MP aes 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 <a href="Its">Its</a> libraries <a href="Its">Its</a> libraries <a href="Its">Its</a> logs lpdf lpeg lua luac luatex lxml math mathematics md5 metapost mime moduledata modules mp mplib noads mode nodes number objects optional os package pagebuilders paintreaders parametersets pdf pdfdecode pdfe physics pngdecode publications regimes resolvers sandbox scripts set sha2 sio socket sorters sparse statistics status storage streams string structures table texconditionals texconfig texconstants texifs texisdefined texmodes texsystemmodes thirddata token 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)

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

lfs	table	physics	table
libraries	table	pngdecode	table
lmx	table	popleaderlevel	function
load	function	print	function
loaders	data table	profilelines	function
loadfile	function	publications	table
loadstring	function	pushleaderlevel	function
logs	table	rawequal	function
lpdf	table	rawget	function
lpeg	table	rawlen	function
lua	table	rawset	function
luac	table	recolor	function
luatex	table	regimes	table
lxml	table	require	function
math	table	required	function
mathematics	table	resolvers	table
mathshapekern	function	ruledspace	function
md5	table	sandbox	table
metapost	table	scripts	table
mime	table	select	function
moduledata	table	set	table
modules	table	setinspector	function
mp	function	setmathparameters	function
mplib	table	setmetatable	function
next	function	sha2	table
noads	table	shipbox_ref_h	number
node	table	shipbox_ref_v	number
nodes	table	sio	table
number	table	socket	table
objects	table	sorters	table
optional	table	sparse	table
optionalrequire	function	statistics	table
os	table	status	table
p_number_p	userdata	storage	table
p_number_u	userdata	streams	table
package	table	string	table
pagebuilders	table	structures	table
paintreaders	table	table	table
pairs	function	tex	table
parametersets	table	texconditionals	data table
pcall	function	texconfig	table
pdf	table	texconstants	data table
pdfdecode	table	texifs	data table
pdfe	table	texio	table

texisdefined data table texmodes data table texsystemmodes data table thirddata table toboolean function todecimal function token table tokens table tonumber function function tostring tracers table trackers table function type typesetters table unpack function

updaters

table

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

## aes (context)

decode function
encode function

random function

# attributes (context)

alternates	table	F	formatcolor
N attribute		F	formatgray
D data		F	formatluminance
F enable		F	formatluminanceratio
F handler		F	getpagecolormodel
F register		F	gray
D registered		F	graytohsv
D values		F	handler
applyoverloads	function	Т	helpers
checkvalues	function		F complement
colorintents	table		F inbetween
N attribute			F justone
D data		F	hsvtogray
F enable		F	hsvtorgb
F handler		F	hwbtorgb
F register		F	iccprofile
D registered		F	isblack
colors	table	F	labtorgb
N attribute		F	labtoxyz
F cmyk		N	main
F cmyktogray		S	model
F cmyktorgb		D	models
F colorcomponent	ts	F	mpcolor
D counts		F	mpnamedcolor
B couple		F	mpoptions
F currentmodel		F	namedcolorattributes
F currentnamedmo	odel	N	none
D data		F	popset
N default		F	${\tt processcolor components}$
F defineintermed	diatecolor	F	pushset
F definemultitor	necolor	F	register
F defineprocesso	color	D	registered
F defineprocesso	colordirect	F	registerspotcolor
F definesimpleg	ray	F	rgb
F definespotcol	or	F	rgbtocmyk
F definetranspa	rency	F	rgbtogray
F enable		F	rgbtohsv
F filter		F	rgbtoxyz
N forced		N	selector
F forcedmodel		F	setlist
F forcesupport		F	setmodel

F setpagecolormo	del	ofnode	function
D sets		private	function
F spec		public	function
F spot		registervalue	function
F spotcolorname		restore	function
F spotcolorparen	t	save	function
F spotcolorvalue		setcleaner	function
B supported		showcurrent	function
F toattributes		states	table
F transparencyco	mponents	F disabletrigger	ing
B triggering		F enabletriggeri	ng
F usecolors		F finalize	
D valid		F initialize	
F value		F process	
D values		F selective	
B weightgray		F simple	
F xyztolab		F stacked	
F xyztorgb		F stacker	
counts	data table	system	function
define	function	tooverloads	function
effects	table	transparencies	table
N attribute		N attribute	
D data		D data	
F enable		F enable	
F handler		F forcesupport	
F register		F handler	
D registered		T names	
D values		N color	
getvalue	function	N colorburn	
getvalues	function	N colordodge	
handlers	table	N darken	
hasvalues	function	N difference	
list	data table	N exclusion	
markasoverload	function	N hardlight	
names	data table	N hue	
negatives	table	N lighten	
N attribute		N luminosity	
D data		N multiply	
F enable		N none	
F handler		N normal	
F register		N overlay	
F register D registered		N overlay N saturation	
_	data table		

N none
F register
D registered
B supported
F toattribute
B triggering
F value

N attribute
F cleanup
D data
F define

D values

F definedlayoutcomponent

F enable

F forcesupport F handler

B hasorderD listwiseF registerD registered

F resolve\_begin
F resolve\_end
F resolve reset

F resolve\_step
D scopes

F setfeatures

F start
F stop
B supported

D values

#### backends (context)

closeout function F analyzesymbol codeinjections table F attachmentid F registerboxresource F bitmap F restoreboxresource F clonefield current strina F copyimage defaults table F definefield T codeiniections F definefieldset F defineviewerlayer F prerollreference F embedfile F setautoprefix F vfstartcolor F embedimage F vfstopcolor F enabletags T nodeiniections F exportformdata F cmykcolor F fieldsurrounding F destination F flushmergelayer F gravcolor F getbookmarks F injectknockout F getboxresourcebox F injectoverprint F getdefaultfieldvalue F reference F getfieldcategory F getfieldset F rgbcolor F spotcolor F getformatoption F transparency F getinfo T registrations F getpreviewfigure F transparency F getrefobj D tables F insertrenderingwindow getcallbackstate function F ip2 included table F jpg B context F maptag B date F mergebookmarks B id F mergecomments B metadata F meraefields B pdf F mergereferences initialize function F mergerenditions latelua function F mergeviewerlayers nodeinjections table F newimage nothing function F pnq openout function F prerollreference registered table F presetsymbol F presetsymbollist T pdf T codeinjections F processrendering F addbookmarks F registerdocumentcloseaction F analyzenormalsymbol F registerdocumentopenaction

F registeredsymbol F annotation F registerpagecloseaction F attachfile F registerpageopenaction F changestackedlayer F registerpattern F cmykcolor F registersymbol F comment F destination F ruleactionbox F ruleactiondraw F effect F ruleactionfill F getboxresourcedimensions F ruleactionmp F graycolor F ruleactionstroke F injectbitmap F saveboxresource F insertu3d F knockout F scanimage F setattachmentsupport F negative F setautoprefix F overprint F setencryption F positive F setfieldcalculationset F reference F setfigurealternative F rabcolor F setfigurecolorspace F spotcolor F setfiguremask F startalternate F setformat F startlayer F setformsmethod F startstackedlaver F setpagetransition F stopalternate F settaggingsupport F stoplayer F setxmpfile F stopstackedlayer F startlaver F transparency F startunicodetoactualtext F typesetfield F startunicodetoactualtextdirect F useboxresource

F stoplayer T registrations F stopunicodetoactualtext F cmykindexcolor

F stopunicodetoactualtextdirect F cmykspotcolor F supportedformats F getspotcolorreference F grayindexcolor F unicodetoactualtext

F useviewerlaver F grayspotcolor F validfield F rgbindexcolor F validfieldcategory F rqbspotcolor F validfieldset F spotcolorname

F vfstartcolor F transparency T tables F vfstopcolor

registrations table F wrapimage setencryption function S name

T nodeinjections tables table writeout function F addtags

# 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	parallel	table
assign	function	F define	
collectcontent	function	F hassomecontent	
empty	function	F next	
erase	function	F place	
exists	function	F reset	
get	function	F save	
getcontent	function	prepend	function
getctxlua	function	raw	function
getlines	function	run	function
getmkvi	function	samplefile	function
gettex	function	undent	function
loadcontent	function		

# builders (context)

checkparcontext	function	nrof	iling	table
checksidefloat	function		add	tabte
kernel	table		boxlinehandler	
F collapsing			distance	
F hyphenating			fixedprofile	
F kerning			get	
F ligaturing			list	
F mlisttohlist			pagehandler	
local box filter	function		pagelinehandler	
paragraphs	table		profilebox	
T constructors			profilelines	
N attribute			set	
F define		F	setlines	
F disable		vspa	cing	table
F enable		D	categories	
F handler		F	checkstrutdepth	
T methods		F	collapsevbox	
F basic		Т	data	
F default			D map	
F hpack			D skip	
F oneline			D snapmethods	
D names		F	definesnapmethod	
D numbers		В	fixed	
F set		F	flushcontribution	S
F start		F	forcepageflush	
F stop		F	forcestrutdepth	
T expansion		F	getnofpreviouslin	es
F trace		F	inject	
F keeptogether		F	injectdisable	
F registertogether		F	injectpenalty	
T solutions		F	injectskip	
T splitters		F	interceptsamepage	content
F define		F	pagehandler	
F optimize		F	pageoverflow	
T registered		F	popatsame	
F reset		F	pushatsame	
F set		F	setmap	
F split			setskip	
F start			snapbox	
F stop		F	synchronizepage	
F tag		F	tocategories	

- F tocategory
- F vboxhandler

# caches (context)

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

## callback (basic tex)

find function
known function
list function

register overloaded function
usage function

#### callbacks (context)

freeze function functions table F start page number F stop page number function known list data table pop function push function function register function report supported table B alignment\_filter

B append\_line\_filter
B append\_to\_vlist\_filter
B begin\_paragraph
B build\_page\_insert
B buildpage\_filter
B define\_font
B find\_format\_file

B find\_log\_file
B get\_attribute
B get\_math\_dictionary

B get\_noad\_class B glyph\_run

B handle\_overload
B hpack\_filter
B hpack\_quality
B hyphenate

B insert par

B intercept\_lua\_error
B intercept tex error

B kerning B ligaturing

B linebreak\_filter
B local box filter

B make\_extensible

B math rule

B missing\_character
B mlist\_to\_hlist
B open\_data\_file
B packed\_vbox\_filter
B paragraph\_context
B post\_linebreak\_filter

B pre\_dump

B pre\_linebreak\_filter
B pre\_output\_filter
B process\_character
B process\_jobname
B register\_extensible
B show\_error\_message
B show\_lua\_call
B show\_warning\_message
B show\_whatsit

B start\_file
B start\_run
B stop\_file
B stop\_run
B trace\_memory
B vpack\_filter
B vpack\_quality
B wrapup run

## catcodes (context)

 register function

# characters (context)

adobename	function	T often subscript	
bidi	data table	T after_subscript	
blockrange	function	T anudatta	
blocks	data table	T before_half	
	data table	T before main	
can_have_space	table	T before_postscript	
casemap categories	data table	T before_subscript	
category	function	T below_mark	
categorytags	data table	T consonant	
classifiers	table	T dependent_vowel T halant	
collapsed	data table		
coccapsed	data table	T independent_vowel T nukta	
contextname	function		
csletters	data table	T post_mark T pre mark	
data	data table	T ra	
decomposed	data table	T stress tone mark	
description	function		
descriptions	data table	T twopart_mark T vowel modifier	
detailtags	data table	initialize	function
directions	table	is character	data table
emoji	table	is command	data table
F compact	tabte	is hyphenator	data table
F known		is letter	data table
F resolve		is mark	data table
emojized	function	is_punctuation	data table
enccodes	data table	is spacing	data table
entities	data table	is symbol	data table
fallbacks	data table	lcchars	data table
filters	data table	lccode	function
fractions	table	lccodes	data table
fromnumber	function	lettered	function
fschars	data table	lhash	data table
fscodes	data table	linebreaks	data table
getrange	function	lower	function
graphemes	data table	mathlists	data table
hangul	data table	mirrors	table
indicgroups	table	otfscripts	data table
T above_mark		ranges	data table
T after_half		registerentities	function
T after_main		remap_hangul_syllabe	function
T after_postscript		scripthash	table

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

table

table

table

data table

T compat

superscripts

subscripts

synonyms tex

F toutf F toutfpattern textclasses table tonumber function ucchars data table uccode function uccodes data table uhash data table unicodechar function function upper verbosemarks data table

D accentmapping

D commandmapping

F defineaccents

F safechar

F strtextoutf

F strtoutfpattern

# 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)

Α	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

-----t---- 26 ----t

# 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

# debug (basic lua)

getinfo function
sethook function

traceback function

# dir (context)

collectpattern	function	globfiles	function
current	function	globpattern	function
expandlink	function	ls	function
expandname	function	makedirs	function
found	function	mkdirs	function
glob	function	pop	function
globdirs	function	push	function

# directives (context)

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

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

#### document (context)

arguments files functions getargument getfilename options data table table table function function table D modes
D modules
etargument

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

T commandline

D environments
D modes

D modules T ctxfile

D environments

# documentdata (context)

variable function

# drivers (context)

applyanchor	function	F updatefontstate
applyorientation	function	T whatsit
convert	function	S name
converters	table	T json
F analyze		T actions
F engine		F cleanup
F lmtx		F convert
F resyncbox		F finalize
enable	function	F initialize
gethpos	function	F outputfilename
getpos	function	F prepare
getrpos	function	F wrapup
getvpos	function	T flushers
helpers	table	F character
install	function	F popleaderlevel
instances	table	F pushleaderlevel
T empty		F rule
T actions		F setstate
F convert		F simplerule
F prepare		F specialrule
T flushers		F updatefontstate
F popleaderleve	l	T whatsit
F pushleaderlev	el	S name
T whatsit		T lua
S name		T actions
T js		F cleanup
T js T actions		F cleanup F convert
•		•
T actions		F convert
T actions F cleanup		F convert F finalize
T actions F cleanup F convert		F convert F finalize F initialize
T actions F cleanup F convert F finalize	e	F convert F finalize F initialize F outputfilename
T actions F cleanup F convert F finalize F initialize	е	F convert F finalize F initialize F outputfilename F prepare
T actions F cleanup F convert F finalize F initialize F outputfilenam	е	F convert F finalize F initialize F outputfilename F prepare F wrapup
T actions F cleanup F convert F finalize F initialize F outputfilenam F prepare	e	F convert F finalize F initialize F outputfilename F prepare F wrapup T flushers
T actions F cleanup F convert F finalize F initialize F outputfilenam F prepare F wrapup	e	F convert F finalize F initialize F outputfilename F prepare F wrapup T flushers F character
T actions F cleanup F convert F finalize F initialize F outputfilenam F prepare F wrapup T flushers		F convert F finalize F initialize F outputfilename F prepare F wrapup T flushers F character F popleaderlevel
T actions F cleanup F convert F finalize F initialize F outputfilenam F prepare F wrapup T flushers F character	ι	F convert F finalize F initialize F outputfilename F prepare F wrapup T flushers F character F popleaderlevel F pushleaderlevel
T actions F cleanup F convert F finalize F initialize F outputfilenam F prepare F wrapup T flushers F character F popleaderleve	ι	F convert F finalize F initialize F outputfilename F prepare F wrapup T flushers F character F popleaderlevel F pushleaderlevel F rule
T actions F cleanup F convert F finalize F initialize F outputfilenam F prepare F wrapup T flushers F character F popleaderleve F pushleaderleve	ι	F convert F finalize F initialize F outputfilename F prepare F wrapup T flushers F character F popleaderlevel F rule F simplerule

