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

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

## global (alias: \_G)

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

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

type

function

function

rawlen

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

## attributes (context)

applyoverloads	function	N	main	
colorintents	table		main	
	table		model	
N attribute			models	
D data			mpcolor	
F enable			mpnamedcolor	
F handler			mpoptions	
F register			namedcolorattr	ibutes
D registered	4-61-		none	
colors	table		popset	
N attribute			processcolorco	omponents
F cmyk			pushset	
F cmyktogray			register	
F cmyktorgb			registered	_
F colorcomponent	S		registerspotco	lor
D counts			rgb	
B couple			rgbtocmyk	
F currentmodel			rgbtogray	
F currentnamedmo	del		rgbtohsv	
D data			selector	
N default			setlist	
F defineintermed			setmodel	
F definemultiton			setpagecolormo	odel
F defineprocessc		D	sets	
F definesimplegr	-	F	spec	
F definespotcolo			spot	
F definetranspar	ency	F	spotcolorname	
F enable			spotcolorparer	
F filter			spotcolorvalue	2
N forced			supported	
F forcedmodel		F	toattributes	
F forcesupport		F	transparencyco	omponents
F formatcolor		В	triggering	
F formatgray		F	usecolors	
F getpagecolormo	del	D	valid	
F gray		F	value	
F graytohsv		D	values	
F handler			weightgray	
F hsvtogray		defi		function
F hsvtorgb		effe	ects	table
F iccprofile		N	attribute	
F isblack		D	data	

F			N1	
F enable			N colordodge	
F handler			N darken	
F register			N difference	
D registered			N exclusion	
D values handlers	table		N hardlight	
list			N hue	
	data table		N lighten	
markasoverload	function data table		N luminosity	
names			N multiply	
negatives	table		N none	
N attribute			N normal	
D data			N overlay	
F enable			N saturation	
F handler			N screen	
F register			N softlight	
D registered			none	
F set		F	register	
numbers	data table	D	registered	
ofnode	function	В	supported	
private	function	F	toattribute	
public	function	В	triggering	
restore	function	F	value	
save	function	D	values	
showcurrent	function	unse	tvalue	number
states	table	view	erlayers	table
F disabletrigger	ing	N	attribute	
F enabletriggeri	ng	F	cleanup	
F finalize		D	data	
F initialize		F	define	
F process		F	definedlayoutco	mponent
F selective		F	enable	
F stacked		F	forcesupport	
F stacker		F	handler	
system	function	В	hasorder	
tooverloads	function	D	listwise	
transparencies	table	F	register	
N attribute		D	registered	
D data		F	resolve_begin	
F enable		F	resolve_end	
F forcesupport		F	resolve_reset	
F handler		F	resolve_step	
T names		D	scopes	
N color		_		
		F	setfeatures	
N colorburn			start	

B supported

#### backends (context)

F getfieldcategory

codeinjections table F aetfieldset F boxresourcedimensions F getformatoption F getinfo F registerboxresource F restoreboxresource F getpreviewfigure current strina F insertrenderingwindow defaults table F mergebookmarks T codeiniections F mergecomments F mergefields F getpagedimensions F lmtxmode F mergereferences F setpagedimensions F mergeviewerlayers T nodeiniections F prerollreference T registrations F presetsymbol D tables F presetsymbollist included table F print B context F processrendering R date F registerdocumentcloseaction Bid F registerdocumentopenaction F registeredsymbol B metadata B pdf F registerpagecloseaction install function F registerpageopenaction nodeinjections table F registersymbol noflatelua function F setfieldcalculationset nothina function F setfigurealternative pdf table F setfigurecolorspace T codeinjections F setfiguremask F addbookmarks F setformat F analyzenormalsymbol F setformsmethod F setpagetransition F analyzesymbol F attachmentid F setupcanvas F clonefield F setupidentity F definefield F setxmpfile F definefieldset F startlaver F defineviewerlayer F startunicodetoactualtext F embedfile F startunicodetoactualtextdirect F enabletags F stoplayer F exportformdata F stopunicodetoactualtext F fieldsurrounding F stopunicodetoactualtextdirect F flushmergelayer F supportedformats F unicodetoactualtext F getbookmarks F getdefaultfieldvalue F useviewerlaver

F validfield

F validfieldcategory
F validfieldset

S comment

T nodeinjections

F addtags F annotation

F attachfile F changestackedlayer

F cmykcolor
F comment
F destination

F effect
F graycolor
F injectbitmap
F insertmovie

F insertsound F insertswf

F insertu3d F knockout

F negative F overprint

F positive F reference F rgbcolor
F spotcolor
F startlayer

F startstackedlayer

F stoplayer

F stopstackedlayer
F transparency
F typesetfield
T registrations
F cmykindexcolor
F cmykspotcolor

F getspotcolorreference

F grayindexcolor
F grayspotcolor
F rgbindexcolor
F rgbspotcolor
F spotcolorname
F transparency

T tables

D vfspecials

registrations table
tables table
timestamp function

## bit32 (basic lua)

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

## blobs (context)

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

## boolean (context)

tocontext function
tonumber function

## buffers (context)

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

## builders (context)

checksidefloat	function	F split	
kernel	table	F start	
F hyphenating	cubic	F stop	
F hyphenation		F tag	
F kerning		<b>profiling</b> tab	ol e
F ligaturing		F add	,
F mlist_to_hlist		F distance	
paragraphs	table	F fixedprofile	
T constructors		F get	
N attribute		F list	
F define		F pagehandler	
F disable		F profilebox	
F enable		F set	
F handler		<b>vspacing</b> tab	ole
T methods		F analyze	
F basic		D categories	
F default		F collapsevbox	
F hpack		T data	
F oneline		D map	
D names		D skip	
D numbers		D snapmethods	
F set		F definesnapmethod	
F start		B fixed	
F stop		F forcepageflush	
T expansion		F forcestrutdepth	
F trace		F getnofpreviouslines	5
F keeptogether		F pagehandler	
F registertogeth	ner	F pageoverflow	
T solutions		F setmap	
T splitters		F setskip	
F define		F snapbox	
F optimize		F synchronizepage	
T registered		F tocategories	
F reset		F tocategory	
F set		F vboxhandler	

## caches (context)

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

#### callback (basic tex)

find function
list function

register overloaded function

#### callbacks (context)

B hpack\_quality

freeze function B hyphenate functions table B insert local par F process rule B kerning B ligaturing F start page number F stop page number B linebreak filter known function B make\_extensible list data table B mlist\_to\_hlist gog function B new graf function push B open read file function register B page objnum provider function report B post linebreak filter supported table B pre dump B append to vlist filter B pre linebreak filter B build page insert B pre output filter B buildpage filter B process input buffer B call edit B process jobname B contribute\_filter B process\_output\_buffer B define font B process pdf image content B find cidmap file B process rule B find\_data\_file B read\_cidmap\_file B find\_enc\_file B read data file B find font file B read enc file B find format file B read font file B find\_image\_file B read map file B find map file B read opentype file B find opentype file B read pk file B find\_output\_file B read\_truetype\_file B find\_pk\_file B read\_type1\_file B find read file B read vf file B find\_truetype\_file B show\_error\_hook B find\_type1\_file B show\_error\_message B find\_vf\_file B show\_lua\_error\_hook B find write file B show warning message B finish pdffile B start file B finish\_pdfpage B start\_page\_number B finish\_synctex B start\_run B font descriptor objnum provider B stop file B glyph\_not\_found B stop\_page\_number B glyph\_stream\_provider B stop\_run B hpack filter B vpack filter

B vpack\_quality

B wrapup\_run

#### catcodes (context)

 register function

#### characters (context)

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

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

T char T compat

subscripts superscripts synonyms tex

table table data table table

D accentmapping D commandmapping F defineaccents F safechar

F toutf

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

#### chemistry (context)

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

molecule
moleculeparser
start
stop
structures
undefine
function
function
number
function

