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 io iob languages layouts lfs libraries lmx logs lpdf luatex lxml math mathematics md5 metapost mime moduledata modules mp mplib noads mode nodes number objects optional os ckage pagebuilders parametersets pdfdecode pdfe physics pngdecode publications regimes resolvers sandbox scripts set sha2 sio socket sorters statistics status storage streams string structures table texconditionals texconfig texconstants texifs texisdefined texmodes texsystemmodes thirddata tokens tracers trackers typesetters updaters url userdata utf8 utilities visualizers xcomplex xdecimal xmath xml xzip zip zlib

# ConT<sub>E</sub>Xt LMTX

# global (alias: \_G)

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

lua	table	sandbox	table
luatex	table	scripts	table
lxml	table	select	function
math	table	set	table
mathematics	table	setinspector	function
md5	table	setmetatable	function
metapost	table	sha2	table
mime	table	shipbox_ref_h	number
moduledata	table	shipbox_ref_v	number
modules	table	sio	table
mp	function	socket	table
mplib	table	sorters	table
next	function	statistics	table
noads	table	status	table
node	table	storage	table
nodes	table	streams	table
number	table	string	table
objects	table	structures	table
optional	table	table	table
optionalrequire	function	tex	table
<b>0</b> S	table	texconditionals	data table
package	table	texconfig	table
pagebuilders	table	texconstants	data table
pairs	function	texifs	data table
parametersets	table	texio	table
pcall	function	texisdefined	data table
pdf	table	texmodes	data table
pdfdecode	table	texsystemmodes	data table
pdfe	table	thirddata	table
physics	table	toboolean	function
pngdecode	table	todecimal	function
popleaderlevel	function	token	table
print	function	tokens	table
publications	table	tonumber	function
pushleaderlevel	function	tostring	function
rawequal	function	tracers	table
rawget	function	trackers	table
rawlen	function	type	function
rawset	function	typesetters	table
regimes	table	unpack	function
require	function	updaters -	table
required -	function	url	table
resolvers	table	userdata	table
ruledspace	function	utf	table

utf8	table	xmath	table
utilities	table	xml	table
visualizers	table	xpcall	function
warn	function	xzip	table
xcomplex	table	zip	table
xdecimal	table	zlib	table

# attributes (context)

-14	4-13-	
alternates	table	F formatgray
N attribute		F getpagecolormodel
D data		F gray
F enable		F graytohsv
F handler		F handler
F register		T 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		N main
D registered		S model
colors	table	D models
N attribute		F mpcolor
F cmyk		F mpnamedcolor
F cmyktogray		F mpoptions
F cmyktorgb		F namedcolorattributes
F colorcomponent	is .	N none
D counts		F popset
B couple		F processcolorcomponents
F currentmodel		F pushset
F currentnamedmo	odel	F register
D data		D registered
N default		F registerspotcolor
F defineintermed	diatecolor	F rgb
F definemultitor	necolor	F rgbtocmyk
F defineprocesso	color	F rgbtogray
F defineprocesso	colordirect	F rgbtohsv
F definesimpleg	ray	N selector
F definespotcolo	or	F setlist
F definetranspar	rency	F setmodel
F enable		F setpagecolormodel
F filter		D sets
N forced		F spec
F forcedmodel		F spot
F forcesupport		F spotcolorname
F formatcolor		F spotcolorparent

F spotcolorvalue	•	F selective	
B supported		F simple	
F toattributes		F stacked	
F transparencyco	mponents	F stacker	
B triggering		system	function
F usecolors		tooverloads	function
D valid		transparencies	table
F value		N attribute	
D values		D data	
B weightgray		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
F disabletrigger		viewerlayers	table
F enabletriggeri	ng	N attribute	
F finalize		F cleanup	
F initialize		D data	
F process		F define	

F definedlayoutcomponent	F resolve_end
F enable	F resolve_reset
F forcesupport	F resolve_step
F handler	D scopes
B hasorder	F setfeatures
D listwise	F start
F register	F stop
D registered	B supported
F resolve_begin	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 scanimgage F copyimage F setattachmentsupport F definefield F setfieldcalculationset F definefieldset F setfigurealternative F defineviewerlayer F setfigurecolorspace F embedfile F setfiguremask

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)

checksidefloat	function		F tag	
kernel	table	р	rofiling	table
F hyphenating			F add	
F hyphenation			F distance	
F kerning			F fixedprofil	е
F ligaturing			F get	
F mlist_to_hlist			F list	
paragraphs	table		F pagehandler	
T constructors			F profilebox	
N attribute			F set	
F define		V	spacing	table
F disable			D categories	
F enable			F checkstrutd	epth
F handler			F collapsevbo	X
T methods			T data	
F basic			D map	
F default			D skip	
F hpack			D snapmetho	ds
F oneline			F definesnapm	ethod
D names			B fixed	
D numbers			F forcepagefl	ush
F set			F forcestrutd	epth
F start			F getnofprevi	ouslines
F stop			F inject	
T expansion			F injectdisab	le
F trace			F injectpenal	ty
F keeptogether			F injectskip	
F registertogeth	er		F pagehandler	
T solutions			F pageoverflo	W
T splitters			F popatsame	
F define			F pushatsame	
F optimize			F setmap	
T registered			F setskip	
F reset			F snapbox	
F set			F synchronize	page
F split			F tocategorie	·S
F start			F tocategory	
F stop			F vboxhandler	

# caches (context)

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

## callback (basic tex)

find function
known function
list function

register overloaded function

usage function

#### callbacks (context)

freeze function
functions table

F start\_page\_number

F stop\_page\_number

known function
list data table
pop function
push function
register function
report function

B append\_to\_vlist\_filter

B begin\_paragraph

supported table

B build page insert

B buildpage\_filter

B contribute\_filter

B define\_font

B find\_format\_file

B find\_log\_file

B handle overload

B hpack\_filter

B hpack quality

B hyphenate

B insert par

B intercept lua error

B intercept\_tex\_error

B kerning

B ligaturing

B linebreak filter

B make\_extensible

B mlist to hlist

B open data file

B post\_linebreak\_filter

B pre dump

B pre\_linebreak\_filter

B pre\_output\_filter

B process\_jobname

B show error message

B show\_lua\_call

B show\_warning\_message

B show\_whatsit

B start file

B start run

B stop file

B stop run

B trace\_memory

B vpack\_filter
B vpack quality

b vpuck\_quutit)

