

MP attributes backends **bit32** blobs boolean
buffers builders caches **callback** callbacks
catcodes characters chemistry commands
containers context converters **coroutine**
ctxrunner **debug** dir dircodes directives
document documentdata drivers environment
experiments ffi figures **file** **fio** floats **font**
fonts functions global graphics **gzip** **img**
interactions interfaces **io** job **lang** languages
layouts **lfs** libraries lmx logs lpdf **lpeg** **ltn12**
lua luatex lxml **math** mathematics **md5** metapost
mime moduledata modules mp **mplib** noads **node**
nodes number objects **os** **package** pagebuilders
parametersets **pdf** pdfc pdfscanner physics
publications regimes resolvers sandbox scripts
set sha2 sio **socket** sorters statistics **status**
storage streams **string** structures **table** **tex**
texconditionals **texconfig** texconstants texifs
texio texitdefined texmodes texsystemmodes
thirddata **token** tokens tracers trackers
typesetters **unicode** updaters url userdata utf8
utilities vf visualizers xml **zip** **zlib**

ConTEXT MkIV

global (alias: _G)

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

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

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

attributes (context)

applyoverloads function

colorintents table

 N attribute

 D data

 F enable

 F handler

 F register

 D registered

colors table

 N attribute

 F cmyk

 F cmyktogray

 F cmyktorgb

 F colorcomponents

 D counts

 B couple

 F currentmodel

 F currentnamedmodel

 D data

 N default

 F defineintermediatecolor

 F definemultitonecolor

 F defineprocesscolor

 F definesimplegray

 F definespotcolor

 F definetransparency

 F enable

 F filter

 F forcedmodel

 F forcesupport

 F formatcolor

 F formatgray

 F getpagecolormodel

 F gray

 F graytohsv

 F handler

 F hsvtorgb

 F hsvtorgb

 F iccprofile

 F isblack

 N main

 S model

 D models

 F mpcolor

 F mpnamedcolor

 F mpoptions

 F namedcolorattributes

 N none

 F popset

 F processcolorcomponents

 F pushset

 F register

 D registered

 F registerspotcolor

 F rgb

 F rgbtocmyk

 F rgbtorgb

 F rgbtohsv

 N selector

 F setlist

 F setmodel

 F setpagecolormodel

 D sets

 F spec

 F spot

 F spotcolorname

 F spotcolorparent

 F spotcolorvalue

 B supported

 F toattributes

 F transparencycomponents

 B triggering

 F usecolors

 D valid

 F value

 D values

 B weightgray

define function

effects table

 N attribute

 D data

 F enable

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

B supported

D values

backends (context)

codeinjections table

F boxresourcedimensions
F registerboxresource
F restoreboxresource

current string

defaults table

T codeinjections
F gethpos
F getpos
F getvpos
T nodeinjections
T registrations
D tables

included table

B context
B date
B id
B metadata
B pdf

install function

nodeinjections table

F restore
F save
F transform

nothing function

pdf table

T codeinjections
F addbookmarks
F analyzenormalsymbol
F analyzesymbol
F attachmentid
F clonefield
F definefield
F definefieldset
F defineviewerlayer
F embedfile
F enabletags
F exportformdata
F fieldsurrounding
F flushmergelayer
F getbookmarks

F getdefaultfieldvalue
F getfieldcategory
F getfieldset
F getformatoption
F gethpos
F getinfo
F getoutputfilename
F getpos
F getpreviewfigure
F getvpos
F insertrenderingwindow
F mergebookmarks
F mergecomments
F mergefields
F mergereferences
F mergeviewerlayers
F prerollreference
F presetsymbol
F presetsymbollist
F processrendering
F registerdocumentcloseaction
F registerdocumentopenaction
F registeredsymbol
F registerpagecloseaction
F registerpageopenaction
F registersymbol
F setfieldcalculationset
F setfigurealternative
F setfigurecolorspace
F setfiguremask
F setformat
F setformsmethod
F setpagetransition
F setupcanvas
F setupidentity
F setxmpfile
F startlayer
F startunicodetoactualtext
F startunicodetoactualtextdirect
F stoplayer
F stopunicodetoactualtext

- F stopunicodetoactualtextdirect
- F supportedformats
- F unicodetoactualtext
- F useviewerlayer
- F validfield
- F validfieldcategory
- F validfieldset
- S comment
- T nodeinjections
 - F addtags
 - F annotation
 - F attachfile
 - F changestackedlayer
 - F cmykcolor
 - F comment
 - F destination
 - F effect
 - F graycolor
 - F injectbitmap
 - F insertmovie
 - F insertsound
 - F insertswf
 - F insertu3d
 - F knockout
 - F negative
 - F overprint

- F positive
- F reference
- F rgbcolor
- F spotcolor
- F startlayer
- F startstackedlayer
- F stoplayer
- F stopstackedlayer
- F transparency
- F typesetfield
- T registrations
 - F cmykindexcolor
 - F cmykspotcolor
 - F getspotcolorreference
 - F grayindexcolor
 - F grayspotcolor
 - F rgbindexcolor
 - F rgbspotcolor
 - F spotcolorname
 - F transparency

- T tables

- D vfspecials

registrations	table
tables	table
timestamp	function

bit32 (basic lua)

arshift function

band function

bnot function

bor function

btest function

bxor function

extract function

lrotate function

lshift function

replace function

rrotate function

rshift function

blobs (context)

append	function
dimensions	function
dispose	function
new	function
pack	function
strdp	function
strhd	function

strht	function
strwd	function
tohpack	function
tonodes	function
tovpack	function
write	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 hyphenation
- F kerning
- F ligaturing
- F mlist_to_hlist
- T originals
 - F hyphenate
 - F kerning
 - F ligaturing

paragraphs table

- T constructors
 - N attribute
 - F define
 - F disable
 - F enable
 - F handler
- T methods
 - F basic
 - F default
 - F hpack
 - F oneline
- D names
- D numbers
- F set
- F start
- F stop
- T expansion
 - F trace
- F kepttogether
- F registertogether
- T solutions
 - T splitters
 - F define
 - F optimize
 - T registered
 - F reset

- F set
- F split
- F start
- F stop

F tag

profiling table

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

vspacing table

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

cache (context)