## containers (context)

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

#### converters (context)

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

upper function weekday function
verbose table word function
D data words function
F translate year function

## coroutine (basic lua)

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

#### ctxrunner (context)

load function prepfiles data table
preparedfile function resolve function

#### dir (context)

collectpattern	function	globpattern
current	function	ls
expandname	function	makedirs
found	function	mkdirs
glob	function	рор
globdirs	function	push
alohfiles	function	

function

function function function function

## directives (context)

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

#### document (context)

arguments files **functions** getargument getfilename options

data table table table function function table

D modes D modules

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

T commandline D environments

D modes D modules T ctxfile

## documentdata (context)

variable function

#### drivers (context)

convert function
enable function
helpers table

F tomatrix

install function
instances table

T default

T actions F convert

F outputfilename

T flushers S name

lmtxversion number
outputfilename function

## environment (context)

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

#### experiments (context)

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

register function report function reset function show function value function

## figures (context)

applyratio	function	F write	
badname	function	F check	
bases	data table	F checksize	
bitmapimage	function	F copy	
boxnumber	number	F create	
cachepaths	data table	F embed	
check	function	T keys	
checkers	data table	F print	
converters	data table	F scan	
current	function	F serialize	
defaultdepth	number	T sizes	
defaultheight	number	B art	
defaultsearch	boolean	B bleed	
defaultwidth	number	В сгор	
done	function	B media	
dummy	function	B none	
existers	data table	B trim	
exists	function	F totable	
formats	data table	T types	
found	data table	N jbig2	
get	function	N jp2	
getinfo	function	N jpg	
getpdfinfo	function	N memstream	
getrealpage	function	N none	
guess	function	N pdf	
guessfromstring	function	N png	
hash	function	N stream	
identifiers	data table	F wrap	
identify	function	include	function
images	table	includers	data table
Timg		initialize	function
F boxes		loaded	data table
F copy		localpaths	data table
F fields		magics	data table
F immediatewrite		mergegoodies	function
F immediatewrited	bject	nofmissing	number
F keys		nofprocessed	number
F new		order data table	
F node		paths	data table
F scan		patterns	data table
F types		pop	function

preferquality	boolean
programs	data table
push	function
registerpattern	function
registerresource	function
registersuffix	function
resources	data table
scale	function
set	function

setlookups	function	
setmemstream	function	
setorder	function	
setpaths	function	
suffixes	data table	
used	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)

checkpermission	function	readfixed4	function
getposition	function	readinteger1	function
read2dot14	function	readinteger2	function
readbytes	function	readinteger3	function
readbytetable	function	readinteger4	function
readcardinal1	function	readintegertable	function
readcardinal2	function	readline	function
readcardinal3	function	recordfilename	function
readcardinal4	function	setposition	function
readcardinaltable	function	skipposition	function
readfixed2	function		

## floats (context)

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

### font (basic tex)

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

### fonts (context)

analyzers	table	F collectprocessors
D features		F currentfonthasfeature
D initializers		D designsizes
D methods		D dontembed
F setstate		F enhanceparameters
D states		T enhancers
B useunicodemarks		T afm
checkers	table	F apply
F getmissing		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 found		T patches
F prepare		F register
F process		F report
F registermain		F register
F report		F report
F reset		T tfm
T vectors		F apply
constructors	table	F patch
F addcharacters		T patches
F addcoreunicodes		F register
B addtounicode		F report
F aftercopyingcha	racters	F register
F applymanipulato	rs	F report
F assignmathparame	eters	N factor
B autocleanup		T features
F beforecopyingcha	aracters	D afm
D cache		D otf
B cacheintex		D tfm
F calculatescale		F finalize
F checkedfeatures		F getfeatureaction
F checkedfilename		F getmathparameter
F cleanuptable		F getprivate

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 devanagari_remove_joiners
D rightkerned	F devanagari_reorder_matras
D texligatures	F devanagari_reorder_pre_base_reordering_consonants
Fload	F devanagari_reorder_reph
T readers	F gpos_context
F getinfo	F gpos_contextchain
Floadfont	F gpos_cursive
F loadshapes	F gpos_mark2base
F setfeatures	F gpos_mark2ligature
B syncspace	F gpos_mark2mark
N version	F gpos_pair
T otf	F gpos_single
F addfeature	F gsub_alternate
F basemodeinitializer	F gsub_context
D cache	F gsub_contextchain
F collectlookups	F gsub_ligature
T coverup	F gsub_multiple
T actions	F gsub_reversecontextchain
F alternate	F gsub_single
F chainposition	F trigger_space_kerns
F chainsubstitution	T helpers
F kern	F blockligatures
F ligature	F pardirstate
F multiple	F txtdirstate
F pair	F load
F single	F loadoutlinedata
F substitution	F loadstreamdata
F register	F modeinitializer
S stepkey	D pdfcache
F dataset	F plugininitializer
F datasetpositionprocessor	F pluginprocessor
S defaultbasealternate	T plugins
S defaultnodealternate	T png
D features	F topdf
F featuresinitializer	D pngcache

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

F woff2otf F readbytetable F readcardinal F registerpalette F readcardinal1 F registerplugin F readcardinal2 F reorderlookups F readcardinal2le F scriptandlanguage F readcardinal3 F setdynamics F readcardinal3le F setfeatures F readcardinal4 T statistics F readcardinal4le D usedfeatures F readcardinaltable F storepdfdata F readchar T sva F readfixed2 F filterglyph F readfixed4 F topdf F readinteger D sygcache F readinteger1 B sygenabled F readinteger2 T tables F readinteger2le D baselines F readinteger3 D features F readinteger3le D featuretypes F readinteger4 D languages F readinteger4le D scripts F readintegertable N version F readsignedbyte T pfb F readstring F loadvector F readtag T tfm F setposition F addtounicode F size D cache F skip D features N maxnestingdepth F skiplong F skipposition N maxnestingsize F skipshort T readers F writebyte F loadpk F writecardinal2 F loadtfm F loadtfmvf F writecardinal4 F writestring F loadvf F stripredundant F pktopdf F showpk F svq N tableversion F reencode F unifymissing F setfeatures F unpack N version F vhea T vf F vmtx T combinations F combine F vorg F vvar T combiner

D commands S vfactor D helpers S width D math S xheight D predefined T properties N version S autoitalicamount S cidinfo D whatever F hashfeatures T effect F hashinstance S ddelta T hashmethods S effect F normal S factor F virtual S hdelta F initializefeatures S hfactor T keys S vfactor S wdelta T characters S width T descriptions T parameters S embedding S ascender S encodingbytes S descender S filename S finalized S designsize S fontname T expansion S auto S format S shrink S fullname S step S hasitalics S stretch S hasmath S extendfactor S mathitalics S factor S mode S hfactor S name S mathsize S nostackmath S mode S psname T protrusion S textitalics S auto S virtualized S quad D loadedfonts S scaledpoints S namemode N noffontsloaded S scriptpercentage N nofsharedfonts S scriptscriptpercentage S size N nofsharedhashes S slantfactor N nofsharedvectors N privateoffset S slantperpoint T spacing D privateslots S extra F readanddefine S shrink F registerfeature S stretch F resetfeature S width B resolvevirtualtoo S units F scale

