MP attributes backends basexx bit32 blobs
boolean buffers builders caches callback
callbacks catcodes characters chemistry
commands containers context converters
coroutine ctxrunner debug dir directives
document documentdata drivers environment
experiments figures file fio floats font fonts
functions global graphics gzip images
interactions interfaces io job language
languages layouts lfs libraries lmx logs lpdf
lpeg lua luatex lxml math mathematics md5
metapost mime moduledata modules mp mplib
noads node nodes number objects optional os
package pagebuilders parametersets pdf
pdfdecode pdfe physics pngdecode publications
regimes resolvers sandbox scripts set sha2 sio
socket sorters statistics status storage
streams string structures table tex
texconditionals texconfig texconstants texifs
texio texisdefined texmodes texsystemmodes
thirddata token tokens tracers trackers
typesetters updaters url userdata utf8
utilities visualizers xcomplex xdecimal xmath
xml xzip zip zlib

ConTEXt LMTX

global (alias: _G)

CONTEXTLMTXMODE	number		**directives**	table
FFISUPPORTED	boolean		**document**	table
INITEXMODE	boolean		**documentdata**	table
LUAMAJORVERSION	number		**dofile**	function
LUAMINORVERSION	number		**drivers**	table
LUATEXENGINE	string		**environment**	table
LUATEXFORMATID	number		**error**	function
LUATEXFUNCTIONALITY	number		**experiments**	table
LUATEXVERSION	number		**figures**	table
LUAVERSION	number		**file**	table
MP	function		**fio**	table
arg	table		**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		**images**	table
callback	table		**inspect**	function
callbacks	table		**interactions**	table
catcodes	table		**interfaces**	table
characters	table		**io**	table
checkimage	function		**ipairs**	function
chemistry	table		**job**	table
collectgarbage	function		**language**	table
commands	table		**languages**	table
containers	table		**layouts**	table
context	function		**lfs**	table
converters	table		**libraries**	table
coroutine	table		**lmx**	table
createmask	function		**load**	function
ctxrunner	table		**loadfile**	function
data	table		**loadstring**	function
debug	table		**logs**	table
dimen	function		**lpdf**	table
dir	table		**lpeg**	table

lua	table	**select**	function
luatex	table	**set**	table
lxml	table	**setinspector**	function
math	table	**setmetatable**	function
mathematics	table	**sha2**	table
md5	table	**shipbox_ref_h**	number
metapost	table	**shipbox_ref_v**	number
mime	table	**sio**	table
moduledata	table	**socket**	table
modules	table	**sorters**	table
mp	function	**statistics**	table
mplib	table	**status**	table
next	function	**storage**	table
noads	table	**streams**	table
node	table	**string**	table
nodes	table	**structures**	table
number	table	**table**	table
objects	table	**tex**	table
optional	table	**texconditionals**	data table
optionalrequire	function	**texconfig**	table
os	table	**texconstants**	data table
package	table	**texifs**	data table
pagebuilders	table	**texio**	table
pairs	function	**texisdefined**	data table
parametersets	table	**texmodes**	data table
pcall	function	**texsystemmodes**	data table
pdf	table	**thirddata**	table
pdfdecode	table	**toboolean**	function
pdfe	table	**todecimal**	function
physics	table	**token**	table
pngdecode	table	**tokens**	table
print	function	**tonumber**	function
publications	table	**tostring**	function
rawequal	function	**tracers**	table
rawget	function	**trackers**	table
rawlen	function	**type**	function
rawset	function	**typesetters**	table
regimes	table	**unpack**	function
require	function	**updaters**	table
required	function	**url**	table
resolvers	table	**userdata**	table
ruledspace	function	**utf**	table
sandbox	table	**utf8**	table
scripts	table	**utilities**	table

visualizers	table	**xml**	table
warn	function	**xpcall**	function
xcomplex	table	**xzip**	table
xdecimal	table	**zip**	table
xmath	table	**zlib**	table

attributes (context)

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

applyoverloads   function

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

colors   table
- N attribute
- F cmyk
- F cmyktogray
- F cmyktorgb
- F colorcomponents
- D counts
- B couple
- F currentmodel
- F currentnamedmodel
- D data
- N default
- F defineintermediatecolor
- F definemultitonecolor
- F defineprocesscolor
- F defineprocesscolordirect
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- N forced
- F forcedmodel
- F forcesupport
- F formatcolor

- F formatgray
- F getpagecolormodel
- F gray
- F graytohsv
- F handler
- T helpers
  - F complement
  - F inbetween
  - F justone
- F hsvtogray
- F hsvtorgb
- F hwbtorgb
- F iccprofile
- F isblack
- N main
- S model
- D models
- F mpcolor
- F mpnamedcolor
- F mpoptions
- F namedcolorattributes
- N none
- F popset
- F processcolorcomponents
- F pushset
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbtocmyk
- F rgbtogray
- F rgbtohsv
- N selector
- F setlist
- F setmodel
- F setpagecolormodel
- D sets
- F spec
- F spot
- F spotcolorname
- F spotcolorparent

F	spotcolorvalue	
B	supported	
F	toattributes	
F	transparencycomponents	
B	triggering	
F	usecolors	
D	valid	
F	value	
D	values	
B	weightgray	

define function

effects table

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

F	disabletriggering
F	enabletriggering
F	finalize
F	initialize
F	process

F	selective
F	simple
F	stacked
F	stacker

system function

tooverloads function

transparencies table

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

unsetvalue number

viewerlayers table

N	attribute
F	cleanup
D	data
F	define

F definedlayoutcomponent

F enable

F forcesupport

F handler

B hasorder

D listwise

F register

D registered

F resolve_begin

F resolve_end

F resolve_reset

F resolve_step

D scopes

F setfeatures

F start

F stop

B supported

D values

backends (context)

closeout   function
codeinjections   table
    F boxresourcedimensions
    F registerboxresource
    F restoreboxresource
current   string
defaults   table
    T codeinjections
    T nodeinjections
    T registrations
    D tables
getcallbackstate   function
included   table
    B context
    B date
    B id
    B metadata
    B pdf
install   function
latelua   function
nodeinjections   table
nothing   function
openout   function
pdf   table
    T codeinjections
    F addbookmarks
    F analyzenormalsymbol
    F analyzesymbol
    F attachmentid
    F bitmap
    F clonefield
    F copyimage
    F definefield
    F definefieldset
    F defineviewerlayer
    F embedfile
    F embedimage
    F enabletags
    F exportformdata
    F fieldsurrounding
    F flushmergelayer

