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 loaders
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
sparse 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	**figures**	table
MP	function	**file**	table
arg	table	**fio**	table
asnumber_p	function	**floats**	table
assert	function	**flushsimplerule**	function
attributes	table	**flushspecialrule**	function
backends	table	**font**	table
basexx	table	**fonts**	table
bit32	table	**functions**	table
blobs	table	**getmetatable**	function
blockrequire	function	**getscriptstatus**	function
boolean	table	**global**	table
buffers	table	**graphics**	table
builders	table	**gzip**	table
caches	table	**handledefinitions**	function
callback	table	**handletransformstring**	function
callbacks	table	**images**	table
catcodes	table	**inspect**	function
characters	table	**interactions**	table
checkimage	function	**interfaces**	table
chemistry	table	**io**	table
collectgarbage	function	**ipairs**	function
commands	table	**job**	table
containers	table	**language**	table
context	function	**languages**	table
converters	table	**layouts**	table
coroutine	table	**lfs**	table
createmask	function	**libraries**	table
ctxrunner	table	**lmx**	table
data	table	**load**	function
debug	table	**loaders**	data table
dimen	function	**loadfile**	function
dir	table	**loadstring**	function

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

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

N none

F register

D registered

B supported

F toattribute

B triggering

F value

D values

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

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 scanimage
     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

registrations	table
tables	table
writeout	function

F	insertmovie
F	insertsound
F	insertu3d

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 collapsing
    F hyphenating
    F kerning
    F ligaturing
    F mlisttohlist
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		**register**	overloaded function
known	function		**usage**	function
list	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 get_attribute
    B glyph_run
    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 missing_character
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 register_extensible
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	T anudatta	
bidi	data table	T before_half	
blockrange	function	T before_main	
blocks	data table	T before_postscript	
casemap	table	T before_subscript	
categories	data table	T below_mark	
category	function	T consonant	
categorytags	data table	T dependent_vowel	
classifiers	table	T halant	
collapsed	data table	T independent_vowel	
combined	data table	T nukta	
contextname	function	T post_mark	
csletters	data table	T pre_mark	
data	data table	T ra	
decomposed	data table	T stress_tone_mark	
description	function	T twopart_mark	
descriptions	data table	T vowel_modifier	
detailtags	data table	**initialize**	function
directions	table	**is_character**	data table
emoji	table	**is_command**	data table
F compact		**is_hyphenator**	data table
F known		**is_letter**	data table
F resolve		**is_mark**	data table
emojized	function	**is_punctuation**	data table
enccodes	data table	**is_spacing**	data table
entities	data table	**is_symbol**	data table
fallbacks	data table	**lcchars**	data table
filters	data table	**lccode**	function
fractions	table	**lccodes**	data table
fromnumber	function	**lettered**	function
fschars	data table	**lhash**	data table
fscodes	data table	**linebreaks**	data table
getrange	function	**lower**	function
graphemes	data table	**mathlists**	data table
hangul	data table	**mirrors**	table
indicgroups	table	**otfscripts**	data table
T above_mark		**private**	table
T after_half		**ranges**	data table
T after_main		**registerentities**	function
T after_postscript		**remap_hangul_syllabe**	function
T after_subscript		**scripthash**	table

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

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		**setfilename**	function
D environments		**setfilenames**	function
D modes		**setmodes**	function
D modules		**setmodules**	function
T ctxfile		**variables**	data table
D environments			

documentdata (context)

variable function

drivers (context)

applyanchor	function
convert	function
converters	table
F analyze	
F engine	
F lmtx	
F resyncbox	
enable	function
gethpos	function
getpos	function
getrpos	function
getvpos	function
helpers	table
install	function
instances	table

  T default
   T actions
    F convert
    F outputfilename
   T flushers
    F popleaderlevel
    F pushleaderlevel
    T whatsit
   S name
  T empty
   T actions
    F convert
    F prepare
   T flushers
    F popleaderlevel
    F pushleaderlevel
    T whatsit
   S name
  T js
   T actions
    F cleanup
    F convert
    F finalize
    F initialize
    F outputfilename
    F prepare

    F wrapup
   T flushers
    F character
    F popleaderlevel
    F pushleaderlevel
    F rule
    F simplerule
    F specialrule
    F updatefontstate
    T whatsit
   S name
  T json
   T actions
    F cleanup
    F convert
    F finalize
    F initialize
    F outputfilename
    F prepare
    F wrapup
   T flushers
    F character
    F popleaderlevel
    F pushleaderlevel
    F rule
    F simplerule
    F specialrule
    F updatefontstate
    T whatsit
   S name
  T lua
   T actions
    F cleanup
    F convert
    F finalize
    F initialize
    F outputfilename
    F prepare
    F wrapup
   T flushers
    F character

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

outputfilename function
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
done	table	**show**	function
enable	function	**value**	function
list	function	**values**	function
name	string		

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

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

```
T readers                              F single
  F addunicodetable                    F gvar
  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 readcardinal	F writeinteger1le
F readcardinal1	F writeinteger2
F readcardinal1le	F writeinteger2le
F readcardinal2	F writeinteger3
F readcardinal2le	F writeinteger3le
F readcardinal3	F writeinteger4
F readcardinal3le	F writeinteger4le
F readcardinal4	F writestring
F readcardinal4le	F stripredundant
F readcardinaltable	F svg
F readchar	N tableversion
F readcline	F unifymissing
F readcstring	F unpack
F readfixed2	F vhea
F readfixed4	F vmtx
F readinteger	F vorg
F readinteger1	F vvar
F readinteger1le	F woff2otf
F readinteger2	F registerpalette
F readinteger2le	F registerplugin
F readinteger3	F reorderlookups
F readinteger3le	F scriptandlanguage
F readinteger4	F setdynamics
F readinteger4le	F setfeatures
F readintegertable	T statistics
F readsignedbyte	D usedfeatures
F readstring	D svgcache
F readtag	B svgenabled
F setposition	T tables
F size	D baselines
F skip	D features
F skiplong	D featuretypes
F skipposition	D languages
F skipshort	D scripts
F writebyte	F texthandler
F writecardinal1	N version
F writecardinal1le	T pfb
F writecardinal2	F loadvector
F writecardinal2le	T tfm
F writecardinal3	D cache
F writecardinal3le	D features
F writecardinal4	N maxnestingdepth
F writecardinal4le	N maxnestingsize
F writeinteger1	T readers

