
F fullhpack	F getreplace
F get_components	F getruledata
F getattr	F getscale
F getattribute	F getscales
F getattributelist	F getscript
F getattrlist	F getshift
F getattrs	F getstate

F getsub	F mlist_to_hlist
F getsubpre	F naturalhsize
F getsubtype	F naturalwidth
F getsup	F nestedtracedslide
F getsuppre	F new
F getsurround	T pool
F getsynctexfields	F accent
F gettotal	F baselineskip
F getvalue	F boundary
F getwhd	F choice
F getwidth	F cleanup
F getxscale	F delim
F getxyscales	F delimiter
F getyscale	F direction
F has_attribute	F directliteral
F has_dimensions	F disc
F has_field	F emptyrule
F has_glyph	F fence
F has_glyph_option	F fontkern
F hpack	F fraction
F hyphenating	F glue
F insert_after	F gluespec
F insert_before	F glyph
F insert_list_after	F hlist
F is_display_math	F indentskip
F is_node	F italickern
F is_nut	F kern
F is_zero_glue	F latelua
F ischar	F leader
F isdone	F lefthangskip
F isglyph	F leftmarginkern
F isnextchar	F leftskip
F isnextglyph	F lineskip
F isprevchar	F literal
F isprevglyph	F mathchar
F kerning	F mathtextchar
F last_node	F negatedglue
F leftmarginwidth	F noad
F length	F originliteral
F ligaturing	F outlinerule
F link	F pageliteral
F linked	F penalty
F locate	F radical
F migrate	F rawliteral

F register	F mp
F restore	F stroke
F righthangskip	F userrule
F rightmarginkern	F set_attribute
F rightskip	F set_components
F rule	F setattr
F save	F setattribute
F savepos	F setattributelist
F setmatrix	F setattributes
F setstate	F setattrlist
F shrink	F setattrs
F startrotation	F setboth
F stock	F setbox
F stretch	F setboxglue
F subbox	F setchar
F submlist	F setcomponents
F temp	F setdata
F usage	F setdepth
F userdefined	F setdirection
T userids	F setdisc
F usernode	F setdiscpart
F userrule	F setdiscretionary
F vlist	F setexpansion
F wordboundary	F setfam
F prepend	F setfield
F processranges	F setfont
F processwords	F setglue
F protect_glyph	F setglyphdata
F protect_glyphs	F setheight
F protrusion_skippable	F setkern
F rangedimensions	F setlang
F rawprop	F setlanguage
F reference	F setleader
F rehpack	F setlink
F remove	F setlist
F repackhlist	F setnext
F replace	F setnucleus
F reverse	F setoffsets
F rightmarginwidth	F setoptions
T rules	F setorientation
T ruleactions	F setparproperty
F box	F setpenalty
F draw	F setpost
F fill	F setpre

F setprev	F traverse_glyph
F setprop	F traverse_id
F setreplace	F traverse_list
F setruledata	T traversers
F setscale	F boundary
F setscales	F char
F setscript	F content
F setshift	F dir
F setsplit	F disc
F setstate	F glue
F setsub	F glyph
F setsubpre	F hlist
F setsubtype	F list
F setsup	F next
F setsuppre	F node
F setsurround	F vlist
F setsynctexfields	F whatsit
F setunsetattributes	T typesetters
F setvalue	F tohbox
F setvisual	F tohpack
F setvisuals	F tonodes
F setwhd	F tovbox
F setwidth	F tovpack
F show	F unprotect_glyph
F slide	F unprotect_glyphs
F somepenalty	F unset_attribute
F somespace	F unset_attributes
F splitbox	F unsetattribute
F start_of_par	F unsetattributes
F striprange	F untracedslide
F tail	F usedlist
F takeattr	F uses_font
F takebox	F vianodes
F takelist	F vianuts
F theprop	F vpack
F tonode	F write
F tonodes	F xscaled
F tonut	F yscaled
F tosequence	
F tostring	
F tracedslide	
F traverse	
F traverse_char	
F traverse_content	

packlist	function
parcodes	data table
penaltycodes	data table
plugindata	table
F finalizer	
F initializer	

S name		N attribute	
T namespace		T done	
N attribute		F handler	
D data		T stack	
F enable		**rehpack**	function
F handler		**remove**	function
F register		**repackhlist**	function
D registered		**replace**	function
D values		**report**	function
F processor		**rightmarginwidth**	function
points	function	**rulecodes**	data table
pool	table	**rules**	table
F baselineskip		D data	
F cleanup		F define	
F directliteral		F enable	
F glyph		F handler	
F hlist		F process	
F latelua		F userrule	
F lineskip		**serialize**	function
F literal		**serializebox**	function
F originliteral		**set_attribute**	function
F register		**setattr**	function
F restore		**setattribute**	function
F rule		**setattributes**	function
F save		**setboth**	function
F savepos		**setbox**	function
F setmatrix		**setboxtonaturalwd**	function
F stock		**setchar**	function
F usage		**setfield**	function
F vlist		**setfont**	function
prepend	function	**setleader**	function
print	function	**setlink**	function
processors	table	**setlist**	function
F contribute_filter		**setnext**	function
B enabled		**setprev**	function
F hpack_filter		**setproperty**	function
F post_linebreak_filter		**setunsetattributes**	function
F pre_linebreak_filter		**shifts**	table
F tracer		D data	
properties	table	F define	
T data		F enable	
pts	function	F handler	
radicalcodes	data table	**showboxes**	function
references	table	**showlist**	function

