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 in job kpse languages layouts lfs libraries lmx loaders 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 parametersets pdf pdfdecode pdfe physics pngdecode posit potrace 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>F</sub>Xt LMTX

# global (alias: \_G)

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

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

texmodes	data table	userdata	table
texsystemmodes	data table	utf	table
thirddata	table	utf8	table
toboolean	function	utilities	table
todecimal	function	visualizers	table
token	table	warn	function
tokens	table	width	number
tonumber	function	xcomplex	table
tostring	function	xdecimal	table
tracers	table	xmath	table
trackers	table	xml	table
type	function	xpcall	function
typesetters	table	xshift	number
unpack	function	xzip	table
updaters	table	zip	table
url	table	zlib	table

#### aes (extra lua)

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	labtolch
N attribute		F	labtorgb
F cmyk		F	labtoxyz
F cmyktogray		F	lchtolab
F cmyktorgb		F	lchtorgb
F colorcomponent	S	N	main
D counts		S	model
B couple		D	models
F currentmodel		F	mpcolor
F currentnamedmo	del	F	mpnamedcolor
D data		F	mpoptions
N default		F	namedcolorattributes
F defineintermed	iatecolor	N	none
F definemultiton	ecolor	F	popset
F defineprocesso	olor	F	${\tt processcolor components}$
F defineprocesso	olordirect	F	pushset
F definesimplegr	ay	F	register
F definespotcolo	r	D	registered
F definetranspar	ency	F	registerspotcolor
F enable		F	rgb
F filter		F	rgbtocmyk
N forced		F	rgbtogray
F forcedmodel		F	rgbtohsv
F forcesupport		F	rgbtoxyz

N selector		D re	egistered	
F setlist		F se	et	
F setmodel		number	·s	data table
F setpagecolormo	odel	ofnode	)	function
D sets		privat	:e	function
F spec		public	:	function
F spot		regist	ervalue	function
F spotcolorname		restor	·e	function
F spotcolorparer	nt	save		function
F spotcolorvalue	2	setcle	eaner	function
B supported		showcu	ırrent	function
F toattributes		states	;	table
F transparencyco	omponents	F di	.sabletrigger	ing
B triggering		F en	abletriggeri	ng
F usecolors		F fi	.nalize	
D valid		Fin	itialize	
F value		F pr	ocess	
D values		F se	elective	
B weightgray		F si	mple.	
F xyztolab		F st	acked	
F xyztorgb		F st	acker	
counts	data table	system	1	function
define	function		loads	function
define effects	function table		loads parencies	function table
		transp		
effects		transp	arencies tribute	
effects N attribute		<b>transp</b> N at D da	arencies tribute	
effects  N attribute D data		transp N at D da F en F fo	carencies etribute uta mable procesupport	
effects  N attribute D data F enable		transp N at D da F en F fo	parencies tribute ata	
effects  N attribute D data F enable F handler F register D registered		transp N at D da F en F fo	carencies etribute eta mable ercesupport	
effects  N attribute D data F enable F handler F register D registered D values	table	transp N at D da F en F fo F ha T na	carencies etribute eta mable ercesupport	
effects  N attribute D data F enable F handler F register D registered D values getvalue	table	transp N at D da F en F fo F ha T na N	parencies etribute eta mable ercesupport endler emes color	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues	table  function function	transp N at D da F en F fo F ha T na N N	parencies etribute eta mable ercesupport endler emes color colorburn colordodge	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers	function function table	transp N at D da F en F fo F ha T na N N N N	parencies etribute eta mable ercesupport endler emes color colorburn colordodge darken	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues	function function table function	transp N at D da F en F fo F ha T na N N N N	parencies attribute ata able arcesupport andler ames color colorburn colordodge darken difference	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list	function function table function data table	transp N at D da F en F fo F ha T na N N N N N N	parencies etribute eta enable ercesupport endler emes color colorburn colordodge darken difference exclusion	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload	function function table function data table function	transp N at D da F en F fo F ha T na N N N N N N N N	parencies etribute eta enable ercesupport endler emes color colorburn colordodge darken difference exclusion hardlight	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload names	function function table function data table function data table	transp N at D da F en F fo F ha T na N N N N N N N N N N	parencies etribute eta mable ercesupport endler emes color colorburn colordodge darken difference exclusion hardlight hue	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload names negatives	function function table function data table function	transp N at D da F en F fo F ha T na N N N N N N N N N N N N N N N N N N N	parencies attribute ata abble arcesupport andler ames color colorburn colordodge darken difference exclusion hardlight hue lighten	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload names negatives N attribute	function function table function data table function data table	transp N at D da F en F fo F ha T na N N N N N N N N N N N N N N N N N N N	parencies ctribute cta cable corcesupport colorburn colordodge darken difference exclusion hardlight hue lighten luminosity	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload names negatives N attribute D data	function function table function data table function data table	transp N at D da F en F fo F ha T na N e N e N e N e N e N e N e N e N e N e	parencies ctribute cta cable crcesupport color colorburn colordodge darken difference exclusion hardlight hue lighten luminosity multiply	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload names negatives N attribute D data F enable	function function table function data table function data table	transp N at D da F en F fo F ha T na N N N N N N N N N N N N N N N N N N N	parencies etribute eta eta eta eta eta eta eta eta eta e	
effects  N attribute D data F enable F handler F register D registered D values getvalue getvalues handlers hasvalues list markasoverload names negatives N attribute D data	function function table function data table function data table	transp N at D da F en F fo F ha T na N N N N N N N N N N N N N N N N N N N	parencies ctribute cta cable crcesupport color colorburn colordodge darken difference exclusion hardlight hue lighten luminosity multiply	

N saturation
N screen
N softlight
N none
F register
D registered
B supported
F toattribute

N attribute
F cleanup
D data
F define

B triggering

F value

D values

 ${\sf F} \ {\sf defined layout component}$ 

F enable

F forcesupport

F handler

B hasorder

D listwise

F register

D registered

F resolve\_begin

F resolve end

F resolve reset

F resolve\_step

D scopes

F setfeatures

F setup

F start

F stop

B supported

D values

#### backends (context)

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

F presetsymbollist F vfstartcolor F processrendering F vfstopcolor F registerdocumentcloseaction F wrapimage F registerdocumentopenaction S name F registeredsymbol T nodeinjections F registerfiguremask F addtags F registerfigurerange 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 rgbcolor F setfigurecolorspace F spotcolor F setfiguremask F startalternate F startlayer F setformat F setformsmethod F startstackedlayer F setpagetransition F stopalternate F settaggingsupport F stoplayer F setupviewerlayer F stopstackedlayer F setxmpfile F transparency F startlayer F typesetfield E startunicodetoactualtext F useboxresource F startunicodetoactualtextdirect T registrations F stoplayer F cmykindexcolor F stopunicodetoactualtext F cmykspotcolor F stopunicodetoactualtextdirect F getspotcolorreference F supportedformats F grayindexcolor F unicodetoactualtext F grayspotcolor F useviewerlaver F rgbindexcolor F validcompactor F rgbspotcolor

F spotcolorname

F transparency

T tables

F validfield

F validfieldset

F validfieldcategory

registrations table
setencryption function
tables table

writeout

function

# basexx (extra lua)

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

# bit32 (context)

function	extract	function
function	lrotate	function
function	lshift	function
function	replace	function
function	rrotate	function
function	rshift	function
	function function function function	function lrotate function lshift function replace function rrotate

## 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	splitsamplefile	function
loadcontent	function	undent	function

# builders (context)

checkparcontext	function	F split	
checksidefloat	function	F start	
hpack	table	F stop	
F qualityactions		F tag	
F report		profiling	table
F show		F add	
kernel	table	F addrivers	
F collapsing		F boxlinehandler	
F hyphenating		F distance	
F kerning		F fixedprofile	
F ligaturing		F get	
F mlisttohlist		F getrivers	
<pre>local_box_filter</pre>	function	F list	
paragraphs	table	F pagehandler	
T constructors		F pagelinehandler	
N attribute		F profilebox	
F define		F profilelines	
F disable		F set	
F enable		F setlines	
F handler		registerpaspasscallback	function
T methods		vpack	table
F basic		F qualityactions	
F default		F report	
F hpack		vspacing	table
•			
F oneline		D categories	
F oneline D names		D categories F checkstrutdepth	
		·	
D names		F checkstrutdepth	
D names D numbers		F checkstrutdepth F collapsevbox	
D names D numbers F set		F checkstrutdepth F collapsevbox T data	
D names D numbers F set F start		F checkstrutdepth F collapsevbox T data D map	
D names D numbers F set F start F stop		F checkstrutdepth F collapsevbox T data D map D skip	
D names D numbers F set F start F stop T expansion		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods	
D names D numbers F set F start F stop T expansion F trace		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod	
D names D numbers F set F start F stop T expansion F trace F keeptogether		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod B fixed	
D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod B fixed F flushcontributions	
D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether T solutions		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod B fixed F flushcontributions F forcepageflush	
D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether T solutions T splitters		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod B fixed F flushcontributions F forcepageflush F forcestrutdepth	
D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether T solutions T splitters F define		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod B fixed F flushcontributions F forcepageflush F forcestrutdepth F getnofpreviouslines	
D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether T solutions T splitters F define F optimize		F checkstrutdepth F collapsevbox T data D map D skip D snapmethods F definesnapmethod B fixed F flushcontributions F forcepageflush F forcestrutdepth F getnofpreviouslines F inject	

F interceptsamepagecontent F setskip
F pagehandler F pageoverflow F synchronizepage
F popatsame F tocategories
F pushatsame F tocategory

F vboxhandler

F setmap

# 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 B linebreak filter functions table B linebreak quality F start page number B local box filter F stop page number B make extensible function known B math rule list data table B missing character pop function B mlist to hlist push function B open data file function register B packed vbox filter function report B paragraph context supported table B paragraph pass B alignment\_filter B post linebreak filter B append line filter B pre dump B append to vlist filter B pre linebreak filter B begin paragraph B pre output filter B buildpage filter B process character B process jobname B define font B quality\_font B find format file B find log file B register extensible B get attribute B show break B get math dictionary B show build B get noad class B show error message B glyph run B show loners B handle overload B show lua call B handle uleader B show warning message B hpack\_filter B show whatsit B hpack quality B start file B hyphenate B start run B insert distance B stop file B insert par B stop run B tail append B intercept lua error B intercept tex error B trace memory B italic correction B vpack filter B kerning B vpack quality B ligaturing B wrapup run

#### catcodes (context)

 register function

## characters (context)

addcharacternames	function	T often postsonint	
adobename	function	T after_postscript	
bidi	data table	T after_subscript	
	function	T anudatta	
blockrange blocks	data table	T before_half	
		T before_main	
can_have_space	data table table	T before_postscript	
casemap	data table	T before_subscript	
categories		T below_mark	
category	function data table	T consonant	
categorytags classifiers	table	T dependent_vowel	
		T halant	
collapsed	data table	T independent_vowel	
combined	data table	T nukta	
contextname	function	T post_mark	
csletters	data table data table	T pre_mark -	
data		T ra	
decomposed	data table	T stress_tone_mark	
description	function	T twopart_mark	
descriptions	data table	T vowel_modifier	£
detailtags directions	data table	initialize	function
	table	is_character	data table
emoji -	table	is_command	data table
F compact		is_hyphenator	data table
F known		is_letter	data table
F resolve	function	is_mark	data table
emojized enccodes	function	is_punctuation	data table
enccodes entities	data table data table	is_spacing	data table
		is_symbol	data table
fallbacks filters	data table data table	lcchars lccode	data table function
fractions		lccodes	data table
fractions	table 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

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

#### chemistry (context)

component	function	
define	function	
definitions	data table	
format	string	
inlinechemical	function	
instance	string	

method string
molecule function
moleculeparser userdata
start function
stop function
undefine function

## containers (context)

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

## converters (context)

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

uchexnumber uchexnumbers upper verbose function function function table F translate weekday word

words

function function function

D data

## 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	$ \hbox{function} $
expandname	function	makedirs	function
found	function	mkdirs	function
glob	function	рор	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	data table	pdf_cleanup_procsets	function
files	table	pdf_identify_content	function
functions	table	<pre>pdf_serialize_content</pre>	function
getargument	function	pdf_strip_content	function
getfilename	function	pdf_strip_page	function
options	table	setargument	function
T commandline		setcommandline	function
D environments		setdefaultargument	function
D modes		setenvironments	function
D modules		setfilename	function
T ctxfile		setfilenames	function
D environments		setmodes	function
D modes		setmodules	function
D modules		variables	data table
pdf cleanup cidsets	function		

## documentdata (context)

variable function

## drivers (context)

1	f	
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		T whatsit
F pushleaderlev	el	S name
T whatsit		T lua
S name		T actions
T js		F cleanup
T actions		F convert
F cleanup		F finalize
F convert		F initialize
F finalize		F outputfilename
F initialize		F prepare
F outputfilenam	e	F wrapup
F prepare		T flushers
F wrapup		F character
T flushers		F popleaderlevel
F character		F pushleaderlevel
F popleaderleve		F rule
F popleaderleve F pushleaderleve		F rule F simplerule
F popleaderleve F pushleaderleve F rule		F rule F simplerule F specialrule
F popleaderleve F pushleaderleve		F rule F simplerule

S name F cleanup T mpo F convert T actions F finalize F finalize F initialize F initialize F outputfilename T flushers F prepare F character F wrapup F popleaderlevel T flushers F pushleaderlevel F character F rule F flushimage F simplerule F fontchar F specialrule F aroup T whatsit F literal S name F popleaderlevel T mps F poporientation T actions F pushleaderlevel F cleanup F pushorientation F convert F restore F finalize F rule F initialize F save F outputfilename F setmatrix F prepare F setstate F wrapup F simplerule T flushers F space 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