```
    F loadpk                                  current          function
    F loadtfm                                 currentid        function
    F loadtfmvf                               definers         table
    F loadvf                                    F addlookup
    F pktopdf                                   F analyze
    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 registerfallbackfont
  F normal                                      F registersplit
  F virtual                                     F resetnullfont
F initializefeatures                            F resolve
D loadedfonts                                   T resolvers
N noffontsloaded                                  F file
N nofsharedfonts                                  F name
N nofsharedhashes                                 F spec
N nofsharedvectors                          definetypeface   function
N privateoffset                             dropins          table
D privateslots                                  F clone
F readanddefine                               F getshape
F registerfeature                             F getshapes
F resetfeature                                F nextid
B resolvevirtualtoo                           F provide
F scale                                        F registerglyph
F scaled                                       F registerglyphs
F setfactor                                    F swap
F setfeature                                   F swapone
F setmathparameter                          encodings        table
F setname                                     T agl
B sharefonts                                    D ctxcodes
F trytosharefont                                D extras
N version                                       D names
```

	D synonyms			T bottomright
	D unicodes			S name
	D cache			S version
	F is_known		D designsizes	
	D known		D filenames	
	F load		F getcompositions	
	F make_unicode_vector		T list	
	D math		F load	
	N version		F prepare_features	
enhanceid	function		F register	
expansions	data table		F registerpostprocessor	
formats	data table		F report	
getalternate	function		T suffixes	
getindices	function	**handlers**	table	
getkern	function	**hashes**	table	
getmultiple	function		D characters	
getsubstitution	function		D classes	
getters	table		D csnames	
	T alternate		D descriptions	
	F opentype		D dynamics	
	T kern		D emwidths	
	F opentype		D exheights	
	F type1		D extensibles	
	F type3		D features	
	T multiple		D identifiers	
	F opentype		D italics	
	T substitution		D lastmathids	
	F opentype		D marks	
goodies	table		D mathparameters	
	D colorschemes		D modes	
	T data		D originals	
	T dejavu-math		D parameters	
	S author		T processes	
	S comment		D properties	
	S copyright		D quads	
	B initialized		D resources	
	T mathematics		T setdynamics	
	T alternates		T shapes	
	T dotless		D spaces	
	S comment		D spacings	
	S feature		T streams	
	N value		D unicodes	
	T kerns		D variants	
	T *:0x1D449		D xheights	

helpers table			T vfinjectors
F addextraprivate			F pdf
F addprivate			F startcolor
F appendcommands			F stopcolor
F appendcommandtable			T vfspecials
F checkflags			T backgrounds
F checkmerge			T outlines

helpers	table
F addextraprivate	
F addprivate	
F appendcommands	
F appendcommandtable	
F checkflags	
F checkmerge	
F checksteps	
F collectanchors	
F combineglyphs	
D commands	
F composecharacters	
F descriptiontoslot	
F dimenfactor	
F expandglyph	
T extraprivates	
F fontpatternhassize	
F getcoloredglyphs	
F getdigitwidth	
F getinstancespec	
F getparameters	
F getprivatecharornode	
F getprivatenode	
F getprivates	
F getprivateslot	
F hasprivate	
F indextoslot	
F mathscriptslots	
F name	
F nametoslot	
F newprivateslot	
F prependcommands	
F prependcommandtable	
F privateslot	
F registerglyphbox	
F scalecommands	
F setboxdirectly	
F setboxglyph	
F setboxglyphs	
F setdigitwidth	
F setmetaglyph	
F setmetaglyphs	
F splitfontpattern	
F tochar	

T vfinjectors	
F pdf	
F startcolor	
F stopcolor	
T vfspecials	
T backgrounds	
T outlines	
infofont	function
iterators	table
F characters	
F descriptions	
F glyphs	
loggers	table
F format	
F onetimemessage	
F register	
F reportdefinedfonts	
F reportusedfeatures	
mappings	table
F addtounicode	
F fromunicode16	
F getentry	
F loadfile	
F loadline	
F makenameparser	
D overloads	
F reset	
F tounicode	
F tounicode16	
F tounicode16sequence	
metapost	table
F boundingbox	
F boxtomp	
F draw	
F fill	
F glyph	
F maxbounds	
F paths	
F widthline	
F zeroline	
names	data table
nulldata	data table
privateoffsets	table
B keepnames	

N mathbase			D methods	
N mathextrabase			D presets	
N textbase			F registerfallback	
N textextrabase			F registerfiles	
protrusions	data table		F registerfontalternative	
readers	table		F registerfontfamily	
F afm			F textfallback	
F check_lua			F typeface	
F check_tfm			F typescript	
F lua			F userdata	
F ofm			**specifiers**	table
F opentype			D contextmerged	
F otf			F contextnumber	
F pfb			D contextnumbers	
D sequence			D contextsetups	
F tfm			F contexttostring	
F ttc			F definecontext	
F ttf			F mergecontext	
F woff			F presetcontext	
reserveid	function		F registercontext	
select	table		F showcontext	
D alternatives			F splitcontext	
F bodyfont			D synonyms	
D data			D variants	
F default			**symbols**	table
D defaults			T emoji	
F definefallbackfamily			F checked	
F definefontfamily			F resolved	
F definefontfamilypreset			F uselibrary	
D extras			**tables**	table
F fallback			**tracers**	table
D fallbacks			**treatments**	table
F features			F applyfixes	
F filefallback			D data	
F fontdata			S filename	
F fontfallback			F ignoredfile	
F fontsynonym			F report	
F goodies			F trace	
F mathfallback			**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

synchronizers   table
- F collapse
- F collect
- F extend
- F getbottom
- F getd
- F geth
- F getkind
- F getsize
- F gettask
- F gettop
- F getw
- F getx
- F gety
- F prune

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
F	n	**save** function
F	onsamepage	**structure** table
F	overlapping	D collected
F	p	T components
F	page	T tobesaved
T	pagedata	T branches
F	paragraph	S name
F	parindent	S type
F	position	**variables** table
F	r	D checksums
F	region	D collected
F	registerhandlers	F getchecksum
F	replace	F makechecksum
F	rightskip	F restore
F	set	F save
F	setall	F setchecksum
F	setregionbox	D tobesaved
F	setspec	**version** number

language (basic tex)

clean	function		**id**	function
clearhyphenation	function		**new**	function
clearpatterns	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)

addgoodiesdata	function		F installmethod
addgoodiesfile	function		F lasttrace
appliedoptions	table		F loadpatterns
associate	function		F registerexception
associated	data table		F registerpattern
association	function		F setfeatures
counters	data table	**installed**	function
current	function	**installhandler**	function
data	data table	**labels**	table
decimals	data table	F define	
define	function	F split	
explicithyphen	function	**loadable**	function
flatten	function	**loadwords**	function
frequencies	table	**logger**	table
F averagecharwidth		F report	
F getdata		**nofflattened**	function
getdata	function	**numbers**	data table
getnumber	function	**postexhyphenchar**	function
goodiefiles	function	**posthyphenchar**	function
hjcounts	table	**preexhyphenchar**	function
hyphenate	function	**prehyphenchar**	function
hyphenators	table	**registered**	data table
T dictionaries		**registeredactions**	table
D featuresets		**replacements**	table
F handler		F add	
T methods		F addlist	
F expanded		F handler	
B none		F set	
F original		**serializediscretionary**	function
F tex		**setexceptions**	function
F traditional		**setgoodieshandler**	function
F popmethod		**setoptions**	function
F pushmethod		**setpatterns**	function
F setmethod		**setsynonym**	function
F setup		**setwordhandler**	function
F showhyphenationtrace		**showdiscretionaries**	function
T traditional		**strippedgoodiewords**	function
F definefeatures		**tolang**	function
F gettrace		**transliteration**	table
F hyphenate		F define	
F injecthyphens		F handler	

F set		**words**		table
unload	function		F check	
urls	table		T data	
D characters			F disable	
N lefthyphenmin			F enable	
D mapping			T enablers	
B packslashes			B enables	
N righthyphenmin			F found	
F setcharacters			F load	
version	number		T methods	
visualizediscretionaries	function		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

   F a

   F td

   F th

include	function	**tv**	function
inherited	table	**type**	function
		urlescape	function
		variable	function
		variables	table

   S color-background-four

   S color-background-one

   S color-background-three

   S color-background-two

   S title

   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

initialize	function
inject	function
lmxfile	function

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	T	characters
pagereference	function	T	descriptions
patternstream	function	T	fonts
pdfcolor	function	T	goodies
pdftimestamp	function	S	original
pdfvfimage	function	T	parameters
permitdetail	function	N	ascender
print	function	N	descender
procset	function	N	designsize
protectresources	boolean	T	expansion
rectangle	function	N	shrink
reference	function	N	step
registerannotation	function	N	stretch
registerdestination	function	N	extendfactor
registerdocumentfinalizer	function	N	extra_space
registerfont	function	N	extrafactor
registerpagefinalizer	function	N	factor
registerpattern	function	N	forcedsize
reserveobject	function	N	hfactor
rgbcode	function	N	mathsize
rotationcm	function	N	maxsize
setcompression	function	N	minsize
setpageorder	function	N	mode
setpagetag	function	N	quad
settime	function	N	scaledpoints
setversion	function	N	size
sharedobject	function	N	slant
shareobject	function	N	slantfactor
shareobjectreference	function	N	space
spotcode	function	N	space_shrink
stream	function	N	space_stretch
string	function	N	squeezefactor
toeight	function	N	textsize
topdfdoc	function	N	units
tosixteen	function	N	vfactor
transparency	function	N	width
transparencycode	function	N	x_height
transparencygroups	table	T	properties
B none		S	filename
		B	finalized
transparencyvalue	function	S	fontname
unicode	function	S	format
usedcharacters	table	S	fullname
usedfontstreams	table	S	hash
T dejavusansmonoboldttf-1			

previous 71 next

```
  B hasmath                              T camelcasing
  N id                                     T *
  S language                                 B *
  S mode                                 T char-ligatures
  S name                                   T *
  S psname                                   B *
  S script                               T collapse
  S sharedwith                             T *
  N subfont                                  B *
  S writingmode                          T compat-ligatures
T resources                                T *
  T alreadydone                              B *
  T classes                              T dlig
  T duplicates                             T latn
  T features                                 B dflt
    T gpos                                   B ism
      T mark                                 B ksm
        T arab                               B lsm
          B dflt                             B mol
        T cyrl                               B nsm
          B dflt                             B rom
          B srb                              B sks
        T grek                               B ssm
          B dflt                         T locl
        T lao                              T cyrl
          B dflt                             B srb
        T latn                             T latn
          B dflt                             B ism
          B ism                              B ksm
          B ksm                              B lsm
          B lsm                              B nsm
          B mol                              B sks
          B nsm                              B ssm
          B rom                          T lowercasing
          B sks                            T *
          B ssm                              B *
      T mkmk                              T primes
        T arab                             T *
          B dflt                             B *
    T gsub                               T tlig
      T anum                               T *
        T arab                               B *
          B dflt                         T trep
          B urd                            T *
```

```
      B *
    T uppercasing
      T *
      B *
S filename
S foundfilename
T foundtables
T markclasses
T marks
T marksets
N private
T sequences
T sublookups
T unicodes
  N .null
  N A
  N AE
  N AEacute
  N Aacute
  N Abreve
  N Acircumflex
  N Acute
  N Adieresis
  N Agrave
  N Alpha
  N Alphatonos
  N Amacron
  N Aogonek
  N Aring
  N Atilde
  N B
  N Beta
  N C
  N Cacute
  N Caron
  N Ccaron
  N Ccedilla
  N Ccircumflex
  N Cdotaccent
  N Chi
  N Circumflex
  N D
  N Dcaron
  N Dcroat
```