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

callback (basic tex)

find function
list function

register overloaded function

callbacks (context)

freeze function

functions table

F process_rule

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 build_page_insert

B buildpage_filter

B call_edit

B contribute_filter

B define_font

B find_cidmap_file

B find_data_file

B find_enc_file

B find_font_file

B find_format_file

B find_image_file

B find_map_file

B find_opentype_file

B find_output_file

B find_pk_file

B find_read_file

B find_truetype_file

B find_typed1_file

B find_vf_file

B find_write_file

B finish_pdffile

B finish_pdfpage

B finish_synctex

B font_descriptor_objnum_provider

B glyph_not_found

B glyph_stream_provider

B hpack_filter

B hpack_quality

B hyphenate

B insert_local_par

B kerning

B ligaturing

B linebreak_filter

B mlist_to_hlist

B new_graf

B open_read_file

B page_objnum_provider

B post_linebreak_filter

B pre_dump

B pre_linebreak_filter

B pre_output_filter

B process_input_buffer

B process_jobname

B process_output_buffer

B process_rule

B read_cidmap_file

B read_data_file

B read_enc_file

B read_font_file

B read_map_file

B read_opentype_file

B read_pk_file

B read_truetype_file

B read_typed1_file

B read_vf_file

B show_error_hook

B show_error_message

B show_lua_error_hook

B show_warning_message

B start_file

B start_page_number

B start_run

B stop_file

B stop_page_number

B stop_run

B vpack_filter

B vpack_quality

B wrapup_run

catcodes (context)

names data table

numbers data table

register function

characters (context)

activeoffset	number	T anudatta	
adobename	function	T before_half	
bidirectional	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
encodes	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_syllable	function
 T after_postscript		setactivecatcodes	function
 T after_subscript		setlettercatcodes	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
define	function
definitions	data table
format	string
inlinechemical	function
instance	string
method	string

molecule	function
moleculeparser	userdata
start	function
stop	function
structures	number
undefine	function

containers (context)

cleannname function
content function
define function
is_usable function

is_valid function
read function
usecache boolean
write function

converters (context)

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

verbose

D data

F translate

weekday

table

function

word

words

year

function

function

function

coroutine (basic lua)

create	function
isyieldable	function
resume	function
running	function

status	function
wrap	function
yield	function

ctxrunner (context)

load	function	prepfiles	data table
preparedfile	function	resolve	function

debug (basic lua)

debug	function
gethook	function
getinfo	function
getlocal	function
getmetatable	function
getregistry	function
getupvalue	function
getuservalue	function

sethook	function
setlocal	function
setmetatable	function
setupvalue	function
setuservalue	function
traceback	function
upvalueid	function
upvaluejoin	function

dir (context)

collectpattern	function
current	function
expandname	function
found	function
glob	function
globdirs	function
globfiles	function

globpattern	function
ls	function
makedirs	function
mkdirs	function
pop	function
push	function

directives (context)

data	data table
default	function
disable	function
done	table
enable	function
list	function

name	string
register	function
report	function
reset	function
show	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				

drivers (context)

convert	function		F character
install	function		F rule
instances	table		S name
T lua		T pdf	
T actions		T actions	
F fetch		F finalize	
F finalize		F initialize	
F initialize		F updatefontstate	
F reset		F wrapup	
T flushers		T flushers	
F character		F character	
F rule		F latelua	
S name		F pdfliteral	
T mps		F pdfrestore	
T actions		F pdfsave	
F fetch		F pdfsetmatrix	
F finalize		F rule	
F initialize		S name	
F reset		prepare	function
T flushers		wrapup	function

environment (context)

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

experiments (context)

data	data table
default	function
disable	function
enable	function
list	function
name	string

register	function
report	function
reset	function
show	function
value	function

figures (context)

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

file (basic lua)

addsuffix	function
basename	function
checksum	function
collapsepath	function
copy	function
dirname	function
expandname	function
extname	function
is_qualified_path	function
is_readable	function
is_rootbased_path	function
is_writable	function
isreadable	function
iswritable	function
join	function
joinpath	function
loadchecksum	function
nameonly	function
nametotable	function
needs Updating	function

needsupdating	function
pathpart	function
readdata	function
removesuffix	function
replacesuffix	function
reslash	function
robustname	function
savechecksum	function
savedata	function
size	function
splitbase	function
splitname	function
splitpath	function
strip	function
suffix	function
suffixes	function
suffixesonly	function
suffixonly	function
syncmtimes	function
withinbase	function

fio (extra lua)

checkpermission	function
getposition	function
read2dot14	function
readbytes	function
readbytetable	function
readcardinal1	function
readcardinal2	function
readcardinal3	function
readcardinal4	function
readcardinaltable	function
readfixed2	function

readfixed4	function
readinteger1	function
readinteger2	function
readinteger3	function
readinteger4	function
readintegertable	function
readline	function
recordfilename	function
setposition	function
skipposition	function

floats (context)

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

font (basic tex)

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

fonts (context)

analyzers table

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

checkers table

- F getmissing
- F missing
- F placeholder

cid table

- F getmap
- F loadfile

collections table

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

constructors table

- F addcharacters
- F addcoreunicodes
- F aftercopyingcharacters
- F applymanipulators
- F assignmathparameters
- B autocleanup
- F beforecopyingcharacters
- D cache
- B cacheintex
- F calculatyscale
- F checkedfeatures
- F checkedfilename
- F cleanupable
- F collectprocessors

- F currentfonthasfeature

- D designsizes

- D dontembed

- F enhanceparameters

- T enhancers

- T afm

- F apply

- F patch

- T patches

- F register

- F report

- F register

- F report

- T otf

- F addfeature

- F apply

- F enhance

- F patch

- T patches

- F register

- F report

- F register

- F report

- T tfm

- F apply

- F patch

- T patches

- F register

- F report

- F register

- F report

- N factor

- T features

- D afm

- D otf

- D tfm

- F finalize

- F getfeatureaction

- F getmathparameter

- F getprivate

- T handlers

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

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

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

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

- F addlookup
- F analyze
- F applypostprocessors
- F checkedmode
- F checkedscript
- F current
- S defaultlookup
- F define
- F getspecification
- F internal
- F loadfont
- F makespecification
- T methods
 - F install
 - D variants
- F read
- F register
- F registered
- F registersplit
- F resetnullfont
- F resolve
- T resolvers
 - F file
 - F name
 - F spec

definetypeface function

encodings table

- T agl
 - D ctxcodes
 - D extras
 - D names
 - D synonyms
 - D unicodes
- D cache
- F is_known
- D known
- F load
- F make_unicode_vector
- D math
- N version

enhanceid function

expansions data table

formats data table

getalternate function

getkern function

getmultiple function

getsubstitution function

getters table

- T alternate
 - F opentype
- T kern
 - F opentype
 - F type1
- 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
 - S name
 - S version
- T schola-math
 - S author
 - S comment
 - S copyright
 - B initialized
 - T mathematics
 - T alternates
 - T dotless
 - S comment
 - S feature
 - N value
- T kerns
 - S name
 - S version

