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

zip zlib

# ConTeXt LMTX

# global (alias: \_G)

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

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

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

## attributes (context)

alternates	table		formatgray
N attribute			getpagecolormodel
D data			gray
F enable			graytohsv
F handler			handler
F register		Т	helpers
D registered			F complement
D values			F inbetween
applyoverloads	function		F justone
colorintents	table	F	hsvtogray
N attribute		F	hsvtorgb
D data		F	hwbtorgb
F enable		F	iccprofile
F handler		F	isblack
F register		F	labtorgb
D registered		F	labtoxyz
colors	table	N	main
N attribute		S	model
F cmyk		D	models
F cmyktogray		F	mpcolor
F cmyktorgb		F	mpnamedcolor
F colorcomponent	s	F	mpoptions
D counts		F	namedcolorattributes
B couple		N	none
F currentmodel		F	popset
F currentnamedmo	del	F	processcolorcomponents
D data		F	pushset
N default		F	register
F defineintermed	iatecolor	D	registered
F definemultiton	ecolor	F	registerspotcolor
F defineprocesso	olor	F	rgb
F defineprocesso	olordirect	F	rgbtocmyk
F definesimplegr	ay	F	rgbtogray
F definespotcolo	r	F	rgbtohsv
F definetranspar	ency	F	rgbtoxyz
F enable		N	selector
F filter		F	setlist
N forced		F	setmodel
F forcedmodel		F	setpagecolormodel
F forcesupport		D	sets
F formatcolor		F	spec

F spot		F disabletrigger	ing
F spotcolorname		F enabletriggeri	.ng
F spotcolorparer	t	F finalize	
F spotcolorvalue		F initialize	
B supported		F process	
F toattributes		F selective	
F transparencyco	mponents	F simple	
B triggering		F stacked	
F usecolors		F stacker	
D valid		system	function
F value		tooverloads	function
D values		transparencies	table
B weightgray		N attribute	
F xyztolab		D data	
F xyztorgb		F enable	
define	function	F forcesupport	
effects	table	F handler	
N attribute		T names	
D data		N color	
F enable		N colorburn	
F handler		N colordodge	
F register		N darken	
D registered		N difference	
D values		N exclusion	
handlers	table	N hardlight	
list	data table	N hue	
markasoverload	function	N lighten	
names	data table	N luminosity	
negatives	table	N multiply	
N attribute		N none	
D data		N normal	
F enable		N overlay	
F handler		N saturation	
F register		N screen	
D registered		N softlight	
F set		N none	
numbers	data table	F register	
ofnode	function	D registered	
private	function	B supported	
public	function	F toattribute	
restore	function	B triggering	
save	function	F value	
showcurrent	function	D values	
states	table	unsetvalue	number

#### viewerlayers table

N attribute

F cleanup

D data

F define

F definedlayoutcomponent

F enable

F forcesupport

F handler

B hasorder

D listwise

F register

D registered

F resolve\_begin

F resolve\_end

F resolve\_reset

F resolve\_step

D scopes

F setfeatures

F start F stop

B supported

D values

#### backends (context)

F embedimage

F enabletags

F exportformdata

F fieldsurrounding

F flushmergelayer

closeout function F getbookmarks codeinjections table F getdefaultfieldvalue F boxresourcedimensions F getfieldcategory F registerboxresource F aetfieldset F restoreboxresource F getformatoption current strina F getidentityvariable defaults table F getinfo T codeinjections F getpreviewfigure F insertrenderingwindow T nodeinjections T registrations F jp2 D tables F jpg getcallbackstate function F maptag included table F mergebookmarks B context F mergecomments R date F meraefields B id F mergereferences B metadata F mergeviewerlayers B pdf F newimage install function F png latelua function F prerollreference nodeinjections table F presetsymbol nothing function F presetsymbollist openout function F processrendering pdf table F registerdocumentcloseaction T codeinjections F registerdocumentopenaction F addbookmarks F registeredsymbol F analyzenormalsymbol F registerpagecloseaction F analyzesymbol F registerpageopenaction F attachmentid F registerpattern F bitmap F registersymbol F clonefield F scanimage F copyimage F setattachmentsupport F definefield F setfieldcalculationset F definefieldset F setfigurealternative F defineviewerlayer F setfigurecolorspace F embedfile F setfiguremask

previous 7 next

F setformat

F setformsmethod

F setupidentity

F setpagetransition

F settaggingsupport

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 F wrapimage

T nodeinjections

S comment

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 insertu3d

F knockout F negative

F overprint

F positive F reference

F rgbcolor F spotcolor

F startalternate

F startlayer

F startstackedlayer
F stopalternate

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

registrations table
tables table
writeout function

## basexx (extra lua)

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

# bit32 (basic lua)

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

#### blobs (context)

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

#### boolean (context)

tocontext function
tonumber function

#### buffers (context)

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

#### builders (context)

checkparcontext	function	F	tag	
checksidefloat	function		iling	table
kernel	table	•	add	
F collapsing		F	distance	
F hyphenating		F	fixedprofile	
F kerning		F	get	
F ligaturing		F	list	
F mlisttohlist		F	pagehandler	
paragraphs	table	F	profilebox	
T constructors		F	set	
N attribute		vspa	cing	table
F define		D	categories	
F disable		F	${\tt checkstrutdepth}$	
F enable		F	collapsevbox	
F handler		Т	data	
T methods			D map	
F basic			D skip	
F default			D snapmethods	
F hpack		F	definesnapmethod	i
F oneline		В	fixed	
D names		F	forcepageflush	
D numbers		F	${\tt forcestrutdepth}$	
F set		F	getnofpreviousli	nes
F start		F	inject	
F stop		F	injectdisable	
T expansion		F	injectpenalty	
F trace		F	injectskip	
F keeptogether		F	pagehandler	
F registertogethe	r	F	pageoverflow	
T solutions		F	popatsame	
T splitters		F	pushatsame	
F define		F	setmap	
F optimize		F	setskip	
T registered			snapbox	
F reset			synchronizepage	
F set			tocategories	
F split			tocategory	
F start		F	vboxhandler	
F stop				

## caches (context)

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

#### callback (basic tex)

find function
known function
list function

register overloaded function

usage function

#### callbacks (context)

freeze function functions table F start page number F stop page number function known list data table pop function push function register function report function supported table B append\_to\_vlist\_filter B begin\_paragraph B build page insert B buildpage\_filter B contribute filter B define font B find format file B find log file B get attribute B glyph run B handle overload B hpack filter B hpack quality B hyphenate B insert par B intercept lua error

B intercept tex error B kerning B ligaturing B linebreak filter B make extensible B missing character B mlist to hlist B open data file B paragraph context B post linebreak filter B pre dump B pre\_linebreak\_filter B pre output filter B process jobname B register\_extensible B show\_error\_message B show lua call B show warning message B show whatsit B start file B start run B stop file B stop run B trace memory B vpack filter B vpack\_quality

B wrapup run

#### catcodes (context)

 register function

#### characters (context)

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

function setactivecatcodes setlettercatcodes function setothercatcodes function function shape shaped function shash data table shchars data table data table shcodes showstring function **specialchars** data table specials data table splits table T char

T char
T compat

subscriptstablesuperscriptstablesynonymsdata tabletextable

D accentmapping
D commandmapping
F defineaccents
F safechar
F strtextoutf
F strtoutfpattern
F toutf

F toutfpattern

textclasses table tonumber function ucchars data table uccode function uccodes data table uhash data table unicodechar function function upper verbosemarks data 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
undefine function

#### containers (context)

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

#### converters (context)

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

uchexnumbers upper verbose function function table F translate weekday word

words

function function function

#### coroutine (basic lua)

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

#### ctxrunner (context)

load function prepfiles data table
preparedfile function resolve function

#### data (context)

action function depth number height number prerolled string
width number

#### debug (basic lua)

getinfo function
sethook function

traceback 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
values	function

#### document (context)

arguments files functions getargument getfilename options data table table table function function table

D modes
D modules
targument

function setargument setcommandline function setdefaultargument function setenvironments function setfilename function setfilenames function setmodes function setmodules function variables data table

T commandline
D environments

D modes
D modules
T ctxfile

D environments

#### documentdata (context)

variable function

#### drivers (context)

	£	_
applyanchor	function	F wrapup
convert	function	T flushers
converters	table	F character
F analyze		F popleaderlevel
F engine		F pushleaderlevel
F lmtx		F rule
F resyncbox	6	F simplerule
enable	function	F specialrule
gethpos	function	F updatefontstate
getpos	function	T whatsit
getrpos	function	S name
getvpos	function	T json
helpers	table	T actions
install	function	F cleanup
instances	table	F convert
T default		F finalize
T actions		F initialize
F convert		F outputfilename
F outputfile	ename	F prepare
T flushers		F wrapup
F popleaderl	Level	T flushers
F pushleader	rlevel	F character
T whatsit		F popleaderlevel
S name		F pushleaderlevel
T empty		F rule
T actions		F simplerule
F convert		F specialrule
F prepare		F updatefontstate
T flushers		T whatsit
F popleaderl	level	S name
F pushleader	rlevel	T lua
T whatsit		T actions
S name		F cleanup
T js		F convert
T actions		F finalize
F cleanup		F initialize
F convert		F outputfilename
F finalize		F prepare
F initialize	2	F wrapup
F outputfile	ename	T flushers
F prepare		F character

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

F popleaderlevel

outputfilename function
report function

# environment (context)

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

# experiments (context)

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

register	function
report	function
reset	function
show	function
value	function
values	function