F getbookmarks
F getdefaultfieldvalue
F getfieldcategory
F getfieldset
F getformatoption
F getidentityvariable
F getinfo
F getpreviewfigure
F insertrenderingwindow
F jp2
F jpg
F maptag
F mergebookmarks
F mergecomments
F mergefields
F mergereferences
F mergeviewerlayers
F newimage
F png
F prerollreference
F presetsymbol
F presetsymbollist
F processrendering
F registerdocumentcloseaction
F registerdocumentopenaction
F registeredsymbol
F registerpagecloseaction
F registerpageopenaction
F registerpattern
F registersymbol
F scanimgage
F setattachmentsupport
F setfieldcalculationset
F setfigurealternative
F setfigurecolorspace
F setfiguremask
F setformat
F setformsmethod
F setpagetransition
F settaggingsupport
F setupidentity

```
    F setxmpfile                                  F knockout
    F startlayer                                  F negative
    F startunicodetoactualtext                    F overprint
    F startunicodetoactualtextdirect              F positive
    F stoplayer                                   F reference
    F stopunicodetoactualtext                     F rgbcolor
    F stopunicodetoactualtextdirect               F spotcolor
    F supportedformats                            F startalternate
    F unicodetoactualtext                         F startlayer
    F useviewerlayer                              F startstackedlayer
    F validfield                                  F stopalternate
    F validfieldcategory                          F stoplayer
    F validfieldset                               F stopstackedlayer
    F wrapimage                                   F transparency
  S comment                                       F typesetfield
  T nodeinjections                              T registrations
    F addtags                                     F cmykindexcolor
    F annotation                                  F cmykspotcolor
    F attachfile                                  F getspotcolorreference
    F changestackedlayer                          F grayindexcolor
    F cmykcolor                                   F grayspotcolor
    F comment                                     F rgbindexcolor
    F destination                                 F rgbspotcolor
    F effect                                      F spotcolorname
    F graycolor                                   F transparency
    F injectbitmap                              T tables
    F insertmovie
    F insertsound
    F insertu3d
```

registrations	table
tables	table
writeout	function

basexx (extra lua)

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

bit32 (basic lua)

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

blobs (context)

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

boolean (context)

tocontext   function
tonumber   function

buffers (context)

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

builders (context)

checksidefloat function
kernel table
  F hyphenating
  F hyphenation
  F kerning
  F ligaturing
  F mlist_to_hlist
paragraphs table
  T constructors
   N attribute
   F define
   F disable
   F enable
   F handler
   T methods
    F basic
    F default
    F hpack
    F oneline
   D names
   D numbers
   F set
   F start
   F stop
  T expansion
   F trace
  F keeptogether
  F registertogether
  T solutions
   T splitters
    F define
    F optimize
    T registered
    F reset
    F set
    F split
    F start
    F stop

  F tag
profiling table
  F add
  F distance
  F fixedprofile
  F get
  F list
  F pagehandler
  F profilebox
  F set
vspacing table
  D categories
  F checkstrutdepth
  F collapsevbox
  T data
   D map
   D skip
   D snapmethods
  F definesnapmethod
  B fixed
  F forcepageflush
  F forcestrutdepth
  F getnofpreviouslines
  F inject
  F injectdisable
  F injectpenalty
  F injectskip
  F pagehandler
  F pageoverflow
  F popatsame
  F pushatsame
  F setmap
  F setskip
  F snapbox
  F synchronizepage
  F tocategories
  F tocategory
  F vboxhandler

caches (context)

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

callback (basic tex)

find   function   **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 handle_overload
    B hpack_filter
    B hpack_quality
    B hyphenate
    B insert_par
    B intercept_lua_error

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

catcodes (context)

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

characters (context)

adobename	function	T before_half	
bidi	data table	T before_main	
blockrange	function	T before_postscript	
blocks	data table	T before_subscript	
casemap	table	T below_mark	
categories	data table	T consonant	
category	function	T dependent_vowel	
categorytags	data table	T halant	
classifiers	table	T independent_vowel	
collapsed	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_letter**	data table
F known		**is_mark**	data table
F resolve		**is_punctuation**	data table
emojized	function	**is_spacing**	data table
enccodes	data table	**is_symbol**	data table
entities	data table	**lcchars**	data table
fallbacks	data table	**lccode**	function
filters	data table	**lccodes**	data table
fractions	table	**lettered**	function
fromnumber	function	**lhash**	data table
fschars	data table	**linebreaks**	data table
fscodes	data table	**lower**	function
getrange	function	**mathlists**	data table
graphemes	data table	**mirrors**	table
hangul	data table	**otfscripts**	data table
indicgroups	table	**private**	table
T above_mark		**ranges**	data table
T after_half		**registerentities**	function
T after_main		**remap_hangul_syllabe**	function
T after_postscript		**setactivecatcodes**	function
T after_subscript		**setlettercatcodes**	function
T anudatta		**setothercatcodes**	function

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

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

document (context)

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

documentdata (context)

variable function

drivers (context)