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

# environment (context)

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

# experiments (context)

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

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

## figures (context)

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

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

# file (basic lua)

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

# fio (extra lua)

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

# floats (context)

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

# font (basic tex)

addcharacters	function
current	function
define	function
getfont	function
getfontdimen	function
getfontspec	function
getmathindex	function

getmathspec	function
id	function
max	function
nextid	function
setfont	function
setfontdimen	function

# fonts (context)

analyzers	table	D cache
D features		F calculatescale
D initializers		F checkedfeatures
D methods		F checkedfilename
F setstate		F collectprocessors
D states		F currentfonthasfeature
B useunicodemarks		D designsizes
callbacks	table	F enhanceparameters
F callback		T enhancers
F devirtualize		T afm
checkers	table	F apply
F getmissing		F patch
D mapping		T patches
F missing		F register
F placeholder		F report
cid	table	F register
F getmap		F report
F loadfile		T otf
collections	table	F addfeature
F checkenabled		F apply
F clonevector		F enhance
F define		F patch
T definitions		T patches
F direct		F register
F found		F report
F prepare		F register
F process		F report
F register		T tfm
F registermain		F apply
F report		F patch
F reset		T patches
T vectors		F register
constructors	table	F report
F addcharacters		F register
F addcoreunicodes		F report
F aftercopyingcharac	ters	N factor
F applyfinalizers		T features
F applymanipulators		D afm
F assignmathparamete	ers	D otf
F beforecopyingchara	acters	D tfm
F beforepassingfontt	cotex	F finalize

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

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

F open	F writecardinal3
F read2dot14	F writecardinal3le
F readbyte	F writecardinal4
F readbytes	F writecardinal4le
F readbytetable	F writeinteger1
F readcardinal	F writeinteger1le
F readcardinal1	F writeinteger2
F readcardinal1le	F writeinteger2le
F readcardinal2	F writeinteger3
F readcardinal2le	F writeinteger3le
F readcardinal3	F writeinteger4
F readcardinal3le	F writeinteger4le
F readcardinal4	F writestring
F readcardinal4le	F stripredundant
F readcardinaltable	F svg
F readchar	N tableversion
F readcline	F unifymissing
F readcstring	F unpack
F readfixed2	F vhea
F readfixed4	F vmtx
F readinteger	F vorg
F readinteger1	F vvar
F readinteger1le	F woff2otf
F readinteger2	F registerpalette
F readinteger2le	F registerplugin
F readinteger3	F reorderlookups
F readinteger3le	F scriptandlanguage
F readinteger4	F setdynamics
F readinteger4le	F setfeatures
F readintegertable	T statistics
F readsignedbyte	D usedfeatures
F readstring	D svgcache
F readtag	B svgenabled
F setposition	T tables
F size	D baselines
F skip	D features
F skiplong	D featuretypes
F skipposition	D languages
F skipshort	D scripts
F writebyte	F texthandler
F writecardinal1	T vectors
F writecardinal1le	T arab
F writecardinal2	T gpos
F writecardinal2le	N curs

N kern	D whatever	
N mark	F hashfeatures	
N mkmk	F hashinstance	
T gsub	T hashmethods	
N calt	F normal	
N ccmp	F virtual	
N cswh	F initializefeature	5
N dlig	D loadedfonts	
N fina	N noffontsloaded	
N init	N nofsharedfonts	
N isol	N nofsharedhashes	
N liga	N nofsharedvectors	
N medi	N privateoffset	
N mset	D privateslots	
N rclt	F readanddefine	
N rlig	F registerfeature	
N version	F resetfeature	
T pfb	B resolvevirtualtoo	
F loadvector	F scale	
N version	F scaled	
T tfm	F setfactor	
D cache	F setfeature	
D features	F setmathparameter	
N maxnestingdepth	F setname	
N maxnestingsize	B sharefonts	
T readers	F trytosharefont	
F loadpk	N version	
F loadtfm	current	function
F loadtfmvf	currentid	function
F loadvf	definers	table
F pktopdf	F addlookup	
F showpk	F analyze	
F reencode	F applypostprocesso	rs
F setfeatures	F checkedmode	
N version	F checkedscript	
T vf	S defaultlookup	
T combinations	F define	
F combine	F getspecification	
T combiner	F internal	
D commands	F loadfont	
D helpers	F makespecification	
D math	T methods	
D predefined	F install	
N version	D variants	

F read		getsubstitution	function
F register		getters	table
F registered		T alternate	
F registerfallbackf	ont	F opentype	
F registersplit		T kern	
F resetnullfont		F opentype	
F resolve		F type1	
T resolvers		F type3	
F file		T multiple	
F name		F opentype	
F spec		T substitution	
definetypeface	function	F opentype	
dropins	table	goodies	table
F clone		D colorschemes	
F getshape		T data	
F getshapes		T common-math.lfg	
F nextid		S author	
F provide		S comment	
F registerglyph		S copyright	
F registerglyphs		B initialized	
F swap		T mathematics	
F swapone		T tweaks	
effects	table	T presets	
encodings	table	F braille	
T agl		F eulertoca	
D ctxcodes		F fallbacks	
D extras			alligraphic
D names		F moveinteg	
D synonyms		F moveitali	
D unicodes		F pagellara	
D cache		F rsfstoscr	
F is_known		F rsfsuprig	•
D known			alligraphic
F load		F wipeancho	
F make_unicode_vect	or	F wipeitali	
D math		F xitsarabi	.C
N version	function	S name	
enhanceid expansions	function data table	S version	
formats		T dejavu-math	
getalternate	data table function	S author	
getalternate getindices	function	S comment	
-		S copyright	
getkern	function	B initialized	
getmultiple	function	T mathematics	

T alternates	D identifiers
T dotless	D italics
S comment	D lastmathids
S feature	D marks
N value	D mathparameters
T bigslots	D modes
T parameters	D originals
N AccentBaseDepth	D parameters
N AccentTopShiftUp	T processes
N DelimiterPercent	D properties
N DelimiterShortfall	D quads
N DisplayOperatorMinHeight	D resources
N FlattenedAccentTopShiftUp	T setdynamics
N FractionRuleThickness	T shapes
S PrimeBaselineDropMax	D spaces
S PrimeShiftUp	D spacings
S PrimeShiftUpCramped	T streams
N SubscriptShiftDown	D unicodes
S SubscriptShiftDownWithSuperscript	D unislots
N SuperscriptShiftUp	D variants
T tweaks	D xheights
T aftercopying	<b>helpers</b> table
S name	F addextraprivate
S name S version	F addextraprivate F addprivate
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S version	F addprivate
S version D designsizes	F addprivate F appendcommands
S version D designsizes D filenames	F addprivate F appendcommands F appendcommandtable
S version D designsizes D filenames F getcompositions	F addprivate F appendcommands F appendcommandtable F checkflags
S version D designsizes D filenames F getcompositions T list	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge
S version D designsizes D filenames F getcompositions T list F load	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F registerpostprocessor	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F registerpostprocessor  F report	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F register  F report  T suffixes	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F registerpostprocessor  F report  T suffixes  handlers table	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F registerpostprocessor  F report  T suffixes  handlers table  hashes	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F register  F registerpostprocessor  F report  T suffixes  handlers  table  D characters	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph T extraprivates
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F register  F registerpostprocessor  F report  T suffixes  handlers  hable  D characters  D classes	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph T extraprivates F fontpatternhassize
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F register  F registerpostprocessor  F report  T suffixes  handlers  hashes  D characters  D classes  D csnames	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph T extraprivates F fontpatternhassize F getcoloredglyphs
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F register  F registerpostprocessor  F report  T suffixes  handlers table  D characters  D classes  D csnames  D descriptions	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph T extraprivates F fontpatternhassize F getcoloredglyphs F getdigitwidth
S version  D designsizes D filenames F getcompositions T list F load F prepare_features F register F register F registerpostprocessor F report T suffixes handlers table hashes table D characters D classes D csnames D descriptions D dynamics	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph T extraprivates F fontpatternhassize F getcoloredglyphs F getdigitwidth F getinstancespec
S version  D designsizes  D filenames  F getcompositions  T list  F load  F prepare_features  F register  F registerpostprocessor  F report  T suffixes  handlers table  bashes table  D characters  D classes  D csnames  D descriptions  D dynamics  D emwidths	F addprivate F appendcommands F appendcommandtable F checkflags F checkmerge F checksteps F collectanchors F combineglyphs D commands F composecharacters F descriptiontoslot F dimenfactor F expandglyph T extraprivates F fontpatternhassize F getcoloredglyphs F getdigitwidth F getinstancespec F getparameters

F getprivates N delimited ahost hat N delimited ghost lower corner F getprivateslot F hasprivate N delimited ghost ring F indextoslot N delimited ghost star F isprivate N delimited ghost star 1 F mathscriptslots N delimited ghost tilde F name N delimited ghost upper corner F nametoslot N delimited left annuity F newprivateslot N delimited left lower corner N delimited left upper corner F prependcommands F prependcommandtable N delimited right annuity F privateslot N delimited right ast F registerglyphbox N delimited right ast 1 F scalecommands N delimited right bar F setboxdirectly N delimited right breve F setboxqlyph N delimited right check F setboxglyphs N delimited right dagger F setdigitwidth N delimited right dagger 1 F setmetaglyph N delimited right ddagger F setmetaglyphs N delimited right ddagger 1 T sharedprivates N delimited right dddot N arrow left piece N delimited right ddot N delimited right dot N arrow right piece N delimited right hat N cm brace piece N delimited ghost 0x2032 N delimited right lower corner N delimited ghost 0x2033 N delimited right ring N delimited ghost 0x2034 N delimited right star N delimited ghost 0x2035 N delimited right star 1 N delimited ghost 0x2036 N delimited right tilde N delimited ghost 0x2037 N delimited right upper corner N delimited ghost 0x2057 N double arrow left piece N delimited ghost annuity N double arrow right piece N delimited ghost ast N double rule left piece N delimited ghost ast 1 N double rule middle piece N delimited ghost bar N double rule right piece N delimited ghost breve N flat 0x0060 1 N delimited ghost check N flat 0x00A8 1 N delimited ghost dagger N flat 0x00AF 1 N flat 0x00B4 1 N delimited ghost dagger 1 N delimited ghost ddagger N flat 0x02C6 1 N delimited ghost ddagger 1 N flat 0x02C7 1 N flat 0x02D8 1 N delimited ghost dddot N flat 0x02D9 1 N delimited ghost ddot N delimited ghost dot N flat 0x02DA 1

N flat 0x02DC 1	N mirror.10927
N flat 0x20DB 1	N mirror.10928
N flat double rule left piece	N mirror.120597
N flat double rule middle piece	N mirror.123
N flat double rule right piece	N mirror.12310
N flat rule left piece	N mirror.12311
N flat rule middle piece	N mirror.125
N flat rule right piece	N mirror.171
N fraction bar extender	N mirror.187
N left hook piece	N mirror.247
N ll brace piece	N mirror.40
N lm brace piece	N mirror.41
N lr brace piece	N mirror.47
N maps to piece	N mirror.60
N minus rule left piece	N mirror.62
N minus rule middle piece	N mirror.8242
N minus rule right piece	N mirror.8243
N mirror.10204	N mirror.8244
N mirror.10205	N mirror.8245
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N mirror.10223	N mirror.8708
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N mirror.10769	N mirror.8713
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N mirror.10890	N mirror.8733
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N mirror.10901	N mirror.8737
N mirror.10902	N mirror.8738

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N mirror.8771	N mirror.8842
N mirror.8773	N mirror.8843
N mirror.8780	N mirror.8844
N mirror.8786	N mirror.8847
N mirror.8787	N mirror.8848
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N mirror.8929	N mirror.984856
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N mirror.8936	N mirror.984863
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N mirror.8938	N mirror.984865
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N mirror.8940	N mirror.984875
N mirror.8941	N mirror.984876
N mirror.8944	N mirror.984877
N mirror.8945	N mirror.984878
N mirror.8968	N mirror.984879
N mirror.8969	N mirror.984880
N mirror.8970	N mirror.984881
N mirror.8971	N mirror.984882
N mirror.8992	N mirror.984883
N mirror.8993	N mirror.984884
N mirror.9001	N mirror.984885
N mirror.9002	N mirror.984886
N mirror.91	N mirror.984887
N mirror.92	N mirror.984888
N mirror.93	N mirror.984897
N mirror.984419	N mirror.984898
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N mirror.984904	N mirror.985012
N mirror.984905	N mirror.985013
N mirror.984906	N mirror.985014
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N mirror.984909	N mirror.985017
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N mirror.984919	N mirror.985019
N mirror.984920	N mirror.985020
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N mirror.984922	N mirror.985022
N mirror.984923	N mirror.985023
N mirror.984924	N mirror.985024
N mirror.984925	N mirror.985025
N mirror.984926	N mirror.985026
N mirror.984927	N mirror.985031
N mirror.984928	N mirror.985033
N mirror.984929	N mirror.985034
N mirror.984930	N mirror.985038
N mirror.984931	N mirror.985040
N mirror.984932	N mirror.985041
N mirror.984941	N mirror.985045
N mirror.984942	N mirror.985047
N mirror.984943	N mirror.985048
N mirror.984944	N mirror.985052
N mirror.984951	N mirror.985054
N mirror.984952	N mirror.985055
N mirror.984955	N mirror.985059
N mirror.984956	N mirror.985061
N mirror.984957	N mirror.985062
N mirror.984958	N mirror.985066
N mirror.984959	N mirror.985068
N mirror.984960	N mirror.985069
N mirror.984961	N mirror.985113
N mirror.984962	N mirror.985114
N mirror.985003	N mirror.985115
N mirror.985004	N mirror.985116
N mirror.985005	N mirror.985117
N mirror.985006	N mirror.985118
N mirror.985007	N mirror.985119
N mirror.985008	N mirror.985120
N mirror.985009	N mirror.985121