showsimplelist	function		**tonodes**	function
skipcodes	data table		**tonut**	function
snapshots	table		**topicas**	function
F getsamples			**topoints**	function
F resetsamples			**toscaledpoints**	function
F takesample			**tosequence**	function
somepenalty	function		**tostring**	function
somespace	function		**totable**	function
specialskipcodes	table		**totree**	function
splitbox	function		**toutf**	function
start_of_par	function		**tracers**	table
stripdiscretionaries	function		T colors	
stripping	table		F reset	
T glyphs			F set	
F set			F setlist	
subtypes	data table		F directions	
tail	function		F fontchar	
takeattr	function		T frequencies	
takebox	function		F register	
tasks	table		T pool	
F actions			T nodes	
F appendaction			F rule	
F disableaction			T nuts	
F disablegroup			F rule	
F enableaction			F resetproperties	
F enablegroup			F rule	
F freeze			F setlist	
F freezegroup			F setproperties	
F new			F start	
F prependaction			T steppers	
F removeaction			F check	
F replaceaction			F codes	
F restart			F features	
F setaction			F font	
F showactions			F glyphs	
F table			F message	
tobasepoints	function		F messages	
tocentimeters	function		F nofsteps	
tociceros	function		F register	
todidots	function		F reset	
todimen	function		F start	
toinches	function		F stop	
tomillimeters	function		F stop	
tonode	function		T transparencies	

	F reset	**vianodes**	function
	F set	**vianuts**	function
	F setlist	**visualizebox**	function
traverse	function	**visualizers**	table
traverse_id	function	F attribute	
typesetters	table	T attributes	
F hbox		F box	
F hpack		F handler	
F tohbox		F markfonts	
F tohpack		F register	
F tonodes		F setfont	
F tovbox		F setlayer	
F tovpack		F setruledglyph	
F vpack		F setvisual	
unset_attribute	function	**vpack**	function
unsetattribute	function	**whatsitcodes**	data table
unsetattributes	function	**write**	function
usedlist	function		

number (context)

	function	**to16dot16**	function
basepoints	function	**tobasepoints**	function
bytetodecimal	function	**tobitstring**	function
compactfloat	function	**tocentimeters**	function
decimaltobyte	function	**tociceros**	function
dimenfactors	data table	**tocontext**	function
formatted	function	**todidots**	function
formattedfloat	function	**todimen**	function
idiv	function	**toevenhex**	function
maxdimen	number	**toinches**	function
nopts	function	**tomillimeters**	function
nubasepoints	function	**tonumberf**	function
nupoints	function	**tonumberg**	function
percent	function	**topicas**	function
points	function	**topoints**	function
pts	function	**toscaled**	function
signed	function	**toscaledpoints**	function
sparseexponent	function	**valid**	function
splitdimen	function		

objects (context)

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

optional (context)

curl   table
- F escape
- F fetch
- F getversion
- F initialize
- F unescape

foreign   table
- F abivalues
- F initialize
- F load
- F totable
- F types

ghostscript   table
- F execute
- F initialize

graphicsmagick   table
- F execute
- F initialize

kpse   table
- F expand_braces
- F expand_path
- F expand_var
- F find_file
- F find_files
- F get_file_types
- F initialize
- F readable_file
- F set_program_name
- F var_value

loaded   table
mujs   table

- F dofile
- F execute
- F initialize
- F reset
- F setclosefile
- F setconsole
- F setfindfile
- F setopenfile
- F setreadfile
- F setseekfile

mysql   table
- F close
- F execute
- F getmessage
- F initialize
- F open

postgress   table
- F close
- F execute
- F getmessage
- F initialize
- F open

sqlite   table
- F close
- F execute
- F getmessage
- F initialize
- F open

zint   table
- F execute
- F initialize

os (basic lua)

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

package (basic lua)

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

immediateobj function

pdfe (extra tex)

arraytotable	function	**getnumber**	function
close	function	**getpage**	function
closestream	function	**getpages**	function
dictionarytotable	function	**getsize**	function
encryptioncodes	data table	**getstatus**	function
getarray	function	**getstream**	function
getboolean	function	**getstring**	function
getbox	function	**gettrailer**	function
getcatalog	function	**getversion**	function
getdictionary	function	**new**	function
getfromarray	function	**objectcodes**	data table
getfromdictionary	function	**open**	function
getfromreference	function	**openfile**	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
getnofpages	function		

physics (context)

units table   D tables

    F registerunit

pngdecode (extra tex)

applyfilter	function		**splitmask**	function
expand	function		**tocmyk**	function
interlace	function			

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		
N steps		
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			F lua	
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		

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

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	**findtexfile**	function
appendhash	function	**findwildcardfile**	function
automount	function	**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
dangerous	data table	**getfilehashes**	function
datastate	function	**gethashes**	function
defaultsuffixes	table	**getownpath**	function
dirstatus	function	**getreadfilename**	function
dowithfilesandreport	function	**hashers**	data table
dowithfilesintree	function	**homedir**	string
dowithpath	function	**initialized**	function
dowithvariable	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	**libraries**	table
finders	data table	F optionalloaded	
findfile	function	F validoptional	
findfiles	function	**load**	function
findgivenfile	function	**loadbinfile**	function
findgivenfiles	function	**loaders**	data table
findlib	function	**loadlualib**	function
findpath	function	**loadtexfile**	function

loadtime	function	**resetresolve**	function
locateformat	function	**resolve**	function
locators	data table	**savers**	data table
luacnffallback	string	**scandata**	function
luacnfname	string	**scanfiles**	function
luacnfspec	string	**schemes**	table
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 processmklx		**setdynamic**	function
F processmkvi		**setenv**	function
F version		**showpath**	function
maxreadlevel	number	**simplescanfiles**	function
methodhandler	function	**splitconfigurationpath**	function
openbinfile	function	**splitexpansions**	function
openers	data table	**splitmethod**	function
openfile	function	**splitpath**	function
opentexfile	function	**stackpath**	function
ownpath	string	**starttiming**	function
popextrapath	function	**stoptiming**	function
popinputname	function	**suffixes**	data table
poppath	function	**suffixmap**	data table
prefixes	data table	**suffixofformat**	function
prependhash	function	**texdatablob**	function
pushextrapath	function	**toppath**	function
pushinputname	function	**unexpandedpath**	function
pushpath	function	**unexpandedpathlist**	function
registerextrapath	function	**unresolve**	function
registerfile	function	**updaterelations**	function
registerfilehash	function	**updatescript**	function
registerintrees	function	**uselibrary**	function
registermethod	function	**usertypes**	data table
registerzipfile	function	**usezipfile**	function
relations	data table	**validatedpath**	function
renew	function	**variable**	function
renewcache	function	**variableofformat**	function
repath	function	**variableofformatorsuffix**	function
reset	function	**wildcardpattern**	function
resetextrapaths	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
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
getdata function
getinjector function
getsplitter function
getstatus function