D	designsizes		F	checkflags	
D	filenames		F	checkmerge	
F	getcompositions		F	checksteps	
T	list		F	collectanchors	
F	load		D	commands	
F	prepare_features		F	descriptiontoslot	
F	register		F	dimenfactor	
F	registerpostprocessor		F	expandglyph	
F	report		T	extraprivates	
T	suffixes		F	fontpatternhassize	
handlers	table		F	getcoloredglyphs	
hashes	table		F	getdigitwidth	
D	characters		F	getinstancespec	
D	classes		F	getparameters	
D	csnames		F	getprivatecharornode	
D	descriptions		F	getprivatenode	
D	dynamics		F	getprivates	
D	emwidths		F	getprivateslot	
D	exheights		F	hasprivate	
D	extensibles		F	indextoslot	
D	features		F	name	
D	identifiers		F	nametoslot	
D	italics		F	prependcommands	
D	lastmathids		F	privateslot	
D	marks		F	setdigitwidth	
D	modes		F	splitfontpattern	
D	originals		F	tochar	
D	parameters		infofont	function	
T	processes		iterators	table	
D	properties		F	characters	
D	quads		F	descriptions	
D	resources		F	glyphs	
T	setdynamics		loggers	table	
T	shapes		F	add_placeholders	
D	spaces		D	category_to_placeholder	
D	spacings		F	format	
T	streams		F	onetimemessage	
D	unicodes		F	register	
D	variants		F	reportdefinedfonts	
D	xheights		F	reportusedfeatures	
helpers	table		mappings	table	
F	addextraprivate		F	addtounicode	
F	addprivate		F	fromunicode16	
F	appendcommands		F	loadfile	

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

D data
F savefont
F saveoriginal

tracers table

treatments table

F applyfixes

D data
S filename
F ignoredfile
F report
F trace

typefaces table

functions (context)

dummy function

graphics (context)

backgrounds table

F fetchmultipar

F pair

F path

F point

gzip (extra lua)

close function
lines function
load function

open function
save function
suffix function

img (basic tex)

boxes	function	node	function
check	function	ofindex	function
checksize	function	package	function
clone	function	print	function
copy	function	scan	function
fields	function	serialize	function
immediatewrite	function	tonode	function
immediatewriteobject	function	totable	function
keys	function	types	function
new	function	write	function

interactions (context)

attachments data table

fields table

- F clone
- F define
- F defineset
- F insert

general table

- F getidentity
- F setupidentity

help table

- F collect
- F reference
- F register

javascripts table

- F addtopreamble
- F code
- D codes
- F flushpreambles

D functions

D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

linkedslists data table

pages table

- F setpagetransition
- F setupcanvas

references table

- F setcloseddocument
- F setclosepage
- F setopendocument
- F setopenpage

renderings data table

soundclips data table

interfaces (context)

_	data table
addvalidkeys	function
cachedsetups	data table
cachedsetup	function
checkedspecification	function
complete	data table
constants	data table
corenamespaces	data table
currentinterface	string
currentresponse	string
definecommand	function
defined	function
doifelsemessage	function
elements	data table
formats	data table
getcheckedparameters	function
getmessage	function
getnamespace	function
getsetupstring	function
hashedsetups	data table
implement	function
interfacedcommand	function
interfaces	table
invalidkey	function
message	function
namespaces	table

F define

F list	
registernamespace	function
registerscanner	function
scanners	data table
setconstant	function
setcount	function
setdimen	function
setelement	function
setformat	function
setmacro	function
setmessage	function
setmessages	function
settranslation	function
setupstrings	data table
setuserinterface	function
setvalidkeys	function
setvariable	function
showmessage	function
storedscanners	data table
strings	table
syntax	data table
tolist	function
translations	data table
usednamespaces	data table
variables	data table
writestatus	function

io (basic lua)

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

job (context)

comment	function	F check	
datasets	table	D collected	
D collected		F count	
F extend		F define	
F getdata		F find	
F setdata		F first	
D tobesaved		F get	
disablesave	function	F getcollected	
embedded	table	F getdata	
D collected		F getfield	
D tobesaved		F gettobesaved	
fileobjreferences	table	F inlist	
D collected		F last	
D tobesaved		F list	
files	table	F save	
D collected		F savetagged	
F context		D tobesaved	
B forcerun		positions	table
F run		F b_column	
D tobesaved		F b_region	
getrandomseed	function	F c	
initialize	function	D collected	
load	function	F column	
loadother	function	F copy	
objects	table	F depth	
D collected		F e_column	
F get		F e_region	
F number		F enhance	
F page		F extra	
F save		T free	
F set		F get	
D tobesaved		F getreserved	
pack	boolean	F gettobesaved	
packversion	number	F hangafter	
pagestates	table	F hangindent	
D collected		F height	
F extend		F hsize	
F realpage		F leftskip	
F setstate		F lowerleft	
D tobesaved		F lowerright	
passes	table	F markregionbox	

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

lang (basic tex)

clean	function
clear_hyphenation	function
clear_patterns	function
exceptions	function
gethjcode	function
hyphenate	function
hyphenation	function
hyphenationmin	function

id	function
new	function
patterns	function
postexhyphenchar	function
posthyphenchar	function
preexhyphenchar	function
prehyphenchar	function
sethjcode	function

languages (context)

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

T enablers

F load

B enables

T methods

F found

N threshold

layouts (context)

status	table	F leftorrightpageaction
	F isleftpage	

lfs (extra lua)

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

libraries (context)

basiclua data table

basictex data table

builtin data table

extralua data table

extratex data table

functions data table

globals data table

lmx (context)

color	function
convert	function
convertfile	function
convertstring	function
einject	function
eprint	function
escape	function
finalized	function
finject	function
fprint	function
get	function
getvariables	function
htmfile	function
html	table
F a	
F td	
F th	
include	function
inherited	table
S color-background-four	
S color-background-one	
S color-background-three	
S color-background-two	
S title	
initialize	function
inject	function
lmxfile	function

loadedfile	function
make	function
new	function
overloaderror	function
popupfile	function
print	function
pv	function
report	function
reset	function
result	function
set	function
show	function
showdebuginfo	function
showerror	function
stripcss	function
tv	function
type	function
urlescape	function
variable	function
variables	table
S color-background-blue	
S color-background-body	
S color-background-green	
S color-background-main	
S color-background-purple	
S color-background-yellow	
S title-default	

logs (context)