#### figures (context)

F resetstore

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

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

# file (basic lua)

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

# fio (extra lua)

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

# floats (context)

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

## font (basic tex)

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

# fonts (context)

-		
analyzers	table	F currentfonthasfeature
D features		D designsizes
D initializers		F enhanceparameters
D methods		T enhancers
F setstate		T afm
D states		F apply
B useunicodemarks		F patch
checkers	table	T patches
F getmissing		F register
D mapping		F report
F missing		F register
F placeholder		F report
cid	table	T otf
F getmap		F addfeature
F loadfile		F apply
collections	table	F enhance
F checkenabled		F patch
F clonevector		T patches
F define		F register
T definitions		F report
F found		F register
F prepare		F report
F process		T tfm
F register		F apply
F registermain		F patch
F report		T patches
F reset		F register
T vectors		F report
constructors	table	F register
F addcharacters		F report
F addcoreunicodes		N factor
F aftercopyingcha	racters	T features
F applyfinalizers		D afm
F applymanipulato	rs ·	D otf
F assignmathparame	eters	D tfm
F beforecopyingcha	aracters	F finalize
D cache		F getfeatureaction
F calculatescale		F getmathparameter
F checkedfeatures		F getprivate
F checkedfilename		T handlers
F collectprocessor	rs ·	T afm

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

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

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

F loadpk	current	function
F loadtfm	currentid	function
F loadtfmvf	definers	table
Floadyf	F addlookup	
F pktopdf	F analyze	
F showpk	F applypostprod	essors
F reencode	F checkedmode	
F setfeatures	F checkedscript	
N version	S defaultlookup	
T vf	F define	
T combinations	F getspecificat	ion
F combine	F internal	
T combiner	F loadfont	
D commands	F makespecifica	tion
D helpers	T methods	
D math	F install	
N version	D variants	
D whatever	F read	
F hashfeatures	F register	
F hashinstance	F registered	
T hashmethods	F registerfallb	ackfont
F normal	F registersplit	
F virtual	F resetnullfont	
F initializefeatures	F resolve	
D loadedfonts	T resolvers	
N noffontsloaded	F file	
N nofsharedfonts	F name	
N nofsharedhashes	F spec	
N nofsharedvectors	definetypeface	function
N privateoffset	dropins	table
D privateslots	F clone	
F readanddefine	F getshape	
F registerfeature	F getshapes	
F resetfeature	F nextid	
B resolvevirtualtoo	F provide	
F scale	F registerglyph	I
F scaled	F registerglyph	S
F setfactor	F swap	
F setfeature	F swapone	
F setmathparameter	encodings	table
F setname	T agl	
B sharefonts	D ctxcodes	
F trytosharefont	D extras	
N version	D names	

D synonyms				T bottomr	ight
D unicodes			9	S name	
D cache			9	S version	
F is_known			D de	esignsizes	
D known			D fi	ilenames	
F load			F ge	etcompositions	
F make_unicode_ve	ctor		T li	ist	
D math			F lo	oad	
N version			F pr	repare_features	i
enhanceid	function		F re	egister	
expansions	data table		F re	egisterpostproc	essor
formats	data table		F re	eport	
getalternate	function		T su	ıffixes	
getindices	function	ha	ndle	ers	table
getkern	function	ha	shes	5	table
getmultiple	function		D ch	naracters	
getsubstitution	function		D cl	lasses	
getters	table		D cs	snames	
T alternate			D de	escriptions	
F opentype			D dy	/namics	
T kern			D em	nwidths	
F opentype			D ex	kheights	
F type1			D ex	ktensibles	
F type3			D fe	eatures	
T multiple				dentifiers	
F opentype			D it	talics	
T substitution			D la	astmathids	
F opentype			D ma	arks	
goodies	table		D ma	athparameters	
D colorschemes			D mo	odes	
T data				riginals	
T dejavu-math			•	arameters	
S author				rocesses	
S comment				roperties	
S copyright			D qu		
B initialized				esources	
T mathematics				etdynamics	
T alternates				napes	
T dotless				oaces	
S comment				oacings	
S feature				reams	
N value				nicodes	
T kerns				ariants	
T *:0x1D449	9		D xh	neights	

helpers table	T vfinjectors	
F addextraprivate	F pdf	
F addprivate	F startcolor	
F appendcommands	F stopcolor	
F appendcommandtable	T vfspecials	
F checkflags	T backgrounds	
F checkmerge	T outlines	
F checksteps	infofont	function
F collectanchors	iterators	table
F combineglyphs	F characters	
D commands	F descriptions	
F composecharacters	F glyphs	
F descriptiontoslot	loggers	table
F dimenfactor	F format	
F expandglyph	F onetimemessage	
T extraprivates	F register	
F fontpatternhassize	F reportdefinedf	onts
F getcoloredglyphs	F reportusedfeat	ures
F getdigitwidth	mappings	table
F getinstancespec	F addtounicode	
F getparameters	F fromunicode16	
F getprivatecharornode	F getentry	
F getprivatenode	F loadfile	
F getprivates	F loadline	
F getprivateslot	F makenameparser	
F hasprivate	D overloads	
F indextoslot	F reset	
F mathscriptslots	F tounicode	
F name	F tounicode16	
F nametoslot	F tounicode16seq	uence
F newprivateslot	metapost	table
F prependcommands	F boundingbox	
F prependcommandtable	F boxtomp	
F privateslot	F draw	
F registerglyphbox	F fill	
F scalecommands	F glyph	
F setboxdirectly	F maxbounds	
F setboxglyph	F paths	
F setboxglyphs	F widthline	
F setdigitwidth	F zeroline	
F setmetaglyph	names	data table
F setmetaglyphs	nulldata	data table
F splitfontpattern	privateoffsets	table
F tochar	B keepnames	

N mathbase		D	methods	
N mathextrabase		D	presets	
N textbase		F	registerfallback	(
N textextrabase		F	registerfiles	
protrusions	data table	F	registerfontalte	ernative
readers	table	F	registerfontfami	lly
F afm		F	textfallback	
F check_lua		F	typeface	
F check_tfm		F	typescript	
F lua		F	userdata	
F ofm		spec	ifiers	table
F opentype		D	contextmerged	
F otf		F	contextnumber	
F pfb		D	contextnumbers	
D sequence		D	contextsetups	
F tfm		F	contexttostring	
F ttc		F	definecontext	
F ttf		F	mergecontext	
F woff		F	presetcontext	
reserveid	function	F	registercontext	
select	table	F	showcontext	
D alternatives		F	splitcontext	
F bodyfont		D	synonyms	
D data		D	variants	
F default		symb	ols	table
D defaults		Т	emoji	
F definefallbackfa	amily		F checked	
F definefontfamily	y		F resolved	
F definefontfamily	ypreset	F	uselibrary	
D extras		tabl	.es	table
F fallback		trac	ers	table
D fallbacks		trea	ntments	table
F features		F	applyfixes	
F filefallback		D	data	
F fontdata		S	filename	
F fontfallback		F	ignoredfile	
F fontsynonym		F	report	
F goodies		F	trace	
F mathfallback		type	efaces	table

## functions (context)

**dummy** function

### graphics (context)

backgrounds	table
F fetchmultipar	
F pair	
F path	
F point	
bitmaps	table
F flush	
F new	
F placeholder	
F tocontext	
identifiers	table
F bitmap	
F jp2	
F jpg	
F png	
identify	function

```
synchronizers table

F collapse
F collect
F extend
F getbottom
F getd
F geth
F getkind
F getsize
F gettask
```

F gettop F getw

# gzip (extra lua)

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

# images (context)

check	function	В сгор	
checksize	function	B media	
сору	function	B none	
create	function	B trim	
embed	function	storedata	function
${\tt embedfromstore}$	function	totable	function
fetchdata	function	types	table
keys	table	N jbig2	
print	function	N jp2	
resetdata	function	N jpg	
resetstore	function	N none	
scan	function	N pdf	
serialize	function	N png	
sizes	table	N stream	
B art		wrap	function
B bleed			

#### interactions (context)

attachments data table D functions fields table D preambles F clone F setpreamble F storecode F define F defineset F storepreamble F insert F usepreamblenow general table F usescripts linkedlists data table F getidentity pages table F setupidentity help table F setpagetransition F collect F setupcanvas table references F reference F register F setclosedocument javascripts table F setclosepage F addtopreamble F setopendocument F code F setopenpage renderings data table D codes soundclips F flushpreambles data table