		D cache	
F setfactor		F is_known	
F setfeature		D known	
F setmathparamete	r	F load	
F setname		F make_unicode_ve	ctor
B sharefonts		D math	
F trytosharefont		N version	
N version		enhanceid	function
current	function	expansions	data table
currentid	function	formats	data table
definers	table	getalternate	function
F addlookup		getkern	function
F analyze		getmultiple	function
F applypostproces	sors	getsubstitution	function
F checkedmode		getters	table
F checkedscript		T alternate	
F current		F opentype	
S defaultlookup		T kern	
F define		F opentype	
F getspecificatio	1	F type1	
F internal		F type3	
F loadfont		T multiple	
F makespecificati	on	F opentype	
T methods		T substitution	
F install		F opentype	
		acadiac	
D variants		goodies	table
D variants F read		D colorschemes	table
			table
F read		D colorschemes	table
F read F register		D colorschemes T data	table
F read F register F registered		D colorschemes T data T dejavu-math	table
F read F register F registered F registersplit		D colorschemes T data T dejavu-math S author	table
F read F register F registered F registersplit F resetnullfont		D colorschemes T data T dejavu-math S author S comment	Table
F read F register F registered F registersplit F resetnullfont F resolve		D colorschemes T data T dejavu-math S author S comment S copyright	Table
F read F register F registered F registersplit F resetnullfont F resolve T resolvers		D colorschemes T data T dejavu-math S author S comment S copyright B initialized	Table
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics	Table
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name	function	D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec	function table	D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec  definetypeface		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless S comment	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec  definetypeface encodings		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless S comment S feature	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec  definetypeface encodings T agl		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless S comment S feature N value	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec definetypeface encodings T agl D ctxcodes		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless S comment S feature N value T kerns	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec  definetypeface encodings T agl D ctxcodes D extras		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless S comment S feature N value T kerns S name	
F read F register F registered F registersplit F resetnullfont F resolve T resolvers F file F name F spec definetypeface encodings T agl D ctxcodes D extras D names		D colorschemes T data T dejavu-math S author S comment S copyright B initialized T mathematics T alternates T dotless S comment S feature N value T kerns S name S version	

S comment		D	resources	
S copyright		Т	setdynamics	
B initialized		Т	shapes	
T mathematics		D	spaces	
T alternates		D	spacings	
T dotless		Т	streams	
S comment		D	unicodes	
S feature		D	variants	
N value		D	xheights	
T kerns		help	ers	table
S name		F	addextraprivate	
S version		F	addprivate	
D designsizes		F	appendcommands	
D filenames		F	appendcommandta	ble
F getcompositions		F	checkflags	
T list		F	checkmerge	
F load		F	checksteps	
F prepare_feature	s	F	collectanchors	
F register		D	commands	
F registerpostpro	cessor	F	descriptiontosl	ot
F report		F	dimenfactor	
T suffixes		F	expandglyph	
handlers	table	Т	extraprivates	
hashes	table	F	fontpatternhass	ize
D characters		F	getcoloredglyph	S
D classes		F	getdigitwidth	
D csnames		F	getinstancespec	
D descriptions		F	getparameters	
D dynamics		F	getprivatecharo	rnode
D emwidths		F	getprivatenode	
D exheights			getprivates	
D extensibles			getprivateslot	
D features			hasprivate	
D identifiers			indextoslot	
D italics			name	
D lastmathids			nametoslot	
D marks			prependcommands	
D mathparameters			prependcommandt	able
D modes			privateslot	
D originals			setdigitwidth	
D parameters			splitfontpatter	n
T processes			tochar font	function
D properties				function
D quads		iter	ators	table

F characters		protr	usions	data table
F descriptions		reade	rs	table
F glyphs		Fa	ıfm	
	table	Fc	heck_lua	
F add placeholders			- :heck_tfm	
D category_to_place	eholder	Fι	_	
F format		Fo	ofm	
F onetimemessage		Fo	pentype	
F register		Fo	otf	
F reportdefinedfont	ts	Fр	ofb	
F reportusedfeature	es .	D s	equence	
mappings	table	Ft	:fm	
F addtounicode		Ft	:tc	
F fromunicode16		Ft	:tf	
F loadfile		Fw	off	
F loadline		reser	veid	function
F makenameparser		selec	t	table
D overloads		D a	lternatives	
F reset		F b	odyfont	
F tounicode		D d	lata	
F tounicode16		Fd	lefault	
F tounicodel6sequer	nce	D d	lefaults	
metapost	table	Fd	lefinefallbackfa	mily
F boundingbox		Fd	lefinefontfamily	
F boxtomp		Fd	lefinefontfamily	preset
F draw		Dе	extras	
F fill		Ff	allback	
F maxbounds		D f	allbacks	
F output		Ff	eatures	
F paths		Ff	ilefallback	
F widthline		Ff	ontdata	
F zeroline		Ff	ontfallback	
mp	table	Ff	ontsynonym	
D cache		Fg	oodies	
B inline		Fm	nathfallback	
N version		D m	nethods	
names	data table	Dр	resets	
nulldata	data table	Fr	registerfallback	
privateoffsets	table	Fr	registerfiles	
B keepnames		Fr	egisterfontalte	rnative
N mathbase		Fr	egisterfontfami	ly
N mathextrabase		Ft	extfallback	
N textbase		Ft	ypeface	
N textextrabase		Ft	ypescript	

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

T emoji

### functions (context)

**dummy** function

## graphics (context)

#### backgrounds table

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

close	function	open	function
lines	function	save	function
load	function	suffix	function

## images (context)

scan

img	table	serialize	function
F boxes		sizes	table
F copy		B art	
F fields		B bleed	
F immedia	tewrite	B crop	
F immedia	tewriteobject	B media	
F keys		B none	
F new		B trim	
F node		totable	function
F scan		types	table
F types		N jbig2	
F write		N jp2	
check	function	N jpg	
checksize	function	N memstre	am
сору	function	N none	
create	function	N pdf	
embed	function	N png	
keys	table	N stream	
print	function	wrap	function
scan	function		

## img (basic tex)

boxes	overloaded	function	new	overloaded	function
сору	overloaded	function	node	overloaded	function
fields	overloaded	function	scan	overloaded	function
immediatewrite	overloaded	function	types	overloaded	function
immediatewriteobject	overloaded	function	write	overloaded	function

### interactions (context)

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

#### interfaces (context)

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

F define

F list

registernamespace registerscanner scanners setconstant setcount setdimen setelement setformat setmacro setmessage setmessages settranslation setupstrings setuserinterface setvalidkevs setvariable showmessage storedscanners strings syntax tolist translations usednamespaces

variables

writestatus

function function data table function function function function function function function function function data table function function function function data table table data table function data table data table data table

function

#### io (basic lua)

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

loadchunk function
loaddata function
loadlines function
noflines function

open overloaded function
output overloaded function

pathseparator string

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

## job (context)

comment	function	D	tobesaved	
datasets	table	pass	es	table
D collected		F	check	
F extend		D	collected	
F getdata		F	count	
F setdata		F	define	
D tobesaved		F	find	
disablesave	function	F	first	
embedded	table	F	get	
D collected		F	getcollected	
D tobesaved		F	getdata	
fileobjreferences	table	F	getfield	
D collected		F	gettobesaved	
D tobesaved		F	inlist	
files	table	F	last	
D collected		F	list	
F context		F	save	
B forcerun		F	savetagged	
F run		D	tobesaved	
D tobesaved		posi	tions	table
getrandomseed	function	F	b_column	
initialize	function	F	b_region	
load	function	F	С	
loadother	function	D	collected	
objects	table	F	column	
D collected		F	сору	
F get		F	depth	
F number		F	e_column	
F page		F	e_region	
F save		F	enhance	
F set		F	extra	
D tobesaved		Т	free	
pack	boolean	F	get	
packversion	number	F	gethpos	
pagestates	table	F	getpos	
D collected			getreserved	
F countervalue		F	gettobesaved	
F extend			getvpos	
F realpage			hangafter	
F realpageorder			hangindent	
F setstate		F	height	