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

```
T mps                                      F character
  T actions                                F fontchar
    F cleanup                               F group
    F convert                               F image
    F finalize                              F literal
    F initialize                            F poporientation
    F outputfilename                        F pushorientation
    F prepare                               F restore
    F wrapup                                F rule
  T flushers                                F save
    F character                             F setmatrix
    F rule                                  F setstate
    F simplerule                            F simplerule
    F specialrule                           F specialrule
    F updatefontstate                       F startclipping
  S name                                    F startmatrix
T none                                      F startmirroring
  T actions                                 F startrotation
  T flushers                                F startscaling
  S name                                    F stopclipping
T pdf                                       F stopmatrix
  T actions                                 F stopmirroring
    F cleanup                               F stoprotation
    F convert                               F stopscaling
    F finalize                              F updatefontstate
    F initialize                            T whatsit
    F outputfilename                        S name
    F prepare            lmtxversion      number
    F wrapup             outputfilename   function
  T flushers             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
jobfilefullname	string	**texmfos**	string
jobfilename	string	**texos**	string
jobfilesuffix	string	**texroot**	string
jobname	string	**truefilename**	function
kindofrun	number	**useluamodule**	function
lmtxmode	number	**usemodules**	function
loadexamodes	function	**validengines**	data table
loadluafile	function	**version**	string

experiments (context)

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

figures (context)

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

| **suffixes** | data table |
| **used** | data table |

file (basic lua)

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

fio (extra lua)

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

floats (context)

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

font (basic tex)

addcharacters	function		**id**	function
current	function		**max**	function
define	function		**nextid**	function
getfont	function		**setfont**	function
getfontdimen	function		**setfontdimen**	function

fonts (context)

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

checkers   table
- F getmissing
- 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

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

F cbdt

F cblc

F cff

F cff2

F cffcheck

T cffencoder

F checkhash

F cmap

F colr

F compact

F cpal

F ebdt

F eblc

F ebsc

F expand

F extend

F fvar

F gdef

F getcomponents

F getinfo

F glyf

F gpos

T gposhandlers

  F chainedcontext

  F context

  F cursive

  F extension

  F marktobase

  F marktoligature

  F marktomark

  F pair

  F single

F gsub

T gsubhandlers

  F alternate

  F chainedcontext

  F context

  F extension

  F ligature

  F multiple

  F reversechainedcontextsingle

  F single

F gvar

F head

T helpers

  F axistofactors

  F cleanname

  F getaxisscale

  F getfactors

  F getscales

  F gotodatatable

  F normalizedaxis

  T normalizedaxishash

  F readvariationdata

  F reportskippedtable

  F setvariabledata

F hhea

F hmtx

F hvar

F kern

F loadfont

F loadshapes

F loca

F math

F maxp

F mvar

F name

F os/2

F pack

F parsecharstrings

F post

F registerextender

F rehash

F sbix

F stat

T streamreader

  F close

  F getposition

  F getsize

  F look

  F open

  F read2dot14

  F readbyte

  F readbytes

  F readbytetable

  F readcardinal

  F readcardinal1

  F readcardinal1le

F readcardinal2
F readcardinal2le
F readcardinal3
F readcardinal3le
F readcardinal4
F readcardinal4le
F readcardinaltable
F readchar
F readfixed2
F readfixed4
F readinteger
F readinteger1
F readinteger1le
F readinteger2
F readinteger2le
F readinteger3
F readinteger3le
F readinteger4
F readinteger4le
F readintegertable
F readsignedbyte
F readstring
F readtag
F setposition
F size
F skip
F skiplong
F skipposition
F skipshort
F writebyte
F writecardinal1
F writecardinal1le
F writecardinal2
F writecardinal2le
F writecardinal3
F writecardinal3le
F writecardinal4
F writecardinal4le
F writeinteger1
F writeinteger1le
F writeinteger2
F writeinteger2le
F writeinteger3
F writeinteger3le

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

F reencode		F checkedmode	
F setfeatures		F checkedscript	
N version		S defaultlookup	
T vf		F define	
T combinations		F getspecification	
F combine		F internal	
T combiner		F loadfont	
D commands		F makespecification	
D helpers		T methods	
D math		F install	
N version		D variants	
D whatever		F read	
F hashfeatures		F register	
F hashinstance		F registered	
T hashmethods		F registersplit	
F normal		F resetnullfont	
F virtual		F resolve	
F initializefeatures		T resolvers	
D loadedfonts		F file	
N noffontsloaded		F name	
N nofsharedfonts		F spec	

definetypeface function
dropins table

N nofsharedhashes	F clone
N nofsharedvectors	F getshape
N privateoffset	F getshapes
D privateslots	F nextid
F readanddefine	F provide
F registerfeature	F registerglyph
F resetfeature	F registerglyphs
B resolvevirtualtoo	F swap
F scale	F swapone

encodings table

F scaled	T agl
F setfactor	D ctxcodes
F setfeature	D extras
F setmathparameter	D names
F setname	D synonyms
B sharefonts	D unicodes
F trytosharefont	D cache
N version	F is_known

current function

currentid function	D known
definers table	F load
F addlookup	F make_unicode_vector
F analyze	
F applypostprocessors	

D math	
N version	
enhanceid	function
expansions	data table
formats	data table
getalternate	function
getindices	function
getkern	function
getmultiple	function
getsubstitution	function
getters	table
T alternate	
F opentype	
T kern	
F opentype	
F type1	
F type3	
T multiple	
F opentype	
T substitution	
F opentype	
goodies	table
D colorschemes	
T data	
T dejavu-math	
S author	
S comment	
S copyright	
B initialized	
T mathematics	
T alternates	
T dotless	
S comment	
S feature	
N value	
T kerns	
T *:0x1D449	
T bottomright	
S name	
S version	
D designsizes	
D filenames	