T actions

# environment (context)

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

# experiments (context)

data	data table	register	function
default	function	report	function
disable	function	reset	function
enable	function	show	function
list	function	value	function
name	string	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 F checksize patterns data table 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
scale	function
set	function
setconversion	function
setlookups	function

setorder
setpaths
suffixes
used

function		
function		
data	table	
data	table	

# file (basic lua)

addsuffix	function	needsupdating	function
basename	function	pathpart	function
checksum	function	readdata	function
collapsepath	function	removesuffix	function
сору	function	replacesuffix	function
dirname	function	reslash	function
expandname	function	robustname	function
extname	function	savechecksum	function
is_qualified_path	function	savedata	function
is_readable	function	size	function
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	getmathspec	function
addquality	function	id	function
current	function	max	function
define	function	nextid	function
getfont	function	setfont	function
getfontdimen	function	setfontdimen	function
getfontspec	function	xscaled	function
getmathindex	function	yscaled	function

## fonts (context)

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

F finalize	S defaultbasealternate
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
•	•

F alternate F plugininitializer F pluginprocessor F chainedcontext T plugins F context T text F extension D pngcache F ligature B pngenabled F multiple T readers F reversechainedcontextsingle F addunicodetable F sinale F avar F gvar F cbdt F head F cblc T helpers F cff F axistofactors F cff2 F cleanname T cffencoder F getaxisscale F checkhash F getfactors F cmap F getscales F colr F gotodatatable F normalizedaxis F compact F condense T normalizedaxishash F cpal F readvariationdata F dsia 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 math F getinfo F glyf F maxp F gpos F myar T gposhandlers F name F chainedcontext F os/2 F context F pack F cursive F parsecharstrings F extension F post F marktobase F potracetocff F marktoligature F registerextender F marktomark F rehash F pair F sbix F single F stat T streamreader F gsub T gsubhandlers F close

F getposition F writecardinal1le F getsize F writecardinal2 F look F writecardinal2le F writecardinal3 F open F read2dot14 F writecardinal3le F writecardinal4 F readbyte 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 woff2otf F readinteger1le 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 D usedfeatures F readsignedbyte F readstring D sygcache F readtag B sygenabled T tables F setposition D baselines F size D features F skip F skiplong D featuretypes F skipposition D languages F skipshort D scripts F writebyte F texthandler F writecardinal1 T vectors

T arab	T combiner	
T gpos	D commands	
N curs	D helpers	
N kern	D math	
N mark	D predefined	
N mkmk	N version	
T gsub	D whatever	
N calt	F hashfeatures	
N ccmp	F hashinstance	
N cswh	T hashmethods	
N dlig	F normal	
N fina	F virtual	
N init	F initializefeatures	
N isol	D loadedfonts	
N liga	N noffontsloaded	
N medi	N nofsharedfonts	
N mset	N nofsharedhashes	
N rclt	N nofsharedvectors	
N rlig	N privateoffset	
N version	D privateslots	
T pfb	F readanddefine	
F filterencoding	F registerfeature	
F filtermetadata	F registerscriptset	
F loadvector	F resetfeature	
N version	B resolvevirtualtoo	
T tfm	F scale	
D cache	F scaled	
D features	F setfactor	
N maxnestingdepth	F setfeature	
N maxnestingsize	F setmathparameter	
T readers	F setname	
F loadpk	B sharefonts	
F loadtfm	F trytosharefont	
F loadtfmvf	N version	_
F loadvf	current	function
F pktopdf	currentid	function
F potracedtopdf	definers	table
F showpk	F addlookup	
F reencode	F analyze	
F setfeatures	F applypostprocessor	S
N version	F checkedmode	
T vf	F checkedscript	
T combinations	S defaultlookup	
F combine	F define	

F getspecification F internal F loadfont F makespecification T methods F install D variants F read F register F registered F registerfallbackf F registersplit F resetnullfont			expansions formats getalternate getindices getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F type1	data table data table function function function function table		
F resolve T resolvers F file F name F spec	function		F type3 T multiple F opentype T substitution F opentype	table		
definetypeface	function		goodies	table		
<b>dropins</b> F clone	table		D colorschemes T data			
F getshape			T common-math.lfg			
F getshapes			S author			
F nextid F provide F registerglyph F registerglyphs			S comment			
			S copyright B initialized T mathematics			
F swap			T tweaks			
F swapone			T presets			
effects	table		F addmathk	orne		
encodings	table		F braille			
T agl	cabic			alligraphic		
D ctxcodes			F fallback			
D extras				calligraphic		
D synonyms			F moveinte	• .		
D unicodes			F moveital			
D cache			F pagellar			
F is known			F rsfstosc			
D known				ghttoscript		
F load				calligraphic		
F make unicode vect	or		F smalldig			
D math			F wipeanchors			
N version			F wipeitalics			
enhanceid function			F xitsarab			

S name	F getcompositions	
S version	T list	
T dejavu-math	F load	
S author	F prepare_features	
S comment	F register	
S copyright	F registerpostprocessor	
B initialized	F report	
T mathematics	T suffixes	
T alternates	handlers table	е
T dotless	hashes table	е
S comment	D characters	
S feature	D classes	
N value	D csnames	
T bigslots	D descriptions	
T parameters	D dynamics	
N AccentBaseDepth	D emwidths	
N AccentTopShiftUp	D exheights	
N DelimiterDisplayPercent	D features	
N DelimiterDisplayShortfall	D identifiers	
N DelimiterPercent	D italics	
N DelimiterShortfall	D lastmathids	
N DisplayOperatorMinHeight	D marks	
N FlattenedAccentTopShiftUp	D mathparameters	
N FractionRuleThickness	D modes	
S PrimeBaselineDropMax	D originals	
S PrimeShiftUp	D parameters	
S PrimeShiftUpCramped	T processes	
N SubscriptShiftDown	D properties	
S SubscriptShiftDownWithSuperscript	D quads	
N SuperscriptShiftUp	D resources	
T tweaks	T setdynamics	
T aftercopying	T shapes	
S name	D spaces	
S version	D spacings	
T dejavu-text	T streams	
S author	D unicodes	
S comment	D unislots	
S copyright	D variants	
T extensions	D xheights	
B initialized	<b>helpers</b> table	Э
S name	F addextraprivate	
S version	F addprivate	
D designsizes	F appendcommands	
D filenames	F appendcommandtable	

E chockflogs	Tyfonocialo		
F checkflags	T vfspecials		
F checkmerge	T backgrounds		
F checksteps	T outlines infofont	function	
F collectanchors	iterators	table	
F combineglyphs		table	
D commands	F characters		
F composecharacters	F descriptions		
F descriptiontoslot	F glyphs	4-61-	
F dimenfactor	loggers	table	
F expandglyph	F format		
D extraprivates	F onetimemessage		
F fontpatternhassize	F register		
F getcoloredglyphs	F reportdefinedfont	IS .	
F getdigitwidth	F reportusedfeature		
F getinstancespec	mappings	table	
F getparameters	F addtounicode		
F getprivatecharornode	F fromunicode16		
F getprivatenode	F getentry		
F getprivates	F loadfile		
F getprivateslot F loadline			
F hasprivate F makenameparser			
F indextoslot D overloads			
F isprivate	rivate F reset		
F mathscriptslots	F tounicode		
F name	F tounicode16		
F nametoslot	F tounicode16sequer	ice	
F newprivateslot	metapost	table	
F prependcommands	F baseline		
F prependcommandtable	F boundingbox		
F privateslot	F boxtomp		
F registerglyphbox	F draw		
F scalecommands	F fill		
F setboxdirectly	F glyph		
F setboxglyph	F maxbounds		
F setboxglyphs	F paths		
F setdigitwidth	F widthline		
F setmetaglyph	F zeroline		
F setmetaglyphs	mode	function	
D sharedprivates	names	data table	
F splitfontpattern	nulldata	data table	
F tochar	privateoffsets	table	
T vfinjectors	B keepnames		
F startcolor	N mathbase		
F stopcolor	N mathextrabase		

N textba	ase	F textfallback	
N textex	ktrabase	F typeface	
protrusio	ons data table	F typescript	
readers	table	F userdata	
Fafm		<b>specifiers</b> t	able
F check_	_lua	D contextmerged	
F check	_tfm	F contextnumber	
F lua		D contextnumbers	
Fofm		D contextsetups	
F openty	уре	F contexttostring	
F otf		F definecontext	
F pfb		F mergecontext	
D sequer	nce	F presetcontext	
F tfm		F registercontext	
F ttc		T scriptsets	
F ttf		T af	
F woff		S language	
registers	sanitizer function	N number	
reservei	<b>I</b> function	S script	
select	table	T always	
D alter	natives	S autolanguage	
F bodyfo	ont	S autoscript	
D data		B checkmissing	
F defau	t	B curs	
D defau	lts	B kern	
F define	efallbackfamily	B mark	
F define	efontfamily	B mkmk	
F define	efontfamilypreset	S mode	
D extras	5	N number	
F fallba	ack	S script	
D fallba	acks	S textcontrol	
F featu	res	B wipemath	
F filefa	allback	T arabic	
F fontda	ata	B analyze	
F fontfa	allback	S autolanguage	
F fonts	nonym	S autoscript	
F goodie	25	B calt	
F mathfa	allback	В сстр	
D method	ds	B clig	
D preset	:s	B curs	
F regist	cerfallback	B dlig	
-	cerfiles	B fina	
F regist	cerfontalternative	B init	
F regist	cerfontfamily	B isol	

B kern	T bengali-two
S language	B abvm
B liga	B abvs
B mark	B akhn
B medi	B blwf
B mkmk	B blwm
S mode	B blws
N number	B calt
B rlig	B cjct
S script	B dist
T ba	B half
S language	B haln
N number	S indic
S script	B init
T bandw:overlay	B kern
B ccmp	S language
B dist	B locl
N number	S mode
T bengali-one	B nukt
B abvm	N number
B abvs	B pres
B akhn	B pstf
B blwf	B psts
B blwm	B rphf
B blws	S script
B calt	B vatu
B cjct	T boldened
B dist	S effect
B half	N number
B haln	T boldened-10
S indic	S effect
B init	N number
B kern	T boldened-15
S language	S effect
B locl	N number
S mode	T boldened-20
B nukt	S effect
N number	N number
B pres	T boldened-25
B pstf	S effect
B psts	N number
B rphf	T boldened-30
S script	S effect
B vatu	N number

Т	ca		S	textcontrol
	S language		В	wipemath
	N number	Т	C	у
	S script		S	language
T	camelcasing		N	number
	B camelcasing		S	script
	N number	Т	C	Z
T	cn		S	language
	S language		N	number
	N number		S	script
	S script	Т	d	e
T	color		S	language
	В сстр		N	number
	S color		S	script
	B dist	Т	d	efault
	N number		S	autolanguage
T	color:bitmap		S	autoscript
	В сстр		В	checkmissing
	B dist		В	curs
	N number		В	itlc
	B sbix		В	kern
T	color:overlay		В	liga
	B ccmp		В	mark
	B colr		В	mkmk
	B dist		S	mode
	N number		N	number
T	color:svg		S	script
	В сстр		S	textcontrol
	B dist		В	wipemath
	N number	Т	d	eo
	B svg		S	language
T	complete		N	number
	S autolanguage		S	script
	S autoscript	Т	d	evanagari-one
	B checkmissing		В	abvm
	B compose		В	abvs
	B curs		В	akhn
	B kern		В	blwf
	B liga		В	blwm
	B mark		В	blws
	B mkmk		В	calt
	S mode		В	cjct
	N number		В	dist
	S script		В	half

B haln	T es
S indic	S language
B kern	N number
S language	S script
B locl	T et
S mode	S language
B nukt	N number
N number	S script
B pres	T f:fractions
B psts	B frac
B rkrf	N number
B rphf	T f:inferiors
S script	N number
B vatu	B subs
T devanagari-two	T f:kern
B abvm	B kern
B abvs	N number
B akhn	T f:kerns
B blwf	B kern
B blwm	N number
B blws	T f:oldstyle
B calt	N number
B cjct	B onum
B dist	T f:smallcaps
B half	N number
B haln	B smcp
S indic	T f:superiors
B kern	N number
S language	B sups
B locl	T f:tabular
S mode	N number
B nukt	B tnum
N number	T fi
B pres	S language
B psts	N number
B rkrf	S script
B rphf	T followtext
S script	B liga
B vatu	N number
T dingbats	T fr
S goodies	S language
S mode	N number
N number	S script
B unicoding	T fullprotrusion

N	I number	В	half
S	protrusion	В	haln
Τç	gr	S	indic
S	language	В	kern
N	I number	S	language
S	script	В	locl
Τç	grek	S	mode
N	I number	В	nukt
S	script	N	number
Τg	gujarati-one	В	pres
В	3 abvm	В	psts
В	3 abvs	В	rkrf
В	3 akhn	В	rphf
В	B blwf	S	script
В	3 blwm	В	vatu
В	B blws	Τç	gurmukhi-one
В	3 calt	В	abvm
В	3 cjct	В	abvs
В	3 dist	В	akhn
В	3 half	В	blwf
В	3 haln	В	blwm
S	indic	В	blws
В	8 kern	В	calt
S	5 language	В	cjct
В	3 locl	В	dist
S	5 mode	В	half
В	3 nukt	В	haln
N	Inumber	S	indic
В	3 pres	В	kern
	3 psts		language
	3 rkrf		locl
	3 rphf		mode
	s script		nukt
	3 vatu		number
	gujarati-two		pres
	3 abvm		pstf
	B abvs		psts
	3 akhn		rphf
	3 blwf		script
	B blwm		vatu
			gurmukhi-two
	3 calt		abvm
	3 cjct		abvs
В	3 dist	В	akhn

B blwf	T hr
B blwm	S language
B blws	N number
B calt	S script
B cjct	T hu
B dist	S language
B half	N number
B haln	S script
S indic	T indic-common
B kern	B abvm
S language	B abvs
B locl	B akhn
S mode	B blwm
B nukt	B blws
N number	B calt
B pres	B dist
B pstf	B haln
B psts	S indic
B rphf	B kern
S script	S language
B vatu	B locl
T hebrew	S mode
B analyze	B nukt
S autolanguage	N number
S autoscript	B pres
B calt	B psts
В сстр	B rphf
B clig	T inlinenumbers
B curs	N number
B dlig	B pnum
B fina	B tnum
B init	T is
B isol	S language
B kern	N number
S language	S script
B liga	T it
B mark	S language
B medi	N number
B mkmk	S script
S mode	T ja
N number	S language
B reordercombining	N number
B rlig	S script
S script	T jamoforms