F hsize F whd F leftskip F width Fχ F lowerleft F lowerright F xy F markregionbox Fу prepare function function register F onsamepage function F overlapping save table structure Fρ D collected T page T components F paragraph T tobesaved F parindent F position T branches Fr S name S type F region variables table F registerhandlers D checksums F replace F rightskip D collected F getchecksum F set F makechecksum F setall F setregionbox F restore F setspec F save D tobesaved F setchecksum

D tobesaved

number

version

F upperleft

F upperright

S used

## lang (basic tex)

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

## languages (context)

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

T enablers
B enables
F found

F load

T methods

N threshold

### layouts (context)

status table
 F isleftpage

F leftorrightpageaction

### lfs (extra lua)

lock dir

attributes overloaded function chdir overloaded function currentdir function dir overloaded function overloaded function isdir isfile overloaded function isfound function link overloaded function lock function

overloaded function

mkdir overloaded function mkdirs function readlink overloaded function rmdir overloaded function setmode overloaded function shortname overloaded function symlinkattributes overloaded function touch overloaded function unlock function

### libraries (context)

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

extratex data table
functions data table
globals data table

### lmx (context)

color	function
convert	function
convertfile	function
convertstring	function
einject	function
eprint	function
escape	function
finalized	function
finject	function
fprint	function
get	function
getvariables	function
htmfile	function
html	table
Fa	
F td	
F th	
include	function

- S color-background-four
  - S color-background-one

table

- S color-background-three
- S color-background-two
- S title

inherited

initialize	function
inject	function
lmxfile	function

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

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

# logs (context)

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

## lpdf (context)

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

N NoZoom		getcompression	function
N Print		getfontname	function
N Printable		getfontobjnumber	function
N ReadOnly		getinfo	function
N ToggleNoView		getmetadata	function
N auto		getpageproperties	function
N hidden		getversion	function
N printable		getxformname	function
T widgets		graycode	function
N Comb		id	function
N CommitOnSelChange		immediateobj	function
N DoNotScroll		includechar	function
N DoNotSpellCheck		includecharlist	function
N Edit		includefont	function
N FileSelect		includeimage	function
N MultiLine		injectxmpinfo	function
N NoExport		insertxmpinfo	function
N NoToggleToOff		layerreference	function
N Password		limited	function
N PopUp		linearshade	function
N PushButton		literal	function
N Radio		majorversion	function
N RadiosInUnison		minorversion	function
N ReadOnly		nametree	function
N Required		nofpages	function
N RichText		null	function
N Sort		number	function
N file		obj	function
N fixed		objectcompresslevel	function
N nocheck		pagereference	function
N protected		patternstream	function
N readonly		pdfcolor	function
N required		pdftimestamp	function
N sorted		permitdetail	function
N unavailable		print	function
flushobject	function	procset	function
flushstreamfileobject	function	protectresources	boolean
flushstreamobject	function	rectangle	function
formats	data table	reference	function
frombytes	function	registerannotation	function
fromeight	function	registerdestination	function
frompdfdoc fromsixteen	function	registerdocumentfinalizer	function
	function	registerfont	function
getcatalog	function	registerpagefinalizer	function

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

# lpeg (basic lua)

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

### ltn12 (extra lua)

BLOCKSIZE	number	F simplify
filter	table	F table
F chain		<b>source</b> table
F cycle		F cat
pump	table	F chain
F all		F empty
F step		F error
sink	table	F file
F chain		F rewind
F error		F simplify
F file		F string
F null		

### lua (basic tex)

bytecode	table
bytedata	data table
bytedone	table
collectgarbage	function
delay	function
finalize	function
firstbytecode	number
flush	function
flushdelayed	function
<pre>get_functions_table</pre>	function
getbytecode	function
getcalllevel	function
getluaname	function
getstacktop	function
lastbytecode	number
macros	table

B enabled F loaded F required
F reset
F resolvestring
F resolving
F showdefinitions

string mask data table messages table name function newtable data table numbers registercode function registeredcodes function registerfinalizer function registername function function setbytecode setluaname function startupfile string version string

### luatex (context)

function cleanuptempfiles F pause currentfile function F popline registerdumpactions function F pushline registerpageactions function F registerdisabler registerstartactions function F registerenabler registerstopactions function F resetfilename registertempfile function F resume starttime number F setfilename synctex table F setup F blockfilename

F blockfilename F start
F collect F stop
F disable F wrapup
F enable Wrapup
F finish

function

# lxml (context)

- 4.42 - 4	f	£1	£ ±
addindex	function	flush	function
all	function	flushlinewise	function
applyfunction	function	flushsetups	function
applyselectors	function	flushspacewise	function
att	function	get_id	function
attribute	function	getid	function
badinclusions	function	getindex	function
chainattribute	function	id	function
checkindex	function	idsplitter	userdata
collected	function	include	function
command	function	inclusion	function
concat	function	inclusions	function
concatrange	function	index	function
content	function	inlineverbatim	function
context	function	installsetup	function
convert	function	last	function
count	function	lastatt	function
delete	function	lastmatch	function
direct	function	lastpar	function
directives	table	load	function
F after		loadbuffer	function
F before		loaddata	function
F handle		loaded	table
F load		main	function
F setup		match	function
displayverbatim	function	name	function
doif	function	namespace	function
doifelse	function	nonspace	function
doifelseempty	function	par	function
doifelsetext	function	param	function
doifempty	function	parameter	function
doifnot	function	path	function
doifnotempty	function	popmatch	function
doifnottext	function	pos	function
doiftext	function	position	function
element	function	pure	function
elements	function	pushmatch	function
entities	data table	raw	function
filter	function	rawroot	function
filterlist	function	rawtex	function
first	function	refatt	function

register	function
registerentity	function
removesetup	function
replace	function
resetcdata	function
resetsetups	function
resolvedentity	function
root	function
save	function
serialize	function
setaction	function
setatt	function
setattribute	function
setcdata	function
${\tt setcommandtonone}$	function
${\tt setcommandtotext}$	function
setpar	function
setparam	function
setparameter	function
setsetup	function
snippet	function
sorters	table

F reset F show F sort function splitid startraw function function startunescaped function stopraw stopunescaped function store function strip function stripped function tag function text function tobuffer function tofile function function toparameters toverbatim function verbatim function withindex function xmltexhandler data table

F compare F flush

## math (basic lua)

abs	function	maxin
acos	function	min
asin	function	minin
atan	function	mod
atan2	function	modf
ceil	function	odd
ceiling	function	рi
cos	function	pow
cosd	function	rad
cosh	function	rando
deg	function	rando
div	function	round
even	function	setra
exp	function	sin
floor	function	sind
fmod	function	sinh
frexp	function	sqrt
huge	number	tan
initialseed	number	tand
ldexp	function	tanh
log	function	toint
log10	function	type
max	function	ult

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

## mathematics (context)

addfallbacks	function	mapremap	data table
alphabets	data table	overloaddimensions	function
alternatives	data table	overloadparameters	function
big	function	privatebase	number
boldmap	data table	registerdomain	function
categories	table	registerfallbackid	function
D functions	cabec	remapalphabets	function
charactersets	data table	renderings	table
checkaccentbaseheight	function	D mappings	10010
checkprivateparameters	function	D numbers	
classes	data table	D sets	
codes	data table	renderset	function
define	function	resetattributes	function
dimensions	function	resetitalics	function
domains	table	resolvefallbacks	function
extensiblecode	function	scaleparameters	function
extensibles	data table	setdomain	function
extrabase	number	setitalics	function
extras	table	setridofprime	function
F add		sets	data table
F copy		styles	data table
fallbacks	table	syncboth	function
F apply		syncname	function
F install		syncstyle	function
fallbackstyleattr	function	toname	function
families	data table	tostyle	function
finishfallbacks	function	tweakaftercopyingfont	function
gaps	data table	tweakbeforecopyingfont	function
getboth	function	tweaks	table
getdomain	function	utfmathaccent	function
getitalics	function	utfmathclass	function
getridofprime	function	utfmathcommand	function
getstyle	function	utfmathfiller	function
horizontalcode	function	utfmathstretch	function
initializeparameters	function	virtualize	function
makefont	function	virtualized	data table