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

lpdf (context)

action	function
adddocumentcolorspace	function
adddocumenttextgstate	function
adddocumentpattern	function
adddocumentshade	function
addtocatalog	function
addtoinfo	function
addtonames	function
addtopageattributes	function
addtopageresources	function
addtopagesattributes	function
addxmpinfo	function
annotationspecification	function
array	function
boolean	function
border	function
checkedkey	function
checkedvalue	function
circularshade	function
cmykcode	function
collectedresources	function
color	function
colorspace	function
colorspaceconstants	data table
colorspec	function
colorvalue	function
colorvalues	function
compresslevel	function
constant	function
copyarray	function
copyboolean	function
copyconstant	function
copydictionary	function
copyfloat	function
copyinteger	function
copynumber	function
copystring	function
copyunicode	function
delayedobject	function
destinationspecification	function
dictionary	function

docstring	function
epdf	table
F contenttotext	
F expanded	
F getpagecontent	
F getstructure	
T image	
F close	
F copy	
F open	
F query	
F load	
F plugin	
T resolvers	
F destinations	
F embeddedfiles	
F javascripts	
F layers	
F pages	
F structure	
F widgets	
F unload	
escaped	function
finalizedocument	function
finalizefonts	function
finalizepage	function
finishtransparencycode	function
flags	table
T annotations	
N AutoView	
N Hidden	
N Invisible	
N Locked	
N LockedContents	
N NoRotate	
N NoView	
N NoZoom	
N Print	
N Printable	
N ReadOnly	
N ToggleNoView	

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

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

lpeg (basic lua)

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

ltn12 (extra lua)

BLOCKSIZE number

filter table

 F chain

 F cycle

pump table

 F all

 F step

sink table

 F chain

 F error

 F file

 F null

 F simplify

 F table

source table

 F cat

 F chain

 F empty

 F error

 F file

 F rewind

 F simplify

 F string

lua (basic tex)

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

luatex (context)

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

lxml (context)

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

register	function
registerentity	function
removesetup	function
resetcdata	function
resetsetups	function
resolvedentity	function
root	function
save	function
serialize	function
setaction	function
setatt	function
setattribute	function
setcdata	function
setcommandtonone	function
setcommandtotext	function
setpar	function
setparam	function
setparameter	function
setsetup	function
snippet	function
sorters	table

F add

F compare	
F flush	
F reset	
F show	
F sort	
splitid	function
startraw	function
startunesaped	function
stopraw	function
stopunesaped	function
store	function
strip	function
stripped	function
tag	function
text	function
tobuffer	function
tofile	function
toparameters	function
toverbatim	function
verbatim	function
withindex	function
xmltexhandler	data table

math (basic lua)

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

mathematics (context)

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

md5 (extra lua)

HEX	function
crypt	function
dec	function
decrypt	function
exor	function

hex	function
sum	function
sumHEXA	overloaded function
sumhexa	overloaded function

metapost (context)

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

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

mime (extra lua)

b64 function

decode function

decodet table

F base64

F quoted-printable

dot function

encode function

encodet table

F base64

F quoted-printable

eol function

normalize function

qp function

qpwrp function

stuff function

unb64 function

unqp function

wrap function

wrapt table

F base64

F default

F quoted-printable

F text

wrp function

mp (context)

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

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

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

mplib (extra tex)

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

noads (context)

handlers	table		F render
F align			F resize
F alternates			F showtree
F autofences			F tags
F classes			F unscript
F collapse			F variants
F domains		process	function
F families		processnested	function
F fixscripts		processors	table
F italics			F mlist_to_hlist
F kernpairs			T unscript
F makeup		processouter	function
F relocate			

node (basic tex)

check_discretionaries	function	F getglue
check_discretionary	function	F getheight
copy	function	F getid
copy_list	function	F getkern
count	function	F getlang
current_attr	function	F getleader
dimensions	function	F getlist
direct	table	F getnext
F check_discretionaries		F getnucleus
F check_discretionary		F getoffsets
F copy		F getpenalty
F copy_list		F getprev
F count		F getproperty
F current_attr		F getshift
F dimensions		F getsub
F effective_glue		F getsubtype
F end_of_math		F getsup
F find_attribute		F getwhd
F first_glyph		F getwidth
F flatten_discretionaries		F has_attribute
F flush_list		F has_field
F flush_node		F has_glyph
F flush_properties_table		F hpack
F free		F insert_after
F get_attribute		F insert_before
F get_properties_table		F is_char
F get_synctex_fields		F is_direct
F getattributelist		F is_glyph
F getboth		F is_node
F getbox		F is_zero_glue
F getchar		F kerning
F getcomponents		F last_node
F getdata		F length
F getdepth		F ligaturing
F getdir		F new
F getdirection		F prepend_prevdepth
F getdisc		F protect_glyph
F getexpansion		F protect_glyphs
F getfam		F protrusion_skippable
F getfield		F rangedimensions
F getfont		F remove

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

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

nodes (context)

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

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

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

F getnucleus	F boundary
F getoffsets	F choice
F getpenalty	F cleanup
F getprev	F delim
F getprop	F delimiter
F getshift	F direction
F getsub	F disc
F getsubtype	F emptyrule
F getsup	F fence
F getsurround	F fontkern
F getvalue	F fraction
F getwhd	F glue
F getwidth	F gluespec
F has_attribute	F glyph
F has_field	F hlist
F has_glyph	F italickern
F hpack	F kern
F insert_after	F latelua
F insert_before	F lateluafunction
F insert_list_after	F leader
F is_char	F leftmarginkern
F is_direct	F leftskip
F is_display_math	F lineskip
F is_glyph	F mathchar
F is_node	F mathtextchar
F is_nut	F negatedglue
F is_zero_glue	F noad
F ischar	F outlinerule
F isdone	F pdfannotation
F isglyph	F pdfdestination
F kerning	F pdfdirectliteral
F last_node	F pdfliteral
F leftmarginwidth	F pdforiginliteral
F length	F pdfpageliteral
F ligaturing	F pdfrawliteral
F link	F pdfrestore
F linked	F pdfsave
F locate	F pdfsetmatrix
F mlist_to_hlist	F penalty
F nestedtracedslide	F radical
F new	F register
T pool	F rightmarginkern
F accent	F rightskip
F baselineskip	F rule