B wrapup run

## catcodes (context)

 register function

## characters (context)

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

shape function shaped function shash data table data table shchars shcodes data table function showstring **specialchars** data table specials data table splits table

T char T compat

subscripts superscripts synonyms tex

table table data table table

D accentmapping D commandmapping F defineaccents F safechar

F toutf

upper

F toutfpattern textclasses tonumber ucchars uccode uccodes uhash unicodechar

table function data table function data table data table function function

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

#### document (context)

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

D modes
D modules

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)

convert	function	F popleaderlevel
converte	<b>rs</b> table	F pushleaderlevel
F engin	e	F rule
F lmtx		F simplerule
enable	function	F specialrule
gethpos	function	F updatefontstate
getpos	function	T whatsit
getrpos	function	S name
getvpos	function	T json
helpers	table	T actions
install	function	F cleanup
instance	<b>s</b> table	F convert
T defau	lt	F finalize
T act	ions	F initialize
F co	onvert	F outputfilename
F ou	utputfilename	F prepare
T flu	shers	F wrapup
F po	ppleaderlevel	T flushers
F pu	ushleaderlevel	F character
T wh	natsit	F popleaderlevel
S name	е	F pushleaderlevel
T empty		F rule
T act	ions	F simplerule
F co	onvert	F specialrule
F pr	repare	F updatefontstate
T flu	shers	T whatsit
F po	ppleaderlevel	S name
Fρι	ıshleaderlevel	T lua
T wh	natsit	T actions
S name	е	F cleanup
T js		F convert
T act	ions	F finalize
F cl	.eanup	F initialize
F co	onvert	F outputfilename
F fi	inalize	F prepare
Fir	nitialize	F wrapup
F ou	ıtputfilename	T flushers
F pr	repare	F character
F wr	apup	F popleaderlevel
T flu	shers	F pushleaderlevel
F ch	naracter	F rule

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

# environment (context)

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

### experiments (context)

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

register function report function show function value function

## figures (context)

B art

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

setpaths

function

used

suffixes data table data table

## 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
$\verb"is_rootbased_path"$	function	splitbase	function
is_writable	function	splitname	function
isreadable	function	splitpath	function
iswritable	function	strip	function
join	function	suffix	function
joinpath	function	suffixes	function
loadchecksum	function	suffixesonly	function
nameonly	function	suffixonly	function
nametotable	function	syncmtimes	function
needs_updating	function	withinbase	function

#### fio (extra lua)

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

function

function

function

function

function

function
function

function
function

function

function

function
function

function

function

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)

${\bf add characters}\\$	function	id	function
current	function	max	function
define	function	nextid	function
getfont	function	setfont	function
getfontdimen	function	setfontdimen	function

# fonts (context)

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

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

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Freencode F setfeatures N version S defaultlookup T vf F define T combinations F combine T t combine F combine F combine D commands D helpers D math N version D wariants D wariants D wariants F register F hashinstance F hashfeatures F hashmethods F normal F initializefeatures D loadedfonts F normal F resetfeature F persion N nofsharedonts N nofsharedonts F spec D privateslots F readanddefine F registerefature F resetfeature F resetfeature F resetfeature F resetfeature F resetfeature F resetfeature F reside F registereflyphs F resetfeature F reside F registereflyphs F scale F residereflyphs F scale F setfactor F setfeature F setfeature F setfeature F setfeature F resetfeature F residereflyphs F scale F residereflyphs F scale F residereflyphs F scale F setfactor F setfeature F	F showpk		F applypostprocessors	
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T list

Fc	heckmerge	infofont	function
Fc	checksteps	iterators	table
Fc	collectanchors	F characters	
Fc	combineglyphs	F descriptions	
D c	commands	F glyphs	
Fc	composecharacters	loggers	table
F d	lescriptiontoslot	F format	
F d	limenfactor	F onetimemessage	
Fe	expandglyph	F register	
Тe	extraprivates	F reportdefinedfor	nts
F f	ontpatternhassize	F reportusedfeatur	es
F g	getcoloredglyphs	mappings	table
F g	getdigitwidth	F addtounicode	
Fg	getinstancespec	F fromunicode16	
F g	getparameters	F getentry	
F g	getprivatecharornode	F loadfile	
Fg	getprivatenode	F loadline	
Fg	getprivates	F makenameparser	
Fg	petprivateslot	D overloads	
F h	nasprivate	F reset	
Γi	ndextoslot	F tounicode	
Fm	nathscriptslots	F tounicode16	
Fn	name	F tounicode16seque	ence
Fn	nametoslot	metapost	table
Fn	newprivateslot	F boundingbox	
Fр	rependcommands	F boxtomp	
Fр	rependcommandtable	F draw	
Fр	privateslot	F fill	
Fr	registerglyphbox	F glyph	
Fs	scalecommands	F maxbounds	
Fs	etboxglyph	F paths	
Fs	etboxglyphs	F widthline	
Fs	etdigitwidth	F zeroline	
Fs	setmetaglyph	names	data table
Fs	setmetaglyphs	nulldata	data table
Fs	plitfontpattern	privateoffsets	table
Ft	cochar	B keepnames	
Τv	finjectors	N mathbase	
F	pdf	N mathextrabase	
F	startcolor	N textbase	
F	stopcolor	N textextrabase	
Τv	fspecials	protrusions	data table
Т	backgrounds	readers	table
т	outlines	F afm	