```
N Delta
N Dieresis
N E
N Eacute
N Ebreve
N Ecaron
N Ecircumflex
N Edieresis
N Edotaccent
N Egrave
N Emacron
N Eng
N Eng.alt
N Eogonek
N Epsilon
N Epsilontonos
N Eta
N Etatonos
N Eth
N Euro
N F
N G
N Gamma
N Gbreve
N Gcaron
N Gcircumflex
N Gcommaaccent
N Gdotaccent
N Grave
N H
N Hbar
N Hcircumflex
N I
N IJ
N Iacute
N Ibreve
N Icircumflex
N Idieresis
N Idotaccent
N Igrave
N Imacron
N Iogonek
N Iota
N Iotadieresis
```

N Iotatonos	N R
N Itilde	N Racute
N J	N Rcaron
N Jcircumflex	N Rcommaaccent
N K	N Rho
N Kappa	N S
N Kcommaaccent	N Sacute
N L	N Scaron
N Lacute	N Scedilla
N Lambda	N Scircumflex
N Lcaron	N Scommaaccent
N Lcommaaccent	N Sigma
N Ldot	N T
N Lslash	N Tau
N M	N Tbar
N Mu	N Tcaron
N N	N Tcommaaccent
N Nacute	N Theta
N Ncaron	N Thorn
N Ncommaaccent	N Tilde
N Ntilde	N U
N Nu	N Ugrave
N O	N Uhorn
N OE	N Uhungarumlaut
N Oacute	N Umacron
N Obreve	N Uogonek
N Ocircumflex	N Upsilon
N Odieresis	N Upsilon1
N Ograve	N Upsilondieresis
N Ohorn	N Upsilontonos
N Ohungarumlaut	N Uring
N Omacron	N Utilde
N Omega	N V
N Omegatonos	N W
N Omicron	N Wacute
N Omicrontonos	N Wcircumflex
N Oslash	N Wdieresis
N Oslashacute	N Wgrave
N Otilde	N X
N P	N Xi
N Phi	N Y
N Pi	N Yacute
N Psi	N Ycircumflex
N Q	N Ydieresis

N Ygrave
N Z
N Zacute
N Zcaron
N Zdotaccent
N Zeta
N a
N aacute
N abreve
N acircumflex
N acute
N acutecomb
N adieresis
N ae
N aeacute
N agrave
N alpha
N alphatonos
N amacron
N ampersand
N angle
N anoteleia
N aogonek
N approxequal
N arabic_2dots
N arabic_2dots_a
N arabic_3dots
N arabic_3dots_a
N arabic_4dots
N arabic_dot
N arabic_gaf_bar
N arabic_gaf_bar_a
N arabic_ring
N aring
N arrowboth
N arrowdblboth
N arrowdbldown
N arrowdblleft
N arrowdblright
N arrowdblup
N arrowdown
N arrowleft
N arrowright
N arrowup

N arrowupdn
N arrowupdnbse
N asciicircum
N asciitilde
N asterisk
N asteriskmath
N at
N atilde
N b
N backslash
N bar
N beta
N block
N braceleft
N braceright
N bracketleft
N bracketright
N breve
N brokenbar
N bullet
N c
N cacute
N caron
N carriagereturn
N ccaron
N ccedilla
N ccircumflex
N cdotaccent
N cedilla
N cent
N chi
N circle
N circlemultiply
N circleplus
N circumflex
N club
N colon
N colonmonetary
N comma
N congruent
N copyright
N currency
N d
N dagger

N daggerdbl	N eth
N dcaron	N exclam
N dcroat	N exclamdbl
N degree	N exclamdown
N delta	N existential
N diaeresis.symbols	N f
N diamond	N female
N dieresis	N fi
N dieresistonos	N figuredash
N divide	N filledbox
N dkshade	N filledrect
N dlLtcaron	N five
N dnblock	N fiveeighths
N dollar	N fl
N dong	N florin
N dotaccent	N four
N dotbelowcomb	N fractionslash
N dotlessi	N franc
N dotlessj	N g
N dotmath	N gamma
N e	N gbreve
N eacute	N gcaron
N ebreve	N gcircumflex
N ecaron	N gcommaaccent
N ecircumflex	N gdotaccent
N edieresis	N germandbls
N edotaccent	N gradient
N egrave	N grave
N eight	N gravecomb
N element	N greater
N ellipsis	N greaterequal
N emacron	N guillemotleft
N emdash	N guillemotright
N emptyset	N guilsinglleft
N endash	N guilsinglright
N eng	N h
N eogonek	N hbar
N epsilon	N hcircumflex
N epsilontonos	N heart
N equal	N hookabovecomb
N equivalence	N house
N estimated	N hungarumlaut
N eta	N hyphen
N etatonos	N i

N iacute	N ltshade
N ibreve	N m
N icircumflex	N macron
N idieresis	N male
N igrave	N minus
N ij	N minute
N imacron	N mu
N infinity	N multiply
N integral	N musicalnote
N integralbt	N musicalnotedbl
N integraltp	N n
N intersection	N nacute
N invbullet	N napostrophe
N invcircle	N ncaron
N invsmileface	N ncommaaccent
N iogonek	N nine
N iota	N nonbreakingspace
N iotadieresis	N nonmarkingreturn
N iotadieresistonos	N notdef
N iotatonos	N notelement
N itilde	N notequal
N j	N notsubset
N jcircumflex	N ntilde
N jot	N nu
N k	N numbersign
N kappa	N o
N kcommaaccent	N oacute
N kgreenlandic	N obreve
N l	N ocircumflex
N lacute	N odieresis
N lambda	N oe
N lcaron	N ogonek
N lcommaaccent	N ograve
N ldot	N ohorn
N less	N ohungarumlaut
N lessequal	N omacron
N lfblock	N omega
N lira	N omega1
N logicaland	N omegatonos
N logicalnot	N omicron
N logicalor	N omicrontonos
N longs	N one
N lozenge	N oneeighth
N lslash	N onehalf

N onequarter	N racute
N onesuperior	N radical
N onethird	N rcaron
N openbullet	N rcommaaccent
N ordfeminine	N reflexsubset
N ordmasculine	N reflexsuperset
N orthogonal	N registered
N oslash	N revlogicalnot
N oslashacute	N rho
N otilde	N ring
N p	N rtblock
N paragraph	N s
N parenleft	N sacute
N parenright	N scaron
N partialdiff	N scedilla
N percent	N scircumflex
N period	N scommaaccent
N periodcentered	N second
N perpendicular	N section
N perthousand	N semicolon
N peseta	N seven
N phi	N seveneighths
N phi1	N sfthyphen
N pi	N shade
N plus	N sigma
N plusminus	N sigma1
N product	N similar
N propersubset	N six
N propersuperset	N slash
N proportional	N smileface
N psi	N space
N q	N spade
N question	N sterling
N questiondown	N suchthat
N quotedbl	N summation
N quotedblbase	N sun
N quotedblleft	N t
N quotedblright	N tau
N quoteleft	N tbar
N quotereversed	N tcaron
N quoteright	N tcommaaccent
N quotesinglbase	N therefore
N quotesingle	N theta
N r	N theta1

```
N thinquestion                              N xi
N thorn                                     N y
N three                                     N yacute
N threeeighths                              N ycircumflex
N threequarters                             N ydieresis
N threesuperior                             N yen
N tilde                                     N ygrave
N tildecomb                                 N z
N tonos                                     N zacute
N trademark                                 N zcaron
N triagdn                                   N zdotaccent
N triaglf                                   N zero
N triagrt                                   N zeta
N triagup                                 S version
N two                                   T shared
N twosuperior                             T dynamics
N twothirds                               T features
N u                                         B analyze
N ugrave                                    B checkmarks
N uhorn                                     B devanagari
N uhungarumlaut                             B dummies
N umacron                                   B extensions
N underbar                                  B extrafeatures
N underbar.small                            B extraprivates
N underbar.wide                             B features
N underscore                                B mathrules
N underscoredbl                             S mode
N union                                     N number
N universal                                 B spacekern
N uogonek                                   B visualspace
N upblock                                 T processes
N upsilon                                 T rawdata
N upsilondieresis                           S cache_uuid
N upsilondieresistonos                      N cache_version
N upsilontonos                              B compacted
N uring                                     S creator
N utilde                                    T descriptions
N v                                         B expanded
N w                                         S format
N wacute                                    T goodies
N wcircumflex                               T lookuphash
N wdieresis                                 T metadata
N wgrave                                      N ascender
N x                                           N averagewidth
```

```
    T boundingbox                          B hasitalics
    N defaultvheight                       B hasspacekerns
    N descender                            N size
    S family                               N tableversion
    S familyname                           N time
    S fontname                         T specification
    S fullname                             S cs
    T horizontalmetrics                    S detail
      N ascender                           S fallbacks
      N descender                          T features
      N linegap                              T normal
      N maxadvanceheight                       B features
      N maxadvancewidth                        S mode
      N maxextent                              N number
      N minbottomsidebearing               S filename
      N mintopsidebearing                  S forced
      N version                            S forcedname
    N italicangle                          B global
    B monospaced                           S goodies
    S panoseweight                         S hash
    S panosewidth                          N id
    N pfmweight                            S lookup
    N pfmwidth                             N mathsize
    S subfamily                            S method
    S subfamilyname                        S name
    N subfontindex                         S resolved
    N units                                N scalemode
    S version                              N size
    T verticalmetrics                      S source
      N ascender                           S specification
      N descender                          N textsize
      N linegap                        T unscaled
      N maxadvanceheight                   N cache_version
      N maxadvancewidth                    T changed
      N maxextent                          T characters
      N minbottomsidebearing               T descriptions
      N mintopsidebearing                  T mathparameters
      N version                            T parameters
    S weight                               N ascender
    S width                                N charwidth
  N nofglyphs                              N descender
  N private                                N designsize
  T properties                             N extra_space
    B hascolor                             N italicangle
```