handlers data table
hash table
injectors data table
inserters table
    F nobreakspace_after
    F nobreakspace_before
    F space_after
    F space_before
    F zerowidthspace_after
    F zerowidthspace_before
installdataset function
installmethod function
numbertodataset data table
numbertohandler data table
reset function
set function
setstatus function
splitters data table

set (context)

contains	function	**tonumber**	function
create	function	**totable**	function
tolist	function		

sha2 (extra lua)

HASH256	function	**hash256**	function
HASH384	function	**hash384**	function
HASH512	function	**hash512**	function
HEX256	function	**hex256**	function
HEX384	function	**hex384**	function
HEX512	function	**hex512**	function
digest256	function	**sum256**	function
digest384	function	**sum384**	function
digest512	function	**sum512**	function

sio (extra lua)

read2dot14	function	**readfixed2**	function
readbytes	function	**readfixed4**	function
readbytetable	function	**readinteger1**	function
readcardinal1	function	**readinteger1le**	function
readcardinal1le	function	**readinteger2**	function
readcardinal2	function	**readinteger2le**	function
readcardinal2le	function	**readinteger3**	function
readcardinal3	function	**readinteger3le**	function
readcardinal3le	function	**readinteger4**	function
readcardinal4	function	**readinteger4le**	function
readcardinal4le	function	**readintegertable**	function
readcardinaltable	function		

socket (extra lua)

BLOCKSIZE	number	S	content-md5
_DATAGRAMSIZE	number	S	content-range
_SETSIZE	number	S	content-transfer-encoding
_SOCKETINVALID	number	S	content-type
bind	function	S	cookie
choose	function	S	date
connect	function	S	diagnostic-code
connect4	function	S	dsn-gateway
connect6	function	S	etag
dns	table	S	expect
F getaddrinfo		S	expires
F gethostname		S	final-log-id
F getnameinfo		S	final-recipient
F tohostname		S	from
F toip		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 cc		S	proxy-authenticate
S comments		S	proxy-authorization
S connection		S	range
S content-description		S	received
S content-disposition		S	received-from-mta
S content-encoding		S	references
S content-id		S	referer
S content-language		S	remote-mta
S content-length		S	reply-to
S content-location		S	reporting-mta

	S	resent-bcc	**protect**	function
	S	resent-cc	**report**	function
	S	resent-date	**select**	function
	S	resent-from	**sink**	function
	S	resent-message-id	**sinkt**	table
	S	resent-reply-to	F close-when-done	
	S	resent-sender	F default	
	S	resent-to	F http-chunked	
	S	retry-after	F keep-open	
	S	return-path	**skip**	function
	S	sender	**sleep**	function
	S	server	**source**	function
	S	smtp-remote-recipient	**sourcet**	table
	S	status	F by-length	
	S	subject	F default	
	S	te	F http-chunked	
	S	to	F until-closed	
	S	trailer	**tcp**	function
	S	transfer-encoding	**tcp4**	function
	S	upgrade	**tcp6**	function
	S	user-agent	**tp**	table
	S	vary	N TIMEOUT	
	S	via	F connect	
	S	warning	**try**	function
	S	will-retry-until	**udp**	function
	S	www-authenticate	**udp4**	function
	S	x-mailer	**udp6**	function
	F	lower	**url**	table
	F	normalize	F absolute	
http		table	F build	
	N	TIMEOUT	F build_path	
	S	USERAGENT	F escape	
	F	genericform	F parse	
	F	open	F parse_path	
	F	request	F unescape	
newtry		function		

sorters (context)

basicsorter   function
comparers   table
  F basic
constants   table
  S defaultdigits
  S defaultlanguage
  S defaultmethod
  N digitsmaximum
  N digitsoffset
  N ignoredoffset
  N replacementoffset
  T validmethods
   B ch
   B mc
   B mm
   B pc

   B pm
   B uc
   B zc
   B zm
definitions   data table
firstofsplit   function
packch   function
packuc   function
replacementlist function
setlanguage   function
sort   function
splitters   table
  F utf
strip   function
tracers   data table
update   function

statistics (context)

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

status (basic tex)

getbufferstate	function	**getmarksstate**	function
getcallbackstate	function	**getneststate**	function
getconstants	function	**getnodestate**	function
geterrorlinestate	function	**getparameterstate**	function
geterrorstate	function	**getpoolstate**	function
getexpandstate	function	**getreadstate**	function
getextrastate	function	**getsavestate**	function
getfilestate	function	**getsparsestate**	function
getfontstate	function	**getstringstate**	function
gethalferrorlinestate	function	**gettexstate**	function
gethashstate	function	**gettokenstate**	function
getinputstate	function	**getwarningstate**	function
getlanguagestate	function	**iocodes**	table
getlookupstate	function	**list**	function
getluastate	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	**nspaces**	table
autosingle	function	**optionalquoted**	function
booleanstring	function	**pack**	function
byte	function	**packsize**	function
bytepairs	function	**quote**	function
bytes	function	**quoted**	function
bytetable	function	**rep**	function
char	function	**replacenewlines**	function
characterpairs	function	**reverse**	function
characters	function	**split**	function
checkedsplit	function	**splitlines**	function
collapsespaces	function	**splitup**	function
containsws	function	**strip**	function
count	function	**sub**	function
dawson	function	**tformat**	function
dump	function	**toHEX**	function
erf	function	**toboolean**	function
erfc	function	**tobytes**	function
erfcx	function	**tocontext**	function
erfi	function	**todec**	function
escapedpattern	function	**todimen**	function
escapedquotes	function	**tohex**	function
explode	function	**tonodes**	function
f6	function	**topattern**	function
find	function	**totable**	function
format	function	**tounicode16**	function
formatter	function	**toutf**	function
formatters	function	**toutf32**	function
fullstrip	function	**toutf8**	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
linetable	function	**utfcharacters**	function
longtostring	function	**utfcharactertable**	function
lower	function	**utflength**	function
match	function	**utfpadd**	function
nospaces	function	**utfpadding**	function