F getcompositions	
T list	

F load	
F prepare_features	
F register	
F registerpostprocessor	
F report	
T suffixes	
handlers	table
hashes	table
D characters	
D classes	
D csnames	
D descriptions	
D dynamics	
D emwidths	
D exheights	
D extensibles	
D features	
D identifiers	
D italics	
D lastmathids	
D marks	
D mathparameters	
D modes	
D originals	
D parameters	
T processes	
D properties	
D quads	
D resources	
T setdynamics	
T shapes	
D spaces	
D spacings	
T streams	
D unicodes	
D variants	
D xheights	
helpers	table
F addextraprivate	
F addprivate	
F appendcommands	
F appendcommandtable	
F checkflags	
F checkmerge	

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

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

functions (context)

dummy function

graphics (context)

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

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

gzip (extra lua)

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

images (context)

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

interactions (context)

attachments data table
fields   table
    F clone
    F define
    F defineset
    F insert
general   table
    F getidentity
    F setupidentity
help   table
    F collect
    F reference
    F register
javascripts table
    F addtopreamble
    F code
    D codes
    F flushpreambles

    D functions
    D preambles
    F setpreamble
    F storecode
    F storepreamble
    F usepreamblenow
    F usescripts
linkedlists data table
pages   table
    F setpagetransition
    F setupcanvas
references   table
    F setclosedocument
    F setclosepage
    F setopendocument
    F setopenpage
renderings data table
soundclips data table

interfaces (context)

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

version number

language (basic tex)

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

languages (context)

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

F check

T data

F disable

F enable

T enablers

B enables

F found

F load

T methods

N threshold

layouts (context)

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

lfs (extra lua)

attributes	overloaded function	**iswriteablefile**	function
chdir	overloaded function	**link**	overloaded function
currentdir	function	**mkdir**	overloaded function
dir	overloaded function	**mkdirs**	function
isdir	overloaded function	**modification**	function
isfile	overloaded function	**readlink**	function
isfound	function	**rmdir**	overloaded function
isreadabledir	function	**setexecutable**	function
isreadablefile	function	**symlink**	function
iswriteabledir	function	**touch**	overloaded function

libraries (context)

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

lmx (context)

color	function		**loadedfile**	function
convert	function		**make**	function
convertfile	function		**new**	function
convertstring	function		**overloaderror**	function
einject	function		**popupfile**	function
eprint	function		**print**	function
escape	function		**pv**	function
finalized	function		**report**	function
finject	function		**reset**	function
fprint	function		**result**	function
get	function		**set**	function
getvariables	function		**show**	function
htmfile	function		**showerror**	function
html	table		**stripcss**	function
	F a		**tv**	function
	F td		**type**	function
	F th		**urlescape**	function
include	function		**variable**	function
inherited	table		**variables**	table
	S color-background-four			S color-background-blue
	S color-background-one			S color-background-body
	S color-background-three			S color-background-green
	S color-background-two			S color-background-main
	S title			S color-background-purple
initialize	function			S color-background-yellow
inject	function			S title-default
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		**layerreference**	function
N readonly		**limited**	function
N required		**linearshade**	function
N sorted		**literal**	function
N unavailable		**majorversion**	function
flushfonts	function	**makenametree**	function
flushgroup	function	**minorversion**	function
flushobject	function	**nofpages**	function
flushstreamfileobject	function	**null**	function
flushstreamobject	function	**number**	function
fonts	table	**object**	function
F color_direct		**objectcompresslevel**	function

pagereference	function	**setomitcidset**	function
patternstream	function	**setpageorder**	function
pdfcolor	function	**setpagetag**	function
pdftimestamp	function	**settime**	function
pdfvfimage	function	**setversion**	function
permitdetail	function	**shareobject**	function
print	function	**shareobjectreference**	function
procset	function	**spotcode**	function
protectresources	boolean	**stream**	function
rectangle	function	**string**	function
reference	function	**toeight**	function
registerannotation	function	**topdfdoc**	function
registerdestination	function	**tosixteen**	function
registerdocumentfinalizer	function	**transparency**	function
registerfont	function	**transparencycode**	function
registerpagefinalizer	function	**transparencygroups**	table
registerpattern	function	B none	
reserveobject	function	**transparencyvalue**	function
rgbcode	function	**unicode**	function
rotationcm	function	**usedcharacters**	table
setcompression	function	**verbose**	function
setomitcharset	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	
collectgarbage	function	F reset	
delay	function	F resolvestring	
finalize	function	F resolving	
firstbytecode	number	F showdefinitions	
flush	function	**messages**	data table
flushdelayed	function	**newindex**	function
get_functions_table	function	**newtable**	function
getbytecode	function	**numbers**	data table
getcurrenttime	function	**registercode**	function
getfunctionstable	overloaded function	**registeredcodes**	function
getpreciseseconds	function	**registerfinalizer**	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	finish
cleanup	function	F	pause
cleanuptempfiles	function	F	popline
currentfile	function	F	pushline
registerdumpactions	function	F	registerdisabler
registerpageactions	function	F	registerenabler
registerstartactions	function	F	resetfilename
registerstopactions	function	F	resume
registertempfile	function	F	setfilename
starttime	number	F	setup
synctex	table	F	start
F blockfilename		F	stop
F collect		F	wrapup
F disable		**wrapup**	function
F enable			

lxml (context)

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

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

math (basic lua)

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

mathematics (context)

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