```
    N maxsize                                 B hasmath
    N minsize                                 N id
    N quad                                    S mode
    N slant                                   B monospaced
    N space                                   S name
    N space_shrink                            N private
    N space_stretch                           S psname
    N units                                   B setitalics
    N vheight                                 S space
    N x_height                                N subfont
  T properties                                S writingmode
    S filename
    S fontname
    S format
    S fullname
```

usedindices   table

    T dejavusansmonoboldttf-1

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	
finalizeinitex	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
getdebuginfo	function	**registercode**	function
getfunctionstable	overloaded function	**registeredcodes**	function
getpreciseseconds	function	**registerinitexfinalizer**	function
getpreciseticks	function	**registername**	function
getruntime	function	**setbytecode**	function
getstacktop	function	**setexitcode**	function
getstartupfile	function	**startupfile**	string
getversion	function	**version**	string
lastbytecode	number		

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		**ifatt**	function
concat	function		**ifattempty**	function
concatrange	function		**include**	function
content	function		**inclusion**	function
context	function		**inclusions**	function
convert	function		**index**	function
count	function		**inlineverbatim**	function
delete	function		**installsetup**	function
depth	function		**last**	function
direct	function		**lastatt**	function
directives	table		**lastmatch**	function
F after			**lastpar**	function
F before			**load**	function
F handle			**loadbuffer**	function
F load			**loaddata**	function
F setup			**loaded**	table
displayverbatim	function		**main**	function
doif	function		**match**	function
doifelse	function		**name**	function
doifelseempty	function		**namespace**	function
doifelsetext	function		**nonspace**	function
doifempty	function		**par**	function
doifnot	function		**param**	function
doifnotempty	function		**parameter**	function
doifnottext	function		**path**	function
doiftext	function		**popmatch**	function
element	function		**pos**	function
elements	function		**position**	function
entities	data table		**pure**	function
filter	function		**pushmatch**	function
filterlist	function		**raw**	function

rawroot	function	**sorters**	table
rawtex	function		F add
refatt	function		F compare
register	function		F flush
registerentity	function		F reset
removesetup	function		F show
replace	function		F sort
resetcdata	function	**splitid**	function
resetsetups	function	**startraw**	function
resolvedentity	function	**startunescaped**	function
root	function	**stopraw**	function
save	function	**stopunescaped**	function
serialize	function	**store**	function
setaction	function	**strip**	function
setatt	function	**stripped**	function
setattribute	function	**tag**	function
setcdata	function	**text**	function
setcommandtonone	function	**tobuffer**	function
setcommandtotext	function	**tofile**	function
setpar	function	**toparameters**	function
setparam	function	**toverbatim**	function
setparameter	function	**verbatim**	function
setsetup	function	**withindex**	function
snippet	function	**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
collected	function	**resetitalics**	function
define	function	**resolvefallbacks**	function
dimensions	function	**scaleparameters**	function
domains	table	**setdomain**	function
extensiblecode	function	**setitalics**	function
extensibles	data table	**setridofprime**	function
extrabase	number	**sets**	data table
extras	table	**startcollecting**	function
F add		**stopcollecting**	function
F copy		**styles**	data table
fallbacks	table	**syncboth**	function
F apply		**syncname**	function
F install		**syncstyle**	function
fallbackstyleattr	function	**toname**	function
families	data table	**tostyle**	function
finishfallbacks	function	**tweakaftercopyingfont**	function
gaps	data table	**tweakbeforecopyingfont**	function
getboth	function	**tweaks**	table
getdomain	function	**utfmathaccent**	function
getitalics	function	**utfmathclass**	function
getridofprime	function	**utfmathcommand**	function
getstyle	function	**utfmathfiller**	function
horizontalcode	function	**utfmathstretch**	function
initializeparameters	function	**virtualize**	function
makefont	function	**virtualized**	data table

md5 (extra lua)

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

metapost (context)

checkformat	function
checktracingonline	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 definedmacro

N delimiters

N endgroup

N equals

N etex

N everyjob

N exittest

N expandafter

N fiorelse

N if

N input

N interim

N internal

N iteration

N leftbrace

N leftbracket

N leftdelimiter

N let

N macrodef

N macrospecial

N maketext

N message

N mode

N newinternal

N nullary

N numeric

N of

N ofbinary

N parametertype

N pathjoin

N plusorminus

N primarybinary

N primarydef

N property

N protection

N randomseed

N relax

N repeatloop

N rightbrace

N rightbracket

N rightdelimiter

N runscript

N save

N scantokens

N secondarybinary

N secondarydef

N semicolon

N setbounds

N shipout

N show

N slash

N step

N stop

N str

N string

N tag

N tension

N tertiarybinary

N tertiarydef

N thingstoadd

N to

N typename

N unary

N undefinedcs

N until

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

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

mime (extra lua)

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

mp (context)

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

lmt_contours_edge_get_cell	function	**mf_graphic_text**	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	

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

mplib (extra tex)

execute	function	**injecttransform**	function
expandtex	function	**injectwhatever**	function
finder	function	**new**	overloaded function
finders	table	**peninfo**	function
F file		**propertycodes**	table
F mpstemplate		**realtimelogging**	boolean
finish	function	**scanboolean**	function
getcallbackstate	function	**scancmykcolor**	function
getcodes	function	**scancolor**	function
getfields	function	**scanexpression**	function
gethashentries	function	**scaninteger**	function
gethashentry	function	**scannext**	function
getstates	function	**scannumber**	function
getstatistics	function	**scannumeric**	function
getstatus	function	**scanpair**	function
gettolerance	function	**scanpath**	function
gettype	function	**scanpen**	function
gettypes	function	**scanproperty**	function
injectboolean	function	**scanstring**	function
injectcmykcolor	function	**scansymbol**	function
injectcolor	function	**scantoken**	function
injectinteger	function	**scantransform**	function
injectnumber	function	**settolerance**	function
injectnumeric	function	**showcontext**	function
injectpair	function	**skiptoken**	function
injectpath	function	**solvepath**	function
injectstring	function	**version**	function

noads (context)

handlers   table
    F align
    F alternates
    F autofences
    F classes
    F collapse
    F domains
    F export
    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 mlisttohlist
    T unscript
    T unstack
processouter   function

node (basic tex)

checkdiscretionaries	function
checkdiscretionary	function
copy	function
copy_list	function
copylist	function
count	function
current_attributes	function
currentattributes	function
dimensions	function
direct	table

F addmargins
F addxoffset
F addxymargins
F addyoffset
F appendaftertail
F checkdiscretionaries
F checkdiscretionary
F collapsing
F copy
F copy_list
F copylist
F copyonly
F count
F current_attributes
F currentattributes
F dimensions
F effective_glue
F effectiveglue
F end_of_math
F endofmath
F exchange
F fields
F find_node
F findattribute
F findattributerange
F findnode
F first_glyph
F firstglyph
F flattendiscretionaries
F flush_list
F flush_node

F flushlist
F flushnode
F free
F get_attribute
F get_attributes
F getattribute
F getattributelist
F getattributes
F getboth
F getbox
F getchar
F getcharspec
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 isglyph
F getprev	F isnextchar
F getpropertiestable	F isnextglyph
F getproperty	F isnode
F getreplace	F isprevchar
F getscale	F isprevglyph
F getscales	F isvalid
F getscript	F iszeroglue
F getshift	F kerning
F getstate	F length
F getsub	F ligaturing
F getsubpre	F makeextensible
F getsubtype	F migrate
F getsup	F mlist_to_hlist
F getsuppre	F mlisttohlist
F getsynctexfields	F naturalhsize
F gettotal	F naturalwidth
F getwhd	F new
F getwidth	F prependbeforehead
F getxscale	F protect_glyph
F getxyscales	F protect_glyphs
F getyscale	F protectglyph
F has_attribute	F protectglyphs
F has_field	F protrusionskippable
F has_glyph	F rangedimensions
F hasattribute	F remove
F hasdimensions	F reverse
F hasfield	F set_attribute
F hasglyph	F set_attributes
F hasglyphoption	F setattribute
F hpack	F setattributelist
F hyphenating	F setattributes
F id	F setboth
F ignoremathskip	F setbox
F insert_after	F setchar
F insert_before	F setdata
F insertafter	F setdepth
F insertbefore	F setdirection
F is_char	F setdisc
F is_glyph	F setdiscpart
F is_node	F setexpansion
F is_valid	F setfam
F is_zero_glue	F setfield
F ischar	F setfont

F setglue	F tovaliddirect
F setglyphdata	F traverse
F setheight	F traverse_char
F setindex	F traverse_content
F setkern	F traverse_glyph
F setlanguage	F traverse_id
F setleader	F traverse_list
F setlink	F traversechar
F setlist	F traversecontent
F setnext	F traverseglyph
F setnucleus	F traverseid
F setoffsets	F traverselist
F setoptions	F type
F setorientation	F types
F setpenalty	F unprotect_glyph
F setpost	F unprotect_glyphs
F setpre	F unprotectglyph
F setprev	F unprotectglyphs
F setproperty	F unset_attribute
F setreplace	F unset_attributes
F setscales	F unsetattribute
F setscript	F unsetattributes
F setshift	F usedlist
F setsplit	F uses_font
F setstate	F usesfont
F setsub	F values
F setsubpre	F verticalbreak
F setsubtype	F vpack
F setsup	F write
F setsuppre	F xscaled
F setsynctexfields	F yscaled
F settotal	
F setwhd	

effective_glue	function
effectiveglue	function
end_of_math	function
endofmath	function
family_font	function
fields	function
findattribute	function
first_glyph	function
firstglyph	function
flattendiscretionaries	function
flush_list	function
flush_node	function
flushlist	function

F setwidth
F show
F slide
F softenhyphens
F start_of_par
F startofpar
F subtypes
F tail
F todirect
F tonode
F tostring

flushnode	function	**new**	function
free	function	**protect_glyph**	function
get_attribute	function	**protect_glyphs**	function
getattribute	function	**protectglyph**	function
getfield	function	**protectglyphs**	function
getglue	function	**protrusionskippable**	function