utfvalue	function		**valid**	function
utfvalues	function		**voigt**	function
utfvaluetable	function		**voigt_hwhm**	function

structures (context)

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

F touserdata		F reordered	
inserts	table	T result	
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	F uservalue	
lists	table	**marks**	table
F addto		D data	
F analyze		F define	
B autoreorder		F exists	
D cached		F fetch	
D collected		F fetchallmarks	
F discard		F fetched	
F enhance		F fetchonemark	
T enhancers		F fetchtwomarks	
F filter		F get	
F formulanumber		F number	
F getresult		F relate	
F groupindex		F reset	
F hasnumberdata		F set	
F haspagedata		F show	
F hastitledata		F synchronize	
F iscached		F title	
D kinds		T tracers	
F label		F showtable	
F location		**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	listindex	F	expandcurrent
D	numbers	F	export
F	ordered	T	files
F	postpone	T	data
F	resetpostponed	F	define
F	restore	F	found
F	save	F	get
F	setstate	F	filter
D	states	F	filterdefault
F	store	D	filters
pages	table	D	flaginternals
F	allmarked	F	from
F	analyze	D	functions
D	collected	F	get
F	fraction	F	getcurrentmetadata
F	has_changed	F	getcurrentprefixspec
F	in_body	F	getinnermethod
F	is_odd	F	getinternalcachedlistreference
F	mark	F	getinternallistreference
F	marked	F	getinternalreference
F	markedlist	F	getoutermethod
N	nofpages	D	handlers
F	number	F	identify
F	on_right	F	import
F	save	F	inject
D	tobesaved	F	injectcurrentset
F	toranges	S	innermethod
references	table	D	internals
F	analyze	F	load
F	checkedfile	F	loadpresets
F	checkedfileorurl	F	mark
F	checkedprogram	S	outermethod
F	checkedrealpage	D	pages
F	checkedurl	U	prefixsplitter
D	collected	D	productdata
U	componentsplitter	T	programs
F	currentmetadata	T	data
F	currentorder	F	define
D	currentset	F	get
F	define	F	realpageofpage
D	defined	U	referencesplitter
D	derived	D	referred
F	enhance	F	referredpage
D	executers	F	registerfinalizer

F registerinitializer	D collected
F registerpage	F compare
F reset	F define
D runners	F enhance
F set	F extend
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
F special	
F special operation	**sections** table
F special operation with arguments	F autodepth
T testspecials	F cct
F deltapage	D collected
F i	F current
F internal	F currentblock
F page	F currentid
F realpage	F currentlevel
F section	F currentsectionindex
F userpage	F depthnumber
D tobereferred	F finddata
D tobesaved	F findnumber
D tracedpages	F fullnumber
T urls	F getcurrentlevel
T data	F getlevel
F define	F getnumber
F found	F internalreference
F get	D levelmap
F untex	D levels
D usedinternals	F matchingtilldepth
D usedviews	F numberatdepth
F valid	F numbers
registers table	F popblock
F analyze	F prefixedconverted
	F pushblock

F register			F register	
D registered			F registershown	
F reportstructure			F registerused	
F save			F resetshown	
T sectionblockdata			F resetused	
T bodypart			F sort	
S bookmark			F synonym	
F set			D tobesaved	
F setblock		**tags**		table
F setchecker		T backend		
F setentry		T checks		
F setinitialblock		F marginanchor		
F setlevel		F margintext		
F setnumber		F math		
F showstructure		F mrow		
F structuredata		F mtable		
F title		T destinationhash		
D tobesaved		T extras		
F typesetnumber		F adddestination		
F userdata		F addimplicit		
B verbose		F addinternal		
sets	table	F addreference		
F define		F combination		
F get		F delimitedsymbol		
F getall		F description		
D setlist		F descriptionsymbol		
specials	table	F document		
D collected		F float		
F retrieve		F formulacontent		
F store		F image		
D tobesaved		F item		
synonyms	table	F itemgroup		
F analyzed		F link		
D collected		F listitem		
F compare		F mi		
F define		F msub		
F filter		F msup		
F finalize		F paragraph		
F flush		F publication		
F isshown		F reference		
F isused		F registerlocation		
F meaning		F registerpages		
F prepare		F registerseparator		
F process		F section		

```
  F sorting                              F registerextradata
  F subsentencesymbol                    F registermetadata
  F synonym                              F restart
  F tablecell                            F setaspect
  F tabulate                             F setattributehash
  F tabulatecell                         F setcombination
T finalizers                             F setconstruct
  F descriptions                         F setfigure
T fixes                                  F setfloat
  F linenumber                           F setformulacontent
T listdata                               F sethighlight
T referencehash                          F setitem
  F setattribute                         F setitemgroup
T usedimages                             F setlist
  T image                                F setnotation
T usedstyles                             F setnotationsymbol
  T construct                            F setparagraph
  T highlight                            F setproperty
F current                                F setpublication
F elementtag                             F setregister
F finishexport                           F setsorting
F getextradata                           F setsynonym
F getid                                  F settablecell
F getmetadata                            F settabulatecell
F gettablecell                           F settagdelimitedsymbol
F gettabulatecell                        F settagsubsentencesymbol
F handler                                F setupexport
F initializeexport                       F setuserproperties
D labels                                 D specifications
F last                                   F start
F lastinchain                            F stop
F locatedtag                             F strip
T patterns                               D taglist
  U splitter                             T usewithcare
D properties
```

table (basic lua)