F check_lua		F registerfontalternative
F check_tfm		F registerfontfamily
F lua		F textfallback
F ofm		F typeface
F opentype		F typescript
F otf		F userdata
F pfb		<b>specifiers</b> table
D sequence		D contextmerged
F tfm		F contextnumber
F ttc		D contextnumbers
F ttf		D contextsetups
F woff		F contexttostring
reserveid	function	F definecontext
select	table	F mergecontext
D alternatives		F presetcontext
F bodyfont		F registercontext
D data		F showcontext
F default	F default F splitcon	
D defaults		D synonyms
F definefallbac	kfamily	D variants
F definefontfam	ily	<b>symbols</b> table
F definefontfam	ilypreset	T emoji
D extras		F checked
F fallback		F resolved
D fallbacks		F uselibrary
F features		<b>tables</b> table
F filefallback		<b>tracers</b> table
F fontdata		<b>treatments</b> table
F fontfallback		F applyfixes
F fontsynonym		D data
F goodies		S filename
F mathfallback		F ignoredfile
D methods		F report
D presets		F trace

F registerfallback
F registerfiles

typefaces table

### functions (context)

**dummy** function

## graphics (context)

backgrounds	table	F placeholde	r
F fetchmulti	par	F tocontext	
F pair		identifiers	table
F path		F bitmap	
F point		F jp2	
bitmaps	table	F jpg	
F flush		F png	
F new		identify	function

## gzip (extra lua)

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

## images (context)

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

#### interactions (context)

attachments data table D functions fields table D preambles F clone F setpreamble F define F storecode 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	
characters	function	
close	function	
copydata	function	
exists	function	
fileseparator	string	
flush	function	
input	overloaded	function

lines overloaded function

loadchunk function
loaddata function
loadlines function
newreader function
noflines function

 output overloaded function pathseparator string overloaded function popen read function readall function readnumber function readstring function savedata function size function stderr userdata stdin userdata stdout userdata tmpfile function

function

function

type

write

## job (context)

comment	function	D	tobesaved	
datasets	table	parw	rappers	table
D collected		D	collected	
F extend		D	tobesaved	
F getdata		pass	es	table
F setdata		F	check	
D tobesaved		D	collected	
disablesave	function	F	count	
embedded	table	F	define	
D collected		F	find	
D tobesaved		F	first	
fileobjreferences	table	F	get	
D collected		F	getcollected	
D tobesaved		F	getdata	
files	table	F	getfield	
D collected		F	gettobesaved	
F context		F	inlist	
B forcerun		F	last	
F run		F	list	
D tobesaved		F	save	
getrandomseed	function	F	savetagged	
3		•		
initialize	function		tobesaved	
		D	tobesaved	table
initialize	function	posi.	tobesaved	table
initialize load	function function	p <b>osi</b> :	tobesaved tions	table
initialize load loadother	function function function	p <b>osi</b> :	tobesaved tions b_column b_region	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 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	tobesaved 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	tobesaved 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 <b>posi</b> :  F F D F F F F F	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:  F F D F F F F F F F	tobesaved 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 <b>posi</b> F  F  D  F  F  F  F  F	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 function table	D posi:      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:      F     F     F     F     F     F	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	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:      F     F     F     F     F     F	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:      F     F     F     F     F     F	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:     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 get getfree gethpos	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 F realpage	function function function table  boolean number	D posi:     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 get getfree gethpos getpos	table

F gettobesaved	F settobesaved	
F getvpos	D tobesaved	
F hangafter	F upperleft	
F hangindent	F upperright	
F height	F used	
F hsize	F whd	
N lastx	F width	
N lasty	F x	
F leftskip	F xy	
F lowerleft	F y	
F lowerright	register	function
F markregionbox	save	function
Fn	structure	table
F onsamepage	D collected	
F overlapping	T components	
Fp	T tobesaved	
F page	T branches	
T pagedata	S name	
F paragraph	S type	
F parindent	variables	table
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 setregionbox F setspec D tobesaved

number

version

# language (basic tex)

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

## languages (context)

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

F check	B enables
T data	F found
F disable	F load
F enable	T methods
T enablers	N threshold

### layouts (context)

getcanvasfunctionstatustagetpagedimensionsfunctionF isleftpagesetupcanvasfunctionF leftorrightpageaction

table

#### 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 function make new function overloaderror function popupfile function print function pν function report function reset function result function set function show function showerror function stripcss function tν function function type 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		layerreference	function
N readonly		limited	function
N required		linearshade	function
N sorted		literal	function
N unavailable		majorversion	function
flushfonts	function	makenametree	function
flushgroup	function	minorversion	function
flushobject	function	nofpages	function
flushstreamfileobject	function	null	function
flushstreamobject	function	number	function
fonts	table	object	function
F color_direct		objectcompresslevel	function

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

# lpeg (basic lua)

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)

Landa and a	4-11-		4-11-
bytecode	table	macros	table
bytedata	data table	B enabled	
bytedone	table	F loaded	
callbytecode	function	F required	
collectgarbage	function	F reset	
delay	function	F resolvestring	
finalize	function	F resolving	
firstbytecode	number	F showdefinitions	
flush	function	messages	data table
flushdelayed	function	newindex	function
<pre>get_functions_table</pre>	function	newtable	function
getbytecode	function	numbers	data table
getcurrenttime	function	registercode	function
getfunctionstable	overloaded function	registeredcodes	function
getpreciseseconds	function	registerfinalizer	function
getpreciseticks	function	registername	function
getruntime	function	setbytecode	function
getstacktop	function	setexitcode	function
getstartupfile	function	startupfile	string
getversion	function	version	string
lastbytecode	number		

#### luatex (context)

F disable

F enable

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

wrapup

# lxml (context)

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

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

### math (basic lua)

function
function
number
number
function
function
function
function
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
define	function	resetitalics	function
dimensions	function	resolvefallbacks	function
domains	table	scaleparameters	function
extensiblecode	function	setdomain	function
extensibles	data table	setitalics	function
extrabase	number	setridofprime	function
extras	table	sets	data table
F add		styles	data table
F copy		syncboth	function
fallbacks	table	syncname	function
F apply		syncstyle	function
F install		toname	function
fallbackstyleattr	function	tostyle	function
families	data table	tweakaftercopyingfont	function
finishfallbacks	function	tweakbeforecopyingfont	function
gaps	data table	tweaks	table
getboth	function	utfmathaccent	function
getdomain	function	utfmathclass	function
getitalics	function	utfmathcommand	function
getridofprime	function	utfmathfiller	function
getstyle	function	utfmathstretch	function
horizontalcode	function	virtualize	function
initializeparameters	function	virtualized	data table
makefont	function		