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N mirror.985123	N mirror.985167	
N mirror.985124	N mirror.985168	
N mirror.985125	N mirror.985169	
N mirror.985126	N mirror.985170	
N mirror.985127	N mirror.985171	
N mirror.985128	N mirror.985172	
N mirror.985129	N mirror.985173	
N mirror.985130	N mirror.985174	
N mirror.985131	N mirror.985175	
N mirror.985132	N mirror.985176	
N mirror.985133	N mirror.985177	
N mirror.985134	N mirror.985178	
N mirror.985135	N mirror.985179	
N mirror.985136	N mirror.985180	
N mirror.985137	N mirror.985181	
N mirror.985138	N mirror.985182	
N mirror.985139	N mirror.985183	
N mirror.985140	N mirror.985184	
N mirror.985141	N mirror.985200	
N mirror.985142	N radical bar ext	ender
N mirror.985143	N radical rule mi	ddle piece
N mirror.985144	N radical rule ri	ght piece
N mirror.985145	N right hook piec	е
N mirror.985146	N rule left piece	
N mirror.985147	N rule middle pie	ce
N mirror.985148	N rule right piec	е
N mirror.985149	N ul brace piece	
N mirror.985150	N um brace piece	
N mirror.985151	N unary minus	
N mirror.985152	N unary minus plu	S
N mirror.985153	N unary plus	
N mirror.985154	N unary plus minu	s
N mirror.985155	N ur brace piece	
N mirror.985156	N visualspace	
N mirror.985157	F splitfontpattern	
N mirror.985158	F tochar	
N mirror.985159	T vfinjectors	
N mirror.985160	F startcolor	
N mirror.985161	F stopcolor	
N mirror.985162	T vfspecials	
N mirror.985163	T backgrounds	
N mirror.985164	T outlines	
N mirror.985165	infofont	function

iterators	table	F check_lua	
F characters		F check_tfm	
F descriptions		F lua	
F glyphs		F ofm	
loggers	table	F opentype	
F format		F otf	
F onetimemessage		F pfb	
F register		D sequence	
F reportdefinedfont	S	F tfm	
F reportusedfeature	S	F ttc	
mappings	table	F ttf	
F addtounicode		F woff	
F fromunicode16		registersanitizer	function
F getentry		reserveid	function
F loadfile		select	table
F loadline		D alternatives	
F makenameparser		F bodyfont	
D overloads		D data	
F reset		F default	
F tounicode		D defaults	
F tounicode16		F definefallbackfami	lly
F tounicode16sequen	ce	F definefontfamily	
metapost	table	F definefontfamilypr	eset
F baseline		D extras	
F boundingbox		F fallback	
F boxtomp		D fallbacks	
F draw		F features	
F fill		F filefallback	
F glyph		F fontdata	
F maxbounds		F fontfallback	
F paths		F fontsynonym	
F widthline		F goodies	
F zeroline		F mathfallback	
names	data table	D methods	
nulldata	data table	D presets	
privateoffsets	table	F registerfallback	
B keepnames		F registerfiles	
N mathbase		F registerfontaltern	native
N mathextrabase		F registerfontfamily	,
N textbase		F textfallback	
N textextrabase		F typeface	
protrusions	data table	F typescript	
readers	table	F userdata	
Fafm		specifiers	table
		• • • •	

D contextmerged		F checked	
F contextnumber		F resolved	
D contextnumbers		F uselibrary	
D contextsetups		tables	table
F contexttostring		toeffect	function
F definecontext		tracers	table
F mergecontext		treatments	table
F presetcontext		F applyfixes	
F registercontext		D data	
F showcontext		S filename	
F splitcontext		F ignoredfile	
D synonyms		F report	
D variants		F trace	
symbols	table	typefaces	table

T emoji

## functions (context)

**dummy** function

## graphics (context)

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

identify function

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

# gzip (extra lua)

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

# images (context)

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

### interactions (context)

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

F flushpreambles

D functions D preambles F setpreamble F storecode F storepreamble F usepreamblenow F usescripts linkedlists data table pages table F setpagetransition F setupcanvas table references F setclosedocumentaction F setclosepageaction F setopendocumentaction F setopenpageaction renderings data table

## interfaces (context)

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

## io (basic lua)

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

lines overloaded function

loadchunk function
loaddata function
loadlines function
newreader function
noflines function

 pathseparator string

write

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

function

# job (context)

_			
comment	function	F realpage	
datasets	table	F realpageorder	
D collected		F setstate	
F extend		D tobesaved	
F getdata		parwrappers	table
F setdata		D collected	
D tobesaved		D tobesaved	
disablesave	function	positions	table
embedded	table	F b_column	
D collected		F b_region	
D tobesaved		Fc	
fileobjreferences	table	D collected	
D collected		F column	
D tobesaved		F columnofpos	
files	table	F copy	
D collected		F depth	
F context		F e_column	
B forcerun		F e_region	
F run		F enhance	
D tobesaved		F extra	
getrandomseed	function	F get	
initialize	function	F getcolumndata	
linkedlists	table	F getfree	
D collected		F gethpos	
D tobesaved		F getpos	
load	function	F getreserved	
loadother	function	F getrpos	
objects	table	F getsync	
D collected		F gettobesaved	
F get		F getvpos	
F number		F hangafter	
F page		F hangindent	
F save		F height	
F set		F hsize	
D tobesaved		N lastx	
pack	boolean	N lasty	
packversion	number	F leftskip	
pagestates	table	F lowerleft	
D collected		F lowerright	
F countervalue		F markregionbox	
F extend		Fn	

F onsamepage	Fx	
F overlapping	F xy	
F p	Fy	
F page	register	function
F paragraph	save	function
F parindent	structure	table
F position	D collected	
Fr	T components	
F region	T tobesaved	
F registerhandlers	T branches	
F replace	S name	
F rightskip	S type	
	. 71	
F set	variables	table
F set F setall	• •	table
	variables	table
F setall	<b>variables</b> D checksums	table
F setregionbox	<pre>variables  D checksums D collected</pre>	table
F setall F setregionbox F setspec	variables  D checksums  D collected  F getchecksum	table
F setall F setregionbox F setspec F settobesaved	variables  D checksums  D collected  F getchecksum  F makechecksum	table
F setall F setregionbox F setspec F settobesaved D tobesaved	variables  D checksums  D collected  F getchecksum  F makechecksum  F restore	table

F whd

F width

version

number

# language (basic tex)

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

# languages (context)

F injecthyphens

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

F handler

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

## layouts (context)

function

setupcanvas

getcanvasfunctionstatustablegetpagedimensionsfunctionFisleftpage

F leftorrightpageaction

previous 71 next

## lfs (extra lua)

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

#### libraries (context)

basiclua	data table
basictex	data table
builtin	data table
extralua	data table

extratex data table
functions data table
globals data table

#### lmx (context)

color	function
convert	function
convertfile	function
convertstring	function
einject	function
eprint	function
escape	function
finalized	function
finject	function
fprint	function
get	function
getvariables	function
htmfile	function
html	table
_	

F a F td F th

include function
inherited table

- S color-background-four
- S color-background-one
- S color-background-three
- S color-background-two
- S title

initialize function
inject function
lmxfile function

loadedfile	function
make	function
new	function
overloaderror	function
popupfile	function
print	function
pv	function
report	function
reset	function
result	function
set	function
show	function
showerror	function
stripcss	function
tv	function
type	function
urlescape	function
variable	function
variables	table

- S color-background-blue
- S color-background-body
- S color-background-green
- S color-background-main
- S color-background-purple
- S color-background-yellow
- S title-default

## logs (context)

application	function	setformats	function
categories	function	setformatters	function
direct	function	setlogfile	function
disable	function	setmessenger	function
enable	function	setprocessor	function
finalactions	function	settarget	function
flush	function	settimedlog	function
loggingerrors	function	settranslations	function
messenger	function	show	function
new	function	start_page_number	function
newline	function	start_run	function
poplogfile	function	starterrorlogging	function
poptarget	function	startfilelogging	function
private	table	status	function
F enablepagetiming		stop_page_number	function
F getpagetiming		stoperrorlogging	function
pushlogfile	function	stopfilelogging	function
pushtarget	function	subdirect	function
registerfinalactions	function	subreport	function
report	function	texerrormessage	function
reporter	function	writer	function
resetlogfile	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 objecttype	
checkedvalue	function	F parsecontent	
circularshade	function	F plugin	
cmykcode	function	T resolvers	
collectedresources	function	F destinations	
color	function	F embeddedfiles	
colorspace	function	F javascripts	
colorspaceconstants	data table	F layers	
colorspec	function	F pages	
colorvalue	function	F structure	
colorvalues	function	F widgets	
commentsymbols	function	F stripcontent	
compresslevel	function	F unload	
constant	function	F verboseobject	
copyarray	function	escaped	function
copyboolean	function	finalizedocument	function
copyconstant	function	finalizefonts	function
copydictionary	function	finalizepage	function
copyfloat	function	finishtransparencycode	function
copyinteger	function	flags	table
copynumber	function	T annotations	
copystring	function	N AutoView	
copyunicode	function	N Hidden	
deferredobject	function	N Invisible	

N Locked		fonts	table
N LockedContents		F color_direct	
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		getnofpages	function
N DoNotScroll		getpageproperties	function
N DoNotSpellCheck		getpagereference	function
N Edit		getpagetags	function
N FileSelect		getpos	function
N MultiLine		gettrailerid	function
N NoExport		getversion	function
N NoToggleToOff		getxformname	function
N Password		graycode	function
N PopUp		hasmatrix	function
N PushButton		immediateobject	function
N Radio		includeimage	function
N RadiosInUnison		initialize	function
N ReadOnly		injectors	table
N Required		F bitmap	
N RichText		F jp2	
N Sort		F jpg	
N file		F png	
N fixed		injectxmpinfo	function
N nocheck		insertxmpinfo	function
N protected		lastreferredpage	function
N readonly		layerreference	function
N required		limited	function
N sorted		linearshade	function
N unavailable		literal	function
flushfonts	function	majorversion	function
flushgroup	function	makenametree	function
flushobject	function	minorversion	function
flushstreamfileobject	function	nofpages	function
flushstreamobject	function	null	function

number	function	usedcharacters	table
object	function	usedfontnames	table
objectcompresslevel	function	N dejavusansmonoboldttf-1	
pagereference	function	usedfontobjects	table
patternstream	function	N dejavusansmonoboldttf-1	
pdfcolor	function	usedfontstreams	table
pdftimestamp	function	T dejavusansmonoboldttf-1	
print .	function	T characters	
procset	function	T descriptions	
protectresources	boolean	T fonts	
rectangle	function	T goodies	
reference	function	S original	
registerannotation	function	T parameters	
registerdestination	function	N ascender	
registerdocumentfinalizer	function	N descender	
registerfont	function	N designsize	
registerinitializer	function	T expansion	
registerpagefinalizer	function	N shrink	
registerpattern	function	N step	
reserveobject	function	N stretch	
rgbcode	function	N extendfactor	
rotationcm	function	N extrafactor	
setcompression	function	N extraspace	
setencryption	function	N factor	
setincludecidset	function	N hfactor	
setpageorder	function	N mathsize	
setpagestate	function	N maxsize	
setpagetag	function	N minsize	
setversion	function	N mode	
sharedobject	function	N quad	
shareobject	function	N scaledpoints	
shareobjectreference	function	N size	
spotcode	function	N slant	
stream	function	N slantfactor	
string	function	N space	
toeight	function	N spaceshrink	
topdfdoc	function	N spacestretch	
tosixteen	function	N squeezefactor	
transparency	function	N textsize	
transparencycode	function	N units	
transparencygroups	table	N vfactor	
B none		N width	
transparencyvalue	function	N xheight	
unicode	function	T properties	

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

Т

T *	N	Ccircumflex
B *	N	Cdotaccent
T tquo	N	Chi
T *	N	Circumflex
B *	N	D
T trep	N	Dcaron
T *	N	Dcroat
B *	N	Delta
T uppercasing	N	Dieresis
T *	N	E
B *	N	Eacute
filename	N	Ebreve
foundfilename	N	Ecaron
foundtables	N	Ecircumflex
narkclasses	N	Edieresis
narks	N	Edotaccent
narksets	N	Egrave
private	N	Emacron
sequences	N	Eng
sublookups	N	Eng.alt
unicodes	N	Eogonek
.null	N	Epsilon
A	N	Epsilontonos
AE	N	Eta
AEacute	N	Etatonos
Aacute	N	Eth
Abreve	N	Euro
Acircumflex	N	F
Acute	N	G
Adieresis	N	Gamma
Agrave	N	Gbreve
Alpha	N	Gcaron
Alphatonos	N	Gcircumflex
Amacron	N	Gcommaaccent
	N	Gdotaccent
Aring	N	Grave
		Н
В		Hbar
		Hcircumflex
		I
		IJ
		Iacute
		Ibreve
Ccedilla	N	Icircumflex
f f n n c s s L 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<pre>B * T tquo T * B * T trep T * B * T uppercasing T *</pre>	B *         N           T tquo         N           T *         N           B *         N           T trep         N           T *         N           B *         N           T counting in the property of the pr

S S

T N T T

Ν	Idieresis	N	Oslashacute
Ν	Idotaccent	N	Otilde
N	Igrave	N	P
N	Imacron	N	Phi
N	Iogonek	N	Pi
N	Iota	N	Psi
Ν	Iotadieresis	N	Q
N	Iotatonos	N	R
Ν	Itilde	N	Racute
N	J	N	Rcaron
N	Jcircumflex	N	Rcommaaccent
N	K	N	Rho
N	Карра	N	S
Ν	Kcommaaccent	N	Sacute
N	L	N	Scaron
Ν	Lacute	N	Scedilla
N	Lambda	N	Scircumflex
Ν	Lcaron	N	Scommaaccent
N	Lcommaaccent	N	Sigma
Ν	Ldot	N	Т
Ν	Lslash	N	Tau
Ν	М	N	Tbar
Ν	Mu	N	Tcaron
N	N	N	Tcommaaccent
N	Nacute	N	Theta
N	Ncaron	N	Thorn
N	Ncommaaccent	N	Tilde
N	Ntilde	N	U
N	Nu	N	Ugrave
N	0	N	Uhorn
N	0E	N	Uhungarumlaut
N	Oacute	N	Umacron
N	Obreve Obreve	N	Uogonek
N	Ocircumflex	N	Upsilon
N	Odieresis	N	Upsilon1
N	Ograve Ograve	N	Upsilondieresis
N	Ohorn	N	Upsilontonos
N	Ohungarumlaut	N	Uring
N	Omacron	N	Utilde
N	Omega	N	V
N	Omegatonos	N	W
N	Omicron	N	Wacute
N	Omicrontonos	N	Wcircumflex
N	Oslash	N	Wdieresis