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

tex (basic tex)

attribute	table	**getcount**	function
badness	function	**getdelcode**	function
box	table	**getdelcodes**	function
boxresources	table	**getdimen**	function
F getbox		**getdimensionvalue**	function
F getdimensions		**geterrorvalues**	function
F save		**getflagvalues**	function
F use		**getfontoffamily**	function
catcode	table	**getfrozenparvalues**	function
chardef	function	**getglue**	function
conditionals	data table	**getglyphdata**	function
constants	data table	**getglyphoptionvalues**	function
count	table	**getglyphscript**	function
cprint	function	**getglyphstate**	function
ctdcatcodes	number	**getgroupvalues**	function
ctxcatcodes	number	**gethelptext**	function
definefont	function	**gethyphenationvalues**	function
delcode	table	**getintegervalue**	function
dimen	table	**getinteraction**	function
dimensiondef	function	**getiovalues**	function
directives	data table	**getlargestusedmark**	function
enableprimitives	function	**getlccode**	function
error	function	**getlinedir**	function
experiments	data table	**getlist**	function
extraprimitives	function	**getlocallevel**	function
fatalerror	function	**getmark**	function
flagcodes	data table	**getmath**	function
fontidentifier	function	**getmathcode**	function
fontname	function	**getmathcodes**	function
forcehmode	function	**getmathdir**	function
forcesynctexline	function	**getmodevalues**	function
forcesynctextag	function	**getmuglue**	function
fprint	function	**getmuskip**	function
frozenparcodes	data table	**getnest**	function
get	function	**getnormalizevalues**	function
getattribute	function	**getoutputactive**	function
getbox	function	**getpagestate**	function
getboxdir	function	**getparbegin**	function
getboxresourcebox	function	**getparcontext**	function
getboxresourcedimensions	function	**getpardir**	function
getcatcode	function	**getprimitiveorigins**	function

getrunstatevalues	function	N vertical	
getsfcode	function	**modes**	data table
getskip	function	**mprint**	function
getsynctexline	function	**muglue**	table
getsynctexmode	function	**muskip**	table
getsynctextag	function	**nest**	table
gettextdir	function	**nilcatcodes**	number
gettoks	function	**normalizecodes**	data table
getuccode	function	**notcatcodes**	number
glue	table	**number**	function
glyphoptioncodes	data table	**poplocal**	function
groupcodes	data table	**primitives**	function
hashtokens	function	**print**	function
hyphenationcodes	data table	prtcatcodes	number
ifs	data table	**pushlocal**	function
inicatcodes	number	**quitlocal**	function
integerdef	function	quittoks	function
isattribute	function	**resetparagraph**	function
isbox	function	rlncatcodes	number
iscount	overloaded function	**romannumeral**	function
isdefined	function	**round**	function
isdimen	overloaded function	**runlocal**	function
isglue	function	**runtoks**	function
ismuglue	function	**saveboxresource**	function
ismuskip	overloaded function	**scale**	function
isprintable	function	**scantoks**	function
isskip	overloaded function	**set**	function
istoken	function	**setattribute**	function
istoks	function	setbox	function
lastnodetype	function	setboxdir	function
lccode	table	setcatcode	function
linebreak	function	setcount	function
lists	table	setdelcode	function
luacatcodes	number	setdimen	function
magicconstants	table	setdimensionvalue	function
N maxdimen		setglue	function
N running		setglyphdata	function
N trueinch		setglyphscript	function
mathchardef	function	setglyphstate	function
mathcode	table	setintegervalue	function
modelevels	table	setinteraction	function
N horizontal		setlccode	function
N math		setlinedir	function
N unset		**setlist**	function

previous 140 next

setmath	function	**sp**	function
setmathcode	function	**splitbox**	function
setmathdir	function	**sprint**	function
setmuglue	function	systemmodes	data table
setmuskip	function	**takebox**	function
setnest	function	**texcatcodes**	number
setpardir	function	**toks**	table
setrunstate	overloaded function	**tonumber**	function
setsfcode	function	**toscaled**	function
setskip	function	**tpacatcodes**	number
setsynctexline	function	**tpbcatcodes**	number
setsynctexmode	function	**tprint**	function
setsynctextag	function	trackers	data table
settextdir	function	**triggerbuildpage**	function
settoks	function	**txtcatcodes**	number
setuccode	function	**type**	function
sfcode	table	**uccode**	table
shiftparshape	function	uprint	function
shipout	function	**useboxresource**	function
showcontext	function	**vrbcatcodes**	number
skip	table	**write**	function

texconfig (basic tex)

buffer_size	number	**max_pool**	number
error_line	number	**max_print_line**	number
expand_depth	number	**max_strings**	number
firstline	string	**nest_size**	number
formatname	string	**node_size**	number
function_size	number	**param_size**	number
half_error_line	number	**properties_size**	number
hash_extra	number	**save_size**	number
init	overloaded function	**shell_escape**	string
kpse_init	boolean	**stack_size**	number
max_in_open	number	**token_size**	number

texio (basic tex)

closeinput function   **write**   function
terminal   function   **write_nl**   function

token (basic tex)