md5 (extra lua)

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

metapost (context)

checkformat	function
cm	function
codes	table

N addto
N ampersand
N and
N assignment
N atleast
N begingroup
N btex
N capsule
N colon
N comma
N controls
N curl
N cycle
N declare
N def
N definedmacro
N delimiters
N endgroup
N equals
N etex
N everyjob
N exitif
N expandafter
N fi_or_else
N if
N input
N interim
N internal
N iteration
N join
N leftbrace
N leftbracket
N leftdelimiter
N let
N macrospecial
N maketext
N message
N mode

N newinternal
N nullary
N numeric
N of
N ofbinary
N outertag
N parametertype
N plus_or_minus
N primarybinary
N primarydef
N protection
N randomseed
N relax
N repeat_loop
N rightbrace
N rightbracket
N rightdelimiter
N runscript
N save
N scantokens
N scope
N secondarybinary
N secondarydef
N semicolon
N setbounds
N shipout
N show
N skip
N slash
N step
N stop
N str
N string
N tag
N tension
N tertiarybinary
N tertiarydef
N thingstoadd
N to
N unary
N undefinedcs

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

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

mime (extra lua)

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

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

mp (context)

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

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

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

mplib (extra tex)

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

noads (context)

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

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

processouter function

node (basic tex)

check_discretionaries	function		F getdepth
check_discretionary	function		F getdirection
copy	function		F getdisc
copy_list	function		F getexpansion
count	function		F getfam
current_attributes	function		F getfield
dimensions	function		F getfont
direct	table		F getglue
	F addmargins		F getglyphdata
	F addxoffset		F getglyphdimensions
	F addxymargins		F getheight
	F addyoffset		F getid
	F check_discretionaries		F getindex
	F check_discretionary		F getkern
	F copy		F getkerndimension
	F copy_list		F getlanguage
	F copy_only		F getleader
	F count		F getlist
	F current_attributes		F getnext
	F dimensions		F getnormalizedline
	F effective_glue		F getnucleus
	F end_of_math		F getoffsets
	F exchange		F getoptions
	F fields		F getorientation
	F find_attribute		F getparstate
	F find_attribute_range		F getpenalty
	F find_node		F getpost
	F first_glyph		F getpre
	F flatten_discretionaries		F getprev
	F flush_list		F getproperty
	F flush_node		F getreplace
	F free		F getscales
	F get_attribute		F getscript
	F get_attributes		F getshift
	F get_properties_table		F getstate
	F get_synctex_fields		F getsub
	F getattributelist		F getsubpre
	F getboth		F getsubtype
	F getbox		F getsup
	F getchar		F getsuppre
	F getdata		F gettotal

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

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

vpack	function
write	function

nodes (context)

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

F cleanuppage		**is_zero_glue**	function
F export		**kerncodes**	data table
F finalizebox		**kerning**	function
F flatten		**keys**	table
F flattenline		T whatsit	
F migrate		**last_node**	function
F protectglyphs		**leftmarginwidth**	function
F show		**length**	function
F stripping		**ligaturing**	function
F textbackgrounds		**linefillers**	table
F unprotectglyphs		D data	
has_attribute	function	F define	
has_field	function	F enable	
has_glyph	function	F filler	
hpack	function	F handler	
hyphenating	function	**lines**	table
idsandsubtypes	function	T boxed	
idstostring	function	F addlinenumbers	
injections	table	F register	
F copy		F setup	
F getligaindex		D data	
F getthreshold		F finalize	
F handler		F number	
F installgetspaceboth		**link**	function
F installnewkern		**linked**	function
F isspace		**list**	function
F keepcounts		**listcodes**	data table
F reset		**listtoutf**	function
F resetcounts		**literalvalues**	data table
F setcursive		**locate**	function
F setkern		**markers**	table
F setligaindex		F get	
F setmark		**mathcodes**	data table
F setmove		**maxboxwidth**	function
F setposition		**migrations**	table
F setspacekerns		F setinserts	
insert_after	function	F setmarks	
insert_before	function	**mlist_to_hlist**	function
insert_list_after	function	**new**	function
installattributehandler	function	**noadcodes**	data table
is_direct	function	**noadoptions**	table
is_display_math	function	N axis	
is_node	function	N exact	
is_nut	function	N left	

N middle		F flush
N no_axis		F flush_components
N right		F flush_list
N set		F flush_node
N unused_1		F free
N unused_2		F fullhpack
nodecodes	data table	F get_components
nopts	function	F getattr
nuts	table	F getattribute
F addmargins		F getattributelist
F addxoffset		F getattrlist
F addxymargins		F getattrs
F addyoffset		F getboth
F append		F getbox
F apply		F getboxglue
F applyvisuals		F getchar
F check_discretionaries		F getcomponents
T colors		F getdata
F set		F getdepth
F concat		F getdirection
F copy		F getdisc
F copy_list		F getdiscretionary
F copy_no_components		F getexpansion
F copy_node		F getfam
F copy_only		F getfield
F copy_only_glyphs		F getfont
F copy_properties		F getglue
F copyvisual		F getglyphdata
F count		F getglyphdimensions
F count_components		F getheight
F countall		F getid
F current_attributes		F getkern
F delete		F getkerndimension
F dimensions		F getlang
F dirdimensions		F getlanguage
F effective_glue		F getleader
F end_of_math		F getlist
F exchange		F getnext
F find_attribute		F getnormalizedline
F first_glyph		F getnucleus
F firstcharacter		F getoffsets
F firstcharinbox		F getoptions
F firstglyph		F getorientation
F flatten_discretionaries		F getpenalty

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

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

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

packlist	function		F tracer
parcodes	data table	**properties**	table
penaltycodes	data table	T data	
plugindata	table	**protect_glyph**	function
F finalizer		**protect_glyphs**	function
F initializer		**protrusion_skippable**	function
S name		**pts**	function
T namespace		**radicalcodes**	data table
N attribute		**rangedimensions**	function
D data		**reference**	function
F enable		**references**	table
F handler		N attribute	
F register		T done	
D registered		F handler	
D values		T stack	
F processor		**rehpack**	function
points	function	**remove**	function
pool	table	**repackhlist**	function
F baselineskip		**replace**	function