getpropertiestable	function	**rangedimensions**	function
getproperty	function	**remove**	function
has_attribute	function	**set_attribute**	function
has_field	function	**setattribute**	function
has_glyph	function	**setfield**	function
hasattribute	function	**setglue**	function
hasfield	function	**setproperty**	function
hasglyph	function	**show**	function
hpack	function	**slide**	function
hyphenating	function	**subtypes**	function
id	function	**tail**	function
insert_after	function	**tostring**	function
insert_before	function	**traverse**	function
insertafter	function	**traverse_id**	function
insertbefore	function	**traverseid**	function
instock	function	**type**	function
inuse	function	**types**	function
is_node	function	**unprotect_glyph**	function
is_zero_glue	function	**unprotect_glyphs**	function
isnode	function	**unprotectglyph**	function
iszeroglue	function	**unprotectglyphs**	function
kerning	function	**unset_attribute**	function
last_node	function	**unsetattribute**	function
lastnode	function	**usedlist**	function
length	function	**usesfont**	function
ligaturing	function	**values**	function
makeextensible	function	**vpack**	function
mlist_to_hlist	function	**write**	function
mlisttohlist	function		

nodes (context)

accentcodes	data table	**fields**	function
aligned	function	**fieldtypes**	table
append	function	**fillcodes**	data table
apply	function	**fillvalues**	data table
applyvisuals	function	**firstcharacter**	function
astable	function	**firstcharinbox**	function
basepoints	function	**firstdirinbox**	function
boundarycodes	data table	**flush**	function
boxes	table	**flush_list**	function
F count		**flush_node**	function
F dimensions		**flushlist**	function
F direct		**flushnode**	function
F dispose		**fullhpack**	function
F found		**getattr**	function
F reset		**getattribute**	function
F restore		**getboth**	function
F save		**getbox**	function
F savenode		**getchar**	function
builders	table	**getfield**	function
F buildpage_filter		**getfont**	function
F vpack_filter		**getid**	function
concat	function	**getleader**	function
copy	function	**getlist**	function
copy_list	function	**getnext**	function
copylist	function	**getprev**	function
countall	function	**getproperty**	function
current_attributes	function	**getsubtype**	function
currentattributes	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 cleanupbox	
disccodes	data table	F cleanuppage	
discretionarycodes	data table	F export	
fencecodes	data table	F finalizebox	

F finalizelist		**is_node**	function
F flatten		**isnode**	function
F flattenline		**kerncodes**	data table
F migrate		**leftmarginwidth**	function
F protectglyphs		**linefillers**	table
F show		D data	
F showhyphenation		F define	
F stripping		F enable	
F textbackgrounds		F filler	
F unprotectglyphs		F handler	
F visualizehyphenation		**lines**	table
F wipe		T boxed	
has_attribute	function	F addlinenumbers	
has_field	function	F register	
hasattribute	function	F setup	
hasfield	function	D data	
hpack	function	F finalize	
idsandsubtypes	function	F number	
idstostring	function	**link**	function
injections	table	**linked**	function
F copy		**list**	function
F getligaindex		**listcodes**	data table
F getthreshold		**listtoutf**	function
F handler		**literalvalues**	data table
F installgetspaceboth		**locate**	function
F installnewkern		**markers**	table
F isspace		F get	
F keepcounts		**mathcodes**	data table
F reset		**mathvalues**	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	
insertafter	function	N middle	
insertbefore	function	N no_axis	
insertlistafter	function	N right	
installattributehandler	function	N set	
is_display_math	function	N unused_1	

N unused_2		F exchange
nodecodes	data table	F find_attribute
nopts	function	F findattribute
nuts	table	F findnode
F addmargins		F first_glyph
F addxoffset		F firstcharacter
F addxymargins		F firstcharinbox
F addyoffset		F firstglyph
F append		F flattendiscretionaries
F appendaftertail		F flush
F apply		F flush_list
F applyvisuals		F flush_node
F checkdiscretionaries		F flushlist
F collapsing		F flushnode
T colors		F free
F set		F fullhpack
T components		F get_attribute
F copynocomponents		F get_synctex_fields
F copyonlyglyphs		F getattr
F count		F getattribute
F flush		F getattributelist
F get		F getattributes
F set		F getattrlist
F concat		F getattrs
F copy		F getboth
F copy_list		F getbox
F copy_node		F getboxglue
F copy_only		F getchar
F copy_properties		F getcharspec
F copylist		F getcomponents
F copynode		F getdata
F copyonly		F getdepth
F copyvisual		F getdirection
F count		F getdisc
F countall		F getdiscpart
F current_attr		F getdiscretionary
F currentattributes		F getexpansion
F delete		F getfam
F dimensions		F getfield
F dirdimensions		F getfont
F effective_glue		F getglue
F effectiveglue		F getglyphdata
F end_of_math		F getglyphdimensions
F endofmath		F getheight

F getid	F hasattribute
F getindex	F hasdimensions
F getkern	F hasfield
F getkerndimension	F hasglyph
F getlang	F hasglyphoption
F getlanguage	F hpack
F getleader	F hyphenating
F getlist	F ignoremathskip
F getnext	F insert_after
F getnormalizedline	F insert_before
F getnucleus	F insertafter
F getoffsets	F insertbefore
F getoptions	F insertlistafter
F getorientation	F is_display_math
F getpenalty	F is_node
F getpost	F is_zero_glue
F getpre	F ischar
F getprev	F isdone
F getprop	F isglyph
F getreplace	F isnextchar
F getruledata	F isnextglyph
F getscale	F isnode
F getscales	F isprevchar
F getscript	F isprevglyph
F getshift	F iszeroglue
F getstate	F kerning
F getsub	F length
F getsubpre	F ligaturing
F getsubtype	F link
F getsup	F linked
F getsuppre	F locate
F getsurround	F migrate
F getsynctexfields	F mlist_to_hlist
F gettotal	F mlisttohlist
F getvalue	F naturalhsize
F getwhd	F naturalwidth
F getwidth	F nestedtracedslide
F getxscale	F new
F getxyscales	T pool
F getyscale	F accent
F has_attribute	F baselineskip
F has_dimensions	F boundary
F has_field	F choice
F has_glyph	F cleanup

F delim
F delimiter
F direction
F directliteral
F disc
F emptyrule
F fence
F fontkern
F fraction
F glue
F gluespec
F glyph
F hlist
F indentskip
F italickern
F kern
F latelua
F leader
F lefthangskip
F leftmarginkern
F leftskip
F lineskip
F literal
F mathchar
F mathtextchar
F negatedglue
F noad
F originliteral
F outlinerule
F pageliteral
F penalty
F radical
F rawliteral
F register
F restore
F righthangskip
F rightmarginkern
F rightskip
F rule
F save
F savepos
F setmatrix
F setstate
F shrink

F startrotation
F stock
F stretch
F subbox
F submlist
F temp
F usage
F userdefined
T userids
F usernode
F userrule
F vlist
F wordboundary
F prepend
F prependbeforehead
F processranges
F processwords
F protect_glyph
F protect_glyphs
F protectglyph
F protectglyphs
F protrusionskippable
F rangedimensions
F rawprop
F reference
F rehpack
F remove
F repackhlist
F replace
F reverse
T rules
  T ruleactions
    F box
    F draw
    F fill
    F mp
    F stroke
  F userrule
F set_attribute
F setattr
F setattribute
F setattributelist
F setattrlist
F setattrs

F setboth	F setsubpre
F setbox	F setsubtype
F setboxglue	F setsup
F setchar	F setsuppre
F setcomponents	F setsurround
F setdata	F setsynctexfields
F setdepth	F setvalue
F setdirection	F setvisual
F setdisc	F setvisuals
F setdiscpart	F setwhd
F setdiscretionary	F setwidth
F setexpansion	F show
F setfam	F slide
F setfield	F softenhyphens
F setfont	F somepenalty
F setglue	F somespace
F setglyphdata	F splitbox
F setheight	F start_of_par
F setkern	F startofpar
F setlang	F striprange
F setlanguage	F tail
F setleader	F takeattr
F setlink	F takebox
F setlist	F takelist
F setnext	F theprop
F setnucleus	F tonode
F setoffsets	F tonodes
F setoptions	F tonut
F setorientation	F tosequence
F setparproperty	F tostring
F setpenalty	F tracedslide
F setpost	F traverse
F setpre	F traverse_char
F setprev	F traverse_glyph
F setprop	F traverse_id
F setreplace	F traverse_list
F setruledata	F traversechar
F setscale	F traversecontent
F setscales	F traverseglyph
F setscript	F traverseid
F setshift	F traverselist
F setsplit	T traversers
F setstate	F boundary
F setsub	F char

F content			D data	
F dir			F enable	
F disc			F handler	
F glue			F register	
F glyph			D registered	
F hlist			D values	
F list			F processor	
F next		**points**		function
F node		**pool**		table
F vlist			F baselineskip	
F whatsit			F cleanup	
T typesetters			F directliteral	
F tohbox			F glyph	
F tohpack			F hlist	
F tonodes			F latelua	
F tovbox			F lineskip	
F tovpack			F literal	
F unprotect_glyph			F originliteral	
F unprotect_glyphs			F register	
F unprotectglyph			F restore	
F unprotectglyphs			F rule	
F unset_attribute			F save	
F unsetattribute			F savepos	
F unsetattributes			F setmatrix	
F untracedslide			F stock	
F usedlist			F usage	
F uses_font			F usernode	
F usesfont			F vlist	
F verticalbreak		**prepend**		function
F vianodes		**print**		function
F vianuts		**processors**		table
F vpack			F contribute_filter	
F write			F glyph_run	
F xscaled			F post_linebreak_filter	
F yscaled			F pre_linebreak_filter	
packlist	function		F trace_glyph_run_a	
parcodes	data table		F trace_glyph_run_b	
penaltycodes	data table	**properties**		table
plugindata	table		T data	
F finalizer		**pts**		function
F initializer		**radicalcodes**		data table
S name		**references**		table
T namespace			N attribute	
N attribute			T done	

F handler		F resetsamples	
T stack		F takesample	
rehpack	function	**somepenalty**	function
remove	function	**somespace**	function
repackhlist	function	**specialskipcodes**	table
replace	function	**splitbox**	function
report	function	**startofpar**	function
rightmarginwidth	function	**stripdiscretionaries**	function
rulecodes	data table	**stripping**	table
rules	table	T glyphs	
D data		F set	
F define		**subtypes**	data table
F enable		**tail**	function
F handler		**takeattr**	function
F process		**takebox**	function
F userrule		**tasks**	table
serialize	function	F actions	
serializebox	function	F appendaction	
set_attribute	function	F disableaction	
setattr	function	F disablegroup	
setattribute	function	F enableaction	
setboth	function	F enablegroup	
setbox	function	F freeze	
setboxtonaturalwd	function	F freezegroup	
setchar	function	F new	
setfield	function	F prependaction	
setfont	function	F removeaction	
setleader	function	F replaceaction	
setlink	function	F restart	
setlist	function	F setaction	
setnext	function	F showactions	
setprev	function	F table	
setproperty	function	**tobasepoints**	function
shifts	table	**tocentimeters**	function
D data		**tociceros**	function
F define		**todidots**	function
F enable		**todimen**	function
F handler		**toinches**	function
showboxes	function	**tomillimeters**	function
showlist	function	**tonode**	function
showsimplelist	function	**tonodes**	function
skipcodes	data table	**tonut**	function
snapshots	table	**topicas**	function
F getsamples		**topoints**	function

toscaledpoints	function	F stop	
tosequence	function	T transparencies	
tostring	function	F reset	
totable	function	F set	
totree	function	F setlist	