accessors	table	get_tok	function
F active		get_tolerant	function
F cmd		getcommandid	function
F cmdchrcs		getcommandvalues	function
F cmdname		getfunctionvalues	function
F command		getprimitives	function
F csname		gobble	function
F expandable		gobble_dimen	function
F frozen		gobble_integer	function
F index		is_defined	function
F name		is_next_char	function
F protected		is_token	function
F range		new	function
create	function	**peek_next**	function
expand	function	**peek_next_char**	function
expand_macro	function	**peek_next_expanded**	function
future_expand	function	**pop_macro**	function
get_active	function	**push_macro**	function
get_cmdchrcs	function	**put_back**	function
get_cmdname	function	**put_next**	function
get_command	function	**save_lua**	function
get_csname	function	**scan_argument**	function
get_cstoken	function	**scan_box**	function
get_dimension	function	**scan_cardinal**	function
get_expandable	function	**scan_char**	function
get_fields	function	**scan_cmdchr**	function
get_flags	function	**scan_cmdchr_expanded**	function
get_frozen	function	**scan_code**	function
get_id	function	**scan_csname**	function
get_immutable	function	**scan_delimited**	function
get_index	function	**scan_dimen**	function
get_instance	function	**scan_dimen_argument**	function
get_integer	function	**scan_float**	function
get_macro	function	**scan_glue**	function
get_meaning	function	**scan_integer**	function
get_noaligned	function	**scan_integer_argument**	function
get_parameters	function	**scan_key**	function
get_permanent	function	**scan_keyword**	function
get_primitive	function	**scan_keyword_cs**	function
get_protected	function	**scan_letters**	function
get_range	function	**scan_luacardinal**	function

scan_luainteger	function	**scan_value**	function
scan_luanumber	function	**scan_word**	function
scan_next	function	**serialize**	function
scan_next_char	function	**set_char**	function
scan_next_expanded	function	**set_dimension**	function
scan_real	function	**set_integer**	function
scan_scale	function	**set_lua**	function
scan_skip	function	**set_macro**	function
scan_string	function	**skip_next**	function
scan_token	function	**skip_next_expanded**	function
scan_token_code	function	**type**	function
scan_tokenlist	function	**undefine_macro**	function
scan_toks	function		

tokens (context)

astable   function
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 buff_finish
    U c_font_compact
    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 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
    U xmlw

commands   data table
compile   function
constant   function
converters   table

    S toboolean
    S todimen
    S toglue
    S tonumber
    S tostring

create   function
defined   function
flags   function
getinteger   function
getters   table

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

isdefined	function
istoken	function
new	function
pickup	function
popmacro	function
presets	table
	T 1 argument
	T 1 string
	T 2 arguments
	T 2 strings
	T 3 arguments
	T 3 strings
	T 4 arguments
	T 4 strings
	T 5 strings
	T 6 strings
	T 7 strings
	T 8 strings
pushmacro	function
scanners	table
	F argument
	F argumentasis
	F array
	F boolean
	F box
	F bracketed
	F bracketedasis
	F cardinal
	F char
	F cmdchr
	F cmdchrexpanded
	F code
	F conditional
	F count
	F csname
	F delimited
	F dimen
	F dimenargument
	F dimension
	F float
	F glue
	F gluespec
	F gluevalues
	F hash

	F hbox
	F integer
	F integerargument
	F ischar
	F key
	F keyword
	F keywordcs
	F letters
	F list
	F luacardinal
	F luainteger
	F luanumber
	F lxmlid
	F next
	F nextexpanded
	F number
	F optional
	F peek
	F peekchar
	F peekexpanded
	F real
	F scanclose
	F scanopen
	F skip
	F skipexpanded
	F string
	F table
	F token
	F tokencode
	F tokenlist
	F tokens
	F toks
	F value
	F vbox
	F verbatim
	F vtop
	F whd
	F word
setinteger	function
setters	table
	F box
	F char
	F count
	F dimen

F glue	F scandimenargument
F lua	F scandimension
F macro	F scanglue
F skip	F scangluespec
shortcuts table	F scangluevalues
T bits	F scanhash
N active	F scanhbox
N alignment	F scaninteger
N begingroup	F scanintegerargument
N character	F scankeyword
N close	F scankeywordcs
N comment	F scanletters
N endgroup	F scanlist
N endofline	T scanners
N escape	F argument
N ignore	F argumentasis
N invalid	F array
N letter	F boolean
N mathshift	F box
N open	F bracketed
N other	F bracketedasis
N parameter	F cardinal
N space	F char
N subscript	F cmdchr
N superscript	F cmdchrexpanded
N whitespace	F code
N close	F conditional
F inspect	F count
N open	F csname
F report	F delimited
F scanargument	F dimen
F scanargumentasis	F dimenargument
F scanarray	F dimension
F scanboolean	F float
F scanbox	F glue
F scanbracketed	F gluespec
F scanbracketedasis	F gluevalues
F scancardinal	F hash
F scanclose	F hbox
F scancode	F integer
F scanconditional	F integerargument
F scancsname	F ischar
F scandelimited	F key
F scandimen	F keyword

F keywordcs	F todimen
F letters	T tokens
F list	F astable
F luacardinal	T cache
F luainteger	U NC
F luanumber	U NR
F lxmlid	U bf
F next	U buff_finish
F nextexpanded	U c_font_compact
F number	U color
F optional	U colordefalc
F peek	U colordefflc
F peekchar	U colordefflt
F peekexpanded	U colordefrlt
F real	U dofinishreference
F scanclose	U dostarttext
F scanopen	U finishjob
F skip	U firstofoneargument
F skipexpanded	U firstoftwoarguments
F string	U gobbleoneargument
F table	U goto
F token	U iftrue
F tokencode	U input
F tokenlist	U loadfoundtypescriptfile
F tokens	U resetctxscanner
F toks	U rlap
F value	U secondoftwoarguments
F vbox	U setfalsevalue
F verbatim	U setsectionblock
F vtop	U setupsystem
F whd	U startcolumns
F word	U starttabulate
F scannumber	U starttitle
F scanopen	U startxtitle
F scanoptional	U stopcolumns
F scanstring	U stoptabulate
F scantable	U stoptitle
F scantokenlist	U stopxtitle
F scantoks	U texsetup
F scanvbox	U xmlw
F scanverbatim	D commands
F scanvtop	F compile
F scanword	F constant
F toboolean	T converters