# md5 (extra lua)

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

#### metapost (context)

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

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

#### mime (extra lua)

b64 function decode function decodet table F base64 F quoted-printable 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		fill	function
F direct1		flatten	function
F direct2		flush	function
F direct3		format	function
F direct4		formatted	function
F draw		fprint	function
F fill		fromhash	function
F flush		get	table
F fprint		F hashentry	
F integer		graphformat	function
F number		inhash	function
F numeric		inject	function
F pair		F boolean	
F pairpoints		F cmykcolor	
F path		F color	
F pathpoints		F integer	
F points		F number	
F print		F numeric	
F quadruple		F pair	
F quadruplepoints		F path	
F quoted		F quadruplet	
F size		F string	
F string		F transform	
F transform		F triplet	
F triplet		F whatever	
F tripletpoints		integer	function
F vprint		isarray	function
boolean	function	isobject	function
cleaned	function	<pre>lmt_color_functions</pre>	table
color	function	F shade	
dataset	function	F step	
datasets	function	lmt_contours_bitmap_get	function
F load  dimension	function	lmt_contours_bitmap_set	function function
dimension direct	function function	lmt_contours_cleanup	function function
direct1	function	<pre>lmt_contours_color lmt contours edge get band</pre>	function
directi direct2	function	lmt contours edge get cell	function
UII CCL2	TUILCETOIL	tmt_contours_eage_get_cett	runction

lmt_contours_edge_paths	function	mf_inject_blob	function
lmt_contours_edge_set	function	mf map move	function
lmt_contours_edge_set_by_band	function	mf_map_text	function
lmt_contours_edge_set_by_cell	function	mf_named_color	function
lmt contours format	function	mf outline text	function
lmt contours function	function	mf save data	function
lmt_contours_maxmean	function	mf script index	function
lmt_contours_maxz	function	mf_start_saving_data	function
lmt contours minmean	function	mf stop saving data	function
lmt contours minz	function	mf_tb_dimensions	function
lmt contours nofvalues	function	mf tt dimensions	function
lmt_contours_nx	function	mf tt initialize	function
lmt contours ny	function	mode	function
lmt contours range	function	n	function
lmt_contours_shade_paths	function	newhash	function
lmt_contours_shade_set	function	number	function
lmt_contours_shape_paths	function	numeric	function
lmt contours start	function	pair	function
lmt_contours_stop	function	pairpoints	function
lmt_contours_value	function	path	function
lmt contours xrange	function	pathpoints	function
lmt_contours_yrange	function	points	function
lmt function x	function	positionanchor	function
 lmt_mesh_set	function	positionbox	function
lmt_mesh_update	function	positioncurve	function
 lmt_poisson_generate	function	positionpage	function
lmt_surface_do	function	positionpath	function
lmt_svg_include	function	positionpxy	function
mf_blob_add	function	positionregion	function
mf_blob_dimensions	function	positionwhd	function
mf_blob_index	function	positionxy	function
mf_blob_new	function	prefix	function
mf_blob_raw_content	function	print	function
mf_blob_raw_dimensions	function	processingmode	function
mf_blob_raw_reset	function	quadruple	function
mf_blob_raw_toutf	function	quadruplepoints	function
mf_blob_raw_wipe	function	quoted	function
mf_blob_size	function	report	function
mf_blob_width	function	scan	table
mf_external_figure	function	F boolean	
mf_finish_saving_data	function	F cmykcolor	
mf_formatted_text	function	F color	
<pre>mf_get_outline_text</pre>	function	F expression	
mf_graphic_text	function	F integer	

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

# mplib (extra tex)

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

# noads (context)

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

#### node (basic tex)

check\_discretionaries
check\_discretionary
copy
copy\_list
count
current\_attributes
dimensions

F addmargins
F addxoffset
F addxymargins
F addyoffset
F check discretionaries

direct

F check\_discretionary
F copy
F copy\_list

F copy\_only F count

F current\_attributes

F dimensions
F effective\_glue
F end\_of\_math
F exchange
F fields

F find\_attribute F find\_attribute\_range

F find\_node F first\_glyph

F flatten\_discretionaries

F flush\_list
F flush\_node
F free

F get\_attribute
F get\_attributes
F get\_properties\_table
F get\_synctex\_fields
F getattributelist

F getboth
F getbox
F getchar
F getdata

function function function function function

function function table F getdepth

F getdirection
F getdisc
F getexpansion

F getfam
F getfield
F getfont
F getglue

F getglyphdata
F getglyphdimensions

F getheight
F getid
F getindex
F getkern

F getkerndimension
F getlanguage
F getleader
F getlist
F getnext

F getnormalizedline

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

F getpenalty
F getpost
F getpre
F getprev
F getproperty
F getreplace
F getscale
F getscales
F getscript
F getshift
F getstate
F getsub
F getsubpre

F getsubtype

F getsuppre

F getsup

F gettotal F set synctex fields F getwhd F setattributelist F getwidth F setboth F getxscale F setbox F getxyscales F setchar F getyscale F setdata F has\_attribute F setdepth F has\_dimensions F setdirection F has field F setdisc F has glyph F setexpansion F has glyph option F setfam F setfield F hpack F hyphenating F setfont F id F setglue F ignore\_math\_skip F setglyphdata F insert after F setheight F insert before F setindex F setkern F is char F is direct F setlanguage F is glyph F setleader F is next char F setlink F is\_next\_glyph F setlist F setnext F is node F is prev char F setnucleus F is prev glyph F setoffsets F is valid F setoptions F setorientation F is zero glue F kerning F setpenalty F last node F setpost F length F setpre F ligaturing F setprev F make extensible F setproperty F migrate F setreplace F setscales F mlist to hlist F naturalwidth F setscript F new F setshift F protect glyph F setsplit F protect glyphs F setstate F protrusion\_skippable F setsub F rangedimensions F setsubpre F remove F setsubtype F reverse F setsup F set attribute F setsuppre F set attributes F settotal