### md5 (extra lua)

HEX	function
crypt	function
dec	function
decrypt	function
exor	function

hex function
sum function

sumHEXA overloaded function
sumhexa overloaded function

# metapost (context)

checkformat	function	graphic	function
CM	function	graphic_base_pass	function
collapse	boolean	installplugin	function
colorinitializer	function	isobject	function
comment	function	lastlog	string
convert	function	load	function
defaultformat	string	maketext	function
defaultinstance	string	metafun	table
defaultmethod	string	F interpolate	
directrun	function	F topath	
escaped	function	mptopdf	table
exectime	table	F convertmpstopdf	
extensiondata	data table	N nofconverted	
filterclippath	function	n	number
flush	function	nofscriptruns	function
flushers	table	nvformat	function
T pdf		pdfliterals	function
F comment		pluginactions	function
F flushfigure		popformat	function
F startfigure		popscriptrunner	function
F stopfigure		popvariable	function
F textfigure		popvariables	function
flushliteral	function	preparetextextsdata	function
flushnormalpath	function	process	function
flushreset	function	processplugins	function
fonts	table	processspecial	function
F define		properties	table
T flusher		pushformat	function
F flushfigure		pushscriptrunner	function
F startfigure		pushvariable	function
F stopfigure		pushvariables	function
N instances		quickanddirty	function
F process		reducetogray	boolean
format_number	function	reporterror	function
format_string	function	reset	function
formatnumber	function	resetlastlog	function
getclippath	function	resetplugins	function
getextensions	function	run	function
getjobdata	function	runscript	function
getstatistics	function	scripterror	function
gettext	function	setextensions	function

setoutercolor	function
settext	function
setvariable	function
showlog	boolean
simple	function
splitprescript	function
startgraphic	function
stopgraphic	function
svformat	function
sxsy	function
tex	table

F get

F reset

F set

F setfrombuffer

boolean texerrors texexp function theclippath function tographic function totable function unload function untagvariable function variables table

### mime (extra lua)

**b64** function

F base64

F quoted-printable

dot function

encode overloaded function

encodet overloaded table

F base64

F quoted-printable

eol function

normalize overloaded function

**qp** function

qpwrp function
report function

stuff overloaded function

unb64 function
unqp function

wrap overloaded function

wrapt overloaded table

F base64

F default

F quoted-printable

F text

wrp function

# mp (context)

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

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

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

### mplib (extra tex)

char\_depth function
char\_height function
char\_width function
execute function
fields function
finder function
finders table
 F file

F mpstemplate

finish function

get\_boolean function
get\_number function
get\_numeric function
get\_path function
get\_string function

**new** overloaded function

pen\_info function
solve\_path function
statistics function
version function

## noads (context)

F render

handlers	table	F	resize	
F align		F	showtree	
F alternates		F	tags	
F autofences		F	unscript	
F classes		F	unstack	
F collapse		F	variants	
F domains		proc	ess	function
F families		proc	essnested	function
F fixscripts		proc	essors	table
F italics		F mlist_to_hlist		
F kernpairs		Т	unscript	
F makeup		Т	unstack	
F relocate		proc	essouter	function

#### node (basic tex)

F getfont

check discretionaries function F aetalue check discretionary function F getheight copy function F getid copy list function F aetkern function count F getlang function current attr F getleader dimensions function F getlist direct table F getnext F check discretionaries F getnucleus F check discretionary F getoffsets F copy F getpenalty F copy list F getprev F getproperty F count F current attr F getshift F dimensions F aetsub F effective glue F getsubtype F end\_of\_math F getsup F find attribute F getwhd F getwidth F first glyph F flatten discretionaries F has attribute F flush list F has\_field F flush node F has glyph F flush properties table F hpack F hyphenating F free F get attribute F insert after F get\_properties\_table F insert before F get\_synctex\_fields F is\_char F is\_direct F getattributelist F aetboth F is glyph F getbox F is node F getchar F is\_zero\_glue F getcomponents F kerning F getdata F last node F getdepth F length F getdir F ligaturing F getdirection F getdisc F prepend prevdepth F getexpansion F protect\_glyph F getfam F protect\_glyphs F getfield F protrusion skippable

F rangedimensions

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

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

## nodes (context)

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

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

marginkerncodes data table F firstalvph markers table F flatten discretionaries F get F flush data table mathcodes F flush list maxboxwidth function F flush node mlist to hlist function F free function new F fullhpack noadcodes data table F get synctex fields noadoptions table F getattr N axis F getattribute N exact F getattributelist N left F getattrlist N middle F getboth N no axis F getbox N right F getboxglue N set F getchar N unused\_1 F getcomponents N unused 2 F getdata nodecodes data table F getdepth function nopts F getdir table nuts F getdirection F append F aetdisc F getdiscretionary F apply F applyvisuals F getexpansion F check discretionaries F getfam F concat F getfield F getfont F copy F copy list F getglue F copy no components F getheight F copy\_node F getid F copy\_only\_glyphs F getkern F copy properties F getlang F copyvisual F getlanguage F getleader F count F countall F getlist F current attr F getnext F delete F getnucleus F dimensions F getoffsets F effective glue F getorientation F end\_of\_math F getpenalty F find\_attribute F getprev F first\_glyph F getprop F firstcharacter F getshift F firstcharinbox F getsub

F directliteral F getsubtype F getsup F disc F getsurround F emptyrule F fence F getvalue F getwhd F fontkern F fraction F getwidth F has\_attribute F alue F has field F gluespec F has\_glyph F glyph F hlist F hpack F italickern F hyphenating F kern F insert after F insert\_before F latelua F insert list after F leader F is\_char F leftmarginkern F is\_direct F leftskip F is\_display\_math F lineskip F is glyph F literal F mathchar F is node F mathtextchar F is\_nut F is\_zero\_glue F negatedglue F ischar F noad F isdone F originliteral F isglyph F outlinerule F kerning F pageliteral F last node F penalty F leftmarginwidth F radical F rawliteral F length F ligaturing F register F link F restore F rightmarginkern F linked F locate F rightskip F mlist to hlist F rule F nestedtracedslide F save F new F savepos T pool F setmatrix F accent F shrink F baselineskip F stretch F boundary F subbox F choice F submlist F cleanup F temp F delim F textdir F delimiter F usage

F direction

T userids

N margins.inline F setdirection N splitters.one F setdisc N splitters.two F setdiscretionary F usernode F setexpansion F userrule F setfam F vlist F setfield F wordboundary F setfont F prepend F setalue F processranges F setheight F processwords F setkern F protect glyph F setland F protect glyphs F setlanguage F protrusion\_skippable F setleader F setlink F rangedimensions F rawprop F setlist F reference F setnext F rehpack F setnucleus F setoffsets F remove F repackhlist F setorientation F replace F setpenalty F rightmarginwidth F setprev T rules F setprop T ruleactions F setshift F box F setsplit F draw F setsub F fill F setsubtype F mp F setsup F stroke F setsurround F userrule F setunsetattributes F set attribute F setvalue F set\_synctex\_fields F setvisual F setattr F setvisuals E setattribute F setwhd F setattributelist F setwidth F setattributes F slide F setattrlist F somepenalty F somespace F setboth F setbox F splitbox F setboxglue F striprange F setchar F tail F setcomponents F takeattr F setdata F takebox F setdepth F takelist F setdir F theprop