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

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

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

N	omega1	N	quotedblright
N	omegatonos	N	quoteleft
N	omicron	N	quotereversed
N	omicrontonos	N	quoteright
N	one	N	quotesinglbase
N	oneeighth	N	quotesingle
N	onehalf	N	r
N	onequarter	N	racute
N	onesuperior	N	radical
N	onethird	N	rcaron
N	openbullet	N	rcommaaccent
N	ordfeminine	N	reflexsubset
N	ordmasculine	N	reflexsuperset
N	orthogonal	N	registered
N	oslash	N	revlogicalnot
N	oslashacute	N	rho
N	otilde	N	ring
N	p	N	rtblock
N	paragraph	N	S
N	parenleft	N	sacute
N	parenright	N	scaron
N	partialdiff	N	scedilla
N	percent	N	scircumflex
N	period	N	scommaaccent
N	periodcentered	N	second
N	perpendicular	N	section
N	perthousand	N	semicolon
N	peseta	N	seven
N	phi	N	seveneighths
N	phi1	N	sfthyphen
N	pi	N	shade
N	plus	N	sigma
N	plusminus	N	sigma1
N	product	N	similar
N	propersubset	N	six
N	propersuperset	N	slash
N	proportional	N	smileface
N	psi	N	space
N	q	N	spade
N	question	N	sterling
N	questiondown	N	suchthat
N	quotedbl	N	summation
N	quotedblbase	N	sun
N	quotedblleft	N	t

М	tau	Nv
	tbar	N w
	tcaron	N wacute
	tcommaaccent	N wcircumflex
	therefore	N wdieresis
	theta	N wgrave
	thetal	N x
	thinquestion	N Xi
	thorn	
	three	N y N yacute
	threeeighths	N ycircumflex
	threequarters	N ydieresis
		•
	threesuperior tilde	N yen
	tildecomb	N ygrave N z
	tonos	N zacute
	trademark	N zcaron
	triagdn	N zdotaccent
	triaglf	N zero
		N zeta
	triagrt	S version
	two	T shared
	twosuperior	T dynamics
IV		
М	·	
	twothirds	T features
N	twothirds u	T features B analyze
N N	twothirds u ugrave	T features B analyze B checkmarks
N N N	twothirds u ugrave uhorn	T features B analyze B checkmarks B devanagari
N N N	twothirds u ugrave uhorn uhungarumlaut	T features B analyze B checkmarks B devanagari B dummies
N N N N	twothirds u ugrave uhorn uhungarumlaut umacron	T features B analyze B checkmarks B devanagari B dummies B extensions
N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures
N N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates
N N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features
N N N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic
N N N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underscore underscore	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules
N N N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscoredbl union	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode
N N N N N N N	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscoredbl union universal	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscore underscoredbl union universal uogonek	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscore underscoredbl union universal uogonek upblock	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern B visualspace
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscored underscored union universal uogonek upblock upsilon	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern B visualspace T processes
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscoredbl union universal uogonek upblock upsilon	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern B visualspace T processes T rawdata
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscoredbl union universal uogonek upblock upsilondieresis upsilondieresistonos	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern B visualspace T processes T rawdata S cache_uuid
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscoredbl union universal uogonek upblock upsilon upsilondieresis upsilontonos	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern B visualspace T processes T rawdata S cache_uuid N cache_version
	twothirds u ugrave uhorn uhungarumlaut umacron underbar underbar.small underbar.wide underscore underscoredbl union universal uogonek upblock upsilondieresis upsilondieresistonos	T features B analyze B checkmarks B devanagari B dummies B extensions B extrafeatures B extraprivates B features S indic B mathrules S mode N number B spacekern B visualspace T processes T rawdata S cache_uuid

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

T changed	N xheight	
T characters	T properties	
T descriptions	S filename	
T mathparameters	S fontname	
T parameters	S format	
N ascender	S fullname	
N charwidth	B hasmath	
N descender	N id	
N designsize	S mode	
N extraspace	B monospaced	
N italicangle	S name	
N maxsize	N private	
N minsize	S psname	
N quad	B setitalics	
N slant	S space	
N space	N subfont	
N spaceshrink	S writingmode	
N spacestretch	usedindices	table
N units	T dejavusansmonoboldttf-1	

N vheight

# lpeg (basic lua)

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

## lua (basic tex)

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

### luac (context)

inspect function
print function

#### luatex (context)

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

F collect F disable

## lxml (context)

- 442 - 4	for all to	e!	£ ± :
addindex	function	first	function
all	function	flush	function
applyfunction	function	flushlinewise	function
applyselectors	function	flushsetups	function
att	function	flushspacewise	function
attribute	function	<del>get_id</del>	function
badinclusions	function	getid	function
chainattribute	function	getindex	function
checkindex	function	id	function
collected	function	idsplitter	userdata
command	function	ifatt	function
concat	function	ifattempty	function
concatrange	function	include	function
content	function	inclusion	function
context	function	inclusions	function
convert	function	index	function
count	function	inlineverbatim	function
delete	function	installsetup	function
depth	function	last	function
direct	function	lastatt	function
directives	table	lastmatch	function
F after		lastpar	function
F before		load	function
F handle		loadbuffer	function
F load		loaddata	function
F setup		loaded	table
displayverbatim	function	main	function
doif	function	match	function
doifelse	function	name	function
doifelseempty	function	namespace	function
doifelsetext	function	nonspace	function
doifempty	function	par	function
doifnot	function	param	function
doifnotempty	function	parameter	function
doifnottext	function	path	function
doiftext	function	popmatch	function
element	function	pos	function
elements	function	position	function
entities	data table	pure	function
filter	function	pushmatch	function
filterlist	function	raw	function

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

### math (basic lua)

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

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

function

ult

#### mathematics (context)

-446-1166-	f		£
addfallbacks addvariant	function	makefont	function
	function data table	mapremap	data table function
alphabets	44.54	overloadparameters	
alternatives	data table	preset	function table
beforepassingfonttotex		presets	table
big baldwan	function	T less	
boldmap	data table	T more	
categories	table	T zero	
D functions	data tabla	privatebase	number function
charactersets	data table	registersimplematrix	function
checkaftercopyingfont classes	function data table	remapalphabets	table
	data table	renderings	table
classnames codes	data table	D mappings	
codes	function	D numbers	
define	function	D sets renderset	function
dictionaries	table	renderset	function
D data	table		function
D data D defaults		scaleparameters sets	data table
			function
D groups		setsnapping setvariant	function
F groupset		startcollecting	function
F groupsetgroup D names		stopcollecting	function
F registercharacter		styles	data table
•		stytes	function
F registergroup F registergroupset		synchame	function
D sets		syncstyle	function
D sets D variants		toengineclass	function
dimensions	function	toname	function
extensiblecode	function	tostyle	function
extensibles	data table	tweakaftercopyingfont	function
extrabase	number	tweakbeforecopyingfont	function
fallbacks	table	tweaks	table
Fapply	cabic	F accentdimensions	tabte
Finstall		F action	
fallbackstyleattr	function	F addactuarian	
gaps	data table	F addarrows	
getboth	function	F addbars	
getstyle	function	F addequals	
horizontalcode	function	F addfourier	
initializeparameters	function	F addmirrors	
z.i.z cza czzepar ame ter 3	. a.i.c.toii	1 00011111013	

F addparts F radicaldegreeanchors F addprimed F replace F addprivates F replacealphabets F addrules F replacerules F addscripts F setoptions F setovershoots F bigslots F checkspacing F showinfo F copyaccents F simplifykerns T datasets F sortvariants T accentdimensions F staircase T accent T subsets T over T acenorsuvxz T bhklt T under h T T addarrows T addscripts T dotless T checkspacing Τf T copyaccents T gjqy T horizontalfences T fixprimes T fixslashes Τi T wipecues T integrals F dimensions T mw F extendaccents g T F fallbacks F substitute F fixaccents F topanchors F fixellipses F tweaks F fixintegrals F version F fixoldschool F wipeanchors F fixprimes F wipecues F fixradicals F wipeitalics F fixslashes F wipevariants utfmathaccent function F flattenaccents utfmathclass function F inspect utfmathcommand F kernpairs function utfmathfiller function F kerns utfmathstretch function F margins variantcode function F message F moveitalics variantcount function virtualize function F movelimits virtualized data table F parameters

## md5 (extra lua)

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

#### metapost (context)

checkformat function
checktracingonline function
cm function
codes table

N addto
N ampersand

N and
N assignment
N atleast
N begingroup
N btex
N capsule
N colon
N comma
N controls
N curl
N cycle
N definedmacro
N delimiters
N endgroup

N equals
N etex
N everyjob
N exittest
N expandafter
N fiorelse
N if
N input
N interim
N internal
N iteration
N leftbrace
N leftbracket

N let
N macrodef
N macrospecial
N maketext
N message
N mode

N newinternal

N leftdelimiter

N of N ofbinary N onlyset N parametertype N pathjoin N plusorminus N primarybinary N primarydef N property N protection N relax N repeatloop N rightbrace N rightbracket N rightdelimiter N runscript N save N scantokens N secondarybinary N secondarydef N semicolon N setbounds N shipout N show N slash N step N stop N str N string N tag N tension N tertiarybinary

N nullarv

N numeric

N tertiarydef

N thingstoadd

N to N typename

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

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

typesvgpage	function	variables
unload	function	
untagvariable	function	

table

#### mime (extra lua)

b64 function
decode function
decodet table
 F base64
 F quoted-printable

dot function encode function table

F base64

F quoted-printable

eol function
normalize function
qp function

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

F default

F quoted-printable

F text

wrp function

## mp (context)

autoinject	function	fprint	function
aux	function	get	table
F boolean		F hashentry	
F color		graphformat	function
F direct		inject	function
F draw		F boolean	
F fill		F cmykcolor	
F flush		F color	
F fprint		F integer	
Finteger		F number	
F number		F numeric	
F numeric		F pair	
F pair		F path	
F pairpoints		F pt	
F path		F quadruplet	
F pathpoints		F string	
F points		F transform	
F print		F triplet	
F quadruple		F whatever	
F quadruplepoints		F whd	
F quoted		F xy	
F size		integer	function
F string		lmt_color_functions	table
F transform		F shade	
F triplet		F step	
F tripletpoints		lmt_contours_bitmap_get	function
F vprint		lmt_contours_bitmap_set	function
boolean	function	lmt_contours_cleanup	function
cleaned	function	lmt_contours_color	function
color	function	lmt_contours_edge_get_band	function
dataset	function	lmt_contours_edge_get_cell	function
datasets	function	<b>lmt_contours_edge_paths</b>	function
F load		lmt_contours_edge_set	function
direct	function	<pre>lmt_contours_edge_set_by_band</pre>	function
draw	function	<pre>lmt_contours_edge_set_by_cell</pre>	function
expandtex	function	lmt_contours_format	function
fill	function	<pre>lmt_contours_function</pre>	function
flatten	function	lmt_contours_maxmean	function
flush	function	lmt_contours_maxz	function
format	function	lmt_contours_minmean	function
formatted	function	lmt_contours_minz	function

lmt_contours_nofvalues	function	<pre>mf_formatted_text</pre>	function
lmt_contours_nx	function	mf_get_outline_text	function
lmt_contours_ny	function	mf_graphic_text	function
lmt_contours_range	function	mf_inject_blob	function
lmt_contours_shade_paths	function	mf_map_move	function
<pre>lmt_contours_shade_set</pre>	function	mf_map_text	function
lmt_contours_shape_paths	function	mf_named_color	function
<pre>lmt_contours_start</pre>	function	mf_outline_text	function
lmt_contours_stop	function	mf_save_data	function
<pre>lmt_contours_value</pre>	function	mf_script_index	function
<pre>lmt_contours_xrange</pre>	function	mf_start_saving_data	function
<pre>lmt_contours_yrange</pre>	function	mf_stop_saving_data	function
<pre>lmt_function_x</pre>	function	mode	function
lmt_glyphshape_accent	function	n	function
<pre>lmt_glyphshape_baseline</pre>	function	number	function
<pre>lmt_glyphshape_boundingbox</pre>	function	numeric	function
lmt_glyphshape_depth	function	pair	function
lmt_glyphshape_height	function	pairpoints	function
lmt_glyphshape_italic	function	path	function
lmt_glyphshape_n	function	pathpoints	function
lmt_glyphshape_path	function	points	function
lmt_glyphshape_start	function	print	function
lmt_glyphshape_stop	function	F boolean	
lmt_glyphshape_usedbox	function	F color	
<pre>lmt_glyphshape_usedline</pre>	function	F direct	
lmt_glyphshape_width	function	F draw	
lmt_mesh_set	function	F fill	
<pre>lmt_mesh_update</pre>	function	F flush	
<pre>lmt_poisson_generate</pre>	function	F fprint	
lmt_surface_do	function	F integer	
lmt_svg_include	function	F number	
mf_blob_add	function	F numeric	
mf_blob_dimensions	function	F pair	
mf_blob_index	function	F pairpoints	
mf_blob_new	function	F path	
mf_blob_raw_content	function	F pathpoints	
mf_blob_raw_dimensions	function	F points	
mf_blob_raw_reset	function	F print	
mf_blob_raw_toutf	function	F quadruple	
mf_blob_raw_wipe	function	F quadruplepoints	
mf_blob_size	function	F quoted	
mf_blob_width	function	F size	
mf_external_figure	function	F string	
mf_finish_saving_data	function	F transform	

F triplet		F property	
F tripletpoints		F string	
F vprint		F symbol	
processingmode	function	F token	
quadruple	function	T tokenscanners	
quadruplepoints	function	F transform	
quoted	function	T typescanners	
report	function	F whatever	
scan	table	set	table
F boolean		size	function
F cmykcolor		skip	table
F color		F token	
F expression		solve	function
F integer		string	function
F next		systemmode	function
F number		transform	function
F numeric		triplet	function
F pair		tripletpoints	function
F path		vprint	function

F pen

#### mplib (extra tex)

injectpath

function

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

version

function

# noads (context)

handlers	table	F showtree	
F alternates		F snap	
F autofences		F spacing	
F classes		F suspicious	
F collapse		F tags	
F dictionaries		F unscript	
F export		F unstack	
F families		F variants	
F fencing		process	function
F fixscripts		processneste	<b>d</b> function
F kernpairs		processors	table
F makeup		T dictionari	es
F normalize		F mlisttohli	st
F numbers		T suspicious	
F relocate		T unscript	
F render		T unstack	
F resize		processouter	function

#### node (basic tex)

F getboth

checkdiscretionaries function F getbottom checkdiscretionary function F getbox copy function F getcachestate copylist function F getchar function count F getchardict currentattributes function F getcharspec dimensions function F getchoice direct table F getclass F getdata F addmargins F addxoffset F getdegree F addxvmargins F aetdelimiter F addyoffset F getdenominator F appendaftertail F getdepth F checkdiscretionaries F getdirection F checkdiscretionary F aetdisc F collapsing F getdiscpart F getexpansion F copy F getfam F copylist F getfield F copyonly F count F getfont F currentattributes F getgeometry F dimensions F getglue F effectivealue F getglyphdata F endofmath F getglyphdimensions F exchange F getheight F fields F getid F findattribute F getindex F findattributerange F getinputfields F findnode F aetkern F firstglyph F getkerndimension F flattendiscretionaries F getlanguage F flattenleaders F getleader F flushlist F getleftdelimiter F flushnode F getlist F free F getlistdimensions F freeze F getnext F getanchors F getnodes F getattribute F getnormalizedline F getattributelist F getnucleus F getattributes F getnumerator