F cleanup		**report**	function
F directliteral		**rightmarginwidth**	function
F glyph		**rulecodes**	data table
F hlist		**rules**	table
F latelua		D data	
F lineskip		F define	
F literal		F enable	
F originliteral		F handler	
F register		F process	
F restore		F userrule	
F rule		**serialize**	function
F save		**serializebox**	function
F savepos		**set_attribute**	function
F setmatrix		**setattr**	function
F stock		**setattribute**	function
F usage		**setattributes**	function
F vlist		**setboth**	function
prepend	function	**setbox**	function
print	function	**setboxonaturalwd**	function
processors	table	**setchar**	function
F contribute_filter		**setfield**	function
B enabled		**setfont**	function
F hpack_filter		**setleader**	function
F post_linebreak_filter		**setlink**	function
F pre_linebreak_filter		**setlist**	function

setnext	function		F showactions	
setprev	function		F table	
setunsetattributes	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
slide	function		**topicas**	function
snapshots	table		**topoints**	function
F getsamples			**toscaledpoints**	function
F resetsamples			**tosequence**	function
F takesample			**tostring**	function
somepenalty	function		**totable**	function
somespace	function		**totree**	function
splitbox	function		**toutf**	function
start_of_par	function		**tracers**	table
stripdiscretionaries	function		T colors	
stripping	table		F reset	
T glyphs			F set	
F set			F setlist	
subtypes	data table		F directions	
tail	function		F fontchar	
takeattr	function		T frequencies	
takebox	function		F register	
tasks	table		T pool	
F actions			T nodes	
F appendaction			F rule	
F disableaction			T nuts	
F disablegroup			F rule	
F enableaction			F resetproperties	
F enablegroup			F rule	
F freeze			F setlist	
F freezegroup			F setproperties	
F new			F start	
F prependaction			T steppers	
F removeaction			F check	
F replaceaction			F codes	
F restart			F features	
F setaction			F font	

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

number (context)

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

ghostscript   table
- F execute
- F initialize

graphicsmagick table
- F execute
- F initialize

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

loaded   table
mujs   table
- F dofile
- F execute
- F initialize

- F reset
- F setclosefile
- F setconsole
- F setfindfile
- F setopenfile
- F setreadfile
- F setseekfile

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

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

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

zint   table
- F execute
- F initialize

os (basic lua)

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

package (basic lua)

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

pagebuilders (context)

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

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

injections   table
- F flushafter
- F flushbefore
- F save

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

pdf (basic tex)

immediateobj function

pdfe (extra tex)

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

physics (context)

units table   D tables

    F registerunit

pngdecode (extra tex)

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

publications (context)

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

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

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

sandbox (context)

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

scripts (context)

autofontfeature table
    F disable
    F enable
    F handler
colors data table
decomposehangul function
defaults table
    N inter_char_half_shrink_factor
    N inter_char_half_stretch_factor
    N inter_char_hangul_penalty
    N inter_char_quarter_shrink_factor
    N inter_char_quarter_stretch_factor
    N inter_char_shrink_factor
    N inter_char_stretch_factor
    N inter_word_stretch_factor
getdata function
getinjector function
getsplitter function
getstatus function

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

set (context)

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

sha2 (extra lua)

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

sio (extra lua)

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

socket (extra lua)

BLOCKSIZE	number
_DATAGRAMSIZE	number
_SETSIZE	number
_SOCKETINVALID	number
bind	function
choose	function
connect	function
connect4	function
connect6	function
dns	table

    F getaddrinfo
    F gethostname
    F getnameinfo
    F tohostname
    F toip

gettime	function
headers	table

    T canonic
      S accept
      S accept-charset
      S accept-encoding
      S accept-language
      S accept-ranges
      S action
      S age
      S allow
      S alternate-recipient
      S arrival-date
      S authorization
      S bcc
      S cache-control
      S cc
      S comments
      S connection
      S content-description
      S content-disposition
      S content-encoding
      S content-id
      S content-language
      S content-length
      S content-location

      S content-md5
      S content-range
      S content-transfer-encoding
      S content-type
      S cookie
      S date
      S diagnostic-code
      S dsn-gateway
      S etag
      S expect
      S expires
      S final-log-id
      S final-recipient
      S from
      S host
      S if-match
      S if-modified-since
      S if-none-match
      S if-range
      S if-unmodified-since
      S in-reply-to
      S keywords
      S last-attempt-date
      S last-modified
      S location
      S max-forwards
      S message-id
      S mime-version
      S original-envelope-id
      S original-recipient
      S pragma
      S proxy-authenticate
      S proxy-authorization
      S range
      S received
      S received-from-mta
      S references
      S referer
      S remote-mta
      S reply-to
      S reporting-mta

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

statistics (context)

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

status (basic tex)

getbufferstate	function	**getmarksstate**	function
getcallbackstate	function	**getneststate**	function
getconstants	function	**getnodestate**	function
geterrorlinestate	function	**getparameterstate**	function
geterrorstate	function	**getpoolstate**	function
getexpandstate	function	**getreadstate**	function
getextrastate	function	**getsavestate**	function
getfilestate	function	**getsparsestate**	function
getfontstate	function	**getstringstate**	function
gethalferrorlinestate	function	**gettexstate**	function