F tonode		penaltycodes	data table
F tonodes		plugindata	table
F tonut		F finalizer	
F tosequence		F initializer	
F tostring		S name	
F tracedslide		T namespace	
F traverse		N attribute	
F traverse_char		D data	
F traverse_glyph		F enable	
F traverse_id		F handler	
F traverse_list		F register	
T traversers		D registered	
F boundary		D values	
F char		F processor	
F dir		points	function
F disc		pool	table
F glue		F baselineskip	
F glyph		F cleanup	
F hlist		F directliteral	
F list		F glyph	
F next		F hlist	
F node		F latelua	
F vlist		F lineskip	
F whatsit		F literal	
T typesetters		F originliteral	
F tohbox		F register	
F tohpack		F restore	
F tonodes		F save	
F tovbox		F savepos	
F tovpack		F setmatrix	
F unprotect_glyph		F special	
F unprotect_glyphs		F usage	
F unset_attribute		F vlist	
F unsetattribute		prepend	function
F unsetattributes		print	function
F untracedslide		processors	table
F use_components		F contribute_filter	
F usedlist		B enabled	
F uses_font		F hpack_filter	
F vianodes		F post_linebreak_filter	
F vianuts		F pre_linebreak_filter	
F vpack		F tracer	
F write		properties	table
packlist	function	T data	

protect_glyph	function	D data	
protect_glyphs	function	F define	
protrusion_skippable	function	F enable	
pts	function	F handler	
radicalcodes	data table	show	function
rangedimensions	function	showboxes	function
reference	function	showcodes	function
references	table	showlist	function
N attribute		showsimplelist	function
T done		skipcodes	data table
F handler		skipvalues	data table
T stack		slide	function
rehpack	function	snapshots	table
remove	function	F getparameters	
repackhlist	function	F getsamples	
replace	function	F resetsamples	
report	function	F takesample	
rightmarginwidth	function	somepenalty	function
rulecodes	data table	somespace	function
rules	table	splitbox	function
D data		stripdiscretionaries	function
F define		stripping	table
F detine		Stripping	table
F detine F enable		T glyphs	tabte
			tabte
F enable		T glyphs	data table
F enable F handler F userrule Save	function	T glyphs F set	
F enable F handler F userrule	function function	T glyphs F set subtypes	data table
F enable F handler F userrule Save		T glyphs F set subtypes tail	data table function
F enable F handler F userrule  Save serialize	function	T glyphs F set subtypes tail takeattr	data table function function
F enable F handler F userrule save serialize serializebox	function function	T glyphs F set subtypes tail takeattr takebox	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute	function function function	T glyphs F set subtypes tail takeattr takebox tasks	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr	function function function function	T glyphs F set subtypes tail takeattr takebox tasks F actions	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute	function function function function function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattribute	function function function function function function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattribute setattributes setattributes	function function function function function function function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattribute setattribute setattributes setboth setbox	function function function function function function function function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enableaction	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattribute setattribute setattributes setboth setbox setboxtonaturalwd	function function function function function function function function function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enablegroup	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattribute setattributes setboth setbox setboxtonaturalwd setfield	function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enablegroup F enablegroup F freeze	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattribute setattributes setboth setbox setboxtonaturalwd setfield setglue	function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattributes setboth setbox setboxtonaturalwd setfield setglue setlink	function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattributes setboth setbox setboxtonaturalwd setfield setglue setlink setlist setnext setprev	function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new F prependaction	data table function function function
F enable F handler F userrule save serialize serializebox set_attribute setattr setattribute setattributes setboth setbox setboxtonaturalwd setfield setglue setlink setlist setnext	function	T glyphs F set subtypes tail takeattr takebox tasks F actions F appendaction F disableaction F disablegroup F enablegroup F enablegroup F freeze F freezegroup F new F prependaction F removeaction	data table function function function

F showactions

table

shifts

F table		F start	
tobasepoints	function	T steppers	
tocentimeters	function	F check	
tociceros	function	F codes	
todidots	function	F features	
todimen	function	F font	
toinches	function	F glyphs	
tomillimeters	function	F message	
tonewciceros	function	F messages	
tonewdidots	function	F nofsteps	
tonode	function	F register	
tonodes	function	F reset	
tonut	function	F start	
topicas	function	F stop	
topoints	function	F stop	
toscaledpoints	function	T transparencies	
tosequence	function	F reset	
tostring	function	F set	
totable	function	F setlist	
totree	function	traverse	function
toutf	function	traverse_char	function
tracers	table	traverse_glyph	function
T characters		traverse_id	function
F collect		traverse_list	function
F equal		traversers	table
F start		F char	
F string		F glyph	
F unicodes		F list	
T colors		F node	
F reset		typesetters	table
F set		F hbox	
F setlist		F hpack	
F fontchar		F tohbox	
T frequencies		F tohpack	
F register		F tonodes	
T pool		F tovbox	
T nodes		F tovpack	
F rule		F vpack	
T nuts		unprotect_glyph	function
F rule		unprotect_glyphs	function
F resetproperties		unset_attribute	function
F rule		unsetattribute	function
F setlist		unsetattributes	function
F setproperties		usedlist	function

usercodes uses\_font vianodes vianuts visualizebox visualizers data table function function function function table F markfonts
F register
F setfont
F setlayer
F setruledglyph
F setvisual

F attribute
T attributes
F box
F handler

vpack whatcodes whatsitcodes write function data table data table function

## number (context)

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

# objects (context)

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

## os (basic lua)

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

# package (basic lua)

config	string
cpath	string
extralibpath	$ \hbox{function} $
extralibpaths	function
extraluapath	$ \hbox{function} $
extraluapaths	function
helpers	table
libpaths	function
loaded	table
loaders	table
loadlib	function

luapaths	function
path	string
poplibpath	function
popluapath	function
preload	table
pushlibpath	function
pushluapath	function
searchers	table
searchpath	function
seeall	function

# pagebuilders (context)

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

# pdf (basic tex)

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

setomitcidset	function	settrailer	function
setorigin	function	settrailerid	function
setpageattributes	function	settypeonewidemode	function
setpageresources	function	setxformattributes	function
setpagesattributes	function	setxformmargin	function
setpkresolution	function	setxformresources	function
setrecompress	function	xformname	function
setsuppressoptionalinfo	function		
setthreadmargin	function		

# pdfe (context)

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

# pdfscanner (context)

scan function

# physics (context)

units table

F registerunit

D tables

# publications (context)

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

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

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

D privates F showtables D sets F showvariants typesetters table D specials F author D types F string D virtuals function function tags usedataset table usedentries function tracers

F showdatasetauthors
F showdatasetcompleteness
F showdatasetfields
F showentry
F showfields

F showhashedauthors

F author
F keyword
F pagenumber
F range

table

writers

# 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)

-11	f	£indon+h	£
allprefixes	function	findpath	function
appendhash	function	findpk findtexfile	function
automount	function		function
automounted	table	findwildcardfile	function
booleanvariable	function 	findwildcardfiles	function
cacheversion	string	formatofsuffix	function
checkedvariable	function	formatofvariable	function
cleanedpathlist	function	formats	data table
cleanpath	function	foundintree	function
cleanpathlist	function	foundintrees	function
concatinators	data table	generators	data table
configbanner	string	get_from_content	function
configurationfiles	function	getenv	function
criticalvars	data table	getextrapaths	function
dangerous	data table	getfilehashes	function
datastate	function	gethashes	function
defaultsuffixes	table	getownpath	function
dowithfilesandreport	function	getreadfilename	function
dowithfilesintree	function	hashers	data table
dowithpath	function	homedir	string
dowithvariable	function	initialized	function
env	function	inputstack	table
executers	table	installinputfilehandler	function
expandbraces	function	installinputlinehandler	function
expandedpathfromlist	function	jobpath	function
expandedpathlist	function	jobs	table
expandedpathlistfromvariable	function	F currentcomponent	
expandpath	function	F currentenvironment	
expandpathfromvariable	function	F currentproduct	
expansion	function	F currentproject	
extendtexmfvariable	function	F justacomponent	
filtered_from_content	function	D processors	
find_file	<del>function</del>	F productcomponent	
find_files	<del>function</del>	F usefile	
findbinfile	function	joinpath	function
findctxfile	function	knownvariables	function
finders	data table	load	function
findfile	function	loadbinfile	function
findfiles	function	loaders	data table
findgivenfile	function	loadlualib	function
findgivenfiles	function	loadtexfile	function