## interfaces (context)

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

#### io (basic lua)

ask function bytes function function characters function close copydata function exists function fileseparator string flush function input overloaded function

overloaded function lines loadchunk function

loaddata function loadlines function newreader function noflines function

open overloaded function output overloaded function pathseparator string

overloaded function popen

function read readall function readnumber function readstring function savedata function size function stderr userdata stdin userdata stdout userdata function tmpfile function type

function

write

# job (context)

	_			
comment	function	D	tobesaved	
datasets	table	-	rappers	table
D collected			collected	
F extend			tobesaved	
F getdata		pass		table
F setdata			check	
D tobesaved			collected	
disablesave	function	F	count	
embedded	table	F	define	
D collected		F	find	
D tobesaved		F	first	
fileobjreferences	table	F	get	
D collected		F	getcollected	
D tobesaved		F	getdata	
files	table	F	getfield	
D collected		F	gettobesaved	
F context		F	inlist	
B forcerun		F	last	
F run		F	list	
D tobesaved		F	save	
getrandomseed	function	F	savetagged	
getrandomseed initialize	function function		savetagged tobesaved	
		D		table
initialize	function	posi	tobesaved	table
initialize load	function function	p <b>osi</b>	tobesaved <b>tions</b>	table
initialize load loadother	function function function	posi F	tobesaved tions b_column	table
initialize load loadother objects	function function function	posi F F F	tobesaved tions b_column b_region	table
initialize load loadother objects D collected	function function function	posi F F F D	tions b_column b_region c	table
<pre>initialize load loadother objects     D collected     F get</pre>	function function function	posi F F F D	tions b_column b_region c collected	table
<pre>initialize load loadother objects     D collected     F get     F number</pre>	function function function	D posi	tions b_column b_region c collected column	table
<pre>initialize load loadother objects     D collected     F get     F number     F page</pre>	function function function	D posi	tobesaved tions b_column b_region c collected column columnofpos	table
<pre>initialize load loadother objects     D collected     F get     F number     F page     F save</pre>	function function function	D posi	tobesaved tions b_column b_region c collected column columnofpos copy	table
<pre>initialize load loadother objects     D collected     F get     F number     F page     F save     F set</pre>	function function function	D posi	tions b_column b_region c collected column columnofpos copy depth	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved	function function function table	D posi	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved pack	function function table  boolean	D <b>posi</b> F F F F F F F	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column e_region	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved pack packversion	function function function table  boolean number	D posi	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column e_region enhance	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved pack packversion pagestates	function function function table  boolean number	D posi  F  F  D  F  F  F  F  F  F  F  F  F  F	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column e_region enhance extra	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved pack packversion pagestates D collected	function function function table  boolean number	D posi	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column e_region enhance extra get	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved pack packversion pagestates D collected F countervalue	function function function table  boolean number	D posi	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column e_region enhance extra get getfree	table
initialize load loadother objects  D collected F get F number F page F save F set D tobesaved pack packversion pagestates D collected F countervalue F extend	function function function table  boolean number	D posi	tobesaved tions b_column b_region c collected column columnofpos copy depth e_column e_region enhance extra get getfree gethpos	table

F settobesaved F gettobesaved F getvpos D tobesaved F hangafter F upperleft F hangindent F upperright F height F used F whd F hsize N lastx F width N lasty Fχ F leftskip F xy F lowerleft Fу register function F lowerright function F markregionbox save table structure Fη D collected F onsamepage F overlapping T components Fр T tobesaved F page T branches S name T pagedata S type F paragraph variables table F parindent F position D checksums Fr D collected F region F getchecksum F registerhandlers F makechecksum F replace F restore F rightskip F save F set F setchecksum

F setall

F setspec

F setregionbox

D tobesaved

number

version

# language (basic tex)

clean	function	id	function
clearhyphenation	function	new	function
clearpatterns	function	patterns	function
current	function	postexhyphenchar	function
gethjcode	function	posthyphenchar	function
has_language	function	preexhyphenchar	function
hyphenate	function	prehyphenchar	function
hyphenation	function	sethjcode	function
hyphenationmin	function	setwordhandler	function

# languages (context)

F injecthyphens

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

F handler

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

N threshold

visualizediscretionaries function

table

### layouts (context)

setupcanvas

getcanvasfunctionstatustablegetpagedimensionsfunctionFisleftpage

F leftorrightpageaction

function

#### lfs (extra lua)

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

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

# lpdf (context)

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

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

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

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

B *	N Delta
T uppercasing	N Dieresis
T *	N E
B *	N Eacute
S filename	N Ebreve
S foundfilename	N Ecaron
T foundtables	N Ecircumflex
T markclasses	N Edieresis
T marks	N Edotaccent
T marksets	N Egrave
N private	N Emacron
T sequences	N Eng
T sublookups	N Eng.alt
T unicodes	N Eogonek
N .null	N Epsilon
N A	N Epsilontonos
N AE	N Eta
N AEacute	N Etatonos
N Aacute	N Eth
N Abreve	N Euro
N Acircumflex	N F
N Acute	N G
N Adieresis	N Gamma
N Agrave	N Gbreve
N Alpha	N Gcaron
N Alphatonos	N Gcircumflex
N Amacron	N Gcommaaccent
N Aogonek	N Gdotaccent
N Aring	N Grave
N Atilde	N H
N B	N Hbar
N Beta	N Hcircumflex
N C	NI
N Cacute	N IJ
N Caron	N Iacute
N Ccaron	N Ibreve
N Ccedilla	N Icircumflex
N Ccircumflex	N Idieresis
N Cdotaccent	N Idotaccent
N Chi	N Igrave
N Circumflex	N Imacron
N D	N Iogonek
N Dcaron	N Iota
N Dcroat	N Iotadieresis

N	Iotatonos	N	R
N	Itilde	N	Racute
N	J	N	Rcaron
N	Jcircumflex	N	Rcommaaccent
N	K	N	Rho
N	Карра	N	S
N	Kcommaaccent	N	Sacute
Ν	L	N	Scaron
Ν	Lacute	N	Scedilla
N	Lambda	N	Scircumflex
N	Lcaron	N	Scommaaccent
Ν	Lcommaaccent	N	Sigma
Ν	Ldot	N	Т
Ν	Lslash	N	Tau
N	М	N	Tbar
N	Mu	N	Tcaron
N	N	N	Tcommaaccent
N	Nacute	N	Theta
N	Ncaron	N	Thorn
N	Ncommaaccent	N	Tilde
N	Ntilde	N	U
N	Nu	N	Ugrave
N	0	N	Uhorn
N	0E	N	Uhungarumlaut
N	Oacute	N	Umacron
N	0breve	N	Uogonek
N	Ocircumflex	N	Upsilon
	Odieresis		Upsilon1
N	Ograve Ograve	N	Upsilondieresis
	Ohorn		Upsilontonos
	Ohungarumlaut		Uring
	Omacron		Utilde
	Omega	N	
	Omegatonos	N	
	Omicron		Wacute
	Omicrontonos		Wcircumflex
	Oslash		Wdieresis
	Oslashacute		Wgrave
	Otilde D		X
N			Xi
	Phi .		Y
	Pi .		Yacute
	Psi		Ycircumflex
N	Q	N	Ydieresis

N Ygrave	N arrowupdn
N Z	N arrowupdnbse
N Zacute	N asciicircum
N Zcaron	N asciitilde
N Zdotaccent	N asterisk
N Zeta	N asteriskmath
N a	N at
N aacute	N atilde
N abreve	N b
N acircumflex	N backslash
N acute	N bar
N acutecomb	N beta
N adieresis	N block
N ae	N braceleft
N aeacute	N braceright
N agrave	N bracketleft
N alpha	N bracketright
N alphatonos	N breve
N amacron	N brokenbar
N ampersand	N bullet
N angle	N c
N anoteleia	N cacute
N aogonek	N caron
N approxequal	N carriagereturn
N arabic_2dots	N ccaron
N arabic_2dots_a	N ccedilla
N arabic_3dots	N ccircumflex
N arabic_3dots_a	N cdotaccent
N arabic_4dots	N cedilla
N arabic_dot	N cent
N arabic_gaf_bar	N chi
N arabic_gaf_bar_a	N circle
N arabic_ring	N circlemultiply
N aring	N circleplus
N arrowboth	N circumflex
N arrowdblboth	N club
N arrowdbldown	N colon
N arrowdblleft	N colonmonetary
N arrowdblright	N comma
N arrowdblup	N congruent
N arrowdown	N copyright
N arrowleft	N currency
N arrowright	N d
N arrowup	N dagger

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

neu+e		
iacute		ltshade
ibreve	N	
icircumflex		macron
idieresis		male
igrave		minus
ij	N	minute
imacron		mu
infinity	N	multiply
integral		musicalnote
integralbt	N	musicalnotedbl
integraltp	N	
intersection	N	nacute
invbullet	N	napostrophe
invcircle	N	ncaron
invsmileface	N	ncommaaccent
Logonek	N	nine
iota	N	nonbreakingspace
iotadieresis	N	nonmarkingreturn
iotadieresistonos	N	notdef
iotatonos	N	notelement
itilde	N	notequal
j	N	notsubset
jcircumflex	M	ntilde
	14	ntitue
jot		nu
jot K	N	
	N	nu numbersign
•	N N N	nu numbersign
карра	N N N	nu numbersign o
kappa kcommaaccent	N N N N	nu numbersign o oacute
c kappa kcommaaccent kgreenlandic	N N N N	nu numbersign o oacute obreve
c xappa xcommaaccent xgreenlandic	N N N N N	nu numbersign o oacute obreve ocircumflex
cc kappa kcommaaccent kgreenlandic L Lacute	N N N N N	nu numbersign o oacute obreve ocircumflex odieresis
cc cappa ccommaaccent cgreenlandic L Lacute Lambda	N N N N N N	nu numbersign 0 oacute obreve ocircumflex odieresis oe
cc cappa ccommaaccent cgreenlandic L Lacute Lambda Lcaron	N N N N N N N	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek
kappa kcommaaccent kgreenlandic Lacute Lambda Lcaron Lcommaaccent Ldot Less		nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve
kappa kcommaaccent kgreenlandic L Lacute Lambda Lcaron Lcommaaccent	N N N N N N N N N N N N	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn
kappa kcommaaccent kgreenlandic Lacute Lambda Lcaron Lcommaaccent Ldot Less	N N N N N N N N N N N N N N N N N N N	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut
ccommaaccent		nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut omacron
ccommaaccent ccommaaccent ccommaaccent ccommaaccent claambda ccaron ccommaaccent cdot cless clessequal cfblock clira	N N N N N N N N N N N N N N N N N N N	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut omacron omega omegal omegal omegatonos
ccommaaccent cgreenlandic L Lacute Lambda Lcaron Lcommaaccent Ldot Less Lessequal Lfblock	N N N N N N N N N N N N N N N N N N N	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut omacron omega omega1
ccommaaccent ccommaaccent ccommaaccent ccommaaccent claambda ccaron ccommaaccent cdot cless clessequal cfblock clira	X X X X X X X X X X X X X X X X X X X	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut omacron omega omegal omegal omegatonos
Kappa	X X X X X X X X X X X X X X X X X X X	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut omacron omega omegal omegatonos omicron
Kappa	X	nu numbersign o oacute obreve ocircumflex odieresis oe ogonek ograve ohorn ohungarumlaut omacron omega omega1 omegatonos omicron omicrontonos
	grave .j macron .nfinity .ntegral .ntegralbt .ntegraltp .ntersection .nvbullet .nvcircle .nvsmileface .ogonek .ota .otadieresis .otadieresistonos .otatonos .tilde	grave