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

# nodes (context)

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

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

N middle F flush N no axis F flush components N right F flush list F flush node N set N unused 1 F free N unused 2 F fullhpack nodecodes data table F get components function nopts F getattr nuts table F getattribute F addmargins F getattributelist F addxoffset F getattrlist F addxymargins F getattrs F addyoffset F getboth F append F getbox F apply F getboxglue F applyvisuals F getchar F check discretionaries F getcomponents T colors F getdata F set F getdepth F concat F getdirection F copy F aetdisc F copy\_list F getdiscretionary F getexpansion F copy no components F getfam F copy node F copy only F getfield F copy\_only\_glyphs F getfont F copy properties F getglue F copyvisual F getglyphdata F getglyphdimensions F count F count components F getheight F countall F getid F current attributes F getkern F delete F getkerndimension F dimensions F getlang F dirdimensions F getlanguage F effective glue F getleader F end of math F getlist F exchange F getnext F find\_attribute F getnormalizedline F first\_glyph F getnucleus F firstcharacter F getoffsets

F firstcharinbox

F flatten discretionaries

F firstglyph

previous 94 next

F getoptions

F getpenalty

F getorientation

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

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

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

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

F hpack\_filter

setleader

setlink	function	F restart	
setlist	function	F setaction	
setnext	function	F showactions	
setprev	function	F table	
setunsetattributes	function	tobasepoints	function
shifts	table	tocentimeters	function
D data		tociceros	function
F define		todidots	function
F enable		todimen	function
F handler		toinches	function
showboxes	function	tomillimeters	function
showlist	function	tonode	function
showsimplelist	function	tonodes	function
skipcodes	data table	tonut	function
slide	function	topicas	function
snapshots	table	topoints	function
F getsamples		toscaledpoints	function
F resetsamples		tosequence	function
F takesample		tostring	function
somepenalty	function	totable	function
somespace	function	totree	function
splitbox	function	toutf	function
start_of_par	function	tracers	table
stripdiscretionaries	function	T colors	
stripping	table	F reset	
T glyphs		F set	
F set		F setlist	
subtypes	data table	F directions	
tail	function	F fontchar	
takeattr	function	T frequencies	
takebox	function	F register	
tasks	table	T pool	
F actions		T nodes	
F appendaction		F rule	
F disableaction		T nuts	
F disablegroup		F rule	
F enableaction		F resetproperties	
F enablegroup		F rule	
F freeze		F setlist	
F freezegroup		F setproperties	
F new		F start	
F new F prependaction		F start T steppers	

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

F tovpack

write

#### number (context)

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

#### objects (context)

datatablepagefunctiondimensionsfunctionreferencefunctionfoundfunctionregisterfunctionnnumberrestorefunction

# optional (context)

curl	table	F reset	
F escape		F setclosefile	
F fetch		F setconsole	
F getversion		F setfindfile	
F initialize		F setopenfile	
F unescape		F setreadfile	
ghostscript	table	F setseekfile	
F execute		mysql	table
F initialize		F close	
graphicsmagick	table	F execute	
F execute		F getmessage	
F initialize		F initialize	
kpse	table	F open	
F expand_braces		postgress	table
F expand_path		F close	
F expand_var		F execute	
F find_file		F getmessage	
F find_files		F initialize	
F get_file_types	:	F open	
F initialize		sqlite	table
F readable_file		F close	
F set_program_na	nme	F execute	
F var_value		F getmessage	
loaded	table	F initialize	
mujs	table	F open	
F dofile		zint	table
F execute		F execute	
F initialize		F initialize	

#### os (basic lua)

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

# package (basic lua)

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

# pagebuilders (context)

columnsets table	F 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	<b>mixedcolumns</b> table
F noto	F cleanup
F prepareflush	F finalize
F put	F getlist
F registerarea	F getrest
F reset	F getsplit
F setarea	F setsplit

### pdf (basic tex)

immediateobj function

# pdfe (extra tex)

arraytotable	function	getnun
close	function	getpag
closestream	function	getpag
dictionarytotable	function	getsiz
encryptioncodes	data table	getsta
getarray	function	getstr
getboolean	function	getstr
getbox	function	gettra
getcatalog	function	getver
getdictionary	function	new
getfromarray	function	object
getfromdictionary	function	open
getfromreference	function	openfi
getfromstream	function	openst
getinfo	function	pagest
getinteger	function	readfr
getmemoryusage	function	readwh
getname	function	type
getnofobjects	function	unencr
getnofpages	function	

getnumber	function
getpage	function
getpages	function
getsize	function
getstatus	function
getstream	function
getstring	function
gettrailer	function
getversion	function
new	function
objectcodes	data table
open	function
openfile	function
openstream	function
pagestotable	function
readfromstream	function
readwholestream	function
type	function
unencrypt	function

# physics (context)

units table

D tables

F registerunit

### pngdecode (extra tex)

applyfilter function
expand function
interlace function

splitmask function
tocmyk 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
comment	getfaster	function
copyright	getfield	function
fields	getfuzzy	function
name	getindex	function
types	inspectors	data table
S author	journals	table
S editor	F abbreviated	
S keywords	F add	
S number	F expanded	
S page	F load	