F getoffsets

F insertafter F getoptions F getorientation F insertbefore F getparstate F isboth F ischar F getpenalty F getpost F isdirect F getpre F isqlyph F getprev F isnext F isnextchar F getprime F getpropertiestable F isnextqlyph F isnode F getproperty F getreplace F isprev F getrightdelimiter F isprevchar F getruledimensions F isprevglyph F getscale F isspeciallist F getscales F isvalid F getscript F iszeroglue F getshift F kerning F lastnode F getspeciallist F length F getstate F getsub F ligaturing F getsubpre F makeextensible F getsubtype F migrate F mlisttohlist F getsup F naturalhsize F getsuppre F gettop F naturalwidth F gettotal F new F getusedattributes F newmathglyph F getwhd F newtextglyph F patchattributes F getwidth F getwordrange F prependbeforehead F getxscale F protectglyph F getxyscales F protectglyphs F getyscale F protectglyphsnone F gluetostring F protrusionskippable F hasattribute F rangedimensions F hasdimensions F remove F hasfield F removefromlist F hasgeometry F repack F hasglyph F reverse F hasglyphoption F serialized F hpack F setanchors F hyphenating F setattribute Fid F setattributelist

F setattributes

F ignoremathskip

F setboth F setrightdelimiter F setbottom F setscales F setbox F setscript F setshift F setchar F setchardict F setspeciallist F setchoice F setsplit F setclass F setstate F setdata F setsub F setdegree F setsubpre F setdelimiter F setsubtype F setdenominator F setsup F setdepth F setsuppre F setdirection F settop F setdisc F settotal F setdiscpart F setwhd F setexpansion F setwidth F setfam F show F setfield F slide F setfont F softenhyphens F setgeometry F startofpar F setglue F subtypes F setglyphdata F tail F setheight F todirect F setindex F tonode F setinputfields F tostrina F setkern F tovaliddirect F traverse F setlanguage F setleader F traversechar F setleftdelimiter F traversecontent F setlink F traverseglyph F setlist F traverseid F setnext F traverseleader F setnucleus F traverselist F setnumerator F type F setoffsets F types F setoptions F unprotectglyph F setorientation F unprotectglyphs F setpenalty F unsetattribute F unsetattributes F setpost F setpre F usedlist F setprev F usesfont F values F setprime F verticalbreak F setproperty F setreplace F vpack

F write		length	function
F xscaled		ligaturing	function
F yscaled		makeextensible	function
effectiveglue	function	mlisttohlist	function
endofmath	function	new	function
family_font	function	protectglyph	function
fields	function	protectglyphs	function
findattribute	function	protrusionskippable	function
firstglyph	function	rangedimensions	function
flattendiscretionaries	function	remove	function
flushlist	function	serialized	function
flushnode	function	setattribute	function
free	function	setfield	function
getattribute	function	setglue	function
getcachestate	function	setproperty	function
getfield	function	show	function
getglue	function	slide	function
getpropertiestable	function	subtypes	function
getproperty	function	tail	function
gluetostring	function	todirect	function
hasattribute	function	tonode	function
hasfield	function	tostring	function
hasglyph	function	traverse	function
hpack	function	traverseid	function
hyphenating	function	type	function
id	function	types	function
insertafter	function	unprotectglyph	function
insertbefore	function	unprotectglyphs	function
instock	function	unsetattribute	function
inuse	function	usedlist	function
isnode	function	usesfont	function
iszeroglue	function	values	function
kerning	function	vpack	function
lastnode	function	write	function

#### nodes (context)

accentcodes	data table	dircodes	data table
adaptive	table	directioncodes	data table
F handlehorizontal		directionvalues	data table
F handlevertical		dirvalues	data table
F set		disccodes	data table
aligned	function	discretionarycodes	data table
append	function	fencecodes	data table
apply	function	fields	function
applyvisuals	function	fieldtypes	table
astable	function	fillcodes	data table
attributecodes	data table	fillvalues	data table
basepoints	function	firstcharacter	function
boundarycodes	data table	firstcharinbox	function
boxes	table	firstdirinbox	function
F count		flush	function
F dimensions		flushlist	function
F direct		flushnode	function
F dispose		fullhpack	function
F found		getattr	function
F prune		getattribute	function
F reset		getboth	function
F restore		getbox	function
F save		getchar	function
F savenode		getfield	function
builders	table	getfont	function
F buildpage_filter		getid	function
F vbox_filter		getleader	function
F vpack_filter		getlist	function
choicecodes	data table	getnext	function
concat	function	getprev	function
copy	function	getproperty	function
copy_node	function	getsubtype	function
copylist	function	gluecodes	data table
countall	function	glyphcodes	data table
currentattributes	function	handlers	table
delete	function	F accessibility	
destinations	table	F adjusters	
N attribute		F aligncharacter	
T done		F backgrounds	
F handler		F backgroundspage	
T stack		F backgroundsvbox	

F characters		F setmove	
F checkglyphs		F setposition	
F checkparcounter		F setspacekerns	
F cleanupbox		insertafter	function
F cleanuppage		insertbefore	function
F export		insertlistafter	function
F finalizebox		installattributehandler	function
F finalizelist		is_display_math	function
F fixmathalign		isdirect	function
F flatten		isnode	function
F flattenline		isnut	function
F mathmatrixornaments		kerncodes	data table
F mathmatrixrules		leftmarginwidth	function
F migrate		linefillers	table
F protectglyphs		F filler	
F recolor		F handler	
F show		F set	
F showhyphenation		lines	table
F showpreamble		T boxed	
F stripping		F addlinenumbers	
F textbackgrounds		F register	
F unprotectglyphs		F setup	
F visualizehyphenation		D data	
F wipe		F finalize	
hasattribute	function	F number	
hasfield	function	link	function
hpack	function	linked	function
idsandsubtypes	function	list	function
idstostring	function	listcodes	data table
injections	table	listtoutf	function
F copy		literalvalues	data table
F getligaindex		locate	function
F getthreshold		markcodes	data table
F handler		markers	table
F installgetspaceboth		F get	
F installnewkern		F set	
F isspace		mathcodes	data table
F keepcounts		mathvalues	data table
F reset		maxboxwidth	function
F resetcounts		migrations	table
F setcursive		F setinserts	
F setkern		F setmarks	
F setligaindex		new	function
F setmark		noadcodes	data table

noadoptions	table	F dimensions
N axis		F dirdimensions
N exact		F effectiveglue
N left		F endofmath
N middle		F exchange
N no_axis		F findattribute
N right		F findnode
N set		F firstcharacter
N unused_1		F firstcharinbox
N unused_2		F firstglyph
nodecodes	data table	F flattendiscretionaries
nopts	function	F flattenleaders
nuts	table	F flush
F addmargins		F flushlist
F addxoffset		F flushnode
F addxymargins		F free
F addyoffset		F freeze
F append		F fullhpack
F appendaftertail		F getanchors
F apply		F getattr
F applyvisuals		F getattribute
F checkdiscretionaries		F getattributelist
F checkslide		F getattributes
F collapsing		F getattrlist
T colors		F getattrs
F set		F getboth
T components		F getbottom
F copynocomponents		F getbox
F copyonlyglyphs		F getboxglue
F count		F getchar
F flush		F getchardict
F get		F getcharspec
F set		F getchoice
F concat		F getclass
F copy		F getcomponents
F copy_properties		F getdata
F copylist		F getdegree
F copynode		F getdelimiter
F copyonly		F getdenominator
F copyvisual		F getdepth
F count		F getdirection
F countall		F getdisc
F currentattributes		F getdiscpart
F delete		F getdiscretionary

F getexpansion F getspeciallist F getfam F getstate F getfield F getsub F getfont F getsubpre F getgeometry F getsubtype F getglue F getsup F getglyphdata F getsuppre F getglyphdimensions F getsurround F getheight F gettop F getid F gettotal F getindex F getusedattributes F getinputfields F getvalue F getkern F getwhd F getkerndimension F getwidth F getlang F getwordrange F getlanguage F getxscale F getleader F getxyscales F getleftdelimiter F getyscale F getlist F gluetostring F hasattribute F getlistdimensions F aetmiddle F hasdimensions F getmiddledelimiter F hasfield F hasgeometry F getnext F getnormalizedline F hasglyph F getnucleus F hasglyphoption F getnumerator F hpack F hyphenating F getoffsets F getoptions F ignoremathskip F getorientation F insertafter F insertbefore F getparstate F insertlistafter F getpenalty F getpost F is display math F getpre F ishoth F ischar F getprev F isdirect F getprime F getprop F isdone F getreplace F isglyph F getrightdelimiter F isnext F getruledata F isnextchar F getruledimensions F isnextglyph F getscale F isnode F getscales F isnut

F getscript F getshift F isprev

F isprevchar

F isprevglyph F leader F iszeroglue F lefthangskip F kerning F leftmarginkern F lastnode F leftskip F length F lineskip F literal F ligaturing F link F mathchar F linked F mathtextchar F locate F negatedglue F migrate F noad F migratebox F originliteral F mlisttohlist F outlinerule F naturalhsize F pageliteral F naturalwidth F penalty F nestedtracedslide F radical F new F rawliteral F newmathglyph F register F restore F openup F patchattributes F righthangskip F rightmarginkern T pool F accent F rightskip F baselineskip F rule F boundary F save F boxrule F savepos F choice F setmatrix F cleanup F setstate F delim F shrink F delimiter F startrotation F direction F stock F directliteral F stretch F disc F strutrule F emptyrule F subbox F fence F submlist F fontkern F temp F fraction F usage F glue F userdefined T userids F gluespec F usernode F glyph F hlist F userrule F imagerule F virtualrule F indentskip F vlist F italickern F wordboundary F kern F prepend

F prependbeforehead

F latelua

F processranges F setdenominator F processwords F setdepth F protectglyph F setdirection F protectglyphs F setdisc F protectglyphsnone F setdiscpart F protrusionskippable F setdiscretionary F rangedimensions F setexpansion F setfam F rawprop F setfield F reference F setfont F rehpack F remove F setgeometry F removefromlist F setglue F repack F setqlyphdata F repackhlist F setheight F replace F setinputfields F reverse F setkern T rules F setlang T ruleactions F setlanguage F box F setleader F setleftdelimiter F draw F fill F setlink F mp F setlist F stroke F setmiddledelimiter F userrule F setnext F serialized F setnucleus F setanchors F setnumerator F setattr F setoffsets F setattribute F setoptions F setattributelist F setorientation F setattributes F setparproperty F setattrlist F setpenalty F setattrs F setpost F setboth F setpre F setbottom F setprev F setbox F setprime F setboxglue F setprop F setchar F setreplace F setchardict F setrightdelimiter F setchoice F setruledata F setclass F setscale F setcomponents F setscales F setdata F setscript F setdegree F setshift

F setspeciallist

F setdelimiter

F setsplit F content F setstate F dir F setsub F disc F setsubpre F glue F setsubtype F glyph F hlist F setsup F setsuppre F leader F setsurround F list F settop F mark F setvalue F next F setvisual F node F setvisuals F penalty F setwhd F rule F setwidth F unset F show F vlist F slide F whatsit F softenhyphens T treversers F char F somepenalty F content F somespace F splitbox F glyph F startofpar F leader F striprange F list F tail F node F takeattr T typesetters F takebox F tohbox F takelist F tohpack F tonodes F theprop F tonode F tovbox F tonodes F tovpack F tonut F unprotectglyph F tosequence F unprotectglyphs F tostring F unsetattribute F tracedslide F unsetattributes F untracedslide F traverse F usedlist F traversechar F traversecontent F usesfont F verticalbreak F traverseglyph F traverseid F vianodes F traverseleader F vianuts F traverselist F vpack T traversers F write F alignrecord F xscaled F boundary F yscaled packlist function F char

parcodes	data table	F trace_glyph_run_a	
penaltycodes	data table	F trace glyph run b	
plugindata	table	properties	table
F finalizer		T data	
F initializer		pts	function
S name		radicalcodes	data table
T namespace		references	table
N attribute		N attribute	
D data		T done	
F enable		F handler	
F handler		T stack	
F register		rehpack	function
D registered		remove	function
D values		repackhlist	function
F processor		replace	function
points	function	report	function
pool	table	rightmarginwidth	function
F baselineskip		rulecodes	data table
F cleanup		rules	table
F directliteral		F handler	
F glyph		F process	
F hlist		F set	
F latelua		F userrule	
F leader		serialize	function
F lineskip		serializebox	function
F literal		serialized	function
F originliteral		setattr	function
F register		setattribute	function
F restore		setboth	function
F save		setbox	function
F savepos		setboxtonaturalwd	function
F setmatrix		setchar	function
F stock		setfield	function
F usage		setfont	function
F usernode		setleader	function
F vlist		setlink	function
prepend	function	setlist	function
print	function	setnext	function
processors	table	setprev	function
F alignment_filter		setproperty	function
F append_line_filter		shifts	table
F glyph_run		F handler	
F post_linebreak_filter		F set	
F pre_linebreak_filter		showboxes	function

showlist function function tonode showsimplelist function tonodes function skipcodes data table tonut function table snapshots topicas function topoints function F getsamples F resetsamples toscaledpoints function tosequence function F takesample function somepenalty tostrina function somespace function totable function **specialskipcodes** table totree function splitbox function toutf function startofpar function table tracers stripdiscretionaries function T colors stripping table F reset T glyphs F set F set F setlist data table subtypes F directions tail function F fontchar takeattr function T frequencies takebox function F register table tasks 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 setproperties F freezegroup F new F start F prependaction T steppers F removeaction F check F replaceaction F codes F features F restart F setaction F font F showactions F glyphs F table F message tobasepoints function F messages tocentimeters function F nofsteps tociceros function F register todidots function F reset todimen function F start toinches function F stop tomillimeters function F stop

T transparencies N glue F reset N glyph F set N hbox F setlist N insert traverse function N italic traverseid function N kern table typesetters N line F hbox N marginkern N mark F hpack F tohbox N math N mathglue F tohpack N mathkern F tonodes F tovbox N origin F tovpack N par F vpack N penalty unsetattribute function N simple usedlist function N simplehbox vianodes function N simplevbox vianuts function N simplevtop visualizebox function N space visualizers table N strut F attribute N user T attributes N vbox F box N vtop F enable N whatsit F handler F register F markfonts F setfont F setlayer T modes N boundary F setruledglyph F setvisual N depth N dir