F shrink	F setattributes
F special	F setattrlist
F stretch	F setboth
F subbox	F setbox
F sublist	F setboxglue
F temp	F setchar
F textdir	F setcomponents
F usage	F setdata
F userattributes	F setdepth
T userids	F setdir
N margins.inline	F setdirection
N property	F setdisc
N splitters.one	F setdiscretionary
N splitters.two	F setexpansion
F userlist	F setfam
F userlua	F setfield
F usernumber	F setfont
F userrule	F setglue
F userstring	F setheight
F usertokens	F setkern
F vlist	F setlang
F wordboundary	F setlanguage
F prepend	F setleader
F processranges	F setlink
F processwords	F setlist
F protect_glyph	F setnext
F protect_glyphs	F setnucleus
F protrusion_skipable	F setoffsets
F rangedimensions	F setpenalty
F rawprop	F setprev
F reference	F setprop
F rehpack	F setshift
F remove	F setsplit
F repackhlist	F setsub
F replace	F setsubtype
F rightmarginwidth	F setup
T rules	F setsurround
F userrule	F setunsetattributes
F set_attribute	F setvalue
F set_components	F setvisual
F set_synctex_fields	F setvisuals
F setattr	F setwhd
F setattribute	F setwidth
F setattributelist	F slide

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

F rule		F enable	
F special		F handler	
F usage		T ruleactions	
F usernumber		F box	
F vlist		F draw	
prepend	function	F fill	
print	function	F mp	
processors	table	F stroke	
F contribute_filter		F userrule	
B enabled		save	function
F hpack_filter		serialize	function
F post_linebreak_filter		serializebox	function
F pre_linebreak_filter		set_attribute	function
F tracer		setattr	function
properties	table	setattribute	function
T actions		setattributes	function
F delayed		setboth	function
F fdelayed		setbox	function
F immediate		setboxtonaturalwd	function
F attach		setfield	function
T data		setglue	function
F delayed		setlink	function
protect_glyph	function	setlist	function
protect_glyphs	function	setnext	function
protrusion_skipppable	function	setprev	function
pts	function	setunsetattributes	function
radicalcodes	data table	setwhd	function
rangedimensions	function	shifts	table
reference	function	D data	
references	table	F define	
N attribute		F enable	
T done		F handler	
F handler		show	function
T stack		showboxes	function
rehpack	function	showcodes	function
remove	function	showlist	function
repackhlist	function	showsimplelist	function
replace	function	skipcodes	data table
report	function	skipvalues	data table
rightmarginwidth	function	slide	function
rulecodes	data table	snapshots	table
rules	table	F getparameters	
D data		F getsamples	
F define		F resetsamples	

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

F start		unprotect_glyph	function
F stop		unprotect_glyphs	function
F stop		unset_attribute	function
T transparencies		unsetattribute	function
F reset		unsetattributes	function
F set		usedlist	function
F setlist		usercodes	data table
traverse	function	uses_font	function
traverse_char	function	vianodes	function
traverse_glyph	function	vianuts	function
traverse_id	function	visualizebox	function
traverse_list	function	visualizers	table
traversers	table	F attribute	
F char		T attributes	
F glyph		F box	
F list		F handler	
F node		F markfonts	
typesetters	table	F register	
F hbox		F setfont	
F hpack		F setlayer	
F tohbox		F setruledglyph	
F tohpack		F setvisual	
F tonodes		vpack	function
F to vbox		whatcodes	data table
F to vpack		whatsitcodes	data table
F vpack		write	function

number (context)

	function
basepoints	function
bytetodecimal	function
compactfloat	function
decimaltobyte	function
dimenfactors	data table
formatted	function
formattedfloat	function
maxdimen	number
nopts	function
percent	function
points	function
pts	function
signed	function
sparseexponent	function
splitdimen	function
tobasepoints	function
tobitstring	function

tocentimeters	function
tociceros	function
tocontext	function
todidots	function
todimen	function
toevenhex	function
toinches	function
tomillimeters	function
tonewciceros	function
tonewdidots	function
tonumberf	function
tonumberg	function
topicas	function
topoints	function
toscaled	function
toscaledpoints	function
valid	function

objects (context)

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

os (basic lua)

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

package (basic lua)

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

pagebuilders (context)

columnsets table

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

- F sethsize
- F sethspace
- F setlines
- F setproperties
- F setstart
- F setvsize

injections table

- F flushafter
- F flushbefore
- F save

mixedcolumns table

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

pdf (basic tex)

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

setorigin	function	setthreadmargin	function
setpageattributes	overloaded function	settrailer	overloaded function
setpageresources	overloaded function	settrailerid	overloaded function
setpagesattributes	overloaded function	setxformattributes	function
setpkresolution	function	setxformmargin	function
setrecompress	function	setxformresources	function
suppressoptionalinfo	function	xformname	function

pdf (context)

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

pdfscanner (context)

scan function

physics (context)

units table

F registerunit

D tables

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	finder	function
S year	firstofrange	function
T optional	found	function
T required	get	function
T sets	getcasted	function
T authors	getdetail	function
T virtual	getdirect	function
S comment	getfaster	function
S copyright	getfield	function
T fields	getfuzzy	function
S name	getindex	function
T types	inspectors	data table
S author	journals	table
S editor	F abbreviated	
S keywords	F add	
S number	F expanded	
S page	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		oneorange	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
cleanup	function
disable	function
enable	function
fromregime	function
list	function

mapping	data table
pop	function
process	function
push	function
toregime	function
translate	function

resolvers (context)

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

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

sandbox (context)

disablelibraries	function
disablerunners	function
enable	function
filehandlerone	function
filehandlertwo	function
finalizer	function
getrunner	function
initializer	function
iohandler	function
logcalls	function
logfiles	function
original	function
overload	function

possiblepath	function
redefine	function
register	function
registerbinary	function
registerlibrary	function
registerroot	function
registerrunner	function
report	function
setfilenamelogger	function
setlogger	function
setreporter	function
settrace	function
validfilename	function

scripts (context)

autofontfeature table

 F disable

 F enable

 F handler

categorytonumber data table

colors data table

decomposehangul function

defaults table

 N inter_char_half_shrink_factor

 N inter_char_half_stretch_factor

 N inter_char_hangul_penalty

 N inter_char_quarter_shrink_factor

 N inter_char_quarter_stretch_factor

 N inter_char_shrink_factor

 N inter_char_stretch_factor

 N inter_word_stretch_factor

handlers data table

hash table

injectors data table

inserters table

 F nobreakspace_after

 F nobreakspace_before

 F space_after

 F space_before

 F zerowidthspace_after

 F zerowidthspace_before

installdataset function

installmethod function

numbertocategory data table

numbertodataset data table

numbertohandler data table

reset function

set function

splitters data table

set (context)

contains function

create function

tolist function

tonumber function

totable function

sha2 (context)

digest256 function

digest384 function

digest512 function

sio (context)

read2dot14	function
readbytes	function
readbytetable	function
readcardinal1	function
readcardinal2	function
readcardinal3	function
readcardinal4	function
readcardinaltable	function

readfixed2	function
readfixed4	function
readinteger1	function
readinteger2	function
readinteger3	function
readinteger4	function
readintegertable	function

socket (extra lua)