S S

S T

F save		F lua	
lastofrange	function	F refman	
lists	table	F registercleaner	
F collectentries		F xml	
F combiinlist		loadreplacementfile	function
F fetchentries		new	function
F filterall		okay	function
F flushcombi		oneorrange	function
F flushentry		parenttag	function
F flushtag		permitted	function
T methods		prerollcmdstring	function
F dataset		refman_to_btx	function
F force		resolvedname	function
F global		save	function
F local		savers	table
F nofregistered		F bib	
F prepareentries		F lua	
F register		F xml	
F sameasprevious		search	function
T sorters		setcategory	function
F cite		setspecification	function
F dataset		singularorplural	function
F default		sortedentries	function
F index		sortmethods	table
F list		T authoryear	
F reference		T sequence	
F short		specifications	table
F used		T default	
F uservariable		S author	
listvariants	table	S comment	
F default		S copyright	
F index		S name	
F num		S version	
F short		D virtual	
F tag		splitauthor	function
load	function	splitoneauthor	function
loadbibdata	function	statistics	table
loaddefinitionfile	function	N nofbytes	
loaders	table	N nofdatasets	
F bbl		N nofdefinitions	
F bib		N nofshortcuts	
F buffer		tables	table
F endnote		D implicits	
F json		D origins	

D privates F showtables D sets F showvariants typesetters table D specials F author D types F string D virtuals function function tags usedataset table usedentries function tracers writers table F showdatasetauthors F showdatasetcompleteness F author F showdatasetfields F keyword

F showdatasetcompleteness
F showdatasetfields
F showentry
F showfields
F showhashedauthors

# regimes (context)

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

# resolvers (context)

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

loadtime function resetresolve function locateformat function resol ve function locators data table data table savers luacnffallback strina scandata function luacnfname string scanfiles function luacnfspec string schemes table luacnfstate strina 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 install F processmk setdynamic function F processmklx setenv function F processmkvi function F version showpath maxreadlevel number simplescanfiles function methodhandler function splitconfigurationpath function openbinfile function splitexpansions function data table splitmethod openers function openfile function splitpath function function opentexfile stackpath function ownpath string starttiming function stoptimina function popextrapath function popinputname function suffixes data table function suffixmap data table poppath suffixofformat prefixes data table function prependhash function texdatablob function pushextrapath function function toppath 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 validatedpath relations data table function function variable function renew renewcache function variableofformat function

variableofformatorsuffix

wildcardpattern

function

function

function

function

function

repath reset

resetextrapaths

## 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_hangu	ıl_penalty
N inter_char_quart	cer_shrink_factor
N inter_char_quart	er_stretch_factor
N inter_char_shrin	nk_factor
N inter_char_stret	ch_factor
N inter_word_stret	ch_factor
getdata	function
getinjector	function
getsplitter	function
getstatus	function

```
handlers
                  data table
hash
                  table
injectors
                  data table
inserters
                  table
   F nobreakspace_after
   F nobreakspace before
   F space after
   F space before
   F zerowidthspace after
   F zerowidthspace before
installdataset
                  function
installmethod
                  function
numbertodataset data table
numbertohandler
                  data table
reset
                  function
set
                  function
                  function
setstatus
```

data table

**splitters** 

## 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	readfixed2	function
Teauzuot14	Tunction	1 edu 1 1 x eu 2	Tunction
readbytes	function	readfixed4	function
readbytetable	function	readinteger1	function
readcardinal1	function	readinteger1le	function
readcardinal1le	function	readinteger2	function
readcardinal2	function	readinteger2le	function
readcardinal2le	function	readinteger3	function
readcardinal3	function	readinteger3le	function
readcardinal3le	function	readinteger4	function
readcardinal4	function	readinteger4le	function
readcardinal4le	function	readintegertable	function
readcardinaltable	function		

#### socket (extra lua)

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-c	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	I
S trai	iler	tcp	function
S tran	nsfer-encoding	tcp4	function
S upgi	rade	tcp6	function
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

## statistics (context)

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

# status (basic tex)

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

# storage (context)

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

# streams (context)

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

# string (basic lua)

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

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

## structures (context)

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

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

F compare
F define
F enhance
F extend
F filter
F filtercollected
F finalize
F findinternal
F flush
F get
F prepare
F process
F setmethod
F sort
F store
D tobesaved
F unique
F userdata
<b>sections</b> table
F autodepth
F cct
D collected
F current
F currentblock
F currentid
F currentlevel
F currentsectionindex
F currentsectionindex F depthnumber
F depthnumber
F depthnumber F finddata
F depthnumber F finddata F findnumber
F depthnumber F finddata F findnumber F fullnumber
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numberatdepth
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numbers
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numbers F popblock
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numbers F popblock F prefixedconverted
F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numbers F popblock

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

F setregister F setuserproperties F setsorting D specifications F setsynonym F start F settablecell F stop F settabulatecell F strip F settagdelimitedsymbol D taglist F settagsubsentencesymbol T usewithcare F setupexport T images

# table (basic lua)

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

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

setmuglue	function
setmuskip	function
setnest	function
setpardir	function
setsfcode	function
setskip	function
setsynctexline	function
setsynctexmode	function
setsynctextag	function
settextdir	function
settoks	function
setuccode	function
sfcode	table
shipout	function
showcontext	function
skip	table
sp	function
splitbox	function
sprint	function

systemmodes	data table
takebox	function
texcatcodes	number
toks	table
tonumber	function
toscaled	function
tpacatcodes	number
tpbcatcodes	number
tprint	function
trackers	data table
triggerbuildpage	function
txtcatcodes	number
type	function
uccode	table
uprint	function
useboxresource	function
vrbcatcodes	number
write	function

# texconfig (basic tex)

buffer_size	number		max_in_open	number
error_line	number		max_pool	number
expand_depth	number		max_print_line	number
firstline	string		max_strings	number
formatname	string		nest_size	number
function_size	number		node_size	number
half_error_line	number		param_size	number
hash_extra	number		<pre>properties_size</pre>	number
init	overloaded	function	save_size	number
kpse_init	boolean		shell_escape	string
level_chr	number		stack_size	number
level max	number		token size	number