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

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

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

N maxsize B hasmath N minsize N id N quad S mode N slant B monospaced S name N space N space\_shrink N private N space\_stretch S psname N units B setitalics N vheight S space N x height N subfont S writingmode T properties usedindices table S filename S fontname T dejavusansmonoboldttf-1

function

S format verbose
S fullname

# lpeg (basic lua)

В	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
Ср	function	patterns	data table
Cs	function	pcode	function
Ct	function	print	function
P	function	ptree	function
R	function	replacer	function
S	function	secondofsplit	function
UP	function	setmaxstack	function
UR	function	setutfcasers	function
US	function	split	function
V	function	splitat	function
afterprefix	function	splitter	function
anywhere	function	stripper	function
append	function	times	function
balancer	function	tsplitat	function
beforesuffix	function	tsplitter	function
checkedsplit	function	type	function
containsws	function	utfchartabletopattern	function
counter	function	utfreplacer	function
endstripper	function	version	function
finder	function		

# lua (basic tex)

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

### luatex (context)

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

F collect F disable

function wrapup

# lxml (context)

		-1 -	
addindex	function	first	function
all	function	flush	function
applyfunction	function	flushlinewise	function
applyselectors	function	flushsetups	function
att	function	flushspacewise	function
attribute	function	<del>get_id</del>	function
badinclusions	function	getid	function
chainattribute	function	getindex	function
checkindex	function	id	function
collected	function	idsplitter	userdata
command	function	ifatt	function
concat	function	ifattempty	function
concatrange	function	include	function
content	function	inclusion	function
context	function	inclusions	function
convert	function	index	function
count	function	inlineverbatim	function
delete	function	installsetup	function
depth	function	last	function
direct	function	lastatt	function
directives	table	lastmatch	function
F after		lastpar	function
F before		load	function
F handle		loadbuffer	function
F load		loaddata	function
F setup		loaded	table
displayverbatim	function	main	function
doif	function	match	function
doifelse	function	name	function
doifelseempty	function	namespace	function
doifelsetext	function	nonspace	function
doifempty	function	par	function
doifnot	function	param	function
doifnotempty	function	parameter	function
doifnottext	function	path	function
doiftext	function	popmatch	function
element	function	pos	function
elements	function	position	function
entities	data table	pure	function
filter	function	pushmatch	function
filterlist	function	raw	function

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

### math (basic lua)

abs	function	
acos	function	
asin	function	
atan	function	
atan2	function	
ceil	function	
ceiling	function	
cos	function	
cosd	function	
cosh	function	
deg	function	
div	function	
even	function	
exp	function	
floor	function	
fmod	function	
huge	number	
initialseed	number	
ldexp	function	
log	function	
log10	function	
max	function	
maxinteger	number	

min	function	
mininteger	number	
mod	function	
modf	function	
odd	function	
pi	number	
pow	function	
rad	function	
random	overloaded	function
randomseed	function	
round	function	
setrandomseedi	function	
sin	function	
sind	function	
sinh	function	
sqrt	function	
tan	function	
tand	function	
tanh	function	
tointeger	function	
type	function	

function

ult

### mathematics (context)

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

# md5 (extra lua)

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

#### metapost (context)

N message

N mode

checkformat function N newinternal function cm N nullary codes table N numeric N addto N of N ampersand N ofbinary N and N outertag N assignment N parametertype N atleast N plus or minus N begingroup N primarybinary N btex N primarydef N capsule N protection N colon N randomseed N comma N relax N repeat\_loop N controls N curl N rightbrace N cycle N rightbracket N rightdelimiter N declare N def N runscript N definedmacro N save N delimiters N scantokens N endgroup N scope N equals N secondarybinary N etex N secondarydef N semicolon N everyjob N exitif N setbounds N expandafter N shipout N fi or else N show Nif N skip N input N slash N interim N step N internal N stop N iteration N str N join N string N leftbrace N tag N leftbracket N tension N leftdelimiter N tertiarybinary N let N tertiarydef N macrospecial N thingstoadd N maketext N to

N unary

N undefinedcs

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

<pre>run function F get runscript function F reset scanparameters function F set scripterror function F setfrombuffer scriptindex function texerrors boolea setbendtolerance function texexp function</pre>	ion ion
scanparametersfunctionF setscripterrorfunctionF setfrombufferscriptindexfunctiontexerrorsboolean	ion ion
scripterror     function     F setfrombuffer       scriptindex     function     texerrors     boolean	ion ion
scriptindex function texerrors booles	ion ion
	ion ion
setbendtolerance function texexp functi	Lon
setextensions function theclippath function	
setoutercolor function tographic function	.on
setparameterset function totable function	on
settext function types table	
setvariable function N boolean	
showlog boolean N cmykcolor	
<b>showsvgpage</b> function N color	
simple function N dependent	
<pre>splitprescript function N independent</pre>	
startgraphic function N known	
<pre>startsvghashing function N numeric</pre>	
stopgraphic function N pair	
<pre>stopsvghashing function N path</pre>	
<pre>svformat function N pen</pre>	
<pre>svgcolorremapper function N picture</pre>	
svgfactors table N protodependent	
N % N string	
N bp N structured	
N cm N suffixedmacro	
N em N tokenlist	
N ex N transform	
N in N unknownboolean	
N mm N unknownpath	
N pc N unknownpen	
N pt N unknownpicture	
N px N unknownstring	
<pre>svgglyphtomp function N unsuffixedmacro</pre>	
svgshapestomp function N vacuous	
<pre>svgshapestopdf function typesvgpage function</pre>	on
svgsplitcolor function unload function	on
<pre>svgtomp function untagvariable funct;</pre>	on
<pre>svgtopdf function variables table</pre>	

function

sxsy

### mime (extra lua)

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

F base64

F quoted-printable

eol function normalize function function qр

qpwrp function function report stuff function unb64 function unqp function function wrap table wrapt F base64

F default

F quoted-printable

F text

function wrp

# mp (context)

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

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

F expression

function

mf\_get\_outline\_text

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

# mplib (extra tex)

	function		function
execute	14.16 (251)	injecttransform	
expandtex	function	injectwhatever	function
finder	function	new	overloaded function
finders	table	peninfo	function
F file		propertycodes	table
F mpstemplate		realtimelogging	boolean
finish	function	scanboolean	function
getcallbackstate	function	scancmykcolor	function
getcodes	function	scancolor	function
getfields	function	scanexpression	function
gethashentries	function	scaninteger	function
gethashentry	function	scannext	function
getstates	function	scannumber	function
getstatistics	function	scannumeric	function
getstatus	function	scanpair	function
gettolerance	function	scanpath	function
gettype	function	scanpen	function
gettypes	function	scanproperty	function
injectboolean	function	scanstring	function
injectcmykcolor	function	scansymbol	function
injectcolor	function	scantoken	function
injectinteger	function	scantransform	function
injectnumber	function	settolerance	function
injectnumeric	function	showcontext	function
injectpair	function	skiptoken	function
injectpath	function	solvepath	function
injectstring	function	version	function

# noads (context)

handlers	table	F render	
F align		F resize	
F alternates		F showtree	!
F autofences		F tags	
F classes		F unscript	
F collapse		F unstack	
F domains		F variants	i
F export		process	function
F families		processnes	<b>ted</b> function
F fixscripts		processors	table
F italics		F mlisttoh	list
F kernpairs		T unscript	
F makeup		T unstack	
F relocate		processout	<b>er</b> function

#### node (basic tex)

checkdiscretionaries
checkdiscretionary
copy
copy\_list
copylist
count
current\_attributes
currentattributes
dimensions
direct

F addmargins
F addxymargins
F addyoffset
F appendaftertail
F checkdiscretionaries
F checkdiscretionary
F collapsing
F copy
F copy\_list

F copyonly
F count
F current\_attributes
F currentattributes
F dimensions
F effective\_glue
F effectiveglue
F end\_of\_math
F endofmath
F exchange
F fields
F find\_node
F findattribute

F copylist

F findnode F first\_glyph F firstglyph F flattendiscretionaries

F findattributerange

F flush\_list F flush node function function function function function function function function

table

F getattribute F qetattributelist F getattributes F getboth F getbox F getchar F getcharspec F getdata F getdepth F getdirection F aetdisc F getdiscpart F getexpansion F getfam F getfield F getfont

F flushlist

F flushnode

F get attribute

F get attributes

F free

F getglyphdimensions
F getheight
F getid
F getindex
F getkern
F getkerndimension

F getglue

F getglyphdata

F getkerndimension
F getlanguage
F getleader
F getlist
F getnext
F getnormalizedline

F getnucleus
F getoffsets
F getoptions
F getorientation
F getparstate
F getpenalty
F getpost