toutf	function	**traverse**	function
tracers	table	**traverse_id**	function
T colors		**traverseid**	function
F reset		**typesetters**	table
F set		F hbox	
F setlist		F hpack	
F directions		F tohbox	
F fontchar		F tohpack	
T frequencies		F tonodes	
F register		F tovbox	
T pool		F tovpack	
T nodes		F vpack	
F rule		**unset_attribute**	function
T nuts		**unsetattribute**	function
F rule		**usedlist**	function
F resetproperties		**vianodes**	function
F rule		**vianuts**	function
F setlist		**visualizebox**	function
F setproperties		**visualizers**	table
F start		F attribute	
T steppers		T attributes	
F check		F box	
F codes		F handler	
F features		F markfonts	
F font		F register	
F glyphs		F setfont	
F message		F setlayer	
F messages		F setruledglyph	
F nofsteps		F setvisual	
F register		**vpack**	function
F reset		**whatsitcodes**	data table
F start		**write**	function
F stop			

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 getbuffer
- F initialize
- F load
- F newbuffer
- F totable
- F types

ghostscript   table
- F execute
- F initialize

graphicsmagick table
- F execute
- F initialize

hb   table
- F getshapers
- F getversion
- F initialize
- F loadfont
- F shapestring

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
lz4   table
- F compress
- F decompresssize

- F framecompress
- F framedecompress
- F initialize

lzma   table
- F compress
- F decompress
- F initialize

lzo   table
- F compress
- F decompresssize
- F initialize

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

zstd   table

F compress

F decompress

F initialize

os (basic lua)

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

package (basic lua)

config	string	**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
expand   function
interlace   function

splitmask   function
tocmyk   function
tomask   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		S pages	
T author		S volume	
T editionset		S version	
T virtual		D virtual	
T demo-a		T virtualfields	
S category		B authornum	
T extra		B authoryear	
T fields		B authoryears	
S author		B num	
S institution		B suffix	
S organization		**datasets**	table
S subtitle		**detailed**	table
S title		**endnotes_to_btx**	function
S year		**enhancer**	table
T optional		S arguments	
T required		T askip	
T sets		B dirty	
T author		T gskip	
T virtual		T kind	
T demo-b		T list	
S category		T system	
T extra		T order	
T fields		N steps	
S author		**enhancers**	table
S institution		F details	
S organization		F order	
S subtitle		F suffixes	
S title			
S year		**finder**	function
T optional		**firstofrange**	function
T required		**found**	function
T sets		**get**	function
T authors		**getcasted**	function
T virtual		**getdetail**	function
S comment		**getdirect**	function
S copyright		**getfaster**	function
T fields		**getfield**	function
S name		**getfuzzy**	function
T types		**getindex**	function
S author		**inspectors**	data table
S editor		**journals**	table
S keywords		F abbreviated	
S number		F add	
S page		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	**findgivenfiles**	function
appendhash	function	**findlib**	function
automount	function	**findpath**	function
booleanvariable	function	**findtexfile**	function
cacheversion	string	**findwildcardfile**	function
checkedvariable	function	**findwildcardfiles**	function
cleanedpathlist	function	**formatofsuffix**	function
cleanpath	function	**formatofvariable**	function
cleanpathlist	function	**formats**	data table
concatinators	data table	**foundintree**	function
configbanner	string	**foundintrees**	function
configurationfiles	function	**generators**	data table
dangerous	data table	**get_from_content**	function
datastate	function	**getenv**	function
decompressors	table	**getextrapaths**	function
F register		**getfilehashes**	function
F unregister		**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

loaders	data table	**repath**	function
loadlualib	function	**reset**	function
loadtexfile	function	**resetextrapaths**	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		
macros	table	T cleaners	
		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			
F processmkvi		**setdynamic**	function
F version		**setenv**	function
maxreadlevel	number	**showpath**	function
methodhandler	function	**simplescanfiles**	function
openbinfile	function	**splitconfigurationpath**	function
openers	data table	**splitexpansions**	function
openfile	function	**splitmethod**	function
opentexfile	function	**splitpath**	function
ownpath	string	**stackpath**	function
popextrapath	function	**starttiming**	function
popinputname	function	**stoptiming**	function
poppath	function	**suffixes**	data table
prefixes	data table	**suffixmap**	data table
prependhash	function	**suffixofformat**	function
pushextrapath	function	**texdatablob**	function
pushinputname	function	**toppath**	function
pushpath	function	**unexpandedpath**	function
registerextrapath	function	**unexpandedpathlist**	function
registerfile	function	**unresolve**	function
registerfilehash	function	**updaterelations**	function
registerintrees	function	**updatescript**	function
registermethod	function	**uselibrary**	function
registerzipfile	function	**usertypes**	data table
relations	data table	**usezipfile**	function
renew	function	**validatedpath**	function
renewcache	function	**variable**	function
		variableofformat	function

variableofformatorsuffix function
wildcardpattern function

sandbox (context)

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

scripts (context)

autofontfeature table
    F disable
    F enable
    F handler
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
helpers data 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	**readinteger1le**	function
readbytes	function	**readinteger2**	function
readbytetable	function	**readinteger2le**	function
readcardinal1	function	**readinteger3**	function
readcardinal1le	function	**readinteger3le**	function
readcardinal2	function	**readinteger4**	function
readcardinal2le	function	**readinteger4le**	function
readcardinal3	function	**readintegertable**	function
readcardinal3le	function	**tocardinal1**	function
readcardinal4	function	**tocardinal1le**	function
readcardinal4le	function	**tocardinal2**	function
readcardinaltable	function	**tocardinal2le**	function
readcline	function	**tocardinal3**	function
readcstring	function	**tocardinal3le**	function
readfixed2	function	**tocardinal4**	function
readfixed4	function	**tocardinal4le**	function
readinteger1	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	
S resent-cc	
S resent-date	
S resent-from	
S resent-message-id	
S resent-reply-to	
S resent-sender	
S resent-to	
S retry-after	
S return-path	
S sender	
S server	
S smtp-remote-recipient	
S status	
S subject	
S te	
S to	
S trailer	
S transfer-encoding	
S upgrade	
S user-agent	
S vary	
S via	
S warning	
S will-retry-until	
S www-authenticate	
S x-mailer	
F lower	
F normalize	

http	table
N TIMEOUT	
S USERAGENT	
F genericform	
F open	
F request	

newtry	function

protect	function
report	function
select	function
sink	function
sinkt	table
F close-when-done	
F default	
F http-chunked	
F keep-open	

skip	function
sleep	function
source	function
sourcet	table
F by-length	
F default	
F http-chunked	
F until-closed	

tcp	function
tcp4	function
tcp6	function
tp	table
N TIMEOUT	
F connect	

try	function
udp	function
udp4	function
udp6	function
url	table
F absolute	
F build	
F build_path	
F escape	
F parse	
F parse_path	
F unescape	

sorters (context)

basicsorter   function
comparers   table
  F basic
constants   table
  S defaultdigits
  S defaultlanguage
  S defaultmethod
  N 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

sparse (context)

concat	function		**range**	function
get	function		**restore**	function
max	function		**set**	function
min	function		**traverse**	function
new	function		**wipe**	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	**getmarkstate**	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
getinsertstate	function	**iocodes**	table
getlanguagestate	function	**list**	function
getlookupstate	function	**resetmessages**	function
getluastate	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**

D data

F define

F getdata

F getlocation

F getname

F getnumber

F setlocation

F setup

D stored

itemgroups   **table**

lists   **table**

F addto

F analyze

B autoreorder

D cached

D collected

F discard

F enhance

T enhancers

F filter

F formulanumber

F getresult

F groupindex

F hasnumberdata

F haspagedata

F hastitledata

F iscached

D kinds

F label

F location

D names

F number

D ordered

F page

F popnesting

F prefix

F prefixednumber

F prefixedpage

F process

D pushed

F pushnesting

F realpage

T result

F savedlistnumber

F savedlistprefixednumber

F savedlisttitle

D sectionblocks

F sectionnumber

F size

F title

D tobesaved

F userdata

F uservalue

marks   **table**

D data

F define

F exists

F fetch

F fetchallmarks

F fetched

F fetchonemark

F fetchtwomarks

F get

F number

F relate

F reset

F set

F show

F synchronize

F title

T tracers

    F showtable

notes   **table**

F check_spacing

F checkpagechange

F define

F doifonsamepageasprevious

F get

F getdeltapage

F getinternal

F getn

F getstate

F hascontent

F internal

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

sections   table

F	autodepth
F	cct
D	collected
F	current
F	currentblock
F	currentid
F	currentlevel
F	currentsectionindex
F	depthnumber
F	finddata
F	findnumber
F	fullnumber
F	getcurrentlevel
F	getlevel
F	getnumber
F	internalreference
D	levelmap
D	levels
F	matchingtilldepth
F	numberatdepth
F	numbers
F	popblock
F	prefixedconverted
F	pushblock

Left column continued:

F	special
F	special operation
F	special operation with arguments
T	testspecials
F	deltapage
F	i
F	internal
F	page
F	realpage
F	section
F	userpage
D	tobereferred
D	tobesaved
D	tracedpages
T	urls
T	data
F	define
F	found
F	get
F	untex
D	usedinternals
D	usedviews
F	valid

registers   table

F	analyze

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

tags table

F	setblock			T	backend
F	setchecker			T	checks
F	setentry			F	marginanchor
F	setinitialblock			F	margintext
F	setlevel			F	math
F	setnumber			F	mrow
F	showstructure			F	mtable
F	structuredata			T	destinationhash
F	title			T	extras
D	tobesaved			F	adddestination
F	typesetnumber			F	addimplicit
F	userdata			F	addinternal
B	verbose			F	addreference

sets table

F	define			F	combination
F	get			F	delimitedsymbol
F	getall			F	description
D	setlist			F	descriptionsymbol

specials table

D	collected			F	document
F	retrieve			F	float
F	store			F	formulacontent
D	tobesaved			F	image

synonyms table

F	analyzed			F	item
D	collected			F	itemgroup
F	compare			F	link
F	define			F	listitem
F	filter			F	mi
F	finalize			F	msub
F	flush			F	msup
F	isshown			F	paragraph
F	isused			F	publication
F	meaning			F	reference
F	prepare			F	registerlocation
F	process			F	registerpages
				F	registerseparator
				F	section