# texio (basic tex)

closeinputfunctionwritefunctionterminalfunctionwrite\_nlfunction

# token (basic tex)

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

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

### tokens (context)

astab	ble	function	U	loadfound	typescriptfile
bits		table	U	resetctxs	canner
Na	active		U	rlap	
Na	alignment	:	U	secondoft	woarguments
N I	begingrou	р	U	setfalsev	alue
N o	character	-	U	setsectio	nblock
N o	close		U	setupsyst	em
N o	comment		U	startcolu	mns
N e	endgroup		U	starttabu	late
N e	endofline		U	starttitl	e
N e	escape		U	startxtit	le
N :	ignore		U	stopcolum	ins
N :	invalid		U	stoptabul	ate
N	letter		U	stoptitle	
N r	mathshift	ī.	U	stopxtitl	e
N o	open		U	texsetup	
N o	other			xmlw	
N	parameter	-	comm	ands	data table
N s	space		comp	ile	function
N :	subscript	İ	cons	tant	function
N s	superscri	ipt	conv	erters	table
N v	whitespac		S	toboolean	
cache	е	table	S	todimen	
UI	NC		S	toglue	
UI	NR		S	tonumber	
UI	bf			tostring	
U	c_font_co	ompact	crea		function
	color		defi		function
	colordefa		flag		function
	colordeff		_	nteger	function
	colordeff		gett		table
	colordefr			box	
	dofinishr			count	
	dostartte			cstoken	
U ·	finishjob		F	dimen	
				-7	
		neargument		glue	
U ·	firstoftw	voarguments	F	macro	
U :	firstoftw gobbleone	voarguments	F F	macro meaning	
U : U :	firstoftw gobbleone goto	voarguments	F F	macro meaning skip	
U :	firstoftw gobbleone	voarguments	F F F	macro meaning	function

istoken	function		_	intonon	
	function			integer	
new ni okun				integerar	gument
pickup	function			ischar	
popmacro	function			key	
presets	table			keyword	
T 1 argumen	it			keywordcs	
T 1 string				letters	
T 2 argumen				list	
T 2 strings				luacardina	
T 3 argumen				luaintege	r
T 3 strings			-	luanumber	
T 4 argumen				lxmlid	
T 4 strings				next	
T 5 strings				nextexpan	ded
T 6 strings				number	
T 7 strings				optional	
T 8 strings				peek	
pushmacro	function			peekchar	
scanners	table			peekexpan	ded
F argument				real	
F argumenta	sis			scanclose	
F array				scanopen	
F boolean				skip	
F box				skipexpan	ded
F bracketed				string	
F bracketed	lasis			table	
F cardinal				token	
F char				tokencode	
F cmdchr				tokenlist	
F cmdchrexp	anded			tokens	
F code	_			toks	
F condition	ial			value	
F count				vbox	
F csname				verbatim	
F delimited				vtop	
F dimen				whd	
F dimenargu				word	£
F dimension				nteger	function
F float		:	sett		table
F glue				box	
F gluespec				char	
F gluevalue	!S			count	
F hash				dimen -	
F hbox			F	glue	

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

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

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

F scanboolean

#### tracers (context)

printerror function printwarning function

showlines function

# trackers (context)

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

# typesetters (context)

alignments	table	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

5.6.1			
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	tuation
U list		T character	S
U pair		S name	
F splitspecific	cation	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	ine	F construct	
F addtoline		F create	
F calculatedelt	ta	F finish_row	
F checkline		F flush	
F handler		F initialize_c	onstruct
F moveinline		F initialize_r	eflow_height
F set		F initialize_r	eflow_width
periodkerns	table	F next_row	
D factors		F reflow_heigh	t
F handler		F reflow_width	
D mapping		F set_construc	t
F set		F set_reflow_h	eight
processors	table	F set_reflow_w	_
F apply			

### updaters (context)

apply function
register function

# url (context)

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

# utf8 (basic lua)

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

# utilities (context)

debugger	table	F readtag	
F disable	cable	F setposition	
F enable		F size	
		F skip	
F savestats		•	
F showstats		F skiplong	
F showtraceback files	table	F skipposition	
F close	cable	F skipshort	
		F writebyte	
F getposition		F writecardinal1	
F getsize		F writecardinalle	
F look		F writecardinal2	
F open		F writecardinal2le	
F read2dot14		F writecardinal3	
F readbyte		F writecardinal3le	
F readbytes		F writecardinal4	
F readbytetable		F writecardinal4le	
F readcardinal		F writeinteger1	
F readcardinal1		F writeintegerlle	
F readcardinal1le		F writeinteger2	
F readcardinal2		F writeinteger2le	
F readcardinal2le		F writeinteger3	
F readcardinal3		F writeinteger3le	
F readcardinal3le		F writeinteger4	
F readcardinal4		F writeinteger4le	
F readcardinal4le		F writestring	
F readcardinaltable	e	formatters	table
F readchar		F formatcolumns	
F readfixed2		F list	
F readfixed4		F stripzeros	
F readinteger		garbagecollector	table
F readinteger1		F check	
F readinteger1le		N criterium	
F readinteger2		B enabled	
F readinteger2le		ghostscript	table
F readinteger3		F convert	
F readinteger3le		F statistics	
F readinteger4		graphicmagick	table
F readinteger4le		F convert	
F readintegertable		F statistics	
F readsignedbyte		graphicsmagick	table
F readstring		F convert	

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

F pushseed		F close	
F reuseseed		F getposition	
F setseed		F getsize	
F setseedi		F getstring	
randomizers	table	F look	
F poisson		F open	
sequencers	table	F openstring	
F appendaction		F read2dot14	
F appendgroup		F read2dot4	
F compile		F readbyte	
F disableaction		F readbytes	
F disablegroup		F readbytetable	
F enableaction		F readcardinal	
F enablegroup		F readcardinal1	
D functions		F readcardinal2	
F localize		F readcardinal2le	
F new		F readcardinal3	
F nodeprocessor		F readcardinal3le	
F prependaction		F readcardinal4	
F prependgroup		F readcardinal4le	
F removeaction		F readcardinaltable	
F replaceaction		F readchar	
F setkind		F readfixed2	
F tostring		F readfixed4	
setters	table	F readinteger	
F disable		F readinteger1	
F enable		F readinteger2	
F initialize		F readinteger2le	
F list		F readinteger3	
F new		F readinteger3le	
F register		F readinteger4	
F report		F readinteger4le	
F reset		F readintegertable	
F show		F readsignedbyte	
stacker	table	F readstring	
F new		F setposition	
storage	table	F size	
F allocate		F skip	
F checked		F skipbytes	
F mark		F skiplong	
F marked		F skipshort	
F setinitializer		<b>strings</b> table	<u> </u>
F sparse		F collapse	
streams	table	F collapsecrlf	