F getpre F isglyph F isnextchar F getprev F getpropertiestable F isnextqlyph F isnode F getproperty F getreplace F isprevchar F getscale F isprevglyph F getscales F isvalid F iszeroalue F getscript F getshift F kerning F getstate F length F getsub F ligaturing F getsubpre F makeextensible F getsubtype F migrate F getsup F mlist to hlist F getsuppre F mlisttohlist F getsynctexfields F naturalhsize F gettotal F naturalwidth F getwhd F new F getwidth F prependbeforehead F getxscale F protect glyph F getxyscales F protect\_glyphs F getyscale F protectglyph F has attribute F protectglyphs F has field F protrusionskippable F has glyph F rangedimensions F hasattribute F remove F hasdimensions F reverse F hasfield F set attribute F hasglyph F set attributes F hasqlyphoption F setattribute F setattributelist F hpack F hyphenating F setattributes Fid F setboth F ignoremathskip F setbox F setchar F insert after F insert before F setdata F insertafter F setdepth F insertbefore F setdirection F is char F setdisc F is\_glyph F setdiscpart F is node F setexpansion F is valid F setfam F is zero glue F setfield

F setfont

F ischar

F setglue	F tovaliddirect	
F setglyphdata	F traverse	
F setheight	F traverse_char	
F setindex	F traverse_content	
F setkern	F traverse_glyph	
F setlanguage	F traverse_id	
F setleader	F traverse_list	
F setlink	F traversechar	
F setlist	F traversecontent	
F setnext	F traverseglyph	
F setnucleus	F traverseid	
F setoffsets	F traverselist	
F setoptions	F type	
F setorientation	F types	
F setpenalty	F unprotect_glyph	
F setpost	F unprotect_glyphs	
F setpre	F unprotectglyph	
F setprev	F unprotectglyphs	
F setproperty	F unset_attribute	
F setreplace	F unset_attributes	
F setscales	F unsetattribute	
F setscript	F unsetattributes	
F setshift	F usedlist	
F setsplit	F uses_font	
F setstate	F usesfont	
F setsub	F values	
F setsubpre	F verticalbreak	
F setsubtype	F vpack	
F setsup	F write	
F setsuppre	F xscaled	
F setsynctexfields	F yscaled	
F settotal	effective_glue	function
F setwhd	effectiveglue	function
F setwidth	end_of_math	function
F show	endofmath	function
F slide	family_font	function
F softenhyphens	fields	function
F start_of_par	findattribute	function
F startofpar	first_glyph	function
F subtypes	firstglyph	function
F tail	flattendiscretionaries	function
F todirect	flush_list	function
F tonode	flush_node	function
F tostring	flushlist	function

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

### nodes (context)

discretionarycodes

fencecodes

accentcodes	data table	fields	function
aligned	function	fieldtypes	table
append	function	fillcodes	data table
apply	function	fillvalues	data table
applyvisuals	function	firstcharacter	function
astable	function	firstcharinbox	function
basepoints	function	firstdirinbox	function
boundarycodes	data table	flush	function
boxes	table	flush_list	function
F count		flush_node	function
F dimensions		flushlist	function
F direct		flushnode	function
F dispose		fullhpack	function
F found		getattr	function
F reset		getattribute	function
F restore		getboth	function
F save		getbox	function
F savenode		getchar	function
builders	table	getfield	function
F buildpage_filter		getfont	function
F vpack_filter		getid	function
concat	function	getleader	function
сору	function	getlist	function
copy_list	function	getnext	function
copylist	function	getprev	function
countall	function	getproperty	function
current_attributes	function	getsubtype	function
currentattributes	function	gluecodes	data table
delete	function	glyphcodes	data table
destinations	table	handlers	table
N attribute		F accessibility	
T done		F backgrounds	
F handler		F backgroundspage	
T stack		F backgroundsvbox	
dircodes	data table	F characters	
directioncodes	data table	F checkglyphs	
directionvalues	data table	F checkparcounter	
dirvalues	data table	F cleanupbox	
disccodes	data table	F cleanuppage	

data table

data table

F finalizebox

F export

F finalizelist		is_node	function
F flatten		isnode	function
F flattenline		kerncodes	data table
F migrate		leftmarginwidth	function
F protectglyphs		linefillers	table
F show		D data	
F showhyphenation		F define	
F stripping		F enable	
F textbackgrounds		F filler	
F unprotectglyphs		F handler	
F visualizehyphenation		lines	table
F wipe		T boxed	
has_attribute	function	F addlinenumbers	
has_field	function	F register	
hasattribute	function	F setup	
hasfield	function	D data	
hpack	function	F finalize	
idsandsubtypes	function	F number	
idstostring	function	link	function
injections	table	linked	function
F copy		list	function
F getligaindex		listcodes	data table
F getthreshold		listtoutf	function
F handler		literalvalues	data table
F installgetspaceboth		locate	function
F installnewkern		markers	table
F isspace		F get	
F keepcounts		mathcodes	data table
F reset		mathvalues	data table
F resetcounts		maxboxwidth	function
F setcursive		migrations	table
F setkern		F setinserts	
F setligaindex		F setmarks	
F setmark		new	function
F setmove		noadcodes	data table
F setposition		noadoptions	table
F setspacekerns		N axis	
insert_after	function	N exact	
insert_before	function	N left	
insertafter	function	N middle	
insertbefore	function	N no_axis	
insertlistafter	function	N right	
installattributehandler	function	N set	
is_display_math	function	N unused_1	

N unused 2 F exchange nodecodes data table F find attribute nopts function F findattribute table nuts F findnode F addmargins F first glyph F firstcharacter F addxoffset F addxymargins F firstcharinbox F addyoffset F firstalvph F append F flattendiscretionaries F appendaftertail F flush F apply F flush list F applyvisuals F flush node F checkdiscretionaries F flushlist F flushnode F collapsing T colors F free F set F fullhpack T components F get attribute F copynocomponents F get synctex fields F copyonlyglyphs F getattr F count F getattribute F flush F getattributelist F aet F getattributes F set F getattrlist F getattrs F concat F copy F getboth F copy\_list F getbox F copy node F getboxglue F copy only F getchar F copy properties F getcharspec F copylist F getcomponents F copynode F getdata F copyonly F getdepth F copyvisual F getdirection F count F getdisc F countall F getdiscpart F current attr F getdiscretionary F currentattributes F getexpansion F delete F getfam F dimensions F getfield F dirdimensions F getfont F effective glue F getglue F effectiveglue F getglyphdata

F end of math

F endofmath

F getglyphdimensions

F getheight

F hasattribute F aetid F getindex F hasdimensions F getkern F hasfield F getkerndimension F hasglyph F getlang F hasqlyphoption F getlanguage F hpack F getleader F hyphenating F getlist F ignoremathskip F getnext F insert after F getnormalizedline F insert before F insertafter F getnucleus F insertbefore F getoffsets F insertlistafter F getoptions F getorientation F is display math F getpenalty F is node F getpost F is zero glue F getpre F ischar F isdone F getprev F isglyph F getprop F getreplace F isnextchar F getruledata F isnextalvph F getscale F isnode F getscales F isprevchar F isprevglyph F getscript F getshift F iszeroglue F getstate F kerning F length F getsub F getsubpre F ligaturing F link F getsubtype F getsup F linked F getsuppre F locate F getsurround F migrate F getsynctexfields F mlist to hlist F mlisttohlist F gettotal F naturalhsize F getvalue F getwhd F naturalwidth F nestedtracedslide F getwidth F getxscale F new F getxyscales T pool F getyscale F accent F has attribute F baselineskip F has dimensions F boundary F has field F choice

F cleanup

F has glyph

F delim F startrotation F delimiter F stock F direction F stretch F directliteral F subbox F disc F submlist F emptyrule F temp F fence F usage F fontkern F userdefined F fraction Tuserids F glue F usernode F userrule F gluespec F vlist F glyph F hlist F wordboundary F indentskip F prepend F italickern F prependbeforehead F kern F processranges F latelua F processwords F leader F protect glyph F lefthangskip F protect glyphs F leftmarginkern F protectglyph F leftskip F protectglyphs F lineskip F protrusionskippable F literal F rangedimensions F mathchar F rawprop F mathtextchar F reference F negatedglue F rehpack F noad F remove F originliteral F repackhlist F outlinerule F replace F pageliteral F reverse F penalty T rules F radical T ruleactions F rawliteral F hox F register F draw F restore F fill F righthangskip F mp F rightmarginkern F stroke F rightskip F userrule F rule F set attribute F save F setattr F savepos F setattribute F setmatrix F setattributelist F setstate F setattrlist F shrink F setattrs

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

F setsub

F char

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

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

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

F start F stop write

function

### number (context)

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

# objects (context)

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

# optional (context)

au n1		+ahla	_		
curl		table		framecompress	
	escape			framedecompress	i
	fetch			initialize	4-61-
	getversion		lzma		table
	initialize			compress	
	unescape !	4-1-1		decompress	
forei	-	table		initialize	4-61-
	abivalues		lzo		table
	getbuffer			compress	
	initialize			decompresssize	
	load			initialize	
	newbuffer		mujs		table
	totable			dofile	
	types			execute	
_		table		initialize	
F	execute		F	reset	
	initialize		F	setclosefile	
graph	nicsmagick	table	F	setconsole	
F	execute		F	setfindfile	
Fi	initialize		F	setopenfile	
hb		table	F	setreadfile	
Fς	getshapers		F	setseekfile	
Fς	getversion		mysq	l	table
Fi	initialize		F	close	
F٦	loadfont		F	execute	
F s	shapestring		F	getmessage	
kpse		table	F	initialize	
F	expand_braces		F	open	
F	expand_path		post	gress	table
F	expand_var		F	close	
F 1	find_file		F	execute	
F 1	find_files		F	getmessage	
Fς	get_file_types		F	initialize	
Fi	initialize		F	open	
Fı	readable_file		sqli	te	table
Fs	set_program_nam	ne	F	close	
F١	var_value		F	execute	
loade	ed	table	F	getmessage	
lz4		table	F	initialize	
F	compress		F	open	
F	decompresssize		zint		table