gethashstate	function	**gettokenstate**	function
getinputstate	function	**getwarningstate**	function
getlanguagestate	function	**iocodes**	table
getlookupstate	function	**list**	function
getluastate	function	**resetmessages**	function

storage (context)

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

streams (context)

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

string (basic lua)

autodouble	function	**nspaces**	table
autosingle	function	**optionalquoted**	function
booleanstring	function	**pack**	function
byte	function	**packsize**	function
bytepairs	function	**quote**	function
bytes	function	**quoted**	function
bytetable	function	**rep**	function
char	function	**replacenewlines**	function
characterpairs	function	**reverse**	function
characters	function	**split**	function
checkedsplit	function	**splitlines**	function
collapsespaces	function	**splitup**	function
containsws	function	**strip**	function
count	function	**sub**	function
dawson	function	**tformat**	function
dump	function	**toHEX**	function
erf	function	**toboolean**	function
erfc	function	**tobytes**	function
erfcx	function	**tocontext**	function
erfi	function	**todec**	function
escapedpattern	function	**todimen**	function
escapedquotes	function	**tohex**	function
explode	function	**tonodes**	function
f6	function	**topattern**	function
find	function	**totable**	function
format	function	**tounicode16**	function
formatter	function	**toutf**	function
formatters	function	**toutf32**	function
fullstrip	function	**toutf8**	function
gmatch	function	**tracedchar**	function
gsub	function	**tracedchars**	table
is_boolean	function	**unpack**	function
is_empty	function	**unquote**	function
itself	function	**unquoted**	function
len	function	**upper**	function
limit	function	**utfcharacter**	function
linetable	function	**utfcharacters**	function
longtostring	function	**utfcharactertable**	function
lower	function	**utflength**	function
match	function	**utfpadd**	function
nospaces	function	**utfpadding**	function

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

structures (context)

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

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

F	listindex		F	export
D	numbers		T	files
F	ordered		T	data
F	postpone		F	define
F	resetpostponed		F	found
F	restore		F	get
F	save		F	filter
F	setstate		F	filterdefault
D	states		D	filters
F	store		D	flaginternals
pages		table	F	from
F	allmarked		D	functions
F	analyze		F	get
D	collected		F	getcurrentmetadata
F	fraction		F	getcurrentprefixspec
F	has_changed		F	getinnermethod
F	in_body		F	getinternalcachedlistreference
F	is_odd		F	getinternallistreference
F	mark		F	getinternalreference
F	marked		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	expandcurrent		F	registerinitializer

F registerpage	F compare
F reset	F define
D runners	F enhance
F set	F extend
F setandgetattribute	F filter
F setcomponent	F filtercollected
F setinternalreference	F finalize
F setlinkmethod	F findinternal
F setnextinternal	F flush
F setnextorder	F get
F setreferencerealpage	F prepare
D specials	F process
F splitcomponent	F setmethod
F splitprefix	F sort
F splitreference	F store
F synchronizepage	D tobesaved
T testrunners	F unique
F inner	F userdata
F special	**sections** table
F special operation	F autodepth
F special operation with arguments	F cct
T testspecials	D collected
F deltapage	F current
F i	F currentblock
F internal	F currentid
F page	F currentlevel
F realpage	F currentsectionindex
F section	F depthnumber
F userpage	F finddata
D tobereferred	F findnumber
D tobesaved	F fullnumber
D tracedpages	F getcurrentlevel
T urls	F getlevel
T data	F getnumber
F define	F internalreference
F found	D levelmap
F get	D levels
F untex	F matchingtilldepth
D usedinternals	F numberatdepth
D usedviews	F numbers
F valid	F popblock
registers table	F prefixedconverted
F analyze	F pushblock
D collected	F register

D	registered	F	registershown
F	reportstructure	F	registerused
F	save	F	resetshown
T	sectionblockdata	F	resetused
T	bodypart	F	sort
S	bookmark	F	synonym
F	set	D	tobesaved
F	setblock	**tags**	**table**
F	setchecker	F	current
F	setentry	F	elementtag
F	setinitialblock	F	finishexport
F	setlevel	F	getextradata
F	setnumber	F	getid
F	showstructure	F	getmetadata
F	structuredata	F	gettablecell
F	title	F	gettabulatecell
D	tobesaved	F	handler
F	typesetnumber	F	initializeexport
F	userdata	D	labels
B	verbose	F	last
sets	**table**	F	lastinchain
F	define	F	locatedtag
F	get	T	patterns
F	getall	U	splitter
D	setlist	D	properties
specials	**table**	F	registerextradata
D	collected	F	registermetadata
F	retrieve	F	restart
F	store	F	setaspect
D	tobesaved	F	setattributehash
synonyms	**table**	F	setcombination
F	analyzed	F	setconstruct
D	collected	F	setfigure
F	compare	F	setfloat
F	define	F	setformulacontent
F	filter	F	sethighlight
F	finalize	F	setitem
F	flush	F	setitemgroup
F	isshown	F	setlist
F	isused	F	setnotation
F	meaning	F	setnotationsymbol
F	prepare	F	setparagraph
F	process	F	setproperty
F	register	F	setpublication

F setregister

F setsorting

F setsynonym

F settablecell

F settabulatecell

F settagdelimitedsymbol

F settagsubsentencesymbol

F setupexport

F setuserproperties

D specifications

F start

F stop

F strip

D taglist

T usewithcare

  T images

table (basic lua)

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

tex (basic tex)

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

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

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

texconfig (basic tex)

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

texio (basic tex)

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

token (basic tex)

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

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

tokens (context)

astable function
bits table
    N active
    N alignment
    N begingroup
    N character
    N close
    N comment
    N endgroup
    N endofline
    N escape
    N ignore
    N invalid
    N letter
    N mathshift
    N open
    N other
    N parameter
    N space
    N subscript
    N superscript
    N whitespace
cache table
    U NC
    U NR
    U bf
    U c_font_compact
    U color
    U colordefalc
    U colordefflc
    U colordefflt
    U colordefrlt
    U dofinishreference
    U dostarttext
    U finishjob
    U firstofoneargument
    U firstoftwoarguments
    U gobbleoneargument
    U goto
    U iftrue
    U input

    U loadfoundtypescriptfile
    U resetctxscanner
    U rlap
    U secondoftwoarguments
    U setfalsevalue
    U setsectionblock