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

S proxy-authenticate	F b64	
S proxy-authorization	F decode	
S range	T decodet	
S received	F base64	
S received-from-mta	F quoted-printable	
S references	F dot	
S referer	F encode	
S remote-mta	T encodet	
S reply-to	F base64	
S reporting-mta	F quoted-printable	
S resent-bcc	F eol	
S resent-cc	F normalize	
S resent-date	F qp	
S resent-from	F qpwrp	
S resent-message-id	F stuff	
S resent-reply-to	F unb64	
S resent-sender	F unqp	
S resent-to	F wrap	
S retry-after	T wrapt	
S return-path	F base64	
S sender	F default	
S server	F quoted-printable	
S smtp-remote-recipient	F text	
S status	F wrp	
S subject	newtry	function
S te	protect	function
S to	select	function
S trailer	sink	function
S transfer-encoding	sinkt	table
S upgrade	F close-when-done	
S user-agent	F default	
S vary	F http-chunked	
S via	F keep-open	
S warning	skip	function
S will-retry-until	sleep	function
S www-authenticate	smtp	table
S x-mailer	S DOMAIN	
http	N PORT	
N TIMEOUT	S SERVER	
S USERAGENT	N TIMEOUT	
F genericform	S ZONE	
F open	F message	
F request	F open	
mime	F send	
table		

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

sorters (context)

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

statistics (context)

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

status (basic tex)

list function

resetmessages function

setexitcode 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
disable	function
enable	function
flush	function
initialize	function

push	function
start	function
stop	function
synchronize	function

string (basic lua)

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

structures (context)

allocation	function	F prev	
blocks	table	F previous	
D collected		F raw	
F define		F record	
F print		F reset	
F save		F restart	
F select		F restore	
F setstate		F save	
D states		F set	
D tobesaved		F setlevel	
F uservariable		F setoffset	
bookmarks	table	F setown	
T extras		F setstate	
F get		F setvalue	
F mergesections		T specials	
F register		F userpage	
F reset		F subs	
F tosections		D tobesaved	
F finalize		F value	
F flatten		F way	
F installhandler		currentsectionnumber	function
F merge		descriptions	table
S method		documents	table
F overload		D data	
F place		F initialize	
F register		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 next		F touserdata	

inserts

D data
F define
F getdata
F getlocation
F getname
F getnumber
F setlocation
F setup
D stored

table

itemgroups

table

lists

table

F addto
F analyze
B autoreorder
D cached
D collected
F discard
F enhance
T enhancers
F filter
F formulanumber
F getresult
F groupindex
F hasnumberdata
F haspagedata
F hastitledata
F iscached
D kinds
F label
F location
D names
F number
D ordered
F page
F popnesting
F prefix
F prefixednumber
F prefixedpage
F process
D pushed
F pushnesting
F realpage
F reordered

T result
F savedlistnumber
F savedlistprefixednumber
F savedlisttitle
D sectionblocks
F sectionnumber
F size
F title
D tobesaved
F userdata
F uservalue

marks

table

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

notes

table

F check_spacing
F checkpagechange
F define
F doifonsamepageasprevious
F get
F getdeltapage
F getinternal
F getn
F getstate
F hascontent
F internal
F internalid
F listindex

T numbers	F define
F ordered	F found
F postpone	F get
F resetpostponed	F filter
F restore	F filterdefault
F save	D filters
F setstate	D flaginternals
D states	F from
F store	D functions
pages	F get
	F getcurrentmetadata
F allmarked	F getcurrentprefixspec
F analyze	F getinnermethod
D collected	F getinternalcachedlistreference
F in_body	F getinternallistreference
F is_odd	F getinternalreference
F mark	F getoutermethod
F marked	D handlers
N nopages	F identify
F number	F import
F on_right	F inject
F save	F injectcurrentset
D tobesaved	S innermethod
F toranges	D internals
references	F load
	F loadpresets
F analyze	F mark
F checkedfile	S outermethod
F checkedfileorurl	D pages
F checkedprogram	U prefixsplitter
F checkedrealpage	D productdata
F checkedurl	T programs
D collected	T data
U componentsplitter	F define
F currentmetadata	F get
F currentorder	F realpageofpage
D currentset	U referencesplitter
F define	D referred
D defined	F referredpage
D derived	F registerfinalizer
F enhance	F registerinitializer
D executers	F registerpage
F expandcurrent	F reset
F export	D runners
T files	
T data	

- F set
- F setandgetattribute
- F setcomponent
- F setinternalreference
- F setlinkmethod
- F setnextinternal
- F setnextorder
- F setreferencerealpage
- D specials
- F splitcomponent
- F splitprefix
- F splitreference
- F synchronizepage
- T testrunners
 - F inner
 - F special
 - F special operation
 - F special operation with arguments
- T testspecials
 - F deltapage
 - F i
 - F internal
 - F page
 - F realpage
 - F section
 - F userpage
- D tobereferred
- D tobesaved
- D tracedpages
- T urls
 - T data
 - F define
 - F found
 - F get
 - F untex
- D usedinternals
- D usedviews
- F valid

registers

- F analyze
- D collected
- F compare
- F define
- F enhance

table

- F extend
- F filter
- F filtercollected
- F finalize
- F findinternal
- F flush
- F get
- F prepare
- F process
- F setmethod
- F sort
- F store
- D tobesaved
- F unique
- F userdata

sections

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

table

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

F setuexport

F setuserproperties

D specifications

F start

F stop

F strip

D taglist

T usewithcare

T images

table (basic lua)

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

tex (basic tex)