N discretionary

N expansion N fontkern

# number (context)

	function
basepoints	function
bytetodecimal	function
compactfloat	function
decimaltobyte	function
dimenfactors	data table
formatted	function
formattedfloat	function
idiv	function
maxdimen	number
nopts	function
nubasepoints	function
nupoints	function
percent	function
points	function
pts	function
signed	function
sparseexponent	function
splitdimen	function
to16dot16	function

tobasepoints	function
tobitstring	function
tocentimeters	function
tociceros	function
tocontext	function
todidots	function
todimen	function
toediths	function
toevenhex	function
toinches	function
tomillimeters	function
tonumberf	function
tonumberg	function
topicas	function
topoints	function
toscaled	function
toscaledpoints	function
totoves	function
valid	function

# objects (context)

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

# optional (context)

curl	table	F load	
F escape		loaded	table
F fetch		lz4	table
F getversion		F compress	
F initialize		F decompresssize	
F unescape		F framecompress	
foreign	table	F framedecompres	s
F abivalues		F initialize	
F getbuffer		lzma	table
F initialize		F compress	
F load		F decompress	
F newbuffer		F initialize	
F totable		lzo	table
F types		F compress	
ghostscript	table	F decompresssize	
F execute		F initialize	
F initialize		mujs	table
graphicsmagick	table	F dofile	
F execute		F execute	
F initialize		F initialize	
hb	table	F reset	
F getshapers		F setclosefile	
F getversion		F setconsole	
F initialize		F setfindfile	
F loadfont		F setopenfile	
F shapestring		F setreadfile	
imagemagick	table	F setseekfile	
F execute		mysql	table
F initialize		F close	
kpse	table	F execute	
F expand_braces		F getmessage	
F expand_path		F initialize	
F expand_var		F open	
F find_file		postgress	table
F find_files		F close	
F get_file_types		F execute	
F initialize		F getmessage	
F readable_file		F initialize	
F set_program_na	me	F open	
F var_value		sqlite	table
library	table	F close	

F execute F initialize
F getmessage zstd table
F initialize F compress
F open F decompress
zint table F initialize

F execute

#### os (basic lua)

localtime

name
newline

now

nofdays

pipeto

platform

function

string

string

function

function

function

string

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

# 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)

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

#### paintreaders (context)

1	function	17	function
2	function	18	function
3	function	19	function
4	function	20	function
5	function	21	function
6	function	22	function
7	function	23	function
8	function	24	function
9	function	25	function
10	function	26	function
11	function	27	function
12	function	28	function
13	function	29	function
14	function	30	function
15	function	31	function
16	function	32	function

#### pdf (basic tex)

immediateobj function

# pdfe (extra tex)

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

# physics (context)

#### units table

F registershortcut

F registerunit

D tables

# pngdecode (extra tex)

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

# publications (context)

addtexentry	function	concatstate	function
analyze	function	converttoxml	function
anywhere	function	currentspecification	table
authorcache	data table	S author	cubic
authorcollapsers	data table	T categories	
authorhashers	table	T article	
F invertedshort		S category	
F normal		T extra	
F normalinverted		T fields	
F normalshort		S author	
F sequential		S editor	
F sequentialshort		S journal	
F short		S keywords	
authormap	data table	S note	
authortoregister	function	S number	
btx	table	S pages	
casters	table	S title	
F author		S volume	
F keyword		S year	
F pagenumber		T optional	
F range		T required	
checkeddataset	function	T sets	
citevariants	table	T author	
F author		T virtual	
F authornum		T book	
F authoryear		S category	
F authoryears		T extra	
F category		T fields	
F default		S address	
F entry		S author	
F index		S edition	
F keywords		S editor	
F num		S keywords	
F page		S note	
F short		S number	
F tag		S publisher	
F textnum		S subtitle	
F year	d-4- 4-61-	S title	
collected	data table	S volume	
components	table	S year	
F author		T optional	

T required	S page	
T sets	S pages	
T author	S volume	
T editionset	S version	
T virtual	D virtual	
T demo-a	T virtualfields	
S category	B authornum	
T extra	B authoryear	
T fields	B authoryears	
S author	B num	
S institution	B suffix	
S organization	datasets	table
S subtitle	detailed	table
S title	endnotes_to_btx	function
S year	enhancer	table
T optional	S arguments	
T required	T askip	
T sets	B dirty	
T author	T gskip	
T virtual	T kind	
T demo-b	T list	
S category	T system	
T extra	T order	
T fields	N steps	
S author	enhancers	table
S institution	F details	
S organization	F order	
S subtitle	F suffixes	
S title	finder	function
S year	firstofrange	function
T optional	found	function
T required	get	function
T sets	getcasted	function
T authors	getdetail	function
T virtual	getdirect	function
S comment	getfaster	function
S copyright	getfield	function
T fields	getfuzzy	function
S name	getindex	function
T types	inspectors	data table
S author	journals	table
S editor	F abbreviated	
S keywords	F add	
S number	F expanded	
	•	

S

S T

F load		F json	
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 authortitle	
F reference		T sequence	
F short		T authoryear	
F used		T sequence	
F uservariable		T dataset	
listvariants	table	T sequence	
F default		T key	
F index		T sequence	
F num		specifications	table
F short		T default	
F tag		S author	
load	function	S comment	
loadbibdata	function	S copyright	
loaddefinitionfile	function	S name	
loaders	table	S version	
F bbl		D virtual	
F bib		splitauthor	function
F buffer		splitoneauthor	function
F endnote		statistics	table

N nofbytes F showdatasetfields N nofdatasets F showentry N nofdefinitions F showfields N nofshortcuts F showhashedauthors table tables F showtables D implicits F showvariants table typesetters D origins D privates F author D sets F string function D specials usedataset usedentries function D types writers table D virtuals function F author F keyword

F pagenumber

F range

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

function function l nad renew loadbinfile function renewcache function loaders data table repath function loadlualib function reset function function loadtexfile resetextrapaths function loadtime function resetresolve function locateformat function resolve function data table data table locators savers luacnffallback string scandata function scanfiles luacnfname string function luacnfspec schemes table strina 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 function F processmkvi setenv showpath function F version maxreadlevel simplescanfiles number function methodhandler function **splitconfigurationpath** function openbinfile function splitexpansions function openers data table splitmethod function openfile function splitpath function opentexfile function stackpath function ownpath strina starttiming function stoptiming function popextrapath function popinputname function suffixes data table function data table poppath suffixmap data table suffixofformat prefixes function prependhash function texdatablob function pushextrapath function function toppath data table pushinputname function tracers pushpath function unexpandedpath function registerextrapath function unexpandedpathlist function registerfile function unresolve function registerfilehash function updaterelations function registerintrees function updatescript function registermethod function function uselibrary

usertypes

usezipfile

data table

function

function

data table

registerzipfile

relations

validatedpathfunctionvariableofformatorsuffixfunctionvariablefunctionwildcardpatternfunctionvariableofformatfunction