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

wildcardpattern

function

function

resetresolve

## 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	hash	table
F disable		injectors	data table
F enable		inserters	table
F handler		F nobreakspace_afte	er
${\it categorytonumber}$	data table	F nobreakspace_befo	ore
colors	data table	F space_after	
decomposehangul	function	F space_before	
defaults	table	F zerowidthspace_a	fter
N inter_char_half_s	shrink_factor	F zerowidthspace_before	
N inter_char_half_s	N inter_char_half_stretch_factor installdataset functio		function
N inter_char_hangul_penalty installmethod funct		function	
N inter_char_quarte	er_shrink_factor	numbertocategory	data table
N inter_char_quarte	er_stretch_factor	numbertodataset	data table
N inter_char_shrin	<_factor	numbertohandler	data table
N inter_char_stretch_factor		reset	function
N inter_word_stret	ch_factor	set	function
handlers	data table	splitters	data table

## set (context)

contains function
create function
tolist function

tonumber function
totable function

## sha2 (context)

HASH256	function	digest512	function
HASH384	function	hash256	function
HASH512	function	hash384	function
digest256	function	hash512	function
digest384	function		

## sio (context)

read2dot14	function	readfixed2	function
readbytes	function	readfixed4	function
readbytetable	function	readinteger1	function
readcardinal1	function	readinteger2	function
readcardinal2	function	readinteger3	function
readcardinal3	function	readinteger4	function
readcardinal4	function	readintegertable	function
readcardinal table	function		

## socket (extra lua)

BLOCKSIZE	number		S cc
DATAGRAMSIZE	number		
_DATAGRAMS12E DEBUG	boolean		S comments
	number		S connection
_SETSIZE SOCKETINVALID	number		S content-description
		function	S content-disposition
bind	overloaded overloaded		S content-encoding
choose		Tunction	S content-id
connect	function	£	S content-language
connect4	overloaded		S content-length
connect6	overloaded	TUNCTION	S content-location
dns	table		S content-md5
F getaddrinfo			S content-range
F gethostname			S content-transfer-encoding
F getnameinfo			S content-type
F tohostname			S cookie
F toip			S date
ftp	table		S diagnostic-code
S PASSWORD			S dsn-gateway
N TIMEOUT			S etag
S USER			S expect
F command			S expires
F genericform			S final-log-id
F get			S final-recipient
F open			S from
F put			S host
gettime	function		S if-match
headers	overloaded	table	S if-modified-since
T canonic			S if-none-match
S accept			S if-range
S accept-chars	et		S if-unmodified-since
S accept-encod	ing		S in-reply-to
S accept-langua	age		S keywords
S accept-range	S		S last-attempt-date
S action			S last-modified
S age			S location
S allow			S max-forwards
S alternate-re	cipient		S message-id
S arrival-date			S mime-version
S authorization	n		S original-envelope-id
S bcc			S original-recipient
S cache-contro	l		S pragma

S	proxy-authenticate	F request		
S	proxy-authorization	newtry	function	
S	range	protect	function	
S	received	report	function	
S	received-from-mta	select	function	
S	references	sink	overloaded fo	unction
S	referer	sinkt	overloaded ta	able
S	remote-mta	F close-when-don	e	
S	reply-to	F default		
S	reporting-mta	F http-chunked		
S	resent-bcc	F keep-open		
S	resent-cc	skip	function	
S	resent-date	sleep	function	
S	resent-from	smtp	table	
S	resent-message-id	S DOMAIN		
S	resent-reply-to	N PORT		
S	resent-sender	S SERVER		
S	resent-to	N TIMEOUT		
S	retry-after	S ZONE		
S	return-path	F message		
S	sender	F open		
S	server	F send		
S	smtp-remote-recipient	source	overloaded fo	
S	status	sourcet	overloaded ta	able
S	subject	F by-length		
S	te	F default		
S	to	F http-chunked		
S	trailer	F until-closed		
S	transfer-encoding	tcp	function	
	upgrade	tcp4	function	
	user-agent	tcp6	function	
	vary	tp	overloaded ta	able
	via	N TIMEOUT		
	warning	F connect	1 1 6	
	will-retry-until	try	overloaded fu	unction
	www-authenticate	udp	function	
	x-mailer	udp4	function	
	ower	udp6	function	
	ormalize	url	overloaded ta	able
http	overloaded table	F absolute		
NI T	IMEOUT	F build		
S U	SERAGENT	F build_path		
S U F g				

 ${\tt F} \ {\tt parse\_path}$ 

F unescape

#### sorters (context)

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

## statistics (context)

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

## status (basic tex)

list function setexitcode function

resetmessages function

# storage (context)

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

noftables	number	
register	function	
shared	data table	
storedfunctions	data tabl	
strip	boolean	
tofmodules	number	
toftables	number	

# streams (context)

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

# string (basic lua)

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

## structures (context)

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

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

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

F set	F extend	
F setandgetattribute	F filter	
F setcomponent	F filtercollected	
F setinternalreference	F finalize	
F setlinkmethod	F findinternal	
F setnextinternal	F flush	
F setnextorder	F get	
F setreferencerealpage	F prepare	
D specials	F process	
F splitcomponent	F setmethod	
F splitprefix	F sort	
F splitreference	F store	
F synchronizepage	D tobesaved	
T testrunners	F unique	
F inner	F userdata	
F special	<b>sections</b> table	
F special operation	F autodepth	
F special operation with arguments	F cct	
T testspecials	D collected	
F deltapage	F current	
Fi	F currentblock	
F internal	F currentid	
F page	F currentlevel	
F realpage	F currentsectionindex	
F section	F depthnumber	
F userpage	F finddata	
D tobereferred	F findnumber	
D tobesaved	F fullnumber	
D tracedpages T urls	F getlevel	
T data	F getlevel F getnumber	
F define	F internalreference	
F found	D levelmap	
F get	D levels	
Funtex	F matchingtilldepth	
D usedinternals	F numberatdepth	
D usedviews	F numbers	
F valid	F popblock	
registers table	F prefixedconverted	
F analyze	F pushblock	
D collected	F register	
F compare	D registered	
F define	F reportstructure	
F enhance	F save	

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

F settagsubsentencesymbol	F stop
F setupexport	F strip
F setuserproperties	D taglist
D specifications	T usewithcare
F start	T images