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

number	function	setnest	function
primitives	function	setsfcode	function
print	function	setskip	function
prtcategories	number	settoks	function
resetparagraph	function	setuccode	function
romannumeral	function	sfcode	table
round	function	shipout	function
run	function	show_context	function
runtoks	function	skip	table
saveboxresource	function	sp	function
scale	function	splitbox	function
scantoks	function	sprint	function
set	function	systemmodes	data table
set_synctex_line	function	takebox	function
set_synctex_mode	function	texcategories	number
set_synctex_no_files	function	toks	table
set_synctex_tag	function	tpacategories	number
setattribute	function	tpbcategories	number
setbox	function	tprint	function
setcategory	function	trackers	data table
setcount	function	triggerbuildpage	function
setdelcode	function	txtcategories	number
setdimen	function	type	function
setglue	function	uccode	table
setlcode	function	uniform_rand	function
setlist	function	uniformdeviate	function
setmath	function	uprint	function
setmathcode	function	useboxresource	function
setmuglue	function	vrbcategories	number
setmuskip	function	write	function

texconfig (basic tex)

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

texio (basic tex)

closeinput function

setescape function

write function

write_nl function

token (basic tex)

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

tokens (context)

astable	function	U loadfoundtypescriptfile
bgroup	userdata	U resetctxscanner
bits	table	U rlap
N active		U scratchcounter
N alignment		U scratchdimen
N begingroup		U scratchmuskip
N character		U scratchskip
N close		U scratchtoken
N comment		U secondoftwoarguments
N endgroup		U setfalsevalue
N endoffline		U setsectionblock
N escape		U setupsystem
N ignore		U startcolumns
N invalid		U starttabulate
N letter		U starttitle
N mathshift		U startxtitle
N open		U stopcolumns
N other		U stoptabulate
N parameter		U stoptitle
N space		U stopxtitle
N subscript		U texsetup
N superscript		
N whitespace		
cache	table	collectors table
U NC		T data
U NR		F defaultwords
U bf		F dowithwords
U color		F flush
U colordefalc		F install
U colordefflc		F register
U colordefflt		T registered
U colordefrlt		F show
U dofinishreference		F test
U dostarttext		commands data table
U finishjob		compile function
U firstofoneargument		constant function
U firstoftwoarguments		converters table
U gobbleoneargument		S toboolean
U goto		S todimen
U iftrue		S toglue
U input		S tonumber
		S tostring
		create function

defined function
egroup userdata
getters table
 F box
 F count
 F dimen
 F glue
 F macro
 F meaning
 F skip
 F token
hbox userdata
isdefined function
istoken function
letter function
letters function
new function
other function
pickup function
presets table

T 1 string
 T 2 strings
 T 3 strings
 T 4 strings
 T 5 strings
 T 6 strings
 T 7 strings
 T 8 strings
printlist function
scanners table

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

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

setters table

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

shortcuts table

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

F inspect	F scantable
N open	F scanword
F report	F toboolean
F scanboolean	F todimen
F scanclose	T tokens
F scancode	F astable
F scanconditional	U bgroup
F scanname	T cache
F scandimen	U NC
F scandimension	U NR
F scaninteger	U bf
F scankeyword	U color
F scankeywordcs	U colordefalc
F scanlist	U colordefflc
T scanners	U colordefflt
F argument	U colordefrlt
F boolean	U dofinishreference
F code	U dostarttext
F conditional	U finishjob
F count	U firstofoneargument
F csname	U firstoftwoarguments
F dimen	U gobbleoneargument
F dimension	U goto
F float	U iftrue
F glue	U input
F integer	U loadfoundtypescriptfile
F keyword	U resetctxscanner
F keywordcs	U rlap
F list	U scratchcounter
F lxmld	U scratchdimen
F number	U scratchmuskip
F real	U scratchskip
F scanclose	U scratchtoken
F scanopen	U secondoftwoarguments
F skip	U setfalsevalue
F string	U setsectionblock
F table	U setupsystem
F token	U startcolumns
F tokens	U starttabulate
F toks	U starttitle
F word	U startxtitle
F scannumber	U stopcolumns
F scanopen	U stoptabulate
F scanstring	U stoptitle

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

tracers (context)

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

trackers (context)

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

typesetters (context)

alignments table

F handler
F set

breakpoints table

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

cases table

T actions
F handler
F register
F set

characteralign table

F handler
F resetcharacteralign
F setcharacteralign

characters table

F handler
T methods
F replacenbsp
F replacenbspaces

checkers table

F handler
F reset
F set

cleaners table

F handler
F set

digits table

T actions
F handler
F set

directions table

F getfences
F getglobal
F getmethod
F handler

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

firstlines table

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

fontkerns table

F handler

initials table

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

injectors table

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

italics table

F enablemath
F enabletext
F forcevariant
F handler
F reset
F set

kerns table

D factors
F handler
F keepligature
B keptogether
D mapping
F set

manipulators table

F apply
F applyspecification
T methods
F Word
F Words
F abbreviatedjournal
F expandedjournal
F lowercase
F stripperperiod
F uppercase
T patterns
U list
U pair
F splitspecification

margins table

F finalhandler
F globalhandler
F localhandler
F save

marksuspects function

paragraphs table

F addanchortoline
F addtoline
F calculatedelta
F checkline
F handler
F moveinline
F normalize
F set

periodkerns table

D factors
F handler
D mapping
F set

processors table

F apply
F register
F reset
F split
F startapply
F stopapply
F stripped
F toString

rubies table

F attach
F check

showsuspects function

spacings table

F define
F handler
D mapping
T numbers
T frenchpunctuation
T characters
S name
N number

F reset
F set
F setup

wrappers table

F handler

xtables table

F cleanup
F construct
F create
F finish_row
F flush
F initialize_construct
F initialize_reflow_height
F initialize_reflow_width
F next_row
F reflow_height
F reflow_width
F set_construct
F set_reflow_height
F set_reflow_width

unicode (extra lua)

ascii table

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

grapheme table

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

latin1 table

F byte
F char
F dump
F find
F format
F gfind
F gmatch
F gsub

F len
F lower
F match
F rep
F reverse
F sub
F upper

toutf32string function

utf8 table

F byte
F char
F characters
F chrln
F count
F dump
F filetype
F find
F format
F gfind
F gmatch
F gsub
F is_valid
F len
F length
F lower
F magic
F match
F remapper
F rep
F replacer
F reverse
F split
F splitlines
F sub
F substituter
F tocodes
F toeight
F toentities
F tostring
F totable
F upper