```
  F sorting                              U splitter
  F subsentencesymbol               D properties
  F synonym                          F registerextradata
  F tablecell                        F registermetadata
  F tabulate                         F restart
  F tabulatecell                     F setaspect
T finalizers                         F setattributehash
  F descriptions                     F setcombination
T fixes                              F setconstruct
  F linenumber                       F setfigure
T listdata                           F setfloat
T referencehash                      F setformulacontent
  F setattribute                     F sethighlight
T usedimages                         F setitem
  T image                            F setitemgroup
T usedstyles                         F setlist
  T construct                        F setnotation
  T highlight                        F setnotationsymbol
F current                            F setparagraph
F elementtag                         F setproperty
F enabled                            F setpublication
F exportbox                          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 localexport                        F strip
F locatedtag                         D taglist
T patterns                           T usewithcare
```

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	**getboxresourcebox**	function
badness	function	**getboxresourcedimensions**	function
box	table	**getcatcode**	function
boxresources	table	**getcount**	function
F getbox		**getdelcode**	function
F getdimensions		**getdelcodes**	function
F save		**getdelimitermodevalues**	function
F use		**getdimen**	function
catcode	table	**getdimensionvalue**	function
chardef	function	**getdiscoptionvalues**	function
codes	table	**getdiscstatevalues**	function
conditionals	data table	**geterrorvalues**	function
constants	data table	**getflagvalues**	function
count	table	**getfontoffamily**	function
cprint	function	**getfrozenparvalues**	function
ctdcatcodes	number	**getglue**	function
ctxcatcodes	number	**getglyphdata**	function
definefont	function	**getglyphoptionvalues**	function
delcode	table	**getglyphscript**	function
dimen	table	**getglyphstate**	function
dimensiondef	function	**getgroupvalues**	function
directives	data table	**gethelptext**	function
discoptioncodes	data table	**gethyphenationvalues**	function
enableprimitives	function	**getinsertcontent**	function
error	function	**getinsertdepth**	function
expandasvalue	function	**getinsertdistance**	function
experiments	data table	**getinsertheight**	function
extraprimitives	function	**getinsertlimit**	function
fatalerror	function	**getinsertmultiplier**	function
flagcodes	data table	**getinsertwidth**	function
fontidentifier	function	**getintegervalue**	function
fontname	function	**getinteraction**	function
forcehmode	function	**getiovalues**	function
forcesynctexline	function	**getlargestusedmark**	function
forcesynctextag	function	**getlccode**	function
fprint	function	**getlinedir**	function
frozenparcodes	data table	**getlist**	function
get	function	**getlocallevel**	function
getattribute	function	**getmark**	function
getbox	function	**getmath**	function
getboxdir	function	**getmathcode**	function

getmathcodes	function
getmathcontrolvalues	function
getmathdir	function
getmathflattenvalues	function
getmathoptionvalues	function
getmathparametervalues	function
getmathstylenamevalues	function
getmathstylevalues	function
getmathvariantvalues	function
getmodevalues	function
getmuglue	function
getmuskip	function
getnest	function
getnormalizevalues	function
getoutputactive	function
getpacktypevalues	function
getpagestate	function
getparbeginvalues	function
getparcontextvalues	function
getpardir	function
getparmodevalues	function
getprimitiveorigins	function
getregisterindex	function
getrunstatevalues	function
getsfcode	function
getskip	function
getsynctexline	function
getsynctexmode	function
getsynctextag	function
gettextcontrolvalues	function
gettextdir	function
gettoks	function
getuccode	function
glue	table
glyphoptioncodes	data table
groupcodes	data table
hashtokens	function
hyphenationcodes	data table
ifs	data table
inicatcodes	number
integerdef	function
isattribute	function
isbox	function
iscount	overloaded function

isdefined	function
isdimen	overloaded function
isglue	function
ismuglue	function
ismuskip	overloaded function
isprintable	function
isskip	overloaded function
istoken	function
istoks	function
lastnodetype	function
lccode	table
linebreak	function
lists	table
luacatcodes	number
magicconstants	table
N maxdimen	
N running	
N trueinch	
mathchardef	function
mathcode	table
mathcontrolcodes	data table
mathflattencodes	data table
mathoptioncodes	data table
modelevels	table
N horizontal	
N math	
N unset	
N vertical	
modes	data table
mprint	function
muglue	table
muskip	table
nest	table
nilcatcodes	number
normalizecodes	data table
notcatcodes	number
number	function
poplocal	function
primitives	function
print	function
prtcatcodes	number
pushlocal	function
quitlocal	function
quittoks	function

resetparagraph	function	**setrunstate**	overloaded function
rlncatcodes	number	**setsfcode**	function
romannumeral	function	**setskip**	function
round	function	**setsynctexline**	function
runlocal	function	**setsynctexmode**	function
runtoks	function	**setsynctextag**	function
saveboxresource	function	**settextdir**	function
scale	function	**settoks**	function
scantoks	function	**setuccode**	function
set	function	**sfcode**	table
setattribute	function	**shiftparshape**	function
setbox	function	**shipout**	function
setboxdir	function	**showcontext**	function
setcatcode	function	**skip**	table
setcount	function	**snapshotpar**	function
setdelcode	function	**sp**	function
setdimen	function	**splitbox**	function
setdimensionvalue	function	**sprint**	function
setglue	function	**stringtocodesbitmap**	function
setglyphdata	function	**systemmodes**	data table
setglyphscript	function	**takebox**	function
setglyphstate	function	**texcatcodes**	number
setinsertcontent	function	**textcontrolcodes**	data table
setinsertdistance	function	**toks**	table
setinsertlimit	function	**tonumber**	function
setinsertmultiplier	function	**toscaled**	function
setintegervalue	function	**tpacatcodes**	number
setinteraction	function	**tpbcatcodes**	number
setlccode	function	**tprint**	function
setlinedir	function	**trackers**	data table
setlist	function	**triggerbuildpage**	function
setmath	function	**txtcatcodes**	number
setmathcode	function	**type**	function
setmathdir	function	**uccode**	table
setmuglue	function	**uprint**	function
setmuskip	function	**useboxresource**	function
setnest	function	**vrbcatcodes**	number
setpardir	function	**write**	function

texconfig (basic tex)

buffersize	table		**languagesize**	table
	N size			N size
	N step			N step
errorlinesize	table		**marksize**	table
	N size			N size
expandsize	table			N step
	N size		**nestsize**	table
filesize	table			N size
	N size			N step
	N step		**nodesize**	table
firstline	string			N size
fontsize	table			N step
	N size		**parametersize**	table
	N step			N size
formatname	string			N step
functionsize	number		**poolsize**	table
halferrorlinesize	table			N size
	N size			N step
hashsize	table		**propertiessize**	number
	N size		**savesize**	table
	N step			N size
init	overloaded function			N step
inputsize	table		**shell_escape**	string
	N size		**stringsize**	table
	N step			N size
insertsize	table			N step
	N size		**tokensize**	table
	N step			N size
kpse_init	boolean			N step

texio (basic tex)

closeinput	function	**writenl**	function
terminal	function	**writeselector**	function
write	function	**writeselectorlf**	function
write_nl	function	**writeselectornl**	function

token (basic tex)

create	function	**getexpandable**	function
expand	function	**getfields**	function
expand_macro	function	**getflags**	function
expandmacro	function	**getfrozen**	function
future_expand	function	**getfunctionvalues**	function
futureexpand	function	**getid**	function
get_active	function	**getimmutable**	function
get_cmdchrcs	function	**getindex**	function
get_cmdname	function	**getinstance**	function
get_command	function	**getinteger**	function
get_csname	function	**getmacro**	function
get_cstoken	function	**getmeaning**	function
get_dimension	function	**getnoaligned**	function
get_expandable	function	**getparameters**	function
get_fields	function	**getpermanent**	function
get_flags	function	**getprimitive**	function
get_frozen	function	**getprimitives**	function
get_id	function	**getprotected**	function
get_immutable	function	**getrange**	function
get_index	function	**gettok**	function
get_instance	function	**gettolerant**	function
get_integer	function	**gobble**	function
get_macro	function	**gobble_dimen**	function
get_meaning	function	**gobble_integer**	function
get_noaligned	function	**gobbledimen**	function
get_parameters	function	**gobbleinteger**	function
get_permanent	function	**is_defined**	function
get_primitive	function	**is_next_char**	function
get_protected	function	**is_token**	function
get_range	function	**isdefined**	function
get_tok	function	**isnextchar**	function
get_tolerant	function	**istoken**	function
getactive	function	**new**	function
getcmdchrcs	function	**peek_next**	function
getcmdname	function	**peek_next_char**	function
getcommand	function	**peek_next_expanded**	function
getcommandid	function	**peeknext**	function
getcommandvalues	function	**peeknextchar**	function
getcsname	function	**peeknextexpanded**	function
getcstoken	function	**pop_macro**	function
getdimension	function	**popmacro**	function

push_macro	function	**scanbox**	function
pushmacro	function	**scancardinal**	function
put_back	function	**scanchar**	function
put_next	function	**scancmdchr**	function
putback	function	**scancmdchrexpanded**	function
putnext	function	**scancode**	function
save_lua	function	**scancsname**	function
savelua	function	**scandelimited**	function
scan_argument	function	**scandimen**	function
scan_box	function	**scandimenargument**	function
scan_cardinal	function	**scanfloat**	function
scan_char	function	**scanglue**	function
scan_cmdchr	function	**scaninteger**	function
scan_cmdchr_expanded	function	**scanintegerargument**	function
scan_code	function	**scankey**	function
scan_csname	function	**scankeyword**	function
scan_delimited	function	**scankeywordcs**	function
scan_dimen	function	**scanletters**	function
scan_dimen_argument	function	**scanluacardinal**	function
scan_float	function	**scanluainteger**	function
scan_glue	function	**scanluanumber**	function
scan_integer	function	**scannext**	function
scan_integer_argument	function	**scannextchar**	function
scan_key	function	**scannextexpanded**	function
scan_keyword	function	**scanreal**	function
scan_keyword_cs	function	**scanscale**	function
scan_letters	function	**scanskip**	function
scan_luacardinal	function	**scanstring**	function
scan_luainteger	function	**scantoken**	function
scan_luanumber	function	**scantokencode**	function
scan_next	function	**scantokenlist**	function
scan_next_char	function	**scantoks**	function
scan_next_expanded	function	**scanvalue**	function
scan_real	function	**scanword**	function
scan_scale	function	**serialize**	function
scan_skip	function	**set_char**	function
scan_string	function	**set_dimension**	function
scan_token	function	**set_integer**	function
scan_token_code	function	**set_lua**	function
scan_tokenlist	function	**set_macro**	function
scan_toks	function	**setchar**	function
scan_value	function	**setdimension**	function