### os (basic lua)

newline

nofdays

pipeto

platform

now

string

function

function

function

string

getenv	function	remove	overloaded function
setenv	function	rename	overloaded function
binsuffix	string	resultof	function
binsuffixes	table	runtime	function
bits	string	selfarg	table
clock	function	selfbase	string
converttime	function	selfbin	string
date	overloaded function	selfcore	string
difftime	function	selfdir	string
enableansi	function	selfname	string
env	data table	selfpath	string
execute	overloaded function	setenv	overloaded function
exit	overloaded function	setexitcode	function
fulltime	function	setlocale	overloaded function
getcodepage	function	sleep	function
getenv	overloaded function	time	function
gettimeofday	function	timezone	function
isleapyear	function	tmpname	function
launch	function	today	function
libsuffix	string	type	string
localtime	function	uname	function
name	string	uuid	function

validdate

weekday

where

which

function

function function

function

# package (basic lua)

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

# pagebuilders (context)

F setarea

<pre>columnsets table</pre>	F sethsize
F add	F sethspan
F block	F setlines
F check	F setproperties
F currentcolumn	F setstart
F define	F setvsize
F finishflush	<b>injections</b> table
F flushareas	F flushafter
F flushcolumn	F flushbefore
F flushrest	F save
F goto	mixedcolumns table
F noto	F cleanup
F prepareflush	F finalize
F put	F getlist
F registerarea	F getrest
F reset	F getsplit

F setsplit

### pdf (basic tex)

immediateobj function

### pdfe (extra tex)

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

# physics (context)

units table

F registerunit

D tables

# pngdecode (extra tex)

applyfilter	function	splitmask	function
expand	function	tocmyk	function
interlace	function	tomask	function

# publications (context)

addtexentry	function	converttoxml	function
analyze	function	currentspecification	table
anywhere	function	S author	
authorcache	data table	T categories	
authorcollapsers	data table	T article	
authorhashers	table	S category	
F invertedshort		T extra	
F normal		T fields	
F normalinverted		S author	
F normalshort		S editor	
F sequential		S journal	
F sequentialshort		S keywords	
F short		S note	
authormap	data table	S number	
authortoregister	function	S pages	
casters	table	S title	
F author		S volume	
F keyword		S year	
F pagenumber		T optional	
F range		T required	
checkeddataset	function	T sets	
citevariants	table	T author	
F author		T virtual	
F authornum		T book	
F authoryear		S category	
F authoryears		T extra	
F category		T fields	
F default		S address	
F entry		S author	
Findex		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	data table	S title	
collected	table	S volume	
components  F author	table	S year	
	function	T optional	
concatstate	TullCt10II	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		oneorrange	function
F flushentry		parenttag	function
F flushtag		permitted	function
T methods		prerollcmdstring	function
F dataset		refman_to_btx	function
F force		resolvedname	function
F global		save	function
F local		savers	table
F nofregistered		F bib	
F prepareentries		F lua	
F register		F xml	
F sameasprevious		search	function
T sorters		setcategory	function
F cite		setspecification	function
F dataset		singularorplural	function
F default		sortedentries	function
F index		sortmethods	table
F list		T authoryear	
F reference		T sequence	
F short		specifications	table
F used		T default	
F uservariable		S author	
listvariants	table	S comment	
F default		S copyright	
F index		S name	
F num		S version	
F short		D virtual	
F tag		splitauthor	function
load	function	splitoneauthor	function
loadbibdata	function	statistics	table
loaddefinitionfile	function	N nofbytes	
loaders	table	N nofdatasets	
F bbl		N nofdefinitions	
F bib		N nofshortcuts	
F buffer		tables	table
F endnote		D implicits	
F json		D origins	

D privates
D sets
F showtables
D specials
F showvariants
Typesetters
Typesetters
Types
F author
F string
Types
Types
Types
F string
Types

tagsfunctionusedatasetfunctiontracerstableusedentriesfunctionF showdatasetauthorswriterstableF showdatasetcompletenessF author

F showdatasetcompleteness F author
F showdatasetfields F keyword
F showentry F pagenumber
F showfields F range
F showhashedauthors

# regimes (context)

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

# resolvers (context)

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

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

variable

variableofformat

function

function

function

function

renew

renewcache

variableofformatorsuffix function wildcardpattern

function

# sandbox (context)

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

### scripts (context)

#### autofontfeature table F disable F enable F handler colors data table decomposehangul function defaults table N inter\_char\_half\_shrink factor N inter char half stretch factor N inter char hangul penalty N inter\_char\_quarter\_shrink\_factor N inter\_char\_quarter\_stretch\_factor N inter char shrink factor N inter char stretch factor N inter\_word\_stretch\_factor getdata function getinjector function getsplitter function

function

getstatus

handlers	data table	
helpers	data table	
injectors	data table	
inserters	table	
F nobreakspace_af	ter	
F nobreakspace_be	fore	
F space_after		
F space_before		
F zerowidthspace_after		
F zerowidthspace_	before	
installdataset	function	
installmethod	function	
numbertodataset	data table	
numbertohandler	data table	
reset function		
set function		
setstatus function		

splitters

data table

### set (context)

contains function
create function
tolist function

tonumber function
totable function

# sha2 (extra lua)

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

# sio (extra lua)

read2dot14	function
readbytes	function
readbytetable	function
readcardinal1	function
readcardinal1le	function
readcardinal2	function
readcardinal2le	function
readcardinal3	function
readcardinal3le	function
readcardinal4	function
readcardinal4le	function
readcardinaltable	function
readcline	function
readcstring	function
readfixed2	function
readfixed4	function
readinteger1	function

readinteger1le	function
readinteger2	function
readinteger2le	function
readinteger3	function
readinteger3le	function
readinteger4	function
readinteger4le	function
readintegertable	function
tocardinal1	function
tocardinal1le	function
tocardinal2	function
tocardinal2le	function
tocardinal3	function
tocardinal3le	function
tocardinal4	function
tocardinal4le	function

#### socket (extra lua)

S content-location

**BLOCKSIZE** number S content-md5 DATAGRAMSIZE number S content-range SETSIZE number S content-transfer-encoding **SOCKETINVALID** number S content-type bind function S cookie function choose S date connect function S diagnostic-code function connect4 S dsn-gateway connect6 function S etag dns table S expect F getaddrinfo S expires F gethostname S final-log-id F getnameinfo S final-recipient F tohostname S from F toip S host aettime function S if-match headers table S if-modified-since T canonic S if-none-match S if-range S accept S accept-charset S if-unmodified-since S accept-encoding S in-reply-to S accept-language S keywords S last-attempt-date S accept-ranges S action S last-modified S age S location S allow S max-forwards S alternate-recipient S message-id S arrival-date S mime-version S authorization S original-envelope-id S bcc S original-recipient S cache-control S pragma S cc S proxy-authenticate S comments S proxy-authorization S connection S range S content-description S received S content-disposition S received-from-mta S content-encoding S references S content-id S referer S remote-mta S content-language S content-length S reply-to

S reporting-mta

S rese	ent-bcc	protect	function
S rese	ent-cc	report	function
S rese	ent-date	select	function
S rese	ent-from	sink	function
S rese	ent-message-id	sinkt	table
S rese	ent-reply-to	F close-when-d	lone
S rese	ent-sender	F default	
S rese	ent-to	F http-chunked	I
S reti	ry-after	F keep-open	
S retu	ırn-path	skip	function
S send	der	sleep	function
S serv	ver	source	function
S smtp	o-remote-recipient	sourcet	table
S stat	tus	F by-length	
S subj	ject	F default	
S te		F http-chunked	I
S to		F until-closed	
S trai	iler	<b>tcp</b> functi	
S tran	nsfer-encoding	tcp4 funct.	
S upgi	rade	tcp6 func	
S usei	r-agent	tp	table
S vary	<i>y</i>	N TIMEOUT	
S via		F connect	
S warr	ning	try	function
S will	l-retry-until	udp	function
S www-	-authenticate	udp4	function
S x-ma	ailer	udp6	function
F lower		url	table
F norma	lize	F absolute	
http	table	F build	
N TIMEO	UT	F build_path	
S USERA	GENT	F escape	
F gener	icform	F parse	
F open		F parse_path	
F reque	st	F unescape	

newtry function

### sorters (context)

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

# sparse (context)

concat	function	range	function
get	function	restore	function
max	function	set	function
min	function	traverse	function
new	function	wipe	function

### statistics (context)

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

# status (basic tex)

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

### storage (context)

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

# streams (context)

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

# string (basic lua)

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

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

#### structures (context)

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

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

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

F registerinitializer		D	collected	
F registerpage		F	compare	
F reset		F	define	
D runners		F	enhance	
F set		F	extend	
F setandgetattribute		F	filter	
F setcomponent		F	filtercollected	
F setinternalreference		F	finalize	
F setlinkmethod		F	findinternal	
F setnextinternal		F	flush	
F setnextorder		F	get	
F setreferencerealpage		F	prepare	
D specials		F	process	
F splitcomponent		F	setmethod	
F splitprefix		F	sort	
F splitreference		F	store	
F synchronizepage		D	tobesaved	
T testrunners		F	unique	
F inner		F	userdata	
F special		sect	ions	table
F special operation		F	autodepth	
F special operation wi	th arguments	F	cct	
T testspecials		D	collected	
F deltapage		F	current	
Fi		F	currentblock	
F internal		F	currentid	
F page		F	currentlevel	
F realpage			currentsectionindex	
F section			depthnumber	
F userpage			finddata	
D tobereferred			findnumber	
D tobesaved			fullnumber	
D tracedpages			getcurrentlevel	
T urls			getlevel	
T data			getnumber	
F define			internalreference	
F found			levelmap	
F get			levels	
F untex			matchingtilldepth	
D usedinternals			numberatdepth	
D usedviews			numbers	
F valid	4-41-		popblock	
registers	table		prefixedconverted	
F analyze		F	pushblock	