#### 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_hang	ul_penalty
N inter_char_quar	ter_shrink_factor
N inter_char_quar	ter_stretch_factor
N inter_char_shri	nk_factor
N inter_char_stre	tch_factor
N inter_word_stre	tch_factor
getdata	function
getinjector	function
getsplitter	function
getstatus	function

```
handlers
                  data table
helpers
                  data table
injectors
                  data table
inserters
                  table
   F nobreakspace_after
   F nobreakspace before
   F space after
   F space before
   F zerowidthspace after
   F zerowidthspace before
installdataset
                  function
installmethod
                  function
numbertodataset data table
numbertohandler data table
reset
                  function
set
                  function
                  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
readbytes	function
readbytetable	function
readcardinal1	function
readcardinal1le	function
readcardinal2	function
readcardinal2le	function
readcardinal3	function
readcardinal3le	function
readcardinal4	function
readcardinal4le	function
readcardinaltable	function
readcline	function
readcstring	function
readfixed2	function
readfixed4	function
readinteger1	function

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

#### socket (extra lua)

S content-location

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

S reporting-mta

S resent-bcc		protect	function
S resent-cc		report	function
S resent-date		select	function
S resent-from		sink	function
S resent-messag	e-id	sinkt	table
S resent-reply-	to	F close-whe	n-done
S resent-sender		F default	
S resent-to		F http-chunl	ked
S retry-after		F keep-open	
S return-path		skip	function
S sender		sleep	function
S server		source	function
S smtp-remote-r	recipient	sourcet	table
S status		F by-length	
S subject		F default	
S te		F http-chun	ked
S to		F until-clos	sed
S trailer		tcp	function
S transfer-enco	ding	tcp4	function
S upgrade		tcp6	function
S user-agent		tp	table
S vary		N TIMEOUT	
S via		F connect	
S warning		try	function
S will-retry-un	til	udp	function
S www-authentic	ate	udp4	function
S x-mailer		udp6	function
F lower		url	table
F normalize		F absolute	
http	table	F build	
N TIMEOUT		F build_path	า
S USERAGENT		F escape	
F genericform		F parse	
F open		F parse_patl	า
F request		F unescape	

newtry function

# sorters (context)

basicsorter	function	D	
pasicsol rei	TullCtIon	B pm	
comparers	table	B uc	
F basic		B zc	
constants	table	B zm	
S defaultdigits		definitions	data table
S defaultlanguage		firstofsplit	function
S defaultmethod		packch	function
N digitsmaximum		packuc	function
N digitsoffset		replacementlist	function
N ignoredoffset		setlanguage	function
N replacementoffs	et	sort	function
T validmethods		splitters	table
B ch		F utf	
B mc		strip	function
B mm		tracers	data table
В рс		update	function

# sparse (context)

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

#### statistics (context)

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

#### status (basic tex)

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

#### storage (context)

allocate	function
data	table
mark	function
marked	function
max	number
min	number
nofmodules	number

noftablesnumberregisterfunctionshareddata tablestoredfunctionsdata tablestripbooleantofmodulesnumbertoftablesnumber

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

utfcharactertable	function	utfvaluetable	function
utflength	function	valid	function
utfpadd	function	voigt	function
utfpadding	function	voigt_hwhm	function
utfvalue	function	wordsplitter	function
utfvalues	function		

#### structures (context)

atlocation	function	F last	
blocks	table	F next	
D collected		F prev	
F define		F previous	
F empty		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	
Fuservariable		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	
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 title		F prefixedpage
F touserdata		F process
inserts	table	D pushed
D data		F pushnesting
F define		F rawnumber
F getdata		F realpage
F getlocation		F reordered
F getname		T result
F getnumber		F savedlistnumber
F setlocation		F savedlistprefixednumber
F setup		F savedlisttitle
D stored		D sectionblocks
itemgroups	table	F sectionnumber
D collected		F size
D tobesaved		F title
lists	table	D tobesaved
F addto		F use
F analyze		F userdata
B autoreorder		F uservalue
D cached		marks table
D collected		F number
F discard		F title
F discard F enhance		F title rotes table
F discard F enhance T enhancers		<b>notes</b> table
F enhance		<pre>notes table     F check_spacing</pre>
F enhance T enhancers		<b>notes</b> table
F enhance T enhancers F external		<pre>notes table   F check_spacing   F checkpagechange   F define</pre>
F enhance T enhancers F external F filter		<pre>notes table   F check_spacing   F checkpagechange</pre>
F enhance T enhancers F external F filter F formulanumber		<pre>notes table   F check_spacing   F checkpagechange   F define   F doifonsamepageasprevious   F get</pre>
F enhance T enhancers F external F filter F formulanumber F getresult		<pre>notes table   F check_spacing   F checkpagechange   F define   F doifonsamepageasprevious</pre>
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex		<pre>notes table   F check_spacing   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage</pre>
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata		<pre>notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal</pre>
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata		notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata		notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate		notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached		notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds		<pre>notes table   F check_spacing   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage   F getinternal   F getn   F getstate   F hascontent   F internal   F internal </pre>
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds F label		r check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal F internal F internal
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds F label F location		r check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal F internal F internal F listindex D numbers
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds F label F location D names		r check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal F internal F listindex D numbers F ordered
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds F label F location D names F number		r check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal F internal F internal F sistindex D numbers F ordered F postpone
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds F label F location D names F number D ordered		r check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal F internal F internal F setnernal F internal F internal F istindex D numbers F ordered F postpone F resetpostponed
F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached D kinds F label F location D names F number D ordered F page		r check_spacing F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent F internal F internal F internal F istindex D numbers F ordered F postpone F resetpostponed F restore

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 in_body		F getinnermethod
F is_odd		F getinternalcachedlistreference
F mark		F getinternallistreference
F marked		F getinternalreference
F markedlist		F getoutermethod
N nofpages		D handlers
F number		F identify
F on_right		F import
F save		F inject
D tobesaved		F injectcurrentset
F toranges		S innermethod
references	table	F integrate
F analyze		D internals
F checked		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 export		F registerinitializer
T files		F registerpage
T data		F reset
F define		D runners
F found		F set
F get		F setandgetattribute
F filter		F setcomponent
F filterdefault		F setinternalreference
D filters		F setlinkmethod

F setnextinternal		F	flush	
F setnextorder		F	get	
F setreferencerealpa	age	F :	integrate	
D specials		F	prepare	
F splitcomponent		F	process	
F splitprefix		F :	setmethod	
F splitreference		F :	sort	
F synchronizepage		F :	store	
T testrunners		D .	tobesaved	
F inner		F ·	tweak	
F special		F	unique	
F special operatio	n	F	use	
F special operatio	on with arguments	F	userdata	
T testspecials		secti	ions	table
F deltapage		F	autodepth	
Fi		F	cct	
F internal		D	collected	
F page		F	current	
F realpage		F	currentblock	
F section		F	currentid	
F userpage		F	currentlevel	
D tobereferred		F	currentsectionindex	
D tobesaved		F	depthnumber	
D tracedpages		F ·	finddata	
T urls		F ·	findnumber	
T data		F ·	fullnumber	
F define		F	getcurrentlevel	
F found		F	getlevel	
F get		F	getnumber	
F untex			internalreference	
D usedinternals			levelmap	
D usedviews			levels	
F valid			matchingtilldepth	
registers	table		numberatdepth	
F analyze			numbers	
D collected			popblock	
F compare			prefixedconverted	
F define			pushblock 	
F enhance			register	
F extend			registered	
F filter			reportstructure	
F filtercollected			save	
F finalize			sectionblockdata 	
F findinternal		T	Γbodypart	

S bookmark		F resetall	
F set		F resetlist	
F setblock		F resetshown	
F setchecker		F resetused	
F setentry		F sort	
F setinitialblock		F synonym	
F setlevel		D tobesaved	
F setnumber		tags	table
F showstructure		T backend	
F structuredata		T checks	
F title		F marginanchor	
D tobesaved		F margintext	
F typesetnumber		F math	
F userdata		F mrow	
B verbose		F mtable	
sets	table	T destinationhash	
F define		T extras	
F get		F adddestination	
F getall		F addimplicit	
D setlist		F addinternal	
specials	table	F addreference	
D collected		F combination	
F retrieve		F delimitedsymbol	
F store		F description	
D tobesaved		F descriptionsymbol	
synonyms	table	F document	
F analyzed		F float	
D collected		F formulacontent	
F compare		F image	
F define		F item	
F enhance		F itemgroup	
F filter		F link	
F finalize		F listitem	
F flush		F mi	
F isshown		F msub	
F isused		F msup	
F meaning		F paragraph	
F pages		F publication	
F prepare		F reference	
F process		F registerlocation	
F register		F registerpages	
F registershown		F registerseparator	
F registerused		F section	
F reset		F sorting	

F subsentencesymbol D properties F synonym F registerextradata F tablecell F registermetadata F tabulate F restart F tabulatecell F setaspect F setattributehash T finalizers F descriptions F setcombination T fixes F setconstruct F linenumher F setfigure T listdata F setfloat T referencehash F setformulacontent F setattribute F sethighlight T usedimages F setitem T image F setitemaroup T usedstyles F setlist T construct F setnotation F setnotationsymbol T highlight F current F setparagraph F elementtag F setproperty F enabled F setpublication F exportbox F setregister F finishexport F setsorting F getextradata F setsynonym F getid F settablecell F getmetadata F settabulatecell F gettablecell F settagdelimitedsymbol F gettabulatecell F settagsubsentencesymbol F handler F setupexport F initializeexport F setuserproperties D labels D specifications F last F start F lastinchain F stop F localexport F strip

F locatedtag

U splitter

T patterns

D taglist

T usewithcare

# table (basic lua)

allkeys	function	orderedhash	function
append	function	pack	function
are_equal	function	prepend	function
collapsed	function	print	function
collapsedhash	function	remove	function
combine	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

# tex (basic tex)

attribute	table	forceinputstateline	function
automigrationcodes	data table	fprint	function
badness	function	frozenparcodes	data table
boundaries	table	get	function
D names	cubic	getalignmentcontextvalues	function
D numbers		getappendlinecontextvalues	function
F system		getattribute	function
box	table	getautomigrationvalues	function
boxresources	table	getbox	function
F getbox		getboxdir	function
F getdimensions		getboxresourcebox	function
F save		getboxresourcedimensions	function
F use		getcatcode	function
catcode	table	getcharactertagvalues	function
chardef	function	getcount	function
classoptioncodes	data table	getdelcode	function
codes	table	getdelcodes	function
conditionals	data table	getdimen	function
constants	data table	getdimensionvalue	function
count	table	getdiscoptionvalues	function
cprint	function	getdiscstatevalues	function
ctdcatcodes	number	geterrorvalues	function
ctxcatcodes	number	getflagvalues	function
definefont	function	getfontoffamily	function
delcode	table	getfrozenparvalues	function
dimen	table	getglue	function
dimensiondef	function	getglyphdata	function
directives	data table	getglyphoptionvalues	function
discoptioncodes	data table	getglyphscales	function
dontcomplain	function	getglyphscript	function
enableprimitives	function	getglyphstate	function
error	function	getgroupvalues	function
expandasvalue	function	gethccode	function
experiments	data table	gethelptext	function
extraprimitives	function	gethmcode	function
fatalerror	function	gethyphenationvalues	function
flagcodes	data table	getinputstatefile	function
fontidentifier	function	getinputstateline	function
fontname	function	getinputstatemode	function
forcehmode	function	getinsertcontent	function
forceinputstatefile	function	getinsertdepth	function

getinsertdistance	function	getparmodevalues	function
getinsertheight	function	getparstate	function
getinsertlimit	function	getprimitiveorigins	function
getinsertmultiplier	function	getregisterindex	function
getinsertwidth	function	getrunstatevalues	function
getintegervalue	function	getsfcode	function
getinteraction	function	getshapingpenaltiesvalues	function
getiovalues	function	getskip	function
getkerneloptionvalues	function	getspecialmathclassvalues	function
getlargestusedmark	function	gettextcontrolvalues	function
getlccode	function	gettextdir	function
getlinedir	function	gettoks	function
getlist	function	getuccode	function
getlistanchorvalues	function	glue	table
getlistgeometryvalues	function	glyphoptioncodes	data table
getlistsignvalues	function	groupcodes	data table
getlocalbox	function	hashtokens	function
getlocallevel	function	hccode	table
getmark	function	hmcode	table
getmath	function	hyphenationcodes	data table
getmathclassoptionvalues	function	ifs	data table
getmathcode	function	inicatcodes	number
getmathcodes	function	integerdef	function
getmathcontrolvalues	function	isattribute	function
getmathdir	function	isbox	function
getmathparametervalues	function	iscount	function
getmathstylenamevalues	function	isdefined	function
getmathstylevalues	function	isdimen	function
getmathvariantvalues	function	isglue	function
getmode	function	ismuglue	function
getmodevalues	function	ismuskip	function
getmuglue	function	isprintable	function
getmuskip	function	isskip	function
getnest	function	istoks	function
getnoadoptionvalues	function	lastnodetype	function
getnormalizelinevalues	function	lccode	table
getnormalizeparvalues	function	linebreak	function
getoutputactive	function	listanchorcodes	data table
getpacktypevalues	function	lists	table
getpagecontextvalues	function	listsigncodes	data table
getpagestate	function	luacatcodes	number
getparbeginvalues	function	magicconstants	table
getparcontextvalues	function	N assumedmathcontrol	
getpardir	function	N awfulbad	

N decentoriterium N maxnoffonts N defaultcatcodetable N maxnoflanguages N defaultdeadcycles N maxnofmarks N maxnofmathfamilies N defaulteqnogapstep N defaulthangafter N maxquarterword N defaultoutputbox N maxsizeofword N defaultpredisplaygap N maxspacefactor N defaultrule N maxtoksregisterindex N defaultspacefactor N mincardinal N defaulttolerance N mindatavalue N deplorable N mindimen N ejectpenalty N minhalfword N ignoredepth N mininfinity N infinitebad N mininteger N infinitepenalty N minguarterword N infinity N minspacefactor N largewidthexcess N nocatcodetable N loosecriterium N null N mathbeginclass N nullflag N mathendclass N nullfont N maxattributeregisterindex N onebp N maxboxregisterindex N presetrulethickness N maxbytecodeindex N runningrule N maxcardinal N smallstretchability N maxcategorycode N texeatbsize N maxcharactercode N texhashprime N maxcharcode N texhashsize N maxdatavalue N two N maxdimen N undefinedmathparameter N maxdimenregisterindex N unity N maxfunctionreference N unusedattributevalue N maxglueregisterindex N unusedmathfamily N maxhalfvalue N unusedmathstyle N maxhalfword N unusedscriptvalue N unusedstatevalue N maxinteger N maxintregisterindex N zeroglue mathchardef function N maxlimitedscale table mathcode N maxmarkindex mathcontrolcodes data table N maxmathclasscode N maxmathfamilyindex modelevels table

N horizontal

N math

N unset

N vertical

N maxmuglueregisterindex

N maxnewlinecharacter

N maxnofcatcodetables

N maxnofbytecodes

modes	data table	setglyphstate	function
mprint	function	sethccode	function
muglue	table	sethmcode	function
muskip	table	setinputstatefile	function
nest	table	setinputstateline	function
nilcatcodes	number	setinputstatemode	function
noadoptioncodes	data table	setinsertcontent	function
normalizelinecodes	data table	setinsertdistance	function
normalizeparcodes	data table	setinsertlimit	function
notcatcodes	number	setinsertmultiplier	function
number	function	setintegervalue	function
parcontextcodes	data table	setinteraction	function
poplocal	function	setlccode	function
popsavelevel	function	setlinedir	function
preparelinebreak	function	setlist	function
primitives	function	setlocalbox	function
print	function	setmath	function
prtcatcodes	number	setmathcode	function
pushlocal	function	setmathdir	function
pushsavelevel	function	setmuglue	function
quitlocal	function	setmuskip	function
quittoks	function	setnest	function
resetparagraph	function	setpardir	function
rlncatcodes	number	setrunstate	overloaded functio
romannumeral	function	setsfcode	function
round	function	setskip	function
runlocal	function	settextdir	function
runstring	function	settoks	function
runtoks	function	setuccode	function
saveboxresource	function	sfcode	table
scale	function	shiftparshape	function
scantoks	function	shipout	function
set	function	showcontext	function
setattribute	function	skip	table
setbox	function	snapshotpar	function
setboxdir	function	sp	function
setcatcode	function	specialmathclasscodes	data table
setcount	function	splitbox	function
setdelcode	function	sprint	function
setdimen	function	stringtocodesbitmap	function
setdimensionvalue	function	systemmodes	data table
setglue	function	takebox	function
setglyphdata	function	texcatcodes	number
setglyphscript	function	textcontrolcodes	data table

toks
tonumber
toscaled
tpacatcodes
tpbcatcodes
tprint
trackers
triggerbuildpage

table
function
function
number
number
function
data table
function

txtcatcodes
type
uccode
uprint
useboxresource
vrbcatcodes
write

number
function
table
function
function
number
function

# texconfig (basic tex)

buffersize	table	1	4-bl-
	table	languagesize	table
N size		N size	
N step		N step	
errorlinesize	table	marksize	table
N size		N size	
expandsize	table	N step	
N size		nestsize	table
filesize	table	N size	
N size		N step	
N step		nodesize	table
firstline	string	N size	
fontsize	table	N step	
N size		parametersize	table
N step		N size	
formatname	string	N step	
functionsize	number	poolsize	table
halferrorlinesize	table	N size	
N size		N step	
hashsize	table	propertiessize	number
N size		savesize	table
N step		N size	
init	overloaded function	N step	
inputsize	table	shell_escape	string
N size		stringsize	table
N step		N size	
insertsize	table	N step	
N size		tokensize	table
N step		N size	
kpse_init	boolean	N step	

# texio (basic tex)

closeinput	function	writenl	function
setlogfile	function	writeselector	function
terminal	function	writeselectorlf	function
write	function	writeselectornl	function
write nl	function		

# token (basic tex)

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

peeknextexpanded	function	scan value	function
pop_macro	function	scan word	function
popmacro	function	scanargument	function
push_macro	function	scanbox	function
pushmacro	function	scancardinal	function
put back	function	scanchar	function
put next	function	scancmdchr	function
putback	function	scancmdchrexpanded	function
putnext	function	scancode	function
save lua	function	scancsname	function
savelua	function	scandelimited	function
scan argument	function	scandimen	function
scan box	function	scandimenargument	function
scan cardinal	function	scanfloat	function
scan_char	function	scanglue	function