S toboolean	F scanboolean
S todimen	F scanbox
S toglue	F scanbracketed
S tonumber	F scanbracketedasis
S tostring	F scancardinal
F create	F scanclose
F defined	F scancode
F flags	F scanconditional
F getinteger	F scancsname
T getters	F scandelimited
F box	F scandimen
F count	F scandimenargument
F cstoken	F scandimension
F dimen	F scanglue
F glue	F scangluespec
F macro	F scangluevalues
F meaning	F scanhash
F skip	F scanhbox
F token	F scaninteger
F isdefined	F scanintegerargument
F istoken	F scankeyword
F new	F scankeywordcs
F pickup	F scanletters
F popmacro	F scanlist
T presets	F scannumber
F pushmacro	F scanopen
F setinteger	F scanoptional
T setters	F scanstring
F box	F scantable
F char	F scantokenlist
F count	F scantoks
F dimen	F scanvbox
F glue	F scanverbatim
F lua	F scanvtop
F macro	F scanword
F skip	F toboolean
T shortcuts	F todimen
N close	F tonumber
F inspect	F tostring
N open	D values
F report	F tonumber
F scanargument	F tostring
F scanargumentasis	**values** data table
F scanarray	

tracers (context)

printerror   function   **showlines**   function
printwarning function

trackers (context)

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

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

updaters (context)

apply   function
register function

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 (basic lua)

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 readcardinal1le
- 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 readinteger1le
- 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 writecardinal1
- F writecardinal1le
- F writecardinal2
- F writecardinal2le
- F writecardinal3
- F writecardinal3le
- F writecardinal4
- F writecardinal4le
- F writeinteger1
- F writeinteger1le
- F writeinteger2
- F writeinteger2le
- F writeinteger3
- F writeinteger3le
- F writeinteger4
- F writeinteger4le
- F writestring

formatters   table
- F formatcolumns
- F list
- F stripzeros

ghostscript   table
- F convert
- F statistics

graphicmagick   table
- F convert
- F statistics

graphicsmagick   table
- F convert
- F statistics

lua   table
- B alwaysstripcode
- F checkmemory

```
F compile                                          B text
F loadedluacode                                  F iterator
F loadstring                                     F keq_to_hash
F loadstripped                                   F listitem
N nofstrippedbytes                               F make_settings_to_hash_pattern
N nofstrippedchunks                              F mergehashes
F registerfinalizer                              F options_to_array
B stripcode                                      F options_to_hash
T strippedchunks                                 T patterns
F strippedloadstring                               U settings_to_array
T suffixes                                         U settings_to_hash_a
  S lua                                            U settings_to_hash_b
  S luc                                            U settings_to_hash_c
  S lui                                            U settings_to_hash_d
  S luj                                            U unittotex
  S luv                                          F process_stripped_settings
  S tma                                          F rfc4180splitter
  S tmc                                          F runtime
  S tua                                          F settings_to_array
  S tuc                                          F settings_to_array_obey_fences
packers          table                           F settings_to_array_with_repeat
  F hashed                                       F settings_to_hash
  F new                                          F settings_to_hash_colon_too
  F pack                                         F settings_to_hash_strict
  F simplehashed                                 F settings_to_hash_tolerant
  F strip                                        F settings_to_numbers
  F unpack                                       F settings_to_set
  N version                                      F simple_hash_to_string
parsers          table                           F splitmethod
  F add_settings_to_array                        F splitthousands
  F arguments_to_table                           F stepper
  F array_to_string                              F stripped_settings_to_array
  F csvsplitter                                  F totime
  F getparameters                                F unittotex
  F groupedsplitat                               F unittoxml
  F hash_to_string                             randomizer       table
  T hashes                                       F get
   T settings_to_set                             F getnumber
    T text,hidden,paper,page,leftpage,rightpage  F getseed
     B hidden                                     F popseed
     B leftpage                                   F pushseed
     B page                                       F reuseseed
     B paper                                      F setseed
     B rightpage                                  F setseedi
```

F	newrepeater	F	insertaftervalue
F	nice	F	insertbeforevalue
T	striplinepatterns	F	migratetable
U	collapse	F	removevalue
U	prune	F	replacevalue
U	prune and collapse	**templates**	table
U	prune and no empty	F	load
U	prune and to space	F	replace
U	retain	F	replacer
U	retain and collapse	F	resolve
U	retain and no empty	**zipfiles**	table
F	striplines	F	close
F	striplong	F	found
F	tabtospace	F	gunzipfile
T	tracers	F	hash
tables	table	F	list
F	accesstable	F	open
F	definedtable	F	unzip
F	definetable	F	unzipdir
F	encapsulate	F	zipdir

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		

xcomplex (extra lua)

I	function
__add	function
__div	function
__eq	function
__index	table

- F I
- F __add
- F __div
- F __eq
- T __index
  - F I
  - F __add
  - F __div
  - F __eq
  - F __mul
  - S __name
  - F __pow
  - F __sub
  - F __tostring
  - F __unm
  - F abs
  - F acos
  - F acosh
  - F arg
  - F asin
  - F asinh
  - F atan
  - F atanh
  - F conj
  - F cos
  - F cosh
  - F exp
  - F i
  - F imag
  - F log
  - F new
  - F pow
  - F proj
  - F real
  - F sin
  - F sinh
  - F sqrt
  - F tan
  - F tanh
  - F topair
  - F tostring
- F __mul
- S __name
- F __pow
- F __sub
- F __tostring
- F __unm
- F abs
- F acos
- F acosh
- F arg
- F asin
- F asinh
- F atan
- F atanh
- F conj
- F cos
- F cosh
- F exp
- F i
- F imag
- F log
- F new
- F pow
- F proj
- F real
- F sin
- F sinh
- F sqrt
- F tan
- F tanh
- F topair
- F tostring