F register		F register	
D register		F registershown	
F reportst		F registersnown	
F save	ructure	F resetshown	
T sectionb	lockdata	F resetused	
T bodypai		F sort	
S bookm			
F set	Id I K	F synonym D tobesaved	
F setblock			table
F setcheck		tags t	.abte
F setentry		T checks	
F setiniti		F marginanchor	
F setlevel		F margintext	
F setnumbe		F math	
F showstru		F mrow	
F structur		F mtable	
F title	cuata	T destinationhash	
D tobesave	d	T extras	
F typesetn		F adddestination	
F userdata		F addimplicit	
B verbose		F addinternal	
sets	table	F addreference	
F define	edb ee	F combination	
F get		F delimitedsymbol	
F getall		F description	
D setlist		F descriptionsymbol	
specials	table	F document	
D collecte	d	F float	
F retrieve		F formulacontent	
F store		F image	
D tobesave	d	F item	
synonyms	table	F itemgroup	
F analyzed		F link	
D collecte	d	F listitem	
F compare		F mi	
F define		F msub	
F filter		F msup	
F finalize		F paragraph	
F flush		F publication	
F isshown		F reference	
F isused		F registerlocation	
F meaning		F registerpages	
F prepare		F registerseparator	
F process		F section	

F sorting U splitter F subsentencesymbol D properties F synonym F registerextradata F tablecell F registermetadata F tabulate F restart F tabulatecell F setaspect T finalizers F setattributehash F descriptions F setcombination T fixes F setconstruct F linenumher F setfigure T listdata F setfloat F setformulacontent F sethighlight

T referencehash F setformulacontent
F setattribute F setattribute
T usedimages F setitem
T image F setitemgroup
T usedstyles F setlist
T construct F setnotation
T highlight F setnotationsymbol current
F setparagraph

F current F elementtag F setproperty F enabled F setpublication F exportbox F setregister F finishexport F setsorting F getextradata F setsynonym F getid F settablecell F settabulatecell F getmetadata F gettablecell F settagdelimitedsymbol F gettabulatecell F settagsubsentencesymbol

F handler F setupexport
F initializeexport F setuserproperties
D labels D specifications
F last F start

F lastinchain F stop
F localexport F strip
F locatedtag D taglist
T patterns T usewithcare

# table (basic lua)

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

# tex (basic tex)

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

getmathcodes	function	isdimen	overloaded function
getmathcontrolvalues	function	isglue	function
getmathdir	function	ismuglue	function
getmathflattenvalues	function	ismuskip	overloaded function
getmathoptionvalues	function	isprintable	function
getmathparametervalues	function	isskip	overloaded function
getmathstylenamevalues	function	istoken	function
getmathstylevalues	function	istoks	function
getmathvariantvalues	function		function
getmodevalues	function	lastnodetype lccode	table
getmuglue	function	linebreak	function
getmuskip	function	lists	table
getnest	function	luacatcodes	number
getnest getnormalizevalues	function		table
•	function	magicconstants	table
getoutputactive	function	N maxdimen	
getpacktypevalues	function	N running	
getpagestate	function	N trueinch mathchardef	function
getparbeginvalues	function	mathcode	table
getparcontextvalues		mathcontrolcodes	10010
getpardir	function		data table
getparmodevalues	function	mathflattencodes	data table data table
getprimitiveorigins	function	mathoptioncodes	44.54
getregisterindex	function	modelevels	table
getrunstatevalues	function	N horizontal	
getsfcode	function	N math	
getskip	function	N unset	
getsynctexline	function	N vertical	
getsynctexmode	function	modes	data table
getsynctextag	function	mprint	function
gettextdir	function	muglue	table
gettoks	function	muskip	table
getuccode	function	nest	table
glue	table	nilcatcodes	number
glyphoptioncodes	data table	normalizecodes notcatcodes	data table
groupcodes	data table		number
hashtokens	function	number	function
hyphenationcodes	data table	poplocal	function
ifs	data table	primitives	function
inicatcodes	number	print	function
integerdef	function	prtcatcodes	number
isattribute	function	pushlocal	function
isbox	function	quitlocal	function
iscount	overloaded function	•	function
isdefined	function	resetparagraph	function

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

# texconfig (basic tex)

L., 66	4-61-		4-61-
buffersize	table	languagesize	table
N size		N size	
N step		N step	
errorlinesize	table	marksize	table
N size		N size	
expandsize	table	N step	
N size		nestsize	table
filesize	table	N size	
N size		N step	
N step		nodesize	table
firstline	string	N size	
fontsize	table	N step	
N size		parametersize	table
N step		N size	
formatname	string	N step	
functionsize	number	poolsize	table
halferrorlinesize	table	N size	
N size		N step	
hashsize	table	propertiessize	number
N size		savesize	table
N step		N size	
init	overloaded function	N step	
inputsize	table	shell_escape	string
N size		stringsize	table
N step		N size	
insertsize	table	N step	
N size		tokensize	table
N step		N size	
kpse_init	boolean	N step	

# texio (basic tex)

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

# token (basic tex)

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

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

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

# tokens (context)

accessors	table	ш	color	
F active	cabic		colordefa	1.0
F cmd			colordeff	
F cmdchrcs			colordeff	
			colordefr	
F cmdname			dofinishr	
F command		-	dostartte	
F csname				
F expandab	te		finishjob	
F frozen			firstofon	•
F index				oarguments
F name			gobbleone	argument
F protected	d		goto	
F range			iftrue	
astable	function		input	
bits	table			typescriptfile
N active		U	resetctxs	canner
N alignmen	t	U	rlap	
N begingro	up	U	secondoft	woarguments
N characte	r	U	setfalsev	alue
N close		U	setsectio	nblock
N comment		U	setupsyst	em
N endgroup		U	startcolu	mns
N endofline	e	U	starttabu	late
N escape		U	starttitl	e
N ignore		U	startxtit	le
N invalid		U	stopcolum	ns
N letter		U	stoptabul	ate
N mathshif	t	U	stoptitle	
N open		U	stopxtitl	e
N other		U	texsetup	
N paramete	r	U	xmlw	
N space		comm	ands	data table
N subscrip	t	comp	ile	function
N supersor:	ipt	cons	tant	function
N whitespa	ce	conv	erters	table
cache	table	S	toboolean	
U NC		S	todimen	
U NR		S	toglue	
U bf		S	tonumber	
U buff_fin:	ish	S	tostring	
U c_font_c	ompact	crea	ite	function

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

F tokenlist	F report
F tokens	F scanargument
F toks	F scanargumentasis
F value	F scanarray
F vbox	F scanboolean
F verbatim	F scanbox
F vtop	F scanbracketed
F whd	F scanbracketedasis
F word	F scancardinal
setinteger function	F scanclose
setters table	F scancode
F box	F scanconditional
F char	F scancsname
F count	F scandelimited
F dimen	F scandimen
F glue	F scandimenargument
F lua	F scandimension
F macro	F scanglue
F skip	F scangluespec
shortcuts table	F scangluevalues
T bits	F scanhash
N active	F scanhbox
N alignment	F scaninteger
N begingroup	F scanintegerargument
N character	F scankeyword
N close	F scankeywordcs
N comment	F scanletters
N endgroup	F scanlist
N endofline	T scanners
N escape	F argument
N ignore	F argumentasis
N invalid	F array
N letter	F boolean
N mathshift	F box
N open	F bracketed
N other	F bracketedasis
N parameter	F cardinal
N space	F char
N subscript	F cmdchr
N superscript	F cmdchrexpanded
N whitespace	F code
N close	F conditional
F inspect	F count
N open	F csname

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

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

F scangluespec F scantokenlist F scangluevalues F scantoks F scanhash F scanvbox F scanhbox F scanverbatim F scaninteger F scanvtop F scanintegerargument F scanword F scankeyword F toboolean F scankeywordcs F todimen F scanletters F tonumber F scanlist F tostring F scannumber D values F tonumber F scanopen F scanoptional F tostring

F scanstring values data table

F scantable

#### tracers (context)

printerror function printwarning function showlines function

# trackers (context)

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

# typesetters (context)

alignments	table	T handlers		
F handler		F installhandler		
F set		F processmath		
breakpoints	table	F set		
F define		F setcolor		
F handler		F setmath		
D mapping		F tomode		
T methods		firstlines	table	
T numbers		T actions		
F set		F default		
F setreplacement		F line		
cases	table	F word		
T actions		F handler		
F handler		F set		
F register		fontkerns	table	
F set		F handler		
characteralign	table	initials	table	
F handler		T actions		
F resetcharacter	align	F default		
F setcharacteral	ign	F addanchortoline		
characters	table	F addtoline		
F handler		F calculatedelta		
T methods		F checkline		
F replacenbsp		F handler		
F replacenbspace	s	F moveinline		
checkers	table	F set		
F handler		injectors	table	
F reset		F check		
F set		T list		
cleaners	table	F mark		
F handler		F reset		
F set		F set		
digits	table	F show		
T actions		italics	table	
F handler		F enablemath		
F set		F enabletext		
directions	table	F forcevariant		
F getfences		F handler		
F getglobal		F reset		
F getmethod		F set		
F handler		kerns	table	