D lime	
B ljmo	B haln
N number	S indic
B tjmo	B kern
B vjmo	S language
T just-os	B locl
S mode	S mode
N number	B nukt
B onum	N number
T kannada-one	B pref
B abvm	B pres
B abvs	B pstf
B akhn	B psts
B blwf	B rphf
B blwm	S script
B blws	T la
B calt	S language
B cjct	N number
B dist	S script
B half	T latn
B haln	N number
S indic	S script
B kern	T letterspacing
S language	В сстр
B locl	B clig
S mode	B dlig
S mode B nukt	B dlig S keepligatures
	-
B nukt	S keepligatures
B nukt N number	S keepligatures B liga
B nukt N number B pref	S keepligatures B liga N number
B nukt N number B pref B pres	S keepligatures B liga N number B rlig
B nukt N number B pref B pres B pstf	S keepligatures B liga N number B rlig T ligatures
B nukt N number B pref B pres B pstf B psts	S keepligatures B liga N number B rlig T ligatures S autolanguage
B nukt N number B pref B pres B pstf B psts B rphf	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript
B nukt N number B pref B pres B pstf B psts B rphf S script	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm B abvs	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern B liga
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm B abvs B akhn	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern B liga B mark
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm B abvs B akhn B blwf	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern B liga B mark B mkmk
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm B abvs B akhn B blwf B blwm	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern B liga B mark B mkmk S mode
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm B abvs B akhn B blwf B blwm B blws	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern B liga B mark B mkmk S mode N number
B nukt N number B pref B pres B pstf B psts B rphf S script T kannada-two B abvm B abvs B akhn B blwf B blwm B blws B calt	S keepligatures B liga N number B rlig T ligatures S autolanguage S autoscript B checkmissing B curs B kern B liga B mark B mkmk S mode N number S script

S effect	S language
N number	B locl
T lowercasing	S mode
B lowercasing	B nukt
N number	N number
T malayalam-one	B pref
B abvm	B pres
B abvs	B pstf
B akhn	B psts
B blwf	B rphf
B blwm	S script
B blws	T math-script
B calt	B compactmath
B cjct	B flattenaccents
B dist	B kern
B half	S language
B haln	B mathalternates
S indic	S mathexpansion
B kern	S mode
S language	N number
B locl	S script
S mode	N ssty
B nukt	B wipemath
N number	T math-scriptscript
B pref	B compactmath
B pres	B flattenaccents
B pstf	B kern
B psts	S language
B rphf	B mathalternates
S script	S mathexpansion
T malayalam-two	S mode
B abvm	N number
B abvs	S script
B akhn	N ssty
B blwf	B wipemath
B blwm	T math-text
B blws	B compactmath
B calt	B flattenaccents
B cjct	B kern
B dist	S language
B half	B mathalternates
B haln	S mathexpansion
S indic	S mode
B kern	N number

S script	S mode
B ssty	N number
B wipemath	T oldstyle
T mathematics	S autolanguage
B compactmath	S autoscript
B flattenaccents	B checkmissing
B kern	B curs
S language	B kern
B mathalternates	B liga
S mathexpansion	B mark
S mode	B mkmk
N number	S mode
S script	N number
B wipemath	B onum
T mixed	S script
T mongolian	S textcontrol
S autolanguage	B wipemath
S autoscript	T oldstylenumbers
B calt	N number
B checkmissing	B onum
B curs	T original
B fina	S autolanguage
B init	S autoscript
B isol	B checkmissing
B itlc	B curs
B kern	B itlc
B liga	B kern
B mark	B liga
B medi	B mark
B mkmk	B mkmk
S mode	S mode
S mset	N number
N number	S script
B rclt	S textcontrol
B rlig	B wipemath
S script	T oriya-one
S textcontrol	B abvm
B wipemath	B abvs
T nl	B akhn
S language	B blwf
N number	B blwm
S script	B blws
T none	B calt
B features	B cjct

B dist	T pt
B haln	S language
S indic	N number
B kern	S script
S language	T quality
B locl	S expansion
S mode	N number
B nukt	S protrusion
N number	T reordercombining
B pres	N number
B pstf	B reordercombining
B psts	T ro
B rphf	S language
S script	N number
T oriya-two	S script
B abvm	T ru
B abvs	S language
B akhn	N number
B blwf	S script
B blwm	T semitic-complete
B blws	B analyze
B calt	S autolanguage
B cjct	S autoscript
B dist	B calt
B haln	В сстр
S indic	B clig
B kern	B curs
S language	B dlig
B locl	B fina
S mode	B init
B nukt	B isol
N number	B kern
B pres	S language
B pstf	B liga
B psts	B mark
B rphf	B medi
S script	B mkmk
T pl	S mode
S language	N number
N number	B rlig
S script	T semitic-simple
T primes	B analyze
N number	S autolanguage
B primes	S autoscript

В	calt		S	language
В	сстр		В	mark
В	curs		В	medi
В	fina		В	mkmk
В	init		S	mode
В	isol		N	number
В	kern		В	rlig
S	language		S	script
В	mark	Т	S	k
В	medi		S	language
В	mkmk		N	number
S	mode		S	script
N	number	Т	S	ι
В	rlig		S	language
T s	implearabic		N	number
В	analyze		S	script
S	autolanguage	Т	S	lanted
S	autoscript		N	number
В	calt		N	slant
В	сстр	Т	s	mallcaps
В	curs		S	autolanguage
В	fina		S	autoscript
В	init		В	checkmissing
В	isol		В	curs
В	kern		В	kern
S	language		В	mark
В	mark		В	mkmk
В	medi		S	mode
В	mkmk		N	number
S	mode		S	script
N	number		В	smcp
В	rlig		S	textcontrol
S	script		В	wipemath
T s	implehebrew	Т	S	v
В	analyze		S	language
S	autolanguage		N	number
S	autoscript		S	script
В	calt	Т	S	yriac
В	ccmp		В	analyze
В	curs		S	autolanguage
В	fina		S	autoscript
В	init		В	calt
В	isol		В	ccmp
В	kern		В	clig

B curs	S mode
B dlig	B nukt
B fin2	N number
B fin3	B pref
B fina	B pres
B init	B psts
B isol	B rphf
B kern	S script
S language	T tamil-two
B liga	B abvm
B mark	B abvs
B med2	B akhn
B medi	B blwm
B mkmk	B blws
S mode	B calt
N number	B dist
B rlig	B half
S script	B haln
T system:tabnum	S indic
B lnum	B kern
N number	S language
B tnum	B locl
T tabledigits	S mode
N number	B nukt
B tabledigits	N number
B tnum	B pref
T tabularnumbers	B pres
N number	B psts
B pnum	B rphf
B tnum	S script
T tamil-one	T telugu-one
B abvm	B abvm
B abvs	B abvs
B akhn	B akhn
B blwm	B blwf
B blws	B blwm
B calt	B blws
B dist	B calt
B half	B cjct
B haln	B dist
S indic	B half
B kern	B haln
S language	S indic
B locl	B kern

S language	
	S autoscript
B locl	B blwm
S mode	B blws
B nukt	B calt
N number	В сстр
B pref	B checkmissing
B pres	B curs
B pstf	B kern
B psts	S language
B rphf	B liga
S script	B locl
T telugu-two	B mark
B abvm	B mkmk
B abvs	S mode
B akhn	N number
B blwf	S script
B blwm	S textcontrol
B blws	B wipemath
B calt	T tr
B cjct	S language
B dist	N number
B half	S script
B haln	T uk
	S language
S indic	• •
S indic B kern	N number
B kern	N number
B kern S language	N number S script
B kern S language B locl	N number S script T uppercasing
B kern S language B locl S mode	N number S script T uppercasing N number
B kern S language B locl S mode B nukt	N number S script T uppercasing N number B uppercasing
B kern S language B locl S mode B nukt N number	N number S script T uppercasing N number B uppercasing T us
B kern S language B locl S mode B nukt N number B pref B pres B pstf	N number S script T uppercasing N number B uppercasing T us S language N number S script
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts	N number S script T uppercasing N number B uppercasing T us S language N number
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th S language	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern S language
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th S language N number	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern S language B mathalternates
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th S language N number S script	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern S language B mathalternates S mathexpansion
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th S language N number S script T tibetan	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern S language B mathalternates S mathexpansion S mode
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th S language N number S script T tibetan B abvm	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern S language B mathalternates S mathexpansion S mode N number
B kern S language B locl S mode B nukt N number B pref B pres B pstf B psts B rphf S script T th S language N number S script T tibetan	N number S script T uppercasing N number B uppercasing T us S language N number S script T virtualmath B compactmath B flattenaccents B kern S language B mathalternates S mathexpansion S mode

T vn		F resolved	
S language		F uselibrary	
N number		<b>tables</b> table	
S script		toeffect	function
T zero		tracers	table
N number		treatments	table
B zero		F applyfixes	
F showcontext		D data	
F splitcontext		S filename	
D synonyms		F ignoredfile	
D variants		F report	
symbols	table	F trace	
T emoji		typefaces	table

F checked

## functions (context)

**dummy** function

# graphics (context)

backgrounds	table	registerpdffont	function
F fetchmultipar		synchronizers	table
F pair		F collapse	
F path		F collect	
F point		F extend	
bitmaps	table	F getbottom	
F flush		F getd	
F new		F geth	
F placeholder		F getkind	
F tocontext		F getsize	
identifiers	table	F gettask	
F bitmap		F gettop	
F jp2		F getw	
F jpg		F getx	
F png		F gety	
identify	function	F prune	
${\it registerpdfcompactor}$	function		

# gzip (context)

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

# images (context)

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

#### interactions (context)

attachments data table 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

data table

renderings

## interfaces (context)

arrays	table	namesofscanners	table
cachedsetups	data table	namespaces	table
cachesetup	function	F define	table
cardinals	table	F list	
		numbers	table
checkedspecification			20020
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	open	overloaded function
bytes	function	output	overloaded function
characters	function	pathseparator	string
close	function	popen	overloaded function
copydata	function	read	function
exists	function	readall	function
fileseparator	string	readnumber	function
flush	function	readstring	function
gobble	function	savedata	function
input	overloaded function	size	function
lines	overloaded function	stderr	userdata
loadchunk	function	stdin	userdata
loaddata	function	stdout	userdata
loadlines	function	tmpfile	function
newreader	function	type	function
noflines	function	write	function

## 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 x	
F xy	
Fу	
register	function
save	function
structure	table
D collected	
T components	
T namestack	
T tobesaved	
T branches	
S name	
S type	
variables	table
D checksums	
D collected	
F getchecksum	
F makechecksum	
F restore	
F save	
F setchecksum	
	F xy F y register save structure  D collected T components T namestack T tobesaved T branches S name S type variables  D checksums D collected F getchecksum F makechecksum

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)

getcanvasfunctionstatustagetpagedimensionsfunctionF isleftpagesetupcanvasfunctionF leftorrightpageaction

table

## lfs (extra lua)

attributes	overloaded	function	link	overloaded	function
chdir	overloaded	function	mkdir	${\tt overloaded}$	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	extratex	data table
basictex	data table	functions	data table
builtin	data table	globals	data table
extralua	data table	optional	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)

	£	+6	£
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	system	function
reporter	function	texerrormessage	function
resetlogfile	function	writer	function

## lpdf (context)

action	function	copyunicode	function
adddocumentcolorspace	function	deferredobject	function
adddocumentextgstate	function	delayedobject	function
adddocumentpattern	function	destinationspecification	function
adddocumentshade	function	dictionary	function
addtocatalog	function	docstring	function
addtoinfo	function	epdf	table
addtonames	function	F allcontent	
addtopageattributes	function	F analyzefonts	
addtopageresources	function	F contentplugin	
addtopagesattributes	function	F contenttostring	
addxmpinfo	function	F contenttotext	
annotationspecification	function	D encryptioncodes	
array	function	F expanded	
attachmentsymbols	function	F expandwidths	
boolean	function	F fontplugin	
border	function	F getpagecontent	
checkedkey	function	F getstructure	
checkedresources	function	T helpers	
checkedvalue	function	F tounicodetable	
circularshade	function	T image	
close	function	F close	
cmykcode	function	F copy	
collectedresources	function	F new	
color	function	F open	
colorspace	function	F query	
colorspaceconstants	data table	F load	
colorspec	function	F mergewidths	
colorvalue	function	D objectcodes	
colorvalues	function	F objectrange	
commentsymbols	function	F objecttype	
compresslevel	function	F pageplugin	
constant	function	F parsecontent	
copyarray	function	F producer	
copyboolean	function	T resolvers	
copyconstant	function	F destinations	
copydictionary	function	F embeddedfiles	
copyfloat	function	F javascripts	
copyinteger	function	F layers	
copynumber	function	F pages	
copystring	function	F structure	

F widgets		N file	
F unload		N fixed	
F verboseobject		N nocheck	
escaped	function	N protected	
finalizedocument	function	N readonly	
finalizepage	function	N required	
finalizesignature	function	N sorted	
finishtransparencycode	function	N unavailable	
flags	table	flushfonts	function
T annotations		flushgroup	function
N AutoView		flushobject	function
N Hidden		flushstreamfileobject	function
N Invisible		flushstreamobject	function
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		h_hex_2	table
N PushButton		S	
N Radio		S	
N RadiosInUnison		S	
N ReadOnly		S	
N Required		S	
N RichText		S (	

N Sort

S)