__mul	function
__name	string
__pow	function
__sub	function

__tostring	function	**i**	function
__unm	function	**imag**	function
abs	function	**log**	function
acos	function	**new**	function
acosh	function	**pow**	function
arg	function	**proj**	function
asin	function	**real**	function
asinh	function	**sin**	function
atan	function	**sinh**	function
atanh	function	**sqrt**	function
conj	function	**tan**	function
cos	function	**tanh**	function
cosh	function	**topair**	function
exp	function	**tostring**	function

xdecimal (extra lua)

__add	function
__band	function
__bor	function
__bxor	function
__div	function
__eq	function
__idiv	function
__index	table

   F __add
   F __band
   F __bor
   F __bxor
   F __div
   F __eq
   F __idiv
   T __index
     F __add
     F __band
     F __bor
     F __bxor
     F __div
     F __eq
     F __idiv
     F __le
     F __lt
     F __mod
     F __mul
     S __name
     F __pow
     F __shl
     F __shr
     F __sub
     F __tostring
     F __unm
     F abs
     F band
     F bor
     F bxor
     F conj
     F copy
     F exp

     F getprecision
     F ln
     F log
     F max
     F min
     F minus
     F new
     F plus
     F pow
     F rotate
     F setprecision
     F shift
     F sqrt
     F tonumber
     F tostring
     F trim
   F __le
   F __lt
   F __mod
   F __mul
   S __name
   F __pow
   F __shl
   F __shr
   F __sub
   F __tostring
   F __unm
   F abs
   F band
   F bor
   F bxor
   F conj
   F copy
   F exp
   F getprecision
   F ln
   F log
   F max
   F min
   F minus
   F new

F plus		**bor**	function
F pow		**bxor**	function
F rotate		**conj**	function
F setprecision		**copy**	function
F shift		**exp**	function
F sqrt		**getprecision**	function
F tonumber		**ln**	function
F tostring		**log**	function
F trim		**max**	function
__le	function	**min**	function
__lt	function	**minus**	function
__mod	function	**new**	function
__mul	function	**plus**	function
__name	string	**pow**	function
__pow	function	**rotate**	function
__shl	function	**setprecision**	function
__shr	function	**shift**	function
__sub	function	**sqrt**	function
__tostring	function	**tonumber**	function
__unm	function	**tostring**	function
abs	function	**trim**	function
band	function		

xmath (extra lua)

acos	function		**isnormal**	function
acosh	function		**j0**	function
asin	function		**j1**	function
asinh	function		**jn**	function
atan	function		**ldexp**	function
atan2	function		**lgamma**	function
atanh	function		**log**	function
cbrt	function		**log10**	function
ceil	function		**log1p**	function
copysign	function		**log2**	function
cos	function		**logb**	function
cosh	function		**modf**	function
deg	function		**nan**	number
erf	function		**nearbyint**	function
erfc	function		**nextafter**	function
exp	function		**pi**	number
exp2	function		**pow**	function
expm1	function		**rad**	function
fabs	function		**remainder**	function
fdim	function		**remquo**	function
floor	function		**round**	function
fma	function		**scalbn**	function
fmax	function		**sin**	function
fmin	function		**sinh**	function
fmod	function		**sqrt**	function
frexp	function		**tan**	function
gamma	function		**tanh**	function
hypot	function		**tgamma**	function
inf	number		**trunc**	function
isfinite	function		**y0**	function
isinf	function		**y1**	function
isnan	function		**yn**	function

xml (context)

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

F name		F upperall	
F number		F xml	
F oneof		T xml	
F print		F all	
F quit		F att	
F tag		F attribute	
F text		F attributes	
F undefined		F cdata	
F upper		F chainattribute	
fillin	function	F count	
filter	function	F default	
finalizers	table	F elements	
F paragraphs		F empty	
T tex		F first	
F all		F function	
F attribute		F index	
F chainattribute		F last	
F chainpath		F lowerall	
F command		F match	
F concat		F name	
F concatrange		F position	
F context		F reverse	
F count		F table	
F ctxtext		F tag	
F default		F tags	
F depth		F text	
F first		F texts	
F function		F upperall	
F index		**first**	function
F last		**found**	function
F lettered		**functions**	table
F lower		F classes	
F lowerall		F hasclass	
F match		**getbuffer**	function
F name		**gethandlers**	function
F param		**gethandlersfunction**	function
F parameter		**helpers**	table
F position		F recursetext	
F reverse		**include**	function
F stripped		**inclusion**	function
F tag		**inclusions**	function
F tags		**index**	function
F text		**inheritattributes**	function
F upper		**inheritedconvert**	function

inject	function		**process**	function
~~inject_element~~	~~function~~		**process_attributes**	~~function~~
~~inject_element_after~~	~~function~~		**process_elements**	~~function~~
~~inject_element_before~~	~~function~~		**processattributes**	function
injectafter	function		**profiled**	table
injectbefore	function		**pure**	function
insert	function		**pushmatch**	function
insert_element	function		**raw**	function
~~insert_element_after~~	~~function~~		**registerentity**	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 <	

s >			**tocdata**	function
s \			**toelement**	function
s {			**tostring**	function
s |			**totable**	function
s }			**toxml**	function
s ~			**tprint**	function
specialhandler	table		**traverse**	function
sprint	function		**unescaped**	function
string	function		**unescapedentitylpeg**	userdata
strip	function		**unprivatized**	function
strip_whitespace	~~function~~		**unspecialized**	function
stripelement	function		**wipe**	function
stripleadingspaces	function		**withelement**	function
table	function		**withelements**	function
text	function		**wrap**	function
textonly	function		**xmlns**	table
texttocdata	function			

xzip (extra lua)

adler32	function	**decompress**	function
compress	function	**expandsize**	function
crc32	function		

zip (extra lua)

archives   table   **openarchive**   function
closearchive function   **registeredfiles** table

zlib (extra lua)

adler32 function
compress function
crc32   function

decompress function
expandsize function