    U setupsystem
    U startcolumns
    U starttabulate
    U starttitle
    U startxtitle
    U stopcolumns
    U stoptabulate
    U stoptitle
    U stopxtitle
    U texsetup
    U xmlw
commands data table
compile function
constant function
converters table
    S toboolean
    S todimen
    S toglue
    S tonumber
    S tostring
create function
defined function
flags function
getinteger function
getters table
    F box
    F count
    F cstoken
    F dimen
    F glue
    F macro
    F meaning
    F skip
    F token
isdefined function

istoken	function		F	integer
new	function		F	integerargument
pickup	function		F	ischar
popmacro	function		F	key
presets	table		F	keyword
			F	keywordcs
T 1 argument		F	letters
T 1 string		F	list
T 2 arguments		F	luacardinal
T 2 strings		F	luainteger
T 3 arguments		F	luanumber
T 3 strings		F	lxmlid
T 4 arguments		F	next
T 4 strings		F	nextexpanded
T 5 strings		F	number
T 6 strings		F	optional
T 7 strings		F	peek
T 8 strings		F	peekchar
pushmacro	function		F	peekexpanded
scanners	table		F	real
			F	scanclose
F argument		F	scanopen
F argumentasis		F	skip
F array		F	skipexpanded
F boolean		F	string
F box		F	table
F bracketed		F	token
F bracketedasis		F	tokencode
F cardinal		F	tokenlist
F char		F	tokens
F cmdchr		F	toks
F cmdchrexpanded		F	value
F code		F	vbox
F conditional		F	verbatim
F count		F	vtop
F csname		F	whd
F delimited		F	word
F dimen		**setinteger**	function
F dimenargument		**setters**	table
F dimension		
F float		F	box
F glue		F	char
F gluespec		F	count
F gluevalues		F	dimen
F hash		F	glue
F hbox		

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

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

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 macro	F scangluespec
F meaning	F scangluevalues
F skip	F scanhash
F token	F scanhbox
F isdefined	F scaninteger
F istoken	F scanintegerargument
F new	F scankeyword
F pickup	F scankeywordcs
F popmacro	F scanletters
T presets	F scanlist
F pushmacro	F scannumber
F setinteger	F scanopen
T setters	F scanoptional
F box	F scanstring
F char	F scantable
F count	F scantokenlist
F dimen	F scantoks
F glue	F scanvbox
F lua	F scanverbatim
F macro	F scanvtop
F skip	F scanword
T shortcuts	F toboolean
N close	F todimen
F inspect	F tonumber
N open	F tostring
F report	D values
F scanargument	F tonumber
F scanargumentasis	F tostring
F scanarray	**values** data table
F scanboolean	

tracers (context)

printerror   function   **showlines**   function
printwarning function

trackers (context)

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

typesetters (context)

alignments   table
    F handler
    F set
breakpoints   table
    F define
    F handler
    D mapping
    T methods
    T numbers
    F set
    F setreplacement
cases   table
    T actions
    F handler
    F register
    F set
characteralign table
    F handler
    F resetcharacteralign
    F setcharacteralign
characters   table
    F handler
    T methods
    F replacenbsp
    F replacenbspaces
checkers   table
    F handler
    F reset
    F set
cleaners   table
    F handler
    F set
digits   table
    T actions
    F handler
    F set
directions   table
    F getfences
    F getglobal
    F getmethod
    F handler

    T handlers
    F installhandler
    F processmath
    F set
    F setcolor
    F setmath
    F tomode
firstlines   table
    T actions
      F default
      F line
      F word
    F handler
    F set
fontkerns   table
    F handler
initials   table
    T actions
      F default
    F addanchortoline
    F addtoline
    F calculatedelta
    F checkline
    F handler
    F moveinline
    F set
injectors   table
    F check
    T list
    F mark
    F reset
    F set
    F show
italics   table
    F enablemath
    F enabletext
    F forcevariant
    F handler
    F reset
    F set
kerns   table

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

updaters (context)

apply   function
register function

url (context)

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

utf8 (basic lua)

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

utilities (context)

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

files table
    F close
    F getposition
    F getsize
    F look
    F open
    F read2dot14
    F readbyte
    F readbytes
    F readbytetable
    F readcardinal
    F readcardinal1
    F readcardinal1le
    F readcardinal2
    F readcardinal2le
    F readcardinal3
    F readcardinal3le
    F readcardinal4
    F readcardinal4le
    F readcardinaltable
    F readchar
    F readfixed2
    F readfixed4
    F readinteger
    F readinteger1
    F readinteger1le
    F readinteger2
    F readinteger2le
    F readinteger3
    F readinteger3le
    F readinteger4
    F readinteger4le
    F readintegertable
    F readsignedbyte
    F readstring
    F readtag
    F setposition
    F size
    F skip
    F skiplong
    F skipposition
    F skipshort
    F writebyte
    F writecardinal1
    F writecardinal1le
    F writecardinal2
    F writecardinal2le
    F writecardinal3
    F writecardinal3le
    F writecardinal4
    F writecardinal4le
    F writeinteger1
    F writeinteger1le
    F writeinteger2
    F writeinteger2le
    F writeinteger3
    F writeinteger3le
    F writeinteger4
    F writeinteger4le
    F writestring

formatters table
    F formatcolumns
    F list
    F stripzeros

garbagecollector table
    F check
    N criterium
    B enabled

ghostscript table
    F convert
    F statistics

graphicmagick table
    F convert
    F statistics

graphicsmagick table
    F convert

F statistics	B leftpage
lua table	B page
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

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

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

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

xdecimal (extra lua)

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

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

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

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

xmath (extra lua)

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

xml (context)

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

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

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

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

xzip (extra lua)

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

zip (extra lua)

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

zlib (extra lua)

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