S \		registerpagefinalizer	function
h_hex_4	table	registerpattern	function
hasmatrix	function	registersignature	function
immediateobject	function	replacexmpinfo	function
includeimage	function	reserveobject	function
initialize	function	rgbcode	function
injectors	table	rotationcm	function
F bitmap		setcompression	function
F jp2		setencryption	function
F jpg		setincludecidset	function
F png		setincludeprocset	function
injectxmpinfo	function	setpageorder	function
insertxmpinfo	function	setpagestate	function
lastreferredpage	function	setpagetag	function
layerreference	function	setuserdata	function
limited	function	setversion	function
linearshade	function	sharedobject	function
literal	function	shareobject	function
majorversion	function	shareobjectreference	function
makenametree	function	spotcode	function
minorversion	function	stream	function
noffontregistries	function	string	function
nofpages	function	tocidset	function
null	function	toeight	function
number	function	topdfdoc	function
object	function	tosixteen	function
objectcompresslevel	function	transparency	function
pagereference	function	transparencycode	function
patternstream	function	transparencygroups	table
pdfcolor	function	B none	
pdftimestamp	function	transparencyvalue	function
preparesignature	function	unicode	function
print	function	usedcharacters	table
procset	function	usedfontnames	table
protectresources	boolean	N dejavusansmonoboldttf-1-0-0	
rectangle	function	usedfontobjects	table
reference	function	N dejavusansmonoboldttf-1-0-0	
registerannotation	function	usedfontstreams	data table
registerdestination	function	usedindices	table
registerdocumentfinalizer	function	T dejavusansmonoboldttf-1-0-0	
registerfontmethod	function	verbose	function
registerinitializer	function		

# lpeg (basic lua)

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

## lua (basic tex)

bytecode table getversion function bytedata data table lastbytecode number bytedone table messages data table callbytecode function newindex function finalizeinitex function newtable function firstbytecode number numbers data table get_functions_table function registercode function getbytecode function registeredcodes function getdebuginfo function registerinitexfinalizer function getdebuginfo function setbytecode function setbytecode function setbytecode function getgetinctionstable overloaded function setexitcode function getpreciseseconds function setnibble function setnibble function getpreciseseconds function subnibble function getruntime function yersion string getstacktop	addnibble	function	getstartupfile	function
bytedone table messages data table callbytecode function newindex function finalizeinitex function newtable function firstbytecode number numbers data table get_functions_table function registercode function getbytecode function registeredcodes function getdebuginfo function registerinitexfinalizer function getexitcode function setbytecode function setbytecode function getfunctionstable overloaded function setexitcode function getpreciseseconds function startupfile string getpreciseticks function subnibble function getruntime function setring string setruntime function setring string setruntime function setring string	bytecode	table	getversion	function
callbytecodefunctionnewindexfunctionfinalizeinitexfunctionnewtablefunctionfirstbytecodenumbernumbersdata tableget_functions_tablefunctionregistercodefunctiongetbytecodefunctionregisteredcodesfunctiongetcurrenttimefunctionregisterinitexfinalizerfunctiongetdebuginfofunctionregisternamefunctiongetexitcodefunctionsetbytecodefunctiongetfunctionstableoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	bytedata	data table	lastbytecode	number
finalizeinitex function newtable function firstbytecode number numbers data table get_functions_table function registercode function getbytecode function registeredcodes function getcurrenttime function registerinitexfinalizer function getexitcode function setbytecode function setbytecode function getfunctionstable overloaded function setexitcode function getribble function setnibble function setnibble function getpreciseseconds function subnibble function getruntime function subnibble function string	bytedone	table	messages	data table
firstbytecode number numbers data table get_functions_table function registercode function getbytecode function registeredcodes function getcurrenttime function registerinitexfinalizer function getdebuginfo function registername function getexitcode function setbytecode function getfunctionstable overloaded function setexitcode function getnibble function setnibble function setnibble function getpreciseseconds function startupfile string getpreciseticks function version string	callbytecode	function	newindex	function
get_functions_tablefunctionregistercodefunctiongetbytecodefunctionregisteredcodesfunctiongetcurrenttimefunctionregisterinitexfinalizerfunctiongetdebuginfofunctionregisternamefunctiongetexitcodefunctionsetbytecodefunctiongetfunctionstableoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	finalizeinitex	function	newtable	function
getbytecodefunctionregisteredcodesfunctiongetcurrenttimefunctionregisterinitexfinalizerfunctiongetdebuginfofunctionregisternamefunctiongetexitcodefunctionsetbytecodefunctiongetfunctionstableoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	firstbytecode	number	numbers	data table
getcurrenttimefunctionregisterinitexfinalizerfunctiongetdebuginfofunctionregisternamefunctiongetexitcodefunctionsetbytecodefunctiongetfunctionstableoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	get_functions_table	function	registercode	function
getdebuginfofunctionregisternamefunctiongetexitcodefunctionsetbytecodefunctiongetfunctionstableoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	getbytecode	function	registeredcodes	function
getexitcodefunctionsetbytecodefunctiongetfunctionstableoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	getcurrenttime	function	registerinitexfinalizer	function
getfunctionstable getnibbleoverloaded functionsetexitcodefunctiongetnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	getdebuginfo	function	registername	function
getnibblefunctionsetnibblefunctiongetprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	getexitcode	function	setbytecode	function
getprecisesecondsfunctionstartupfilestringgetpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	getfunctionstable	overloaded function	setexitcode	function
getpreciseticksfunctionsubnibblefunctiongetruntimefunctionversionstring	getnibble	function	setnibble	function
getruntime function version string	getpreciseseconds	function	startupfile	string
-	getpreciseticks	function	subnibble	function
<pre>getstacktop function</pre>	getruntime	function	version	string
· ·	getstacktop	function		

### luac (extra lua)

#### luatex (context)

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

F blockfilename wrapup function

F collect

## lxml (context)

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

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

## math (basic lua)

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

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

function

ult

### mathematics (context)

addfallbacks	function	functiontype	function
addvariant	function	gaps	data table
alphabets	data table	getblobindex	function
alternatives	data table	getboth	function
beforepassingfonttotex	function	getdomainname	function
big	function	getextensibledata	function
boldmap	data table	getmathblob	function
categories	table	getoptionallabel	function
D functions		getstyle	function
charactersets	data table	gettextblob	function
checkaftercopyingfont	function	getverboselabel	function
classes	data table	horizontalcode	function
classnames	data table	initializeparameters	function
codes	data table	makefont	function
define	function	mapremap	data table
dictionaries	table	markblobindexdone	function
D data		overloadparameters	function
D defaults		preset	function
D groups		presets	table
F groupset		T less	
F groupsetgroup		T more	
F name		T zero	
D names		privatebase	number
F registercharacter		registerextensible	function
F registergroup		registersimplematrix	function
F registergroupset		registerverboselabel	function
D sets		remapalphabets	function
D variants		renderextensible	function
dimensions	function	renderings	table
disablecollecting	function	D mappings	
domainlabels	table	D numbers	
domainnames	table	D sets	
N default		renderset	function
enablecollecting	function	resetattributes	function
extensiblecode	function	scaleparameters	function
extensibles	data table	setextensibledata	function
extrabase	number	setmathsymbol	function
fallbacks	table	sets	data table
F apply		setsnapping	function
F install		setvariant	function
fallbackstyleattr	function	styles	data table

function syncboth F fixellipses synchame function F fixintegrals function syncstyle F fixoldschool table tagging F fixprimes B mfenced F fixradicals toengineclass function F fixslashes toname function F fixvariants function tostyle F flattenaccents tweakaftercopyingfont function F inspect tweakbeforecopyingfont function F keepbases tweaks table F kernpairs F accentdimensions F kerns F action T kernsets F addactuarian F addarrows F margins F addbars F message F addcomposites F moveitalics F addequals F movelimits F addfourier F parameters F addmirrors F radicalbodymargins F addparts F radicaldegreeanchors F addprivates F replace F addrules F replacealphabets F addscripts F replacerules F bigslots F setoptions F checkaccents F setovershoots F checkspacing F showinfo F copyaccents F simplifykerns T datasets F sortvariants T accentdimensions F staircase T accent T subsets Tover T acenorsuvxz T under T bhklt T addarrows T d 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 letterlike F extendaccents T mw F fallbacks Тр F fixaccents F substitute

F topanchors F tweaks F version F wipeanchors	utfmathclass utfmathcommand utfmathfiller utfmathstretch	function function function function
F wipecues F wipeitalics	variantcode variantcount	function function
F wipewariants F wipeweirdones	virtualize virtualized	function data table

## md5 (extra lua)

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

#### metapost (context)

checkformat checktracingonline cm codes

function function function 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

Nif

N input

N interim

N internal

N iteration

N leftbrace

N leftbracket

N leftdelimiter

N let

N macrodef

N macrospecial

N maketext

N message

N mode

N newinternal

N nullary

N numeric

N of

N ofbinary

N onlyset

N parametertype

N pathconnect

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 tertiarydef

N thingstoadd

N to

N typename

N unary

N undefinedcs

N until		getrecord	function
N void		getstatistics	function
N with		gettext	function
N within		gettolerance	function
N write		graphic	function
colorinitializer	function	graphic_base_pass	function
convert	function	hascurvature	function
currentmpx	function	includesvgbuffer	function
currentmpxstatus	function	includesvgfile	function
defaultformat	string	installplugin	function
defaultinstance	string	isobject	function
defaultmethod	string	knownparameters	table
directrun	function	lastlog	string
escaped	function	load	function
exectime	table	maketext	function
extensiondata	data table	metafonts	table
filterclippath	function	metafun	table
flush	function	F interpolate	
flushers	table	F topath	
T pdf		mptopdf	table
F flushfigure		F convertmpstopdf	
F startfigure		N nofconverted	
F stopfigure		n	number
		"	Tramber
F textfigure		newlogger	function
· -		newlogger nofruns	
F textfigure	function	newlogger	function
F textfigure F tocomment	function table	newlogger nofruns nofscriptruns nvformat	function number
F textfigure F tocomment <b>flushnormalpath</b>		newlogger nofruns nofscriptruns nvformat pdfliterals	function number function
F textfigure F tocomment flushnormalpath fonts		newlogger nofruns nofscriptruns nvformat	function number function function
F textfigure F tocomment flushnormalpath fonts F define	table	newlogger nofruns nofscriptruns nvformat pdfliterals	function number function function function
F textfigure F tocomment flushnormalpath fonts F define format_number	table function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions	function number function function function function
F textfigure F tocomment  flushnormalpath  fonts F define  format_number  format_string	table function function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable	function number function function function function function
F textfigure F tocomment flushnormalpath fonts F define format_number format_string formatnumber	table  function function function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner	function number function function function function function function
F textfigure F tocomment  flushnormalpath  fonts F define  format_number  format_string  formatnumber  getbackendoption  getbendtolerance  getbuffer	table  function function function function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable	function number function function function function function function function
F textfigure F tocomment flushnormalpath fonts F define format_number format_string formatnumber getbackendoption getbendtolerance	function function function function function function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable preparetextextsdata process	function number function function function function function function function function
F textfigure F tocomment  flushnormalpath  fonts F define  format_number  format_string  formatnumber  getbackendoption  getbendtolerance  getbuffer	function function function function function function function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable preparetextextsdata	function number function function function function function function function function
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F textfigure F tocomment  flushnormalpath  fonts F define  format_number  format_string  formatnumber  getbackendoption  getbendtolerance  getbuffer  getclippath  getextensions	function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable popvariables preparetextextsdata process processing	function number function function function function function function function function function function function
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F textfigure F tocomment flushnormalpath fonts F define format_number format_string formatnumber getbackendoption getbendtolerance getbuffer getclippath getextensions getextradata gethashentries getinstancenames getjobdata	function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable popvariables preparetextextsdata process processing processplugins properties pushformat pushscriptrunner	function number function function function function function function function function function function function function function
F textfigure F tocomment flushnormalpath fonts F define format_number format_string formatnumber getbackendoption getbendtolerance getbuffer getclippath getextensions getextradata gethashentries getinstancenames	function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable popvariables preparetextextsdata process processing processplugins properties pushformat pushscriptrunner pushvariable	function number function function function function function function function function function function function function function function function function function
F textfigure F tocomment flushnormalpath fonts F define format_number format_string formatnumber getbackendoption getbendtolerance getbuffer getclippath getextensions getextradata gethashentries getinstancenames getjobdata	function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable popvariables preparetextextsdata process processing processplugins properties pushformat pushscriptrunner	function number function
F textfigure F tocomment flushnormalpath fonts F define format_number format_string formatnumber getbackendoption getbendtolerance getbuffer getclippath getextensions getextradata gethashentries getinstancenames getjobdata getmovetolerance	function	newlogger nofruns nofscriptruns nvformat pdfliterals pluginactions popformat popscriptrunner popvariable popvariables preparetextextsdata process processing processplugins properties pushformat pushscriptrunner pushvariable pushvariables reducetogray	function number function function function function function function function function function function function function function function function function function
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	function	N in		
registerscript registertokens	function	N mm		
remappedtext	function	N pc		
remaptext	function	·		
reporterror	function	N pt		
reportsvgfonts	function	N px <b>svgglyphtomp</b> functi		
reset	function		function	
	function	svgshapestomp	function	
resetbackendoptions	function	svgshapestopdf svgsplitcolor	function	
resetlastlog	function	svgtomp	function	
resetplugins	function	•	function	
run runinternal	function	svgtopdf	function	
runscript	function	sxsy tex	table	
•	function		table	
scanparameters scripterror	function	F get		
•	function	F reset		
scriptindex setbendtolerance	function	F set F setfrombuffer		
setbuffer	function		boolean	
	function	texerrors	function	
setextensions		texexp		
setlogging	function	theclippath	function	
setmovetolerance	function	tographic	function	
setoutercolor 	function	totable	function	
setparameter 	function function	types	table	
setparameterset				
•		N boolean		
setrecord	function	N cmykcolor		
setrecord settext	function function	N cmykcolor N color		
setrecord settext settolerance	function function function	N cmykcolor N color N dependent		
setrecord settext settolerance setvariable	function function function function	N cmykcolor N color N dependent N independent		
setrecord settext settolerance setvariable showlog	function function function function boolean	N cmykcolor N color N dependent N independent N known		
setrecord settext settolerance setvariable showlog showsvgpage	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep		
setrecord settext settolerance setvariable showlog showsvgpage simple	function function function function boolean function function	N cmykcolor N color N dependent N independent N known N nep N numeric		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript	function function function function boolean function function function function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic	function function function function boolean function function function function function	N cmykcolor N color N dependent N independent N known N nep N numeric		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing	function function function function boolean function function function function function function function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic	function function function function boolean function function function function function function function function function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat svgcolorremapper	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture N protodependent		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture N protodependent N string		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat svgcolorremapper	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture N protodependent N string N structured		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat svgcolorremapper svgfactors	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture N protodependent N string N structured N suffixedmacro		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat svgcolorremapper svgfactors N %	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture N protodependent N string N structured N suffixedmacro N tokenlist		
setrecord settext settolerance setvariable showlog showsvgpage simple splitprescript startgraphic startsvghashing stopgraphic stopsvghashing svformat svgcolorremapper svgfactors  N % N bp	function function function function boolean function	N cmykcolor N color N dependent N independent N known N nep N numeric N pair N path N pen N picture N protodependent N string N structured N suffixedmacro N tokenlist N transform		