	T formatters		F	definetable	
	F add		F	encapsulate	
	F new		F	insertaftervalue	
	F newcollector		F	insertbeforevalue	
	F newrepeater		F	migratetable	
	F nice		F	removevalue	
	T striplinepattern	s	F	replacevalue	
	U collapse		temp	olates	table
	U prune		F	load	
	U prune and colla	apse	F	replace	
	U prune and no er	npty	F	replacer	
	U prune and to sp	pace	F	resolve	
	U retain		zipí	files	table
	U retain and col	lapse	F	close	
	U retain and no e	empty	F	found	
	F striplines		F	gunzipfile	
	F striplong		F	hash	
	F tabtospace		F	list	
	T tracers		F	open	
t	ables	table	F	unzip	
	F accesstable		F	unzipdir	

F zipdir

F definedtable

### visualizers (context)

escapepatterns	data table	signal	string
• •		•	3
getspecification	function	signalpattern	userdata
getvisualizer	function	specifications	data table
load	function	visualize	function
makenested	function	visualizebuffer	function
makepattern	function	visualizefile	function
newgrammar	function	visualizestring	function
newhandler	function	write	function
parsedxml	function	writeargument	function
pattern	function	writedefault	function
register	function	writeemptyline	function
registerescapecommand	function	writenewline	function
registerescapeline	function	writespace	function
registerescapepattern	function		

# xcomplex (extra lua)

I	function	F sqrt	
add	function	F tan	
div	function	F tanh	
eq	function	F topair	
inde	ex table	F tostring	
FΙ		Fmul	
	_add	Sname	
	_div	Fpow	
F _	= :	Fsub	
Т_	_index	Ftostring	9
F	I	Funm	
F	add	F abs	
	div	F acos	
F	eq	F acosh	
F	mul	F arg	
S	name	F asin	
	pow	F asinh	
	sub	F atan	
F	tostring	F atanh	
F	unm	F conj	
F	abs	F cos	
F	acos	F cosh	
F	acosh	F exp	
F	arg	Fί	
F	asin	F imag	
F	asinh	F log	
F	atan	F new	
F	atanh	F pow	
F	conj	F proj	
F	COS	F real	
F	cosh	F sin	
F	exp	F sinh	
F	i	F sqrt	
F	imag	F tan	
F	log	F tanh	
F	new	F topair	
F	pow	F tostring	
F	proj	mul	function
F	real	name	string
F	sin	pow	function
F	sinh	sub	function

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

# xdecimal (extra lua)

add	function	F getprecisio	n
band	function	Fln	
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 setprecisio	n
Fbxor		F shift	
Fdiv		F sqrt	
Feq		F tonumber	
Fidiv		F tostring	
Tindex		F trim	
Fadd		Fle	
Fband		Flt	
F <u>b</u> or		Fmod	
Fbxor		Fmul	
Fdiv		Sname	
Feq		Fpow	
Fidiv		F <u></u> shl	
Fle		Fshr	
Flt		Fsub	
Fmod		Ftostring	
Fmul		F <u>unm</u>	
Sname		F abs	
Fpow		F band	
Fshl		F bor	
Fshr		F bxor	
Fsub		F conj	
Ftostring		F copy	
Funm		F exp	
F abs		F getprecision	
F band		F ln	
F bor		F log	
F bxor		F max	
F conj		F min	
F copy		F minus	
F exp		F new	

F plus	
F pow	
F rotate	
F setprecisi	on
F shift	
F sqrt	
F tonumber	
F tostring	
F trim	
le	function
lt	function
mod	function
mul	function
name	string
pow	function
shl	function
shr	function
sub	function
tostring	function
unm	function
abs	function

function

band

function
function

### xmath (extra lua)

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

### xml (context)

addentitiesdoctype	function	F fontspecification	
addspecialcode	function	F mappedstylevalue	
after	function	F padding	
all	function	F size	
applylpath	function	F style	
applyselector	function	F stylevalue	
assign	function	F todimension	
attribute	function	F variant	
badinclusions	function	F weight	
before	function	defaulthandlers	table
body	function	D file	
builtinentities	table	D parsedxml	
B amp		D string	
B apos		D tex	
B gt		D texline	
B lt		D texspace	
B quot		D verbose	
cdata	function	defaultprotocol	string
cdatatotext	function	delete	function
checkbom	function	delete_element	<b>function</b>
checkerror	function	despecialized	function
checknamespace	function	each	function
checkns	function	each_element	<b>function</b>
cleansed	function	elements	function
collect	function	elementtocdata	function
collect_elements	<del>function</del>	empty	function
collect_tags	function	entities	data table
collect_texts	<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 family		F lower	

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

inject	function	process	function
inject_element	function	process_attributes	function
inject_element_after	function	process elements	function
inject element before	function	processattributes	function
injectafter	function	profiled	table
injectbefore	function	pure	function
insert	function	pushmatch	function
insert element	function	raw	function
insert element after	function	registerentity	function
insert element before	function	registerns	function
insertafter	function	reindex	function
insertbefore	function	remap name	function
insertcdata	function	remap namespace	function
insertcomment	function	remap tag	function
inspect	function	remapname	function
is valid	function	remapnamespace	function
_ kind	function	remaptag	function
last	function	rename	function
lastmatch	function	renamespace	function
load	function	reparsedentitylpeg	userdata
lpath	function	replace	function
lpathcached	function	replace_element	<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 '	
privatetoken	function	S <	

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

### xzip (extra lua)

adler32 function
compress function
crc32 function

decompress function
expandsize function

#### zip (extra lua)

archives table
closearchive function

openarchive function
registeredfiles table

#### zlib (extra lua)

adler32 function compress function crc32 function

decompress function
expandsize function