F ustring	F utf32_to_utf8_le_t
F utf16_to_utf8_be	F utf32_to_utf8_t
F utf16_to_utf8_be_t	F utf8_to_utf16
F utf16_to_utf8_le	F utf8_to_utf16_be
F utf16_to_utf8_le_t	F utf8_to_utf16_le
F utf16_to_utf8_t	F utf8_to_utf8_t
F utf32_to_utf8_be	F values
F utf32_to_utf8_be_t	F xstring
F utf32_to_utf8_le	

updaters (context)

apply function
register function

url (context)

addscheme	function
barepath	function
construct	function
decode	function
encode	function
escape	function
filename	function

hashed	function
hasscheme	function
query	function
split	function
toquery	function
unescape	function
unescapeget	function

utf8 (context)

char	function
charpattern	string
codepoint	function

codes	function
len	function
offset	function

utilities (context)

debugger	table		F size
F disable			F skip
F enable			F skiplong
F savestats			F skipposition
F showstats			F skipshort
F showtraceback			F writebyte
			F writecardinal2
			F writecardinal4
			F writestring
files	table	formatters	table
F close		F formatcolumns	
F getposition		F list	
F getsize		F stripzeros	
F look		garbagecollector	table
F open		F check	
F read2dot14		N criterium	
F readbyte		B enabled	
F readbytes		lua	table
F readbytetable		B alwaysstripcode	
F readcardinal		F checkmemory	
F readcardinal1		F compile	
F readcardinal2		F loadedluacode	
F readcardinal2le		F loadstring	
F readcardinal3		F loadstripped	
F readcardinal3le		N nofstrippedbytes	
F readcardinal4		N nofstrippedchunks	
F readcardinal4le		F registerfinalizer	
F readcardinaltable		B stripcode	
F readchar		T strippedchunks	
F readfixed2		F strippedloadstring	
F readfixed4		T suffixes	
F readinteger		S lua	
F readinteger1		S luc	
F readinteger2		S lui	
F readinteger2le		S luj	
F readinteger3		S luv	
F readinteger3le		S tma	
F readinteger4		S tmc	
F readinteger4le		S tua	
F readintegertable		S tuc	
F readsignedbyte		packers	table
F readstring			
F readtag			
F setposition			

F hashed	B modern-condensed
F new	B modern-light-condensed
F pack	T modern-light,latin-modern-light-designsize,latin-modern-light
F simplehashed	B latin-modern-light
F strip	B latin-modern-light-designsize
F unpack	B modern-light
N version	T modern-mono,modern-base-mono
parsers	B modern-base-mono
table	B modern-mono
F add_settings_to_array	T modern-variable,latin-modern-variable-designsize,latin-modern-variable
F arguments_to_table	B latin-modern-variable
F array_to_string	B latin-modern-variable-designsize
F csvsplitter	B modern-variable
F getparameters	T modernvariable,modern-variable
F groupedsplitat	B modern-variable
F hash_to_string	B modernvariable
T hashes	T modernvariablelight,modern-variable-light
T settings_to_set	B modern-variable-light
T min,max,fit,broad,auto	B modernvariablelight
B auto	T serif,sans,mono
B broad	B mono
B fit	B sans
B max	B serif
B min	T text,hidden,paper,page,leftpage,rightpage
T modern,latin-modern	B hidden
B latin-modern	B leftpage
B modern	B modern-condensed,latin-modern-condensed
T modern,latin-modern,modern-variable,latin-modern-variable,modern-variable-light	B paper
B latin-modern	B rightpage
B latin-modern-condensed	B text
B latin-modern-variable	F iterator
B modern	F keq_to_hash
B modern-condensed	F listitem
B modern-variable	F make_settings_to_hash_pattern
T modern,latin-modern-designsize,latin-modern	F mergehashes
B latin-modern	F options_to_array
B latin-modern-designsize	F options_to_hash
B modern	T patterns
T modern,modern-base	U settings_to_array
B modern	U settings_to_hash_a
B modern-base	U settings_to_hash_b
T modern-condensed,latin-modern-condensed-designsize,latin-modern-condensed,latin-modern-light-condensed,latin-modern-light	U settings_to_hash_c
B latin-modern-condensed	U settings_to_hash_d
B latin-modern-condensed-designsize	U unittotex
B latin-modern-light-condensed	

F process_stripped_settings	F replaceaction	
F rfc4180splitter	F setkind	
F runtime	F tostring	
F settings_to_array	setters	table
F settings_to_array_obey_fences	F disable	
F settings_to_array_with_repeat	F enable	
F settings_to_hash	F initialize	
F settings_to_hash_colon_too	F list	
F settings_to_hash_strict	F new	
F settings_to_hash_tolerant	F register	
F settings_to_numbers	F report	
F settings_to_set	F reset	
F simple_hash_to_string	F show	
F splitmethod	stacker	table
F splitthousands	F new	
F stepper	storage	table
F stripped_settings_to_array	F allocate	
F unittotex	F checked	
F unittotxml	F mark	
randomizer	F marked	
F get	F setinitializer	
F getnumber	F sparse	
F getseed	streams	table
F popseed	F close	
F pushseed	F getposition	
F reuseseed	F look	
F setseed	F open	
F setseedi	F read2dot14	
report	F read2dot4	
sequencers	F readbyte	
F appendaction	F readbytes	
F appendgroup	F readbytetable	
F compile	F readcardinal	
F disableaction	F readcardinal1	
F disablegroup	F readcardinal2	
F enableaction	F readcardinal2LE	
F enablegroup	F readcardinal3	
D functions	F readcardinal3le	
F localize	F readcardinal4	
F new	F readcardinaltable	
F nodeprocessor	F readchar	
F prependaction	F readfixed2	
F prependgroup	F readfixed4	
F removeaction	F readinteger	

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

vf (context)

char	function
down	function
fontid	function
image	function
node	function
nop	function

pdf	function
pop	function
push	function
right	function
rule	function
special	function

visualizers (context)

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

xml (context)

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

F undefined		F chainattribute	
F upper		F count	
fillin	function	F default	
filter	function	F elements	
finalizers	table	F empty	
F paragraphs		F first	
T tex		F function	
F all		F index	
F attribute		F last	
F chainattribute		F lowerall	
F chainpath		F match	
F command		F name	
F concat		F position	
F concatrange		F reverse	
F context		F table	
F count		F tag	
F ctxtext		F tags	
F default		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		inheritedconvert	function
F upper		inject	function
F upperall		inject_element	function
F xml		inject_element_after	function
T xml		inject_element_before	function
F all		injectafter	function
F att		injectbefore	function
F attribute		insert	function
F attributes		insert_element	function
F cdata		insert_element_after	function

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

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

zip (extra lua)

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

zlib (extra lua)

adler32	function
compress	function
compressobj	function
crc32	function

decompress	function
decompressobj	function
version	function