N unknownpen
N unknownpicture
N unknownstring

N unsuffixedmacro

N vacuous

typesvgpage unload untagvariable variables function function function table

#### mime (context)

b64 function decode function decodet table

F base64

F quoted-printable function dot function encode encodet table

F base64

F quoted-printable

eol function normalize function function qр

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

F base64

F default

F quoted-printable

F text

function wrp

## mp (context)

autoinject	function	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 nefvalues	function	mf blob sizo	function
lmt_contours_nofvalues	function	mf_blob_size	function function
lmt_contours_nx	function	<pre>mf_blob_width mf external figure</pre>	function
lmt_contours_ny	function		
lmt_contours_range		mf_finish_saving_data	function
lmt_contours_shade_paths	function function	mf_formatted_text	function function
lmt_contours_shade_set		mf_get_outline_text	
<pre>lmt_contours_shape_paths lmt_contours_start</pre>	function function	mf_graphic_text	function function
lmt_contours_start		mf_inject_blob	
lmt_contours_stop	function function	mf_map_move	function function
lmt_contours_value	function	mf_map_text	function
lmt_contours_xrange	function	mf_named_color	function
<pre>lmt_contours_yrange</pre>	function	mf_outline_text	function
lmt_function_x		mf_save_data	
<pre>lmt_glyphshape_accent</pre>	function function	mf_script_index	function function
<pre>lmt_glyphshape_baseline</pre>		mf_start_saving_data	
<pre>lmt_glyphshape_boundingbox</pre>	function function	mf_stop_saving_data	function
lmt_glyphshape_depth		mode	function
lmt_glyphshape_height	function	n	function
<pre>lmt_glyphshape_italic</pre>	function	number numeric	function function
<pre>lmt_glyphshape_llx</pre>	function		
lmt_glyphshape_n	function	pair	function
<pre>lmt_glyphshape_path</pre>	function	pairpoints 	function
<pre>lmt_glyphshape_start</pre>	function	path · .	function
lmt_glyphshape_stop	function	pathpoints · .	function
lmt_glyphshape_usedbox	function	points	function
<pre>lmt_glyphshape_usedline</pre>	function	print	function
<pre>lmt_glyphshape_width</pre>	function	F boolean	
lmt_mesh_set	function	F color	
lmt_mesh_update	function	F direct	
<pre>lmt_poisson_generate</pre>	function	F draw	
lmt_start_potrace	function function	F fill	
lmt_step_potrace	function	F flush	
lmt_stop_potrace		F fprint	
lmt_surface_do	function	F integer	
lmt_svg_include	function function	F number	
mf_blob_add		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	

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

### 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 snap	
F alternates		F spacing	
F autofences		F suspicious	
F classes		F tags	
F collapse		F unscript	
F dictionaries	5	F unstack	
F export		F variants	
F families		process	function
F fencing		processnested	function
F intervals		processors	table
F kernpairs		T dictionaries	
F makeup		T intervals	
F normalize		F mlisttohlist	
F numbers		T suspicious	
F relocate		T unscript	
F render		T unstack	
F showtree		processouter	function

#### node (basic tex)

checkdiscretionaries function F getattributelist checkdiscretionary function F getattributes copy function F getboth copylist function F getbottom function count F getbottomdelimiter currentattributes function F getbox dimensions function F getcachestate direct table F getchar F getchardict F addmargins F addxoffset F getcharspec F addxvmargins F getchoice F addyoffset F getclass F appendaftertail F getcornerkerns F checkdiscretionaries F getdata F checkdiscretionary F getdegree F getdelimiter

F collapsing
F copy
F copylist
F copyonly
F count
F currentattributes
F dimensions
F effectiveglue

F endofmath F getfield
F exchange F getfont
F fields F getgeometry
F findattribute F getglue
F findattributerange F getglyphdata
F findnode F getglyphdimensions
F firstchar F getheight

F firstchar F getheight
F firstglyph F getid
F firstglyphnode F getindex
F firstitalicglyph F getinputfields
F flattendiscretionaries F getkern
F flattenleaders F getkerndimension
F flushlist F getlanguage

F flushlist F getlanguage

F flushnode F getleader

F free F getleftdelimiter

F freeze F getlost

F getlanchors F getlistdimensions

F getattribute F getnext

F getdenominator

F getdirection

F getdiscpart

F getexpansion

F getdepth

F getdisc

F getfam

F aetnodes F hasdiscoption F getnormalizedline F hasfield F getnucleus F hasgeometry F getnumerator F hasglyph F getoffsets F hasqlyphoption F getoptions F hpack F getorientation F hyphenating F id F getparstate F getpenalty F ignoremathskip F insertafter F getpost F insertbefore F getpre F isboth F getprev F getprime F ischar F getpropertiestable F isdirect F getproperty F isglyph F isitalicglyph F getreplace F getrightdelimiter F isloop F isnext F getruledimensions F isnextchar F getscale F getscales F isnextqlyph F getscript F isnode F getshift F isprev F getslant F isprevchar F getspeciallist F isprevalyph F getstate F issimilarglyph F getsub F isspeciallist F isvalid F getsubpre F getsubtype F iszeroglue F kerning F getsup F getsuppre F lastnode F gettop F length F gettopdelimiter F ligaturing F gettotal F makeextensible F migrate F getusedattributes F mlisttohlist F getweight F getwhd F naturalhsize F naturalwidth F getwidth F getwordrange F new F getxscale F newcontinuationatom F getxyscales F newmathglyph F getyscale F newtextglyph F gluetostring F patchattributes F hasattribute F patchparshape

F prependbeforehead

F hasdimensions

F protectglyph F setlink F protectglyphs F setlist F protectglyphsnone F setnext F protrusionskippable F setnucleus F rangedimensions F setnumerator F remove F setoffsets F removefromlist F setoptions F repack F setorientation F reverse F setpenalty F serialized F setpost F setanchors F setpre F setattribute F setprev F setattributelist F setprime F setattributes F setproperty F setboth F setreplace F setbottom F setrightdelimiter F setbottomdelimiter F setruledimensions F setscales

F setbox F setchar F setscript F setchardict F setshift F setchoice F setslant F setclass F setspeciallist F setdata F setsplit F setdegree F setstate F setdelimiter F setsub F setdenominator F setsubpre F setdepth F setsubtype F setdirection F setsup F setdisc F setsuppre

F setdiscpart F settop F settopdelimiter F setexpansion F setfam F settotal F setfield F setweight F setwhd F setfont F setwidth F setgeometry F setglue F show F setglyphdata F slide F setheight F softenhyphens

F setheight F softenhyphens
F setindex F startofpar
F setinputfields F subtypes
F setkern F tail
F setlanguage F todirect
F setleader F tonode
F setleftdelimiter F tostring

		4.4	
F tovaliddirect		id	function
F traverse		insertafter	function
F traversechar		insertbefore	function
F traversecontent		instock	function
F traverseglyph		inuse	function
F traverseid		isnode	function
F traverseitalic		iszeroglue 	function
F traverseleader		kerning	function
F traverselist		lastnode	function
F type		length	function
F types		ligaturing	function
F unprotectglyph		makeextensible	function
F unprotectglyphs		mlisttohlist	function
F unsetattribute		new	function
F unsetattributes		protectglyph	function
F usedlist		protectglyphs	function
F usesfont		protrusionskippable	function
F verticalbreak		rangedimensions	function
F vpack		remove	function
F write		serialized	function
F xscaled		setattribute	function
F yscaled		setfield	function
effectiveglue	function	setglue	function
endofmath	function	setproperty	function
family_font	function	show	function
fields	function	slide	function
findattribute	function	subtypes	function
flattendiscretionaries	function	tail	function
flushlist	function	todirect	function
flushnode	function	tonode	function
free	function	tostring	function
getattribute	function	traverse	function
getcachestate	function	traverseid	function
getfield	function	type	function
getglue	function	types	function
getpropertiestable	function	unprotectglyph	function
getproperty	function	unprotectglyphs	function
gluetostring	function	unsetattribute	function
hasattribute	function	usedlist	function
hasfield	function	usesfont	function
hasglyph	function	vpack	function
hpack	function	write	function
hyphenating	function		
<del>-</del>			

#### 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		discodes	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	firstdirinbox	function
boundarycodes	data table	flush	function
boxes	table	flushlist	function
F count		flushnode	function
F dimensions		fullhpack	function
F direct		getattr	function
F dispose		getattribute	function
F found		getboth	function
F prune		getbox	function
F reset		getchar	function
F restore		getfield	function
F save		getfont	function
F savenode		getid	function
builders	table	getleader	function
F buildpage_filter		getlist	function
F vbox_filter		getnext	function
F vpack_filter		getprev	function
choicecodes	data table	getproperty	function
concat	function	getsubtype	function
сору	function	gluecodes	data table
copy_node 	function	glyphcodes	data table
copylist	function	handlers	table
countall	function	F adjusters	
currentattributes	function	F aligncharacter	
delete	function	F backgrounds	
destinations	table	F backgroundspage	
N attribute		F backgroundsvbox	
T done		F characters	
F handler		F checkglyphs	
T stack		F checkparcounter	

F cleanupbox		insertafter	function
F cleanuppage		insertbefore	function
F export		insertlistafter	function
F finalizebox		installattributehandler	
F finalizelist		is display math	function
F flatten		isdirect	function
F flattenline		isnode	function
F mathalignrelocate		isnut	function
F mathmatrixornaments		kerncodes	data table
F mathmatrixrules		leftmarginwidth	function
F migrate		linefillers	table
F protectglyphs		F filler	
Frecolor		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
F setmove		nodecodes	data table
F setposition		nopts	function
F setspacekerns		nuts	table

F flush F addmargins F addxoffset F flushlist F addxymargins F flushnode F free F addyoffset F append F freeze F appendaftertail F fullhpack F apply F getanchors F applyvisuals F getattr F checkdiscretionaries F getattribute F checkslide F getattributelist F collapsing F getattributes T colors F getattrlist F set F getattrs T components F getboth F copynocomponents F getbottom F copyonlyglyphs F getbottomdelimiter F count F getbox F flush F getboxglue F get F getchar F set F getchardict F concat F getcharspec F copy F getchoice F copy\_properties F getclass F copylist F getcomponents F copynode F getcornerkerns F copyonly F getdata F copyvisual F getdegree F getdelimiter F count F countall F getdenominator F currentattributes F getdepth F delete F getdirection F dimensions F getdisc F dirdimensions F getdiscpart F effectiveglue F getdiscretionary F endofmath F getexpansion F exchange F getfam F findattribute F getfield F findnode F getfont F firstchar F getgeometry F firstglyph F getglue F firstglyphnode F getglyphdata F firstitalicglyph F getglyphdimensions

F flattendiscretionaries

F flattenleaders

F getheight

F getid

F getindex F gettopdelimiter F getinputfields F gettotal F getkern F getusedattributes F getkerndimension F getvalue F getlang F getweight F getlanguage F getwhd F getleader F getwidth F getleftdelimiter F getwordrange F getlist F getxscale F getlistdimensions F getxyscales F getmiddle F getyscale F getmiddledelimiter F gluetostring F getnext F hasattribute F getnormalizedline F hasdimensions F getnucleus F hasdiscoption F getnumerator F hasfield F getoffsets F hasgeometry F hasglyph F getoptions F hasglyphoption F getorientation F getparstate F hpack F getpenalty F hyphenating F getpost F ignoremathskip F insertafter F getpre F insertbefore F getprev F insertlistafter F getprime F getprop F is display math F getreplace F isboth F getrightdelimiter F ischar F getruledata F isdirect F getruledimensions F isdone F getscale F isqlyph F isitalicglyph F getscales F getscript F isnext F isnextchar F getshift F getslant F isnextqlyph F isnode F getspeciallist F isnut F getstate F getsub F isprev F isprevchar F getsubpre F getsubtype F isprevglyph F issimilarglyph F getsup F iszeroglue F getsuppre F getsurround F kerning

F gettop

F lastnode

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

F prependbeforehead

F lefthangskip

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 rehpack F setfont 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 setruledimensions F setcomponents F setscale F setdata F setscales F setdegree F setscript

F setshift

F setdelimiter

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

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

function

table **setnext** 

processors

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

F glyphs		F handler
F message		F markfonts
F messages		T modes
F nofsteps		N boundary
F register		N depth
F reset		N dir
F start		N discretionary
F stop		N expansion
F stop		N fontkern
T transparencies		N glue
F reset		N glyph
F set		N hbox
F setlist		N hglue
traverse	function	N hkern
traverseid	function	N hpenalty
typesetters	table	N insert
F hbox		N italic
F hpack		N kern
F tohbox		N line
F tohpack		N marginkern
F tonodes		N mark
F tovbox		N math
F tovpack		N mathglue
F vpack		N mathkern
unsetattribute	function	N origin
upcomingproperties	function	N par
usedlist	function	N penalty
vianodes	function	N simple
vianuts	function	N simplehbox
visualizebox	function	N simplevbox
visualizers	table	N simplevtop
F attribute		N space
T attributes		N strut
F box		N user
F definelayer		N vbox
F enable		N vglue
T filters		N vkern
N hglue		N vpenalty
N hkern		N vtop
N hpenalty		N whatsit
N vglue		F register
N vkern		F registercache
N vpenalty		F setfont
F getusedfont		F setlayer

F setruledglyph
F setvisual **vpack** 

whatsitcodes write

data table function

function

# 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)

	#abla		
curl	table	F load	+-b1-
F escape		loaded	table table
F fetch			tabte
F getversion		F compress	
F initialize		F decompresssize	!
F unescape	toble	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		openssl	table
F find_files		F getversion	
F get_file_types		F initialize	
F initialize		F sign	
F readable_file		F verify	
F set_program_na	me	postgress	table
F var_value		F close	
library	table	F execute	