scan_word	function	**setinteger**	function
scanargument	function	**setlua**	function

setmacro	function	**skipnextexpanded**	function
skip_next	function	**type**	function
skip_next_expanded	function	**undefine_macro**	function
skipnext	function	**undefinemacro**	function

tokens (context)

accessors table

   F active

   F cmd

   F cmdchrcs

   F cmdname

   F command

   F csname

   F expandable

   F frozen

   F index

   F name

   F protected

   F range

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		F cmdchrexpanded
flags	function		F code
getinteger	function		F conditional
getters	table		F count
F box			F csname
F count			F delimited
F cstoken			F dimen
F dimen			F dimenargument
F glue			F dimension
F macro			F float
F meaning			F glue
F skip			F gluespec
F token			F gluevalues
gobble	function		F hash
isdefined	function		F hbox
istoken	function		F integer
new	function		F integerargument
pickup	function		F ischar
popmacro	function		F key
presets	table		F keyword
T 1 argument			F keywordcs
T 1 string			F letters
T 2 arguments			F list
T 2 strings			F luacardinal
T 3 arguments			F luainteger
T 3 strings			F luanumber
T 4 arguments			F lxmlid
T 4 strings			F next
T 5 strings			F nextchar
T 6 strings			F nextexpanded
T 7 strings			F number
T 8 strings			F optional
pushmacro	function		F peek
scanners	table		F peekchar
F argument			F peekexpanded
F argumentasis			F real
F array			F scanclose
F boolean			F scanopen
F box			F skip
F bracketed			F skipexpanded
F bracketedasis			F string
F cardinal			F table
F char			F token
F cmdchr			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 lua

  F macro

  F skip

shortcuts table

  T bits

    N active

    N alignment

    N begingroup

    N character

    N close

    N comment

    N endgroup

    N endofline

    N escape

    N ignore

    N invalid

    N letter

    N mathshift

    N open

    N other

    N parameter

    N space

    N subscript

    N superscript

    N whitespace

  N close

  F inspect

  N open

  F report

  F scanargument

  F scanargumentasis

  F scanarray

  F scanboolean

  F scanbox

  F scanbracketed

  F scanbracketedasis

  F scancardinal

  F scanclose

  F scancode

  F scanconditional

  F scancsname

  F scandelimited

  F scandimen

  F scandimenargument

  F scandimension

  F scanglue

  F scangluespec

  F scangluevalues

  F scanhash

  F scanhbox

  F scaninteger

  F scanintegerargument

  F scankeyword

  F scankeywordcs

  F scanletters

  F scanlist

  T scanners

    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 verbatim
F dimen	F vtop
F dimenargument	F whd
F dimension	F word
F float	F scannumber
F glue	F scanopen
F gluespec	F scanoptional
F gluevalues	F scanstring
F hash	F scantable
F hbox	F scantokenlist
F integer	F scantoks
F integerargument	F scanvbox
F ischar	F scanverbatim
F key	F scanvtop
F keyword	F scanword
F keywordcs	F toboolean
F letters	F todimen
F list	T tokens
F luacardinal	T accessors
F luainteger	F active
F luanumber	F cmd
F lxmlid	F cmdchrcs
F next	F cmdname
F nextchar	F command
F nextexpanded	F csname
F number	F expandable
F optional	F frozen
F peek	F index
F peekchar	F name
F peekexpanded	F protected
F real	F range
F scanclose	F astable
F scanopen	T cache
F skip	U NC
F skipexpanded	U NR
F string	U bf
F table	U buff_finish
F token	U c_font_compact
F tokencode	U color
F tokenlist	U colordefalc
F tokens	U colordefflc
F toks	U colordefflt
F value	U colordefrlt
F vbox	U dofinishreference

U dostarttext	F macro
U finishjob	F meaning
U firstofoneargument	F skip
U firstoftwoarguments	F token
U gobbleoneargument	F gobble
U goto	F isdefined
U iftrue	F istoken
U input	F new
U loadfoundtypescriptfile	F pickup
U resetctxscanner	F popmacro
U rlap	T presets
U secondoftwoarguments	F pushmacro
U setfalsevalue	F setinteger
U setsectionblock	T setters
U setupsystem	F box
U startcolumns	F char
U starttabulate	F count
U starttitle	F dimen
U startxtitle	F glue
U stopcolumns	F lua
U stoptabulate	F macro
U stoptitle	F skip
U stopxtitle	T shortcuts
U texsetup	N close
U xmlw	F inspect
D commands	N open
F compile	F report
F constant	F scanargument
T converters	F scanargumentasis
S toboolean	F scanarray
S todimen	F scanboolean
S toglue	F scanbox
S tonumber	F scanbracketed
S tostring	F scanbracketedasis
F create	F scancardinal
F defined	F scanclose
F flags	F scancode
F getinteger	F scanconditional
T getters	F scancsname
F box	F scandelimited
F count	F scandimen
F cstoken	F scandimenargument
F dimen	F scandimension
F glue	F scanglue

F scangluespec

F scangluevalues

F scanhash

F scanhbox

F scaninteger

F scanintegerargument

F scankeyword

F scankeywordcs

F scanletters

F scanlist

F scannumber

F scanopen

F scanoptional

F scanstring

F scantable

F scantokenlist

F scantoks

F scanvbox

F scanverbatim

F scanvtop

F scanword

F toboolean

F todimen

F tonumber

F tostring

D values

F tonumber

F tostring

values   data table

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

F	setseed		F	getsize
F	setseedi		F	getstring
randomizers	**table**		F	look
F	poisson		F	open
sequencers	**table**		F	openstring
F	appendaction		F	read2dot14
F	appendgroup		F	readbyte
F	compile		F	readbytes
F	disableaction		F	readbytetable
F	disablegroup		F	readcardinal
F	enableaction		F	readcardinal1
F	enablegroup		F	readcardinal1le
D	functions		F	readcardinal2
F	localize		F	readcardinal2le
F	new		F	readcardinal3
F	nodeprocessor		F	readcardinal3le
F	prependaction		F	readcardinal4
F	prependgroup		F	readcardinal4le
F	removeaction		F	readcardinaltable
F	replaceaction		F	readchar
F	setkind		F	readcline
F	tostring		F	readcstring
setters	**table**		F	readfixed2
F	disable		F	readfixed4
F	enable		F	readinteger
F	initialize		F	readinteger1
F	list		F	readinteger1le
F	new		F	readinteger2
F	register		F	readinteger2le
F	report		F	readinteger3
F	reset		F	readinteger3le
F	show		F	readinteger4
stacker	**table**		F	readinteger4le
F	new		F	readintegertable
storage	**table**		F	readsignedbyte
F	allocate		F	readstring
F	checked		F	setposition
F	mark		F	size
F	marked		F	skip
F	setinitializer		F	skipbytes
F	sparse		F	skiplong
streams	**table**		F	skipshort
F	close		F	tocardinal1
F	getposition		F	tocardinal1le

F tocardinal2		**tar**		table
F tocardinal2le		T archives		
F tocardinal3		F closearchive		
F tocardinal3le		T files		
F tocardinal4		F fetch		
F tocardinal4le		F hash		
strings	table	F list		
F collapse		F pack		
F collapsecrlf		F unpack		
T formatters		F openarchive		
F add		T registeredfiles		
F new		T streams		
F newcollector		F fetch		
F newrepeater		F hash		
F nice		F list		
T striplinepatterns		F pack		
U collapse		F unpack		
U prune		T strings		
U prune and collapse		F fetch		
U prune and no empty		F hash		
U prune and to space		F list		
U retain		F pack		
U retain and collapse		F unpack		
U retain and no empty		**templates**		table
F striplines		F load		
F striplong		F replace		
F tabtospace		F replacer		
T tracers		F resolve		
tables	table	**zipfiles**		table
F accesstable		F close		
F definedtable		F found		
F definetable		F gunzipfile		
F encapsulate		F hash		
F insertaftervalue		F list		
F insertbeforevalue		F open		
F migratetable		F unzip		
F removevalue		F unzipdir		
F replacevalue		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		F sqrt
__add	function		F tan
__div	function		F tanh
__eq	function		F topair
__index	table		F tostring
F I			F totable
F __add			F __mul
F __div			S __name
F __eq			F __pow
T __index			F __sub
F I			F __tostring
F __add			F __unm
F __div			F abs
F __eq			F acos
F __mul			F acosh
S __name			F arg
F __pow			F asin
F __sub			F asinh
F __tostring			F atan
F __unm			F atanh
F abs			F conj
F acos			F cos
F acosh			F cosh
F arg			F exp
F asin			F i
F asinh			F imag
F atan			F log
F atanh			F new
F conj			F pow
F cos			F proj
F cosh			F real
F exp			F sin
F i			F sinh
F imag			F sqrt
F log			F tan
F new			F tanh
F pow			F topair
F proj			F tostring
F real			F totable
F sin		**__mul**	function
F sinh		**__name**	string

__pow	function	**i**	function
__sub	function	**imag**	function
__tostring	function	**log**	function
__unm	function	**new**	function
abs	function	**pow**	function
acos	function	**proj**	function
acosh	function	**real**	function
arg	function	**sin**	function
asin	function	**sinh**	function
asinh	function	**sqrt**	function
atan	function	**tan**	function
atanh	function	**tanh**	function
conj	function	**topair**	function
cos	function	**tostring**	function
cosh	function	**totable**	function
exp	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 toengstring
      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		**band**	function
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	toengstring		**ln**	function
F	tonumber		**log**	function
F	tostring		**max**	function
F	trim		**min**	function
__le	function		**minus**	function
__lt	function		**new**	function
__mod	function		**plus**	function
__mul	function		**pow**	function
__name	string		**rotate**	function
__pow	function		**setprecision**	function
__shl	function		**shift**	function
__shr	function		**sqrt**	function
__sub	function		**toengstring**	function
__tostring	function		**tonumber**	function
__unm	function		**tostring**	function
abs	function		**trim**	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 family	
addspecialcode	function		F fontspecification	
after	function		F mappedstylevalue	
all	function		F padding	
applylpath	function		F size	
applyselector	function		F style	
assign	function		F stylevalue	
attribute	function		F todimension	
badinclusions	function		F variant	
before	function		F weight	
body	function		**defaulthandlers**	table
builtinentities	table		D file	
B amp			D parsedxml	
B apos			D string	
B gt			D tex	
B lt			D texline	
B quot			D texspace	
cdata	function		D verbose	
cdatatotext	function		**defaultprotocol**	string
checkbom	function		**delete**	function
checkedempty	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 lower			F upper	
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
filter   function
finalizers   table

- F paragraphs
- T tex
  - F all
  - F attribute
  - F chainattribute
  - F chainpath
  - F command
  - F concat
  - F concatrange
  - F context
  - F count
  - F ctxtext
  - F default
  - F depth
  - F first
  - F function
  - F index
  - F last
  - F lettered
  - F lower
  - F lowerall
  - F match
  - F name
  - F param
  - F parameter
  - F position
  - F reverse
  - F stripped
  - F tag
  - F tags
  - F text

(right column, continued)

- F count
- F default
- F elements
- F empty
- F first
- F function
- F index
- F last
- F lowerall
- F match
- F name
- F position
- F reverse
- F table
- F tag
- F tags
- F text
- F texts
- F upperall

first   function
found   function
functions   table

- F classes
- F hasclass

getbuffer   function
gethandlers   function
gethandlersfunction   function
helpers   table

- F recursetext

include   function
inclusion   function
inclusions   function
index   function
inheritattributes   function

inheritedconvert	function		**privatetoken**	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 '	

S <		**texttocdata**	function
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

xzip (extra lua)

adler32	function	**crc32**	function
compress	function	**decompress**	function
compresssize	function	**decompresssize**	function

zip (extra lua)

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

zlib (extra lua)

adler32	function	**crc32**	function
compress	function	**decompress**	function
compresssize	function	**decompresssize**	function