D factors		F register	
F handler		F reset	
F keepligature		F split	
D mapping		F startapply	
F set		F stopapply	
manipulators	table	F stripped	
F apply		F tostring	
F applyspecific	cation	rubies	table
T methods		F attach	
F Word		F check	
F Words		showsuspects	function
F abbreviated	journal	spacings	table
F expandedjou	rnal	F define	
F lowercase		F handler	
F stripperiod		D mapping	
F uppercase		T numbers	
T patterns		T frenchpunct	uation
U list		T character	S
U pair		S name	
F splitspecification		N number	
margins	table	F reset	
F finalhandler		F set	
F globalhandler	-	F setup	
F localhandler		wrappers	table
F save		F handler	
marksuspects	function	xtables	table
paragraphs	table	F cleanup	
F addanchortoli	ne	F construct	
F addtoline		F create	
F calculatedelt	:a	F finish_row	
F checkline		F flush	
F handler		F initialize_co	onstruct
F moveinline		F initialize_re	eflow_height
F set		F initialize_re	eflow_width
periodkerns	table	F next_row	
D factors		F reflow_height	t
F handler		F reflow_width	
D mapping		F set_construct	t
F set		F set_reflow_he	eight
processors	table	F set_reflow_wi	idth
F apply			

#### updaters (context)

apply function
register function

# url (context)

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

# utf8 (basic lua)

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

# utilities (context)

debugger	table	F readsignedbyte
F disable	tabte	F readstring
F enable		F readtag
F savestats		F setposition
F showstats		F size
F showtraceback		
files	table	F skip
F close	table	F skiplong
		F skipposition
F getposition		F skipshort
F getsize F look		F writebyte F writecardinal1
		F writecardinalle
F open		F writecardinative
F read2dot14		F writecardinal2le
F readbyte		F writecardinal3
F readbytes		F writecardinal3le
F readbytetable F readcardinal		F writecardinals
F readcardinal1		F writecardinal4le
F readcardinal1		F writeinteger1
F readcardinal2		F writeinteger1le
F readcardinal2	Le	F writeinteger2
F readcardinal3		F writeinteger2le
F readcardinal3		F writeinteger3
F readcardinal4		F writeinteger3le
F readcardinal4		F writeinteger4
F readcardinalt	able	F writeinteger4le
F readchar		F writestring
F readcline		formatters table
F readcstring		F formatcolumns
F readfixed2		F list
F readfixed4		F stripzeros
F readinteger		<b>ghostscript</b> table
F readinteger1		F convert
F readinteger1l	e	F statistics
F readinteger2		<b>graphicmagick</b> table
F readinteger2l	e	F convert
F readinteger3		F statistics
F readinteger3l	e	<b>graphicsmagick</b> table
F readinteger4		F convert
F readinteger4l	e	F statistics
F readintegerta	ble	<b>lua</b> table

B alwaysstripcode	B paper
F checkmemory	B rightpage
F compile	B text
F loadedluacode	F iterator
F loadstring	F keq_to_hash
F loadstripped	F listitem
N nofstrippedbytes	F make_settings_to_hash_pattern
N nofstrippedchunks	F mergehashes
F registerfinalizer	F options_to_array
B stripcode	F options_to_hash
T strippedchunks	T patterns
F strippedloadstring	U settings_to_array
T suffixes	U settings_to_hash_a
S lua	U settings_to_hash_b
S luc	U settings_to_hash_c
S lui	U settings_to_hash_d
S luj	U unittotex
S luv	F process_stripped_settings
S tma	F rfc4180splitter
S tmc	F runtime
S tua	F settings_to_array
S tuc	F settings_to_array_obey_fences
<pre>packers table</pre>	F settings_to_array_with_repeat
F hashed	F settings_to_hash
F new	F settings_to_hash_colon_too
F pack	F settings_to_hash_strict
F simplehashed	F settings_to_hash_tolerant
F strip	F++1 +
	F settings_to_numbers
F unpack	F settings_to_numbers F settings_to_set
N version	F settings_to_set F simple_hash_to_string
	F settings_to_set F simple_hash_to_string F splitmethod
N version  parsers table  F add_settings_to_array	F settings_to_set F simple_hash_to_string
N version  parsers table  F add_settings_to_array  F arguments_to_table	F settings_to_set F simple_hash_to_string F splitmethod
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string  F csvsplitter	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string  F csvsplitter  F getparameters	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string  F csvsplitter  F getparameters  F groupedsplitat	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml
N version  parsers table  F add_settings_to_array F arguments_to_table F array_to_string F csvsplitter F getparameters F groupedsplitat F hash_to_string	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml randomizer table
N version  parsers table  F add_settings_to_array F arguments_to_table F array_to_string F csvsplitter F getparameters F groupedsplitat F hash_to_string T hashes	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml  randomizer table F get
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string  F csvsplitter  F getparameters  F groupedsplitat  F hash_to_string  T hashes  T settings_to_set	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml  randomizer table F get F getnumber
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string  F csvsplitter  F getparameters  F groupedsplitat  F hash_to_string  T hashes  T settings_to_set  T text,hidden,paper,page,leftpage,rightpage	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml randomizer table F get F getnumber F getseed
N version  parsers table  F add_settings_to_array F arguments_to_table F array_to_string F csvsplitter F getparameters F groupedsplitat F hash_to_string T hashes T settings_to_set T text,hidden,paper,page,leftpage,rightpage B hidden	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml randomizer table F get F getnumber F getseed F popseed
N version  parsers table  F add_settings_to_array  F arguments_to_table  F array_to_string  F csvsplitter  F getparameters  F groupedsplitat  F hash_to_string  T hashes  T settings_to_set  T text,hidden,paper,page,leftpage,rightpage	F settings_to_set F simple_hash_to_string F splitmethod F splitthousands F stepper F stripped_settings_to_array F totime F unittotex F unittoxml randomizer table F get F getnumber F getseed

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

F getposition

F tocardinal1le

			4-61-
F tocardina		tar 	table
F tocardina		T archives	
F tocardina		F closearchive	
F tocardina		T files	
F tocardina		F fetch	
F tocardina		F hash	
strings	table	F list	
F collapse		F pack	
F collapsed		F unpack	
T formatter	^S	F openarchive	
F add		T registeredfi	les
F new		T streams	
F newcolled		F fetch	
F newrepeat	ter	F hash	
F nice		F list	
T stripline		F pack	
U collaps	e	F unpack	
U prune		T strings	
	nd collapse	F fetch	
U prune a	nd no empty	F hash	
U prune a	nd to space	F list	
U retain		F pack	
U retain	and collapse	F unpack	
U retain	and no empty	templates	table
F stripline	25	F load	
F striplong	)	F replace	
F tabtospac	ce	F replacer	
T tracers		F resolve	
tables	table	zipfiles	table
F accesstab		F close	
F definedta	able	F found	
F definetab	ole	F gunzipfile	
F encapsula	nte	F hash	
F insertaft	tervalue	F list	
F insertbef	forevalue	F open	
F migrateta	able	F unzip	
F removeval	Lue	F unzipdir	
F replaceva	alue	F zipdir	

#### visualizers (context)

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

# xcomplex (extra lua)

I	function	
		F sqrt
add		Ftan
div	function	F tanh
eq	function ex table	F topair
ind		F tostring
FI		F totable
_	_add	Fmul
_	_div	Sname
F _		Fpow
	_index	Fsub
	I	Ftostring
	add	Funm
	div	F abs
	eq	F acos
	mul	F acosh
	name	F arg
	pow	Fasin
	sub	F asinh
	tostring	F atan
	unm	F atanh
	abs	F conj
	acos	F cos
	acosh	F cosh
	arg .	F exp
	asin	F i
		F imag
	atan	F log
	atanh	F new
	cos	F pow F proj
	cosh	F real
	exp	Fin
	i	F sinh
	imag	F sqrt
	log	r sqrt F tan
	new	F tanh
	pow	
	•	F topair
	proj real	F tostring F totable
		mul function
	sin	<del></del>
۲	sinh	<b>name</b> string

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

# xdecimal (extra lua)

add	function	F getprecision
band	function	F ln
bor	function	F log
bxor	function	F max
div	function	F min
eq	function	F minus
idiv	function	F new
index	table	F plus
Fadd		F pow
Fband		F rotate
Fbor		F setprecision
Fbxor		F shift
Fdiv		F sqrt
Feq		F toengstring
Fidiv		F tonumber
Tindex		F tostring
Fadd		F trim
Fband		Fle
Fbor		Flt
Fbxor		Fmod
Fdiv		Fmul
Feq		Sname
Fidiv		Fpow
Fle		Fshl
Flt		Fshr
Fmod		Fsub
Fmul		Ftostring
Sname		Funm
Fpow		F abs
Fshl		F band
Fshr		F bor
Fsub		F bxor
Ftostring		F conj
Funm		F copy
F abs		F exp
F band		F getprecision
F bor		Fln
F bxor		F log
F conj		F max
F copy		F min
F exp		F minus

F new		band	function
F plus		bor	function
F pow		bxor	function
F rotate		conj	function
F setprecisio	n	сору	function
F shift		exp	function
F sqrt		getprecision	function
F toengstring		ln	function
F tonumber		log	function
F tostring		max	function
F trim		min	function
le	function	minus	function
lt	function	new	function
mod	function	plus	function
mul	function	pow	function
name	string	rotate	function
pow	function	setprecision	function
shl	function	shift	function
shr	function	sqrt	function
sub	function	toengstring	function
tostring	function	tonumber	function
unm	function	tostring	function
abs	function	trim	function

# xmath (extra lua)

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

#### xml (context)

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

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

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

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

# xzip (extra lua)

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

#### zip (extra lua)

archives table
closearchive function

openarchive function
registeredfiles table

# zlib (extra lua)

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