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

F initialize F open

#### 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)

columnsets	table	F	sethsize	
F add		F	sethspan	
F block		F	setlines	
F check		F	setpropertie	es
F currentcolum	nn	F	setstart	
F define		F	setvsize	
F finishflush		inje	ections	table
F flushareas		F	flushafter	
F flushcolumn		F	flushbefore	
F flushrest		F	save	
F goto		mixe	edcolumns	table
F noto		F	cleanup	
F prepareflush	h	F	finalize	
F put		F	getlist	
F registerarea	а	F	getrest	
F reset		F	getsplit	
F setarea		F	setsplit	

# pdf (context)

immediateobj function

# pdfe (extra tex)

arraytotable	function
close	function
closestream	function
dictionarytotable	function
getarray	function
getboolean	function
getbox	function
getcatalog	function
getdictionary	function
getfromarray	function
getfromdictionary	function
getfromobject	function
getfromreference	function
getfromstream	function
getinfo	function
getinteger	function
getmemoryusage	function
getname	function
getnofobjects	function
getnofpages	function

getnumber	function
getobjectrange	function
getpage	function
getpages	function
getsize	function
getstatus	function
getstream	function
getstring	function
gettrailer	function
getversion	function
new	function
open	function
openfile	function
openstream	function
pagestotable	function
readfromstream	function
readwholestream	function
type	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
makemask	function		

# posit (extra lua)

NaN	function	сору	function
NaR	function	cos	function
add	function	exp	function
band	function	exp2	function
bor	function	floor	function
bxor	function	fromposit	function
div	function	integer	function
eq	function	log	function
le	function	log10	function
lt	function	log1p	function
mul	function	log2	function
name	string	logb	function
pow	function	max	function
shl	function	min	function
shr	function	modf	function
sub	function	new	function
tostring	function	pow	function
unm	function	rotate	function
abs	function	round	function
acos	function	rounded	function
asin	function	shift	function
atan	function	sin	function
band	function	sqrt	function
bor	function	tan	function
bxor	function	tonumber	function
ceil	function	toposit	function
conj	function	tostring	function

#### potrace (extra tex)

checked	function	getbitmap	function
concat	function	new	function
contourplot	function	process	function
convert	function	setbitmap	function
count	function	stripped	function
flush	function	totable	function
free	function	trace	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 endnote	
F save		F json	
lastofrange	function	F lua	
lists	table	F refman	
F collectentries		F registercleaner	
F combiinlist		F xml	
F fetchentries		loadreplacementfile	function
F filterall		meanings	table
F flushcombi		new	function
F flushentry		okay	function
F flushtag		oneorrange	function
T methods		parenttag	function
F dataset		permitted	function
F force		prerollcmdstring	function
F global		refman_to_btx	function
F label		resolvedname	function
F local		save	function
F nofregistered		savers	table
F prepareentries		F bib	
F register		F lua	
F sameasprevious		F xml	
T sorters		search	function
F cite		setcategory	function
F dataset		setspecification	function
F default		singularorplural	function
F index		sortedentries	function
F list		sortmethods	table
F reference		T authortitle	
F short		T sequence	
F used		T authoryear	
F uservariable		T sequence	
listvariants	table	T dataset	
F default		T sequence	
F index		T key	
F num		T sequence	
F short		specifications	table
F tag		T default	
load	function	S author	
loadbibdata	function	S comment	
loaddefinitionfile	function	S copyright	
loaders	table	S name	
F bbl		S version	
F bib		D virtual	
F buffer		splitauthor	function

splitoneauthor function F showdatasetcompleteness statistics table F showdatasetfields N nofbytes F showentry N nofdatasets F showfields N nofdefinitions F showhashedauthors N nofshortcuts F showtables tables table F showvariants table D implicits typesetters D origins F author D privates F string usedataset function D sets function usedentries D specials writers table D types D virtuals F author function tags 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
appendhash	function	findgivenfile
automount	function	findgivenfiles
booleanvariable	function	findlib
cacheversion	string	findpath
checkedvariable	function	findpk
cleanedpathlist	function	findtexfile
cleaners	data table	findwildcardfile
cleanpath	function	findwildcardfiles
cleanpathlist	function	formatofsuffix
cleanupbinfile	function	formatofvariable
concatinators	data table	formats
configbanner	string	foundintree
configurationfiles	function	foundintrees
dangerous	data table	generators
datastate	function	get_from_content
decompressors	table	getenv
F register		getextrapaths
F unregister		getfilehashes
defaultsuffixes	table	gethashes
dirstatus	function	getownpath
dowithfilesandreport	function	getreadfilename
dowithfilesintree	function	hashers
dowithpath	function	homedir
dowithvariable	function	ignorelibrary
executers	table	initialized
expandbraces	function	installinputfilehandler
expandedpathfromlist	function	installinputlinehandler
expandedpathlist	function	jobpath
expandedpathlistfromvariable	function	jobs
expandpath	function	F collectstructure
expandpathfromvariable	function	F currentcomponent
expansion	function	F currentenvironment
extendtexmfvariable	function	F currentproduct
filtered_from_content	function	F currentproject
find_file	function	F currentstructure
find_files	function	F justacomponent
findbinfile	function	F namelist
findctxfile	function	D processors
finders findfile	data table	F productcomponent
TINGTILE	function	F usefile

function data table function function data table function function function function function function function data table string function function function function function table

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

unexpandedpathlist

unresolve

function

function

function

function

registerextrapath

registerfile

updaterelations	function	validatedpath	function
updatescript	function	variable	function
uselibrary	function	variableofformat	function
usertypes	data table	variableofformatorsuffix	function
usezipfile	function	wildcardpattern	function

### sandbox (context)

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

### scripts (context)

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

function

getstatus

```
handlers
                  data table
                  data table
helpers
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
                  function
set
setstatus
                  function
```

splitters

data table

### set (context)

contains function
create function
tolist function

tonumber function
totable function

# sha2 (extra lua)

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

# sio (extra lua)

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

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

### socket (extra lua)

S content-location

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

S reporting-mta

S resent-	occ	protect	function
S resent-	сс	report	function
S resent-	date	select	function
S resent-	from	sink	function
S resent-r	nessage-id	sinkt	table
S resent-	reply-to	F close-when-d	lone
S resent-s	sender	F default	
S resent-	to	F http-chunked	
S retry-a	fter	F keep-open	
S return-	path	skip	function
S sender		sleep	function
S server		source	function
S smtp-rer	note-recipient	sourcet	table
S status		F by-length	
S subject		F default	
S te		F http-chunked	
S to		F until-closed	
S trailer		tcp	function
S transfe	r-encoding	tcp4	function
S upgrade		tcp6	function
S user-age	ent	tp	table
S vary		N TIMEOUT	
S via		F connect	
S warning		try	function
S will-re	try-until	udp	function
S www-auth	henticate	udp4	function
S x-maile	r	udp6	function
F lower		url	table
F normalize		F absolute	
http	table	F build	
N TIMEOUT		F build_path	
S USERAGENT		F escape	
F genericfo	rm	F parse	
F open		F parse_path	
F request		F unescape	
newtry	function		

# sorters (context)

basicsorter	function	B pm	
comparers	table	B uc	
F basic		B zc	
constants	table	B zm	
S defaultdigits		definitions	data table
S 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
Врс		update	function

# sparse (extra lua)

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

# statistics (context)

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

# status (basic tex)

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

### storage (context)

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

# streams (context)

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

# string (basic lua)

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

unquote	function	utfvalue	function
unquoted	function	utfvalues	function
upper	function	utfvaluetable	function
utfcharacter	function	valid	function
utfcharacters	function	voigt	function
utfcharactertable	function	voigt_hwhm	function
utflength	function	wordsplitter	function
utfpadd	function		
utfpadding	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 popnesting
F touserdata		F prefix
inserts	table	F prefixednumber
F attach		F prefixedpage
D data		F process
F define		D pushed
F detach		F pushnesting
F getdata		F rawnumber
F getlocation		F realpage
F getname		F reordered
F getnumber		T result
F nofdetached		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
		marks table
D cached		
D cached D collected		F number
D cached D collected F discard		F number F title
D cached D collected F discard F enhance		F number F title notes table
D cached D collected F discard F enhance T enhancers		F number F title notes table F check_spacing
D cached D collected F discard F enhance T enhancers F external		F number F title  notes table F check_spacing F checkpagechange
D cached D collected F discard F enhance T enhancers F external F filter		F number F title notes table F check_spacing F checkpagechange F define
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber		F number F title  notes table F check_spacing F checkpagechange F define F doifonsamepageasprevious
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult		F number F title  notes table F check_spacing F checkpagechange F define F doifonsamepageasprevious F get
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult F groupindex		F number F title  notes table F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata		F number F title  notes table F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata		F number F title  notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata		F number F title  notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F integrate		F number F title  notes table  F check_spacing F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getinternal F getn F getstate F hascontent
D cached D collected F discard F enhance T enhancers F external F filter F formulanumber F getresult F groupindex F hasnumberdata F haspagedata F hastitledata F integrate F iscached		F number F title  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
D cached D collected F discard 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 number F title  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
D cached D collected F discard 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 F title  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 F internal F internal F listindex D numbers F ordered
D cached D collected F discard 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		F number F title  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 F internal F internal F ordered F postpone
D cached D collected F discard 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 F title  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 F internal F internal F listindex D numbers F ordered

F	save		F	<sup>:</sup> get
F	setstate		F 1	filter
D	states		F 1	filterdefault
F	store		D 1	filters
page	es	table	D 1	flaginternals
F	allmarked		F 1	forceinnermode
F	analyze		F 1	from
D	collected		D 1	functions
F	fraction		Fζ	get
F	getlabels		Fζ	getcurrentlabel
F	in_body		Fζ	getcurrentmetadata
F	is_odd		Fζ	getcurrentprefixspec
F	mark		Fζ	getinnermethod
F	marked		Fζ	getinternalcachedlistreference
F	markedlist		Fζ	getinternallistreference
N	l nofpages		Fζ	getinternalreference
F	number		Fζ	getoutermethod
F	on_right		Dł	nandlers
F	save		Fi	identify
D	tobesaved		Fi	import
F	toranges		Fi	inject
refe	erences	table	Fi	injectcurrentset
F	analyze		Si	innermethod
F	checked		Fi	integrate
F	checkedfile		Di	internals
F	checkedfileorurl		F 1	Load
F	checkedprogram		F 1	loadpresets
F	checkedrealpage		Fn	nark
F	checkedurl		S	outermethod
D	collected		Fβ	oagefromhash
U	componentsplitter		D	pages
F	currentmetadata		Up	orefixsplitter
F	currentorder		D	oroductdata
D	currentset		Τţ	orograms
F	define		Т	data
D	defined		F	define
D	derived		F	get
F	enhance		Fı	realpageofpage
D	executers		Uı	referencesplitter
F	export		Dι	referred
Т	files		Fı	referredpage
	T data		Fı	registerfinalizer
	F define		Fı	registerinitializer
	F found		Fı	registerpage

F reset		F define	
D runners		F enhance	
F set		F extend	
F setandgetattribu		F filter	
F setinternalrefe	rence	F filtercollected	
F setlinkmethod		F finalize	
F setnextinternal		F findinternal	
F setnextorder		F flush	
F setreferencerea	Lpage	F get	
F setstructure		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	
Finner		F tweak	
F special	Li	F unique	
F special operat		F use	
	tion with arguments	F userdata <b>sections</b>	table
T testspecials			table
F deltapage		F autodepth	
Fi		F cct	
F internal		D collected	
F internal F page		D collected F current	
F internal F page F realpage		D collected F current F currentblock	
F internal F page F realpage F section		D collected F current F currentblock F currentid	
F internal F page F realpage F section F userpage		D collected F current F currentblock F currentid F currentlevel	
F internal F page F realpage F section F userpage D tobereferred		D collected F current F currentblock F currentid F currentlevel F currentsectioninde:	×
F internal F page F realpage F section F userpage D tobereferred D tobesaved		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata	×
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber	×
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber	×
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference	×
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex D usedinternals		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex		D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex D usedinternals D usedviews F valid	table	D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levels F matchingtilldepth	×
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex D usedinternals D usedviews	table	D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex D usedinternals D usedviews F valid registers	table	D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numbers	x
F internal F page F realpage F section F userpage D tobereferred D tobesaved D tracedpages T urls T data F define F found F get F untex D usedinternals D usedviews F valid registers F analyze	table	D collected F current F currentblock F currentid F currentlevel F currentsectioninde: F depthnumber F finddata F findnumber F fullnumber F getcurrentlevel F getlevel F getnumber F internalreference D levelmap D levels F matchingtilldepth F numberatdepth	x

F pushblock		F pages	
F register		F prepare	
D registered		F process	
F reportstructure		F register	
F save		F registershown	
T sectionblockdata		F registerused	
T bodypart		F reset	
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 addimplicit	
F getall		F addinternal	
D setlist		F combination	
specials	table	F delimitedsymbol	
D collected		F description	
F retrieve		F descriptionsymbol	
F store		F document	
D tobesaved		F float	
synonyms	table	F formulacontent	
F analyzed		F image	
D collected		F item	
F compare		F itemgroup	
F define		F listitem	
F enhance		F mmultiscripts	
F filter		F msub	
F finalize		F msubsup	
F flush		F msup	
F isshown		F paragraph	
F isused		F publication	
F meaning		F registerlocation	

F registerpages U splitter F registerseparator F pop F section D properties F sorting F push F subsentencesymbol F registerextradata F synonym F registermetadata F tablecell F restart E tabulate F setaspect F tabulatecell F setattributehash T finalizers F setcodepoint F descriptions F setcombination T fixes F setconstruct F linenumber F setfigure T listdata F setfloat T referencehash F setformulacontent F setattribute F sethighlight T usedimages F setitem T image F setitemgroup F setlist T usedstyles T construct F setnotation T hiahliaht F setnotationsymbol 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 settabulatecell F getmetadata F gettablecell F settagdelimitedsymbol F gettabulatecell F settagsubsentencesymbol F handler F setupexport T ignored F setuserproperties F initializeexport D specifications D labels F start F last F stop F lastinchain F strip