scan cmdchr	function	scaninteger	function
scan_cmdchr_expanded	function	scanintegerargument	function
scan_code	function	scankey	function
scan_csname	function	scankeyword	function
scan delimited	function	scankeywordcs	function
scan dimen	function	scanletters	function
scan dimen argument	function	scanluacardinal	function
scan float	function	scanluainteger	function
scan glue	function	scanluanumber	function
scan integer	function	scannext	function
scan_integer_argument	function	scannextchar	function
scan_key	function	scannextexpanded	function
scan_keyword	function	scanreal	function
scan_keyword_cs	function	scanscale	function
scan_letters	function	scanskip	function
scan_luacardinal	function	scanstring	function
scan_luainteger	function	scantoken	function
scan_luanumber	function	scantokencode	function
scan_next	function	scantokenlist	function
scan_next_char	function	scantoks	function
scan_next_expanded	function	scanvalue	function
scan_real	function	scanword	function
scan_scale	function	serialize	function
scan_skip	function	set_char	function
scan_string	function	set_dimension	function
scan_token	function	set_integer	function
scan_token_code	function	set_lua	function
scan_tokenlist	function	set_macro	function
scan_toks	function	setchar	function

setdimension	function	skipnext	function
setinteger	function	skipnextexpanded	function
setlua	function	type	function
setmacro	function	undefine_macro	function
skip_next	function	undefinemacro	function
skip_next_expanded	function		

# tokens (context)

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

defined	function	_	
flags	function		array
_			boolean
getinteger	function		
getters	table		bracketed
F box			bracketedasis
F count			cardinal
F cstoken			char
F dimen			cmdchr
F glue			cmdchrexpanded
F macro			code
F meaning			conditional
F skip			count
F token	function		csname
gobble isdefined	function		csnameunchecked
istoken	function		delimited
new	function		dimen
	function		dimenargument
pickup popmacro	function		dimension float
	table		
presets			glue
T 1 argumen			gluespec
T 1 integer			gluevalues
T 1 optiona	t		hbox
T 1 string	+-		
T 2 argumen			integer
T 2 integer			integerargument ischar
T 2 optiona	ts		
T 2 strings	+-		key
T 3 argumen			keyword keywordcs
T 3 integer			letters
T 3 optiona			list
T 3 strings	+-		luacardinal
T 4 argumen			
T 4 integer			luainteger luanumber
T 4 strings			lxmlid
T 5 strings			next
T 6 strings			nextchar
T 7 strings			nextexpanded
T 8 strings			number
pushmacro	function		optional
scanners	table		peek
Fargument			peekchar
•	cic		
F argumenta	212	۲	peekexpanded

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

F bracketed F skip F bracketedasis F skipexpanded F cardinal F string F char F table F cmdchr F token F cmdchrexpanded F tokencode F code F tokenlist F conditional F tokens F toks F count F csname F value F csnameunchecked F vbox F delimited F verbatim F dimen F vtop F dimenargument F whd F dimension F word F float F scannumber F glue F scanopen F scanoptional F gluespec F gluevalues F scanstring F hash F scantable F hbox F scantokenlist F integer F scantoks F integerargument F scanybox F ischar F scanverbatim F key F scanvtop F keyword F scanword F keywordcs F toboolean F letters F todimen F list T tokens F luacardinal T accessors F luainteger F active F luanumber F cmd F lxmlid F cmdchrcs F next F cmdname F nextchar F command F nextexpanded F csname F number F expandable F optional F frozen F peek F index F peekchar F name F peekexpanded F protected F real F range F scanclose F astable F scanopen T cache

U NC S tostrina U NR F create U bf F defined F flags U buff finish U c font compact F getinteger U color T getters U colordefalc F box II colordefflc F count U colordefflt F cstoken U colordefrlt F dimen U dofinishreference F glue U dostarttext F macro U finishjob F meaning U firstofoneargument F skip U firstoftwoarguments F token U gobbleoneargument F gobble U goto F isdefined U iftrue F istoken F new U input U loadfoundtypescriptfile F pickup U resetctxscanner F popmacro U rlap T presets U secondoftwoarguments F pushmacro U setfalsevalue F setinteger U setsectionblock T setters U setupsystem F box U startcolumns F char U starttabulate F count U starttitle F dimen U startxtitle F glue U stopcolumns F lua U stoptabulate F macro U stoptitle F skip T shortcuts U stopxtitle N close U texsetup U xmlw F inspect D commands N open F compile F report F constant F scanargument T converters F scanargumentasis S toboolean F scanarray S todimen F scanboolean S toglue F scanbox S tonumber F scanbracketed

F scanbracketedasis F scanlist F scancardinal F scannumber F scanclose F scanopen F scancode F scanoptional F scanconditional F scanstring F scantable F scancsname F scancsnameunchecked F scantokenlist F scandelimited F scantoks F scandimen F scanvbox F scandimenargument F scanverbatim F scandimension F scanvtop F scanglue F scanword F scangluespec F toboolean F scangluevalues F todimen F scanhash F tonumber F scanhbox F tostring F scaninteger D values F scanintegerargument F tonumber

F scankeywordcs values data table

F tostring

F scanletters

F scankeyword

#### tracers (context)

printerror function printwarning function

showlines function

# trackers (context)

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

# typesetters (context)

alignments	table	T handlers		
F handler		F installhandler		
F set		F set		
breakpoints	table	F setcolor		
F define		F tomode		
F handler		firstlines	table	
D mapping		T actions		
T methods		F default		
T numbers		F line		
F set		F word		
F setreplacement		F handler		
cases	table	F set		
T actions		fontkerns	table	
F handler		F handler		
F register		initials	table	
F set		T actions		
characteralign	table	F default		
F handler		F handler		
F resetcharacter		F set		
F setcharacteral	•	injectors	table	
characters	table	F check		
F handler		T list		
T methods		F mark		
F replacenbsp		F reset		
F replacenbspace		F set		
checkers	table	F show		
F handler		italics	table	
F reset		F enablemath		
F set		F enabletext		
cleaners	table	F forcevariant		
F handler		F handler		
F set		F reset		
digits	table	F set		
T actions		kerns	table	
F handler		D factors		
F set		F handler		
directions	table	F keepligature		
F getfences		D mapping		
F getglobal		F set		
F getmethod		localboxes	table	
F handler		F handler		

manipulators table F stripped F apply F tostring rubies table F applyspecification F attach T methods F Word F check showsuspects function F Words table spacings F abbreviatedjournal F expandediournal F define F handler F lowercase F stripperiod D mapping F uppercase T numbers T patterns T frenchpunctuation U list T characters U pair S name F splitspecification N number margins table F reset F finalhandler F set F globalhandler F setup F localhandler synchronize table F save F handler function table marksuspects tiahten paragraphs table F handler F addanchortoline wrappers table F addtoline xtables table F calculatedelta F cleanup F checkline F construct F moveinline F create periodkerns table F finish row D factors F flush F handler F initialize construct D mapping F initialize reflow height F set F initialize reflow width processors table F next row F apply F reflow height F register F reflow width F reset F set construct F set reflow\_height F split F set\_reflow\_width F startapply

F stopapply

#### updaters (context)

apply function
register function

# url (context)

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

# utf8 (basic lua)

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

# utilities (context)

debugger	table	F readsignedbyte	
F disable	tabte	F readstring	
F enable		F readtag	
F savestats		F setposition	
F showstats		F size	
F showtraceback			
files	table	F skip	
F close	table	F skiplong	
		F skipposition	
F getposition		F skipshort	
F getsize F look		F writebyte F writecardinal1	
		F writecardinalle	
F open		F writecardinative	
F read2dot14		F writecardinal2le	
F readbyte		F writecardinal2	
F readbytes		F writecardinal3le	
F readbytetable F readcardinal		F writecardinals	
F readcardinal1		F writecardinal4le	
F readcardinal1		F writeinteger1	
F readcardinal2		F writeinteger1le	
F readcardinal2	te	F writeinteger2	
F readcardinal3		F writeinteger2le	
F readcardinal3			
F readcardinal4			
F readcardinal4		F writeinteger4	
F readcardinalt	able	F writeinteger4le	
F readchar		F writestring	
F readcline		formatters table	
F readcstring		F formatcolumns	
F readfixed2		F list	
F readfixed4		F stripzeros	
F readinteger		<b>ghostscript</b> table	
F readinteger1		F convert	
F readinteger1l	e	F statistics	
F readinteger2		<b>graphicmagick</b> table	
F readinteger2l	e	F convert	
F readinteger3		F statistics	
F readinteger3l	e	<b>graphicsmagick</b> table	
F readinteger4		F convert	
F readinteger4l	e	F statistics	
F readintegerta	ble	<b>lua</b> table	

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

F popseed		F sparse	
F pushseed		streams	table
F repeatable		F close	
F reuseseed		F getposi	tion
F setseed		F getsize	
F setseedi		F getstri	
randomizers	table	F look	
F poisson		F open	
sequencers	table	F openstr	ing
F appendaction		F read2do	_
F appendgroup		F readbyt	e
F compile		F readbyt	
F disableaction		F readbyt	etable
F disablegroup		F readcar	dinal
F enableaction		F readcar	dinal1
F enablegroup		F readcar	dinal1le
D functions		F readcar	dinal2
F localize		F readcar	dinal2le
F new		F readcar	dinal3
F nodeprocessor		F readcar	dinal3le
F prependaction		F readcar	dinal4
F prependgroup		F readcar	dinal4le
F removeaction		F readcar	dinaltable
F replaceaction		F readcha	r
F setkind		F readcli	ne
F tostring		F readcst	ring
setters	table	F readfix	ed2
F disable		F readfix	ed4
F enable		F readint	eger
F initialize		F readint	eger1
F list		F readint	eger1le
F new		F readint	eger2
F register		F readint	eger2le
F report		F readint	eger3
F reset		F readint	eger3le
F show		F readint	eger4
stacker	table	F readint	eger4le
F new		F readint	egertable
storage	table	F readsig	nedbyte
F allocate		F readstr	ing
F checked		F setposi	tion
F mark		F size	
F marked		F skip	
F setinitialize	-	F skipbyt	es

F removevalue F skiplong F skipshort F replacevalue tar table F tocardinal1 F tocardinal1le T archives F tocardinal2 F closearchive F tocardinal2le T files F tocardinal3 F fetch F tocardinal3le F hash F tocardinal4 F list F tocardinal4le F pack strinas table F unpack F collapse F openarchive F collapsecrlf T registeredfiles T formatters T streams F add F fetch F new F hash F newcollector F list F newrepeater F pack F unpack F nice T strings T striplinepatterns U collapse F fetch U prune F hash U prune and collapse F list U prune and no empty F pack U prune and to space F unpack templates table U retain U retain and collapse F load U retain and no empty F replace F striplines F replacer F resolve F striplong zipfiles table F tabtospace T tracers F close tables table F found F accesstable F hash F definedtable F list F definetable F open F encapsulate F unzip F insertaftervalue F unzipdir F insertbeforevalue F zipdir F migratetable

# visualizers (context)

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

# xcomplex (extra lua)

_				
I	function		F sqrt	
add	function		F tan	
div	function		F tanh	
eq	function		F topa:	ir
index	table		F tost	ring
FΙ			F total	ole
Fad	d		Fmul	
Fdi	v		Sname	
Feq			Fpow	
Tin	dex		F _sub	
FΙ			Ftost	ring
F6	add		Funm	
F0	div		F abs	
F6	eq		F acos	
Fr	nul		F acosh	
Sr	name		F arg	
F,	pow		F asin	
F	sub		F asinh	
F	tostring		F atan	
Fu	unm		F atanh	
F abs	S		F conj	
F acc	os		F cos	
F acc	osh		F cosh	
Far	g		F exp	
F as:	in		Fί	
F as:	inh		F imag	
F ata	an		F log	
F ata	anh		F new	
F cor	nj		F pow	
F cos	S		F proj	
F cos	sh		F real	
F exp	p		F sin	
Fi			F sinh	
Fima	ag		F sqrt	
F log	9		F tan	
F nev	N		F tanh	
F pov	N		F topair	
F pro	oj		F tostri	ng
F rea			F totabl	-
Fsi	n		mul	function
Fsi	nh	•	name	string
		•		3

function	i	function
function	imag	function
function	log	function
function	new	function
function	pow	function
function	proj	function
function	real	function
function	sin	function
function	sinh	function
function	sqrt	function
function	tan	function
function	tanh	function
function	topair	function
function	tostring	function
function	totable	function
function		
	function	function         imag           function         log           function         pow           function         proj           function         real           function         sin           function         sqrt           function         tan           function         tanh           function         topair           function         tostring           function         totable

#### xdecimal (extra lua)

add	function		F getprecision
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 setprecision
Fbxor			F shift
Fdiv			F sqrt
Feq			F toengstring
Fidiv			F tonumber
Tindex			F tostring
Fadd			F trim
Fband		F	le
Fbor		F	lt
Fbxor		F	mod
Fdiv		F	mul
Feq		S	name
Fidiv		F	pow
Fle		F	shl
Flt		F	shr
Fmod		F	sub
Fmul		F	tostring
Sname		F	unm
Fpow		F	abs
Fshl		F	band
Fshr		F	bor
Fsub		F	bxor
Ftostring		F	conj
Funm		F	сору
F abs		F	exp
F band		F	getprecision
F bor		F	ln
F bxor		F	log
F conj		F	max
F copy		F	min
F exp		F	minus

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

#### xmath (extra lua)

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

#### xml (context)

addentitiesdoctype	function	F family	
addspecialcode	function	F fontspecification	
after	function	F mappedstylevalue	
all	function	F padding	
applylpath	function	F size	
applyselector	function	F style	
assign	function	F stylevalue	
attribute	function	F todimension	
badinclusions	function	F variant	
before	function	F weight	
body	function	defaulthandlers	table
builtinentities	table	D file	
B amp		D parsedxml	
B apos		D string	
B gt		D tex	
B lt		D texline	
B quot		D texspace	
cdata	function	D verbose	
cdatatotext	function	defaultprotocol	string
checkbom	function	delete	function
checkedempty	function	delete_element	<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
<pre>collect_elements</pre>	<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	expand	function
content	function	expressions	table
convert	function	F attribute	
сору	function	F boolean	
count	function	F child	
cprint	function	F contains	
CSS	table	F count	
F applyselector		F error	
F colorspecification		F find	
F dimension		F hasclass	

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

inheritattributes	function	privatecodes	table
inheritedconvert	function	privatetoken	function
inject	function	process	function
inject_element	function	process_attributes	function
inject_element after	function	process_elements	function
inject_element_before		processattributes	function
injectafter	function	profiled	table
injectarter	function	pure	function
insert	function	pushmatch	function
insert_element	function	raw	function
insert_element_after	function	registerentity	function
insert_element_before		registerns	function
insertafter	function	reindex	function
insertarter	function		function
insertcdata	function	remap_name	function
insertcomment	function	remap_namespace	function
inspect	function	remap_tag	function
•	function	remapname	function
is_valid kind	function	remaphamespace	function
last	function	remaptag rename	function
lastmatch	function		function
load	function	renamespace	userdata
	function	reparsedentitylpeg	function
lpath	function	replace	function function
lpathcached lpathcalls	function	replace_element	function
lshow	function	resetinjectors resolvens	function
makestandalone	function	root	function
match	function		function
name	function	save selection	function
newhandlers	function	separate	function
nodesettostring	function	separate serialize	function
originalload	function	serializetotext	function
package	function	setcdata	function
parent	function	setcomment	function
parsedentitylpeg	userdata	sethandlersfunction	function
pihandlers	table	setinjectors	function
•	table		function
F injector F tex		setproperty settings	function
placeholders	table	specialcodes	table
F unknown any entity	table	S "	table
F unknown_any_entity  F unknown dec entity		s #	
= = *			
F unknown_hex_entity popmatch	function	S \$ S %	
position	function		
hostrion	TUILCETOIL	S &	

texttocdata function  tocdata function  toelement function  tostring function  totable function  toxml function  traverse function  traverse function  traverse function  specialhandler table unescaped function  sprint function unescapedentitylpeg userdata  string function unprivatized function  strip function unspecialized function  strip_whitespace function  stripleadingspaces function withelement function  stripleadingspaces function wrap function  table function xmlns table				
toelement function  tostring function  totable function  toxml function  traverse function  traverse function  traverse function  specialhandler table unescaped function  sprint function unescapedentitylpeg userdata  string function unprivatized function  strip function unspecialized function  strip_whitespace function  strip_whitespace function wipe function  stripleadingspaces function withelement function  stripleadingspaces function withelements function  table function wrap function	S '		texttocdata	function
tostring function  function	S <		tocdata	function
s {     totable function     s   toxml function     s }     traverse function     specialhandler table unescaped function     sprint function unescapedentitylpeg userdata     string function unprivatized function     strip function unspecialized function     strip_whitespace function wipe function     stripelement function withelement function     stripleadingspaces function withelements function     table function wrap function	S >		toelement	function
s   toxml function  s } tprint function  s ~ traverse function  specialhandler table unescaped function  sprint function unescapedentitylpeg userdata  string function unprivatized function  strip function unspecialized function  strip_whitespace function wipe function  stripelement function withelement function  stripleadingspaces function withelements function  table function wrap function	S \		tostring	function
tprint function  traverse function  specialhandler table unescaped function  sprint function unescapedentitylpeg userdata  string function unprivatized function  strip function unspecialized function  strip_whitespace function wipe function  stripelement function withelement function  stripleadingspaces function withelements function  table function wrap function	S {		totable	function
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specialhandlertableunescapedfunctionsprintfunctionunescapedentitylpeguserdatastringfunctionunprivatizedfunctionstripfunctionunspecializedfunctionstrip_whitespacefunctionwipefunctionstripelementfunctionwithelementfunctionstripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	S }		tprint	function
sprintfunctionunescapedentitylpeguserdatastringfunctionunprivatizedfunctionstripfunctionunspecializedfunctionstrip_whitespacefunctionwipefunctionstripelementfunctionwithelementfunctionstripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	S ~		traverse	function
stringfunctionunprivatizedfunctionstripfunctionunspecializedfunctionstrip_whitespacefunctionwipefunctionstripelementfunctionwithelementfunctionstripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	specialhandler	table	unescaped	function
stripfunctionunspecializedfunctionstrip_whitespacefunctionwipefunctionstripelementfunctionwithelementfunctionstripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	sprint	function	unescapedentitylpeg	userdata
strip_whitespacefunctionwipefunctionstripelementfunctionwithelementfunctionstripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	string	function	unprivatized	function
stripelementfunctionwithelementfunctionstripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	strip	function	unspecialized	function
stripleadingspacesfunctionwithelementsfunctiontablefunctionwrapfunction	strip_whitespace	<del>function</del>	wipe	function
table function wrap function	stripelement	function	withelement	function
	stripleadingspaces	function	withelements	function
text function xmlns table	table	function	wrap	function
	text	function	xmlns	table

function

textonly

# xzip (extra lua)

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

#### zip (extra lua)

archives table
closearchive function

openarchive function
registeredfiles table

# zlib (extra lua)

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