D taglist F localexport F locatedtag T usewithcare T patterns

# 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
create	function	setmetatableindex	function
derive	function	setmetatableindices	function
deserialize	function	setmetatablekey	function
drop	function	setmetatablenewindex	function
fastcopy	function	sort	function
fastserialize	function	sorted	function
filtered	function	sortedhash	function
flattened	function	sortedhashkeys	function
fromhash	function	sortedhashonly	function
getmetatablekey	function	sortedindexonly	function
getn	function	sortedkeys	function
has_one_entry	function	sortedpairs	function
hashed	function	sparse	function
identical	function	strip	function
imerge	function	sub	function
imerged	function	swapped	function
insert	function	tocontext	function
is_empty	function	tocsv	function
is_simple_table	function	tofile	function
keys	function	tohandle	function
load	function	tohash	function
loweredkeys	function	toxml	function
makeweak	function	twowaymapper	function
merge	function	unique	function
merged	function	unnest	function
mirrored	function	unpack -	function
move	function	values	function
ordered	function		

# tex (basic tex)

amcode	table	extraprimitives	function
attribute	table	fatalerror	function
automigrationcodes	data table	fillcodes	data table
autoparagraphcodes	data table	flagcodes	data table
badness	function	fontidentifier	function
boundaries	table	fontname	function
D names		forcehmode	function
D numbers		forceinputstatefile	function
F system		forceinputstateline	function
box	table	fprint	function
boxresources	table	frozenparcodes	data table
F getbox		get	function
F getdimensions		getalignmentcontextvalues	function
F save		getamcode	function
F use		getappendlinecontextvalues	function
breakcodes	data table	getattribute	function
buildcodes	data table	getautomigrationvalues	function
catcode	table	getautoparagraphvalues	function
charactertagcodes	data table	getbox	function
chardef	function	getboxdir	function
classoptioncodes	data table	getboxresourcebox	function
codes	table	getboxresourcedimensions	function
conditionals	data table	getbreakcontextvalues	function
constants	data table	getbuildcontextvalues	function
count	table	getcardinalvalue	function
cprint	function	getcatcode	function
ctdcatcodes	number	getcharactertagvalues	function
ctxcatcodes	number	getcount	function
definefont	function	getdelcode	function
delcode	table	getdelcodes	function
dimen	table	getdimen	function
dimensiondef	function	getdimensionvalue	function
directioncodes	data table	getdirectionvalues	function
directives	data table	getdiscoptionvalues	function
discoptioncodes	data table	getdiscstatevalues	function
dontcomplain	function	getdoublescriptoptionvalues	function
doublescriptoptioncodes	data table	geterrorvalues	function
enableprimitives	function	getfillvalues	function
error	function	getflagvalues	function
expandasvalue	function	getfloat	function
experiments	data table	getfontoffamily	function

getfrozenparvalues	function	getmathdir	function
getglue	function	getmathgluevalues	function
getglueoptionvalues	function	getmathoptionvalues	function
getglyphdata	function	getmathparametervalues	function
getglyphoptionvalues	function	getmathscriptordervalues	function
getglyphscales	function	getmathscriptsmodevalues	function
getglyphscript	function	getmathstylenamevalues	function
getglyphstate	function	getmathstylevalues	function
getgroupvalues	function	getmathstylevariant	function
gethccode	function	getmathsurroundvalues	function
gethelptext	function	getmathvariantpresets	function
gethmcode	function	getmathvariantvalues	function
gethyphenationvalues	function	getmeasure	function
getiftypes	function	getmode	function
getinputstatefile	function	getmodevalues	function
getinputstateline	function	getmuglue	function
getinputstatemode	function	getmuskip	function
getinsertcontent	function	getnest	function
getinsertdepth	function	getnestlevel	function
getinsertdistance	function	getnoadoptionvalues	function
getinsertheight	function	getnormalizelinevalues	function
getinsertlimit	function	getnormalizeparvalues	function
getinsertmultiplier	function	getoutputactive	function
getinsertwidth	function	getpacktypevalues	function
getintegervalue	function	getpagecontextvalues	function
getinteraction	function	getpagestate	function
getinteractionmodes	function	getparametermodevalues	function
getiovalues	function	getparcontextvalues	function
getkerneloptionvalues	function	getpardir	function
getlargestusedmark	function	getparmodevalues	function
getlccode	function	getparstate	function
getlinedir	function	getpartriggervalues	function
getlist	function	getpenaltyoptionvalues	function
getlistanchorvalues	function	getpositvalue	function
getlistgeometryvalues	function	getprepoststatevalues	function
getlistsignvalues	function	getprimitiveorigins	function
getlocalbox	function	getprotrusionboundaryvalues	function
getlocallevel	function	getregisterindex	function
getmark	function	getruleoptionvalues	function
getmath	function	getrunstatevalues	function
getmathclassoptionvalues	function	getsfcode	function
getmathcode	function	getshapingpenaltiesvalues	function
getmathcodes	function	getskip	function
getmathcontrolvalues	function	getspecialmathclassvalues	function

function **gettextcontrolvalues** N defaulteqnogapstep aettextdir function N defaulthangafter function aettoks N defaultoutputbox aetuccode function N defaultpredisplaygap **getunitclassvalues** function N defaultrule qlue table N defaultspacefactor glueoptioncodes data table N defaulttolerance glyphoptioncodes data table N deplorable groupcodes data table N ejectpenalty hashtokens function N ignoredepth table hccode N infinitebad table hmcode N infinitepenalty hshcatcodes number N infinity hyphenationcodes data table N largewidthexcess ifs data table N loosecriterion inicatcodes number N mathallclass function integerdef N mathbeginclass interactioncodes data table N mathdefaultpenalty isattribute function N mathendclass ishox function N mathfirstuserclass iscount function N mathlastuserclass isdefined function N maxattributeregisterindex isdimen function N maxboxregisterindex isfloat function N maxbytecodeindex function isalue N maxcalculatedbadness ismuglue function N maxcardinal ismuskip function N maxcategorycode isprintable function N maxcharactercode isskip function N maxdatavalue function istoks N maxdimen function lastnodetype N maxdimenregisterindex table lccode N maxdimension linebreak function N maxdimensionregisterindex listanchorcodes data table N maxendlinecharacter listgeometrycodes data table N maxfloatregisterindex lists table N maxfontadjustshrinkfactor listsigncodes data table N maxfontadjuststep luacatcodes number N maxfontadjuststretchfactor magicconstants table N maxfunctionreference N assumedmathcontrol N maxglueregisterindex N awfulbad N maxhalfvalue N decentcriterion N maxhalfword

N defaultcatcodetable

N defaultdeadcycles

N maxintegerregisterindex

N maxinteger

N maxintregisterindex	N unusedattributevalue	
N maxlimitedscale	N unusedmathfamily	
N maxmarkindex	N unusedmathstyle	
N maxmathclasscode	N unusedscriptvalue	
N maxmathfamilyindex	N unusedstatevalue	
N maxmathscalingfactor	N zeroglue	
N maxmathstylescale	mathchardef	function
N maxmuglueregisterindex	mathcode	table
N maxnewlinecharacter	mathcontrolcodes	data table
N maxnofbytecodes	mathoptioncodes	data table
N maxnofcatcodetables	mathparametercodes	data table
N maxnoffonts	mathscriptordercodes	data table
N maxnoflanguages	mathscriptsmodecodes	data table
N maxnofmarks	modelevels	table
N maxnofmathfamilies	N horizontal	
N maxquarterword	N math	
N maxscalefactor	N unset	
N maxsizeofword	N vertical	
N maxspacefactor	modes	data table
N maxtoksregisterindex	mprint	function
N mincardinal	muglue	table
N mindatavalue	muskip	table
N mindimen	nest	table
N mindimension	nilcatcodes	number
N minhalfword	noadoptioncodes	data table
N mininfinity	normalizelinecodes	data table
N mininteger	normalizeparcodes	data table
N minquarterword	notcatcodes	number
N minscalefactor	number	function
N minspacefactor	parcontextcodes	data table
N nocatcodetable	partriggercodes	data table
N null	penaltyoptioncodes	data table
N nullflag	poplocal	function
N nullfont	popsavelevel	function
N onebp	posit	table
N presetrulethickness	positdef	function
N runningrule	preparelinebreak	function
N smallstretchability	primitives	function
N texeqtbsize	print	function
N texhashprime	protrusionboundarycodes	data table
N texhashsize	prtcatcodes	number
N two	pushlocal	function
N undefinedmathparameter	pushsavelevel	function
N unity	quitlocal	function
•	•	-

audatakaka	£ a.b		function
quittoks	function	setmath	function
resetparagraph	function	setmathcode	function
rlncatcodes	number	setmathdir	function
romannumeral	function	setmuglue	function
round	function	setmuskip	function
ruleoptioncodes	data table	setnest	function
runlocal	function	setpardir	function
runstring	function	setpositvalue	function
runtoks	function	setrunstate	overloaded functi
saveboxresource	function	setsfcode	function
scale	function	setskip	function
scantoks	function	settextdir	function
set	function	settoks	function
setamcode	function	setuccode	function
setattribute	function	sfcode	table
setbox	function	shapingpenaltiescodes	data table
setboxdir	function	shiftparshape	function
setcardinalvalue	function	shipout	function
setcatcode	function	showcontext	function
setconditional	function	skip	table
setcount	function	snapshotpar	function
setdelcode	function	sp	function
setdimen	function	specialmathclasscodes	data table
setdimensionvalue	function	splitbox	function
setfloat	function	sprint	function
setglue	function	stringtocodesbitmap	function
setglyphdata	function	systemmodes	data table
setglyphscript	function	takebox	function
setglyphstate	function	texcatcodes	number
sethccode	function	textcontrolcodes	data table
sethmcode	function	toks	table
setinputstatefile	function	tonumber	function
setinputstateline	function	toscaled	function
setinputstatemode	function	tpacatcodes	number
setinsertcontent	function	tpbcatcodes	number
setinsertdistance	function	tprint	function
setinsertlimit	function	trackers	data table
setinsertmultiplier	function	triggerbuildpage	function
setintegervalue	function	txtcatcodes	number
setinteraction	function	uccode	table
setlccode	function	uprint	function
setlinedir	function	useboxresource	function
setlist	function	userdiscoptioncodes	data table
setlocalbox	function	userglyphoptioncodes	data table
		3 7, 1, 1	

# texconfig (basic tex)

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

# texio (basic tex)

closeinput	function	write	function
forceendoffile	function	write_nl	function
getinputindex	function	writenl	function
getsourcefilename	function	writeselector	function
setlogfile	function	writeselectorlf	function
terminal	function	writeselectornl	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	scancstoken	function
scan argument	function	scandelimited	function
scan box	function	scandetokened	function
scan_cardinal	function	scandimen	function
scan_char	function	scandimenargument	function
scan_cmdchr	function	scandimension	function
scan_cmdchr_expanded	function	scandimensionargument	function
scan_code	function	scanfloat	function
scan_csname	function	scanglue	function
scan_delimited	function	scanint	function
scan_dimen	function	scaninteger	function
scan_dimen_argument	function	scanintegerargument	function
scan_float	function	scankey	function
scan_glue	function	scankeyword	function
scan_integer	function	scankeywordcs	function
scan_integer_argument	function	scanletters	function
scan_key	function	scanluacardinal	function
scan_keyword	function	scanluainteger	function
scan_keyword_cs	function	scanluanumber	function
scan_letters	function	scannext	function
scan_luacardinal	function	scannextchar	function
scan_luainteger	function	scannextexpanded	function
scan_luanumber	function	scanposit	function
scan_next	function	scanreal	function
scan_next_char	function	scanscale	function
scan_next_expanded	function	scanskip	function
scan_real	function	scanstring	function
scan_scale	function	scantoken	function
scan_skip	function	scantokencode	function
scan_string	function	scantokenlist	function
scan_token	function	scantokenstring	function
scan_token_code	function	scantoks	function
scan_tokenlist	function	scanvalue	function
scan_toks	function	scanword	function

serialize	function	setlua	function
set_char	function	setmacro	function
set_dimension	function	skip_next	function
set_integer	function	skip_next_expanded	function
set_lua	function	skipnext	function
set_macro	function	skipnextexpanded	function
setchar	function	type	function
setdimension	function	undefine_macro	function
setinteger	function	undefinemacro	function

# tokens (context)

accessors	table	S todimen		
F active		S toglue		
F cmd		S tonumber		
F cmdchro	CS	S tostring		
F cmdname		create	function	
F command	i	defined	function	
F csname		flags	function	
F expanda	able	getinteger	function	
F frozen		getters	table	
F index		F box		
F name		F count		
F protect	ted	F cstoken		
F range		F dimen		
astable	function	F glue		
bits	table	F macro		
N active		F meaning		
N alignme	ent	F skip		
N begingr	roup	F token		
N charact	ter	gobble	function	
N close		isdefined	function	
N comment	t	istoken	function	
N endgrou	ıp	new	function	
N endofli	ine	pickup	function	
N escape		popmacro	function	
N ignore		presets	table	
N invalid	i	T 1 argumen	t	
N letter		T 1 integer		
N mathshi	N mathshift T 1 optional		l	
N open		T 1 string		
N other		T 2 argumen	T 2 arguments	
N parameter T 2 integers		S		
N space	N space T 2 optionals		ls	
N subscri	ipt	T 2 strings		
N superso	cript	T 3 argumen	ts	
N whitesp	pace	T 3 integer	S	
cache	data table	T 3 optiona	ls	
commands	data table	T 3 strings		
compile	function	T 4 argumen	T 4 arguments	
constant	function	T 4 integer	S	
converters	onverters table T 4 optionals		ls	

T E strings	F luanumber
T 5 strings	F lxmlid
T 6 strings	F next
T 7 strings	
T 8 strings <b>pushmacro</b> function	F nextchar
	F nextexpanded
	F number
F argument	F optional
F argumentasis	F peek
F array	F peekchar
F boolean	F peekexpanded
F box	F posit
F bracketed	F real
F bracketedasis	F scanclose
F cardinal	F scanopen
F char	F skip
F cmdchr	F skipexpanded
F cmdchrexpanded	F string
F code	F table
F conditional	F token
F count	F tokencode
F csname	F tokenlist
F csnameunchecked	F tokens
F delimited	F tokenstring
F detokened	F toks
F dimen	F value
F dimenargument	F vbox
F dimension	F verbatim
F float	F vtop
F glue	F whd
F gluespec	F word
F gluevalues	<b>setinteger</b> function
F hash	<b>setters</b> table
F hbox	F box
F integer	F char
F integerargument	F count
F ischar	F dimen
F key	F glue
F keyword	F lua
F keywordcs	F macro
F letters	F skip
F list	<b>shortcuts</b> table
F lua	T bits
F luacardinal	N active
F luainteger	N alignment

N begingroup	F band
N character	F bor
N close	F bxor
N comment	F ceil
N endgroup	F conj
N endofline	F copy
N escape	F cos
N ignore	F exp
N invalid	F exp2
N letter	F floor
N mathshift	F fromposit
N open	F integer
N other	F log
N parameter	F log10
N space	F log1p
N subscript	F log2
N superscript	F logb
N whitespace	F max
N close	F min
F inspect	F modf
N open	F new
T posit	F pow
F NaN	F rotate
F NaR	F round
Fadd	F rounded
Fband	F shift
Fbor	F sin
Fbxor	F sqrt
Fdiv	F tan
Feq	F tonumber
Fle	F toposit
F _lt	F tostring
Fmul	F report
Sname	F scanargument
Fpow	F scanargumentasis
Fshl	F scanarray
F _shr	F scanboolean
Fsub	F scanbox
Ftostring	F scanbracketed
Funm	F scanbracketedasis
F abs	F scancardinal
F acos	F scanclose
F asin	F scancode
F atan	F scanconditional

F scancsname F gluespec F scancsnameunchecked F gluevalues F scandelimited F hash F scandetokened F hbox F scandimen F integer F scandimenargument F integerargument F scandimension F ischar F scanfloat F kev F scanglue F keyword F scangluespec F keywordcs F scangluevalues F letters F scanhash F list F scanhbox F lua F luacardinal F scaninteger F scanintegerargument F luainteger F scankeyword F luanumber F scankeywordcs F lxmlid F scanletters F next F scanlist F nextchar F nextexpanded F scanlua T scanners F number F argument F optional F argumentasis F peek F array F peekchar F boolean F peekexpanded F box F posit F bracketed F real F bracketedasis F scanclose F cardinal F scanopen F char F skip F cmdchr F skipexpanded F cmdchrexpanded F string F code F table F conditional F token F count F tokencode F csname F tokenlist F csnameunchecked F tokens F delimited F tokenstring F detokened F toks F dimen F value F dimenargument F vbox F dimension F verbatim F float F vtop

F glue

F whd

F word	T getters
F scannumber	F box
F scanopen	F count
F scanoptional	F cstoken
F scanstring	F dimen
F scantable	F glue
F scantokenlist	F macro
F scantokenstring	F meaning
F scantoks	F skip
F scanvbox	F token
F scanverbatim	F gobble
F scanvtop	F isdefined
F scanword	F istoken
F toboolean	F new
F todimen	F pickup
T tokens	F popmacro
T accessors	T presets
F active	F pushmacro
F cmd	F setinteger
F cmdchrcs	T setters
F cmdname	F box
F command	F char
F csname	F count
F expandable	F dimen
F frozen	F glue
Findex	F lua
F name	F macro
F protected	F skip
F range	T shortcuts
F astable	N close
D cache	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
S tostring	F scanbracketedasis
F create	F scancardinal
F defined	F scanclose
F flags	F scancode
F getinteger	F scanconditional

F scannumber F scancsname F scancsnameunchecked F scanopen F scandelimited F scanoptional F scandetokened F scanstring F scandimen F scantable F scandimenargument F scantokenlist F scandimension F scantokenstring F scanfloat F scantoks F scanglue F scanvbox F scangluespec F scanverbatim F scangluevalues F scanvtop F scanhash F scanword F scanhbox F toboolean F scaninteger F todimen F scanintegerargument F tonumber F scankeyword F tostring F scankeywordcs D values

F scanlua values data table

F tonumber

F tostring

F scanletters

F scanlist

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

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

# 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)

F disable F enable F enable F savestats F showstats F showstats F showtraceback  files F close F getposition F getposition F getsize F look F getsize F writeardinall F open F read2dot14 F readbyte F readbyte F readbyte F readbyte F readordinall F readcardinall F readcardinal F readcardinal F readcard F readcardinal F readcard F readcar	debugger	table		F readsignedbyte	
F enable F savestats F showstats F showstraceback F showtraceback F sclose F close F getposition F getposition F getsize F writeardinal1 F open F read2dot14 F read2dot14 F read2dot14 F readbyte F readbyte F readdytes F readotardinal1 F readcardinal1 F readcardinal2 F readcardinal1 F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal2 F readcardinal3 F reitecardinal4 F readcardinal4 F r		tabte			•
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F readinteger ghostscript table F readinteger1 F convert F readinteger2 graphicmagick table F readinteger2 F convert F readinteger3 F statistics F readinteger3 F statistics F readinteger4 F convert F readinteger4 F convert F readinteger4 F statistics	F readfixed2			F list	
F readinteger1 F readinteger2 F readinteger2 F readinteger2 F readinteger3 F readinteger3 F readinteger3 F readinteger4 F readinteger4 F readinteger4 F readinteger4 F readinteger4 F readinteger4 F statistics F statistics F statistics	F readfixed4			F stripzeros	
F readinteger1le F readinteger2  F readinteger2 F readinteger2le F readinteger3 F readinteger3 F readinteger3 F readinteger4 F statistics	F readinteger		9	ghostscript	table
F readinteger2  F readinteger2le  F readinteger3  F readinteger3  F readinteger3  F readinteger4  F readinteger4  F readinteger4  F readinteger4  F statistics	F readinteger1			F convert	
F readinteger2le F convert F readinteger3 F statistics F readinteger3le <b>graphicsmagick</b> table F readinteger4 F convert F readinteger4le F statistics	F readinteger1	le		F statistics	
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	F readinteger4			F convert	
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1 Tedainteger table	F readintegerta	able	1	lua	table

B alwaysstripcode	B auto
F checkmemory	B broad
F compile	B fit
F loadedluacode	B max
F loadstring	B min
F loadstripped	T text,hidden,paper,page,leftpage,rightpage
N nofstrippedbytes	B hidden
N nofstrippedchunks	B leftpage
F registerfinalizer	B page
B stripcode	B paper
T strippedchunks	B rightpage
F strippedloadstring	B text
T suffixes	F iterator
S lmt	F keq_to_hash
S lua	F listitem
S luc	F make_settings_to_hash_pattern
S lui	F mergehashes
S luj	F options_to_array
S luv	F options_to_hash
S tma	T patterns
S tmc	U settings_to_array
S tua	U settings_to_hash_a
S tuc	U settings_to_hash_b
<b>packers</b> table	U settings_to_hash_c
F hashed	U settings_to_hash_d
F new	U unittotex
F pack	F process_stripped_settings
F simplehashed	F rfc4180splitter
F strip	F runtime
F unpack	F settings_to_array
N version parsers table	F settings_to_array_obey_fences
<b>F 3.3.1.2</b>	F settings_to_array_with_repeat
F add_settings_to_array	F settings_to_hash
F arguments_to_table	F settings_to_hash_colon_too
F array_to_string F csvsplitter	<pre>F settings_to_hash_strict F settings to hash tolerant</pre>
,	F settings_to_numbers
F getparameters F groupedsplitat	F settings_to_set
F hash to string	F simple hash to string
T hashes	F splitmethod
T settings to list	F splitthousands
T tablet	F stepper
T settings to set	F stripped settings to array
T min,max,fit,broad,auto	F totime
• • • • • • • • • • • • • • • • • • • •	

F unittotex		F	show	
F unittoxml		stac	ker	table
randomizer	table	F	new	
F get		stor	age	table
F getnumber		F	allocate	
F getrepeatable		F	checked	
F getrepeatables	eed	F	mark	
F getseed		F	marked	
F newrepeatable		F	setinitializer	
F popseed		F	sparse	
F pushseed		stre	ams	table
F repeatable		F	close	
F reuseseed		F	getposition	
F setseed		F	getsize	
F setseedi		F	getstring	
randomizers	table	F	look	
F poisson		F	open	
sequencers	table	F	openstring	
F appendaction		F	read2dot14	
F appendgroup		F	readbyte	
F compile		F	readbytes	
F disableaction		F	readbytetable	
F disablegroup		F	readcardinal	
F enableaction		F	readcardinal1	
F enablegroup		F	readcardinal1le	e
D functions		F	readcardinal2	
F localize		F	readcardinal2le	е
F new		F	readcardinal3	
F nodeprocessor		F	readcardinal3le	е
F prependaction		F	readcardinal4	
F prependgroup		F	readcardinal4le	е
F removeaction		F	readcardinalta	ole
F replaceaction		F	readchar	
F setkind		F	readcline	
F tostring		F	readcstring	
setters	table	F	readfixed2	
F disable		F	readfixed4	
F enable		F	readinteger	
F initialize		F	readinteger1	
F list		F	readinteger1le	
F new		F	readinteger2	
F register		F	readinteger2le	
F report		F	readinteger3	
F reset		F	readinteger3le	

C mandintagen4	[ defined to blo
F readinteger4	F definedtable
F readinteger4le	F definetable
F readintegertable	F encapsulate F insertaftervalue
F readsignedbyte	
F readstring	F insertbeforevalue
F setposition	F migratetable
F size	F removevalue
F skip	F replacevalue
F skipbytes	tar table
F skiplong	T archives
F skipshort	F closearchive
F tocardinal1	T files
F tocardinal1le	F fetch
F tocardinal2	F hash
F tocardinal2le	F list
F tocardinal3	F pack
F tocardinal3le	F unpack
F tocardinal4	F openarchive
F tocardinal4le	T registeredfiles
<b>strings</b> table	T streams
F collapse	F fetch
F collapsecrlf	F hash
T formatters	F list
F add	F pack
F new	F unpack
F newcollector	T strings
F newrepeater	F fetch
F nice	F hash
T striplinepatterns	F list
U collapse	F pack
U collapse all	F unpack
U prune	<b>templates</b> table
U prune and collapse	F load
U prune and no empty	F replace
U prune and to space	F replacer
U retain	F resolve
U retain and collapse	<b>zipfiles</b> table
U retain and no empty	F close
F striplines	F found
F striplong	F hash
F tabtospace	F list
T tracers	F open
tables table	F unzip
F accesstable	F unzipdir

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

# xdecimal (extra lua)

add	function	bxor	function
band	function	conj	function
bor	function	сору	function
bxor	function	exp	function
div	function	getprecision	function
eq	function	ln	function
idiv	function	log	function
le	function	max	function
lt	function	min	function
mod	function	minus	function
mul	function	new	function
name	string	plus	function
pow	function	pow	function
shl	function	rotate	function
shr	function	setprecision	function
sub	function	shift	function
tostring	function	sqrt	function
unm	function	toengstring	function
abs	function	tonumber	function
band	function	tostring	function
bor	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 tags	
F lower		F text	
F name		F upper	
F number		F upperall	
F oneof		F url	
F print		F xml	
F quit		T xml	
F tag		F all	
F text		F att	
F undefined		F attribute	
F upper		F attributes	
fillin	function	F cdata	
filter	function	F chainattribute	
finalizers	table	F count	
F paragraphs		F default	
T tex		F elements	
F all		F empty	
F attribute		F first	
F chainattribute		F function	
F chainpath		F index	
F collapsed		F last	
F command		F lowerall	
F concat		F match	
F concatrange		F name	
F context		F position	
F count		F reverse	
F ctxtext		F table	
F default		F tag	
F depth		F tags	
F first		F text	
F function		F texts	
F index		F tomacro	
F last		F upperall	
F lettered		F url	
F lower		first	function
F lowerall		found	function
F match		functions	table
F name		F classes	
F param		F hasclass	£ +
F parameter		getbuffer	function
F position		gethandlers	function
F reverse		gethandlersfunction	function
F stripped		helpers	table
F tag		F recursetext	

include	function	F tex	
inclusion	function	placeholders	table
inclusions	function	F unknown any entity	cabic
index	function	F unknown dec entity	
inheritattributes	function	F unknown hex entity	
inheritedconvert	function	popmatch	function
inject	function	position	function
inject_element	function	privatecodes	data table
inject_element_after	function	privatetoken	function
inject_element_before		process	function
injectafter	function	process_attributes	function
injectbefore	function	process_elements	function
insert	function	processattributes	function
insert element	function	profiled	table
insert_element_after	function	pure	function
insert element before		pushmatch	function
insertafter	function	raw	function
insertbefore	function	registerentity	function
insertcdata	function	registerns	function
insertcomment	function	reindex	function
inspect	function	remap name	function
is_valid	function	remap namespace	function
kind	function	remap tag	function
last	function	remapname	function
lastmatch	function	remapnamespace	function
load	function	remaptag	function
lpath	function	rename	function
lpathcached	function	renamespace	function
lpathcalls	function	reparsedentitylpeg	userdata
lshow	function	replace	function
makestandalone	function	replace_element	<del>function</del>
match	function	resetinjectors	function
mml	table	resolvens	function
F stripped		root	function
F verbose		save	function
name	function	selection	function
newhandlers	function	separate	function
nodesettostring	function	serialize	function
originalload	function	serializetotext	function
package	function	setcdata	function
parent	function	setcomment	function
parsedentitylpeg	userdata	sethandlersfunction	function
pihandlers	table	setinjectors	function
F injector		setproperty	function

settings	function
specialcodes	data table
specialhandler	table
sprint	function
string	function
strip	function
strip_whitespace	<b>function</b>
stripelement	function
stripleadingspaces	function
table	function
text	function
textonly	function
texttocdata	function
tocdata	function
toelement	function

function
function
userdata
function
table

# xzip (extra lua)

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

### zip (context)

archives table
closearchive function

openarchive function
registeredfiles table

# zlib (context)

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