## table (basic lua)

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

## tex (basic tex)

attribute	table	getdimen	function		
badness	function	getglue	function		
box	table	getlccode	function		
boxresources	table	getlist	function		
F getbox		getlocallevel	function		
F getdimensions		getmath	function		
F save		getmathcode	function		
F use		getmathcodes	function		
catcode	table	getmuglue	function		
conditionals	data table	getmuskip	function		
constants	data table	getnest	function		
count	table	getpagestate	function		
cprint	function	getsfcode	function		
ctdcatcodes	number	getskip	function		
ctxcatcodes	number	gettoks	function		
definefont	function	getuccode	function		
delcode	table	glue	table		
dimen	table	hashtokens	function		
directives	data table	ifs	data table		
enableprimitives	function	inicatcodes	number		
error	function	init_rand	function		
extraprimitives	function	isattribute	function		
finish	function	isbox	function		
fontidentifier	function	iscount	overloaded function		
fontname	function	isdefined	function		
force_synctex_line	function	isdimen	overloaded function		
force_synctex_tag	function	isglue	function		
forcehmode	function	ismuglue	function		
fprint	function	ismuskip	overloaded function		
get	function	isskip	overloaded function		
get_synctex_line	function	istoken	function		
get_synctex_mode	function	istoks	function		
get_synctex_tag	function	lccode	table		
getattribute	function	linebreak lists	function		
getbox	function function		table		
getboxresourcebox getboxresourcedimensions	function	lua_math_random	function function		
•	function	lua_math_randomseed luacatcodes	number		
getcatcode getcount	function	magicconstants	table		
getdelcode	function	N maxdimen	tante		
getdelcodes	function				
geraercoaes	TUILCTION	N running			

function setmath N trueinch setmathcode function mathcode table modes data table setmualue function table function mualue setmuskip muskip table setnest function nest table setsfcode function number setskip function nilcatcodes function function normal rand settoks notcatcodes number setuccode function number function sfcode table primitives function shipout function print function show context function prtcatcodes number skip table resetparagraph function sp function function romannumeral function splitbox function sprint function round data table function systemmodes run runtoks function takebox function texcatcodes saveboxresource function number scale function toks table scantoks function tpacatcodes number set function tpbcatcodes number function set synctex line function tprint data table set synctex mode function trackers function triggerbuildpage function set synctex no files set synctex tag function txtcatcodes number setattribute function function type setbox function uccode table setcatcode function uniform rand function setcount function uniformdeviate function setdelcode function uprint function setdimen useboxresource function function function vrbcatcodes number setglue setlccode function write function setlist function

#### texconfig (basic tex)

error\_linenumberexpand\_depthnumberformatnamestringhalf\_error\_linenumberhash\_extranumber

kpse\_init boolean
max\_in\_open number

max\_print\_line number
max\_strings number
nest\_size number
param\_size number
save\_size number
shell escape string

## texio (basic tex)

closeinputfunctionwritefunctionsetescapefunctionwrite\_nlfunction

# token (basic tex)

biggest_char	function		
command_id	function		
commands	function		
create	function		
expand	function		
get_active	function		
get_cmdname	function		
get_command	function		
get_csname	function		
get_expandable	function		
get_id	function		
get_index	function		
get_macro	function		
get_meaning	function		
get_mode	function		
get_next	function		
get_protected	function		
get_tok	function		
is_defined	function		
is_token	function		
new	function		

put_next	function
scan_argument	function
scan_code	function
scan_csname	function
scan_dimen	function
scan_float	function
scan_glue	function
scan_int	function
scan_keyword	function
scan_keyword_cs	function
scan_list	function
scan_real	function
scan_string	function
scan_token	function
scan_toks	function
scan_word	function
set_char	function
set_lua	function
set_macro	function
type	function

#### tokens (context)

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

	function	F	lxmlid	
egroup	userdata	F	number	
getters	table	F real		
F box		F scanclose		
F count	F count F so		scanoper	1
F dimen	F dimen		skip	
F glue		F string		
F macro		F table		
F meaning		F token		
F skip		F tokens		
F token		F toks		
hbox	userdata	F	word	
isdefined	function	sett	ers	table
istoken	function	F	box	
letter	function	F	char	
letters	function	F	count	
new	function	F	dimen	
other	function	F	glue	
pickup	function	F	lua	
presets	table	F	macro	
T 1 string		F	skip	
T 2 strings		shor	tcuts	table
T 3 strings		Т	bits	
T 4 strings		N active		
T 5 strings		N alignment		
T 6 strings		N begingroup		
T 7 strings			N charac	ter
T 8 strings			N close	
printlist	function		N commen	t
scanners	table		N endgro	up
F argument			N endofl	ine
F boolean			N escape	
F code		N ignore		
F conditional			3	
r conditiona	L		N invali	d
F count	t			
	t		N invali	
F count	t		N invali N letter	
F count F csname	·		N invali N letter N mathsh	
F count F csname F dimen	t .		N invali N letter N mathsh N open	ift
F count F csname F dimen F dimension			N invali N letter N mathsh N open N other	ift
F count F csname F dimen F dimension F float	·		N invali N letter N mathsh N open N other N parame	ift
F count F csname F dimen F dimension F float F glue			N invali N letter N mathsh N open N other N parame N space	ift ter ipt
F count F csname F dimen F dimension F float F glue F integer			N invali N letter N mathsh N open N other N parame N space N subscr	ift ter ipt cript

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

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

F printlist

#### tracers (context)

count function
cs function
dimen function
knownlist function
lists table

T context
T internals

T scratch

name function

primitive function
printerror function
printwarning function
showlines function
strings table

S undefined

toks function
type function

## trackers (context)

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

# typesetters (context)

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

kerns	table	F apply	
D factors	cubic	F register	
F handler		F reset	
F keepligature		F split	
, -		F startapply	
D mapping F set		F startappty F stopapply	
manipulators	table	F stripped	
•	table	F tostring	
F apply	****	rubies	table
F applyspecifica T methods	111011	F attach	table
F Word		F attach	
			function
F Words		showsuspects	table
F abbreviatedj		spacings	table
F expandedjour	nal	F define	
F lowercase		F handler	
F stripperiod		D mapping	
F uppercase		T numbers	
T patterns		T frenchpunct	
U list		T characters	5
U pair		S name	
F splitspecifica		N number	
margins	table	F reset	
F finalhandler		F set	
F globalhandler		F setup	
F localhandler		wrappers	table
F save		F handler	
marksuspects	function	xtables	table
paragraphs	table	F cleanup	
F addanchortolin	ne	F construct	
F addtoline		F create	
F calculatedelta		F finish_row	
F checkline		F flush	
F handler		F initialize_co	
F moveinline		F initialize_re	
F normalize		F initialize_re	eflow_width
F set		F next_row	
periodkerns	table	F reflow_height	
D factors		F reflow_width	
F handler		F set_construct	
D mapping		F set_reflow_he	eight
F set		F set_reflow_wi	.dth
processors	table		

## 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 (context)

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

## utilities (context)

debugger	table	F	size	
F disable		F	skip	
F enable		F	skiplong	
F savestats		F	skipposition	
F showstats		F	skipshort	
F showtraceback		F	writebyte	
files	table	F	writecardinal2	
F close		F	writecardinal4	
F getposition		F	writestring	
F getsize		form	atters	table
F look		F	formatcolumns	
F open		F	list	
F read2dot14			stripzeros	
F readbyte		garb	agecollector	table
F readbytes		F	check	
F readbytetable		N	criterium	
F readcardinal		В	enabled	
F readcardinal1		lua		table
F readcardinal2		В	alwaysstripcode	
F readcardinal2le		F	checkmemory	
F readcardinal3		F	compile	
F readcardinal3le		F	loadedluacode	
F readcardinal4		F	loadstring	
F readcardinal4le		F	loadstripped	
F readcardinaltable		N	${\tt nofstrippedbytes}$	
F readchar		N	nofstrippedchunks	
F readfixed2		F	registerfinalizer	
F readfixed4		В	stripcode	
F readinteger		Т	strippedchunks	
F readinteger1		F	strippedloadstrin	g
F readinteger2		Т	suffixes	
F readinteger2le			S lua	
F readinteger3			S luc	
F readinteger3le			S lui	
F readinteger4			S luj	
F readinteger4le			S luv	
F readintegertable			S tma	
F readsignedbyte			S tmc	
F readstring			S tua	
F readtag			S tuc	
F setposition		pack	ers	table

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

F process_strip	ped_settings	F replaceaction	
F rfc4180splitte	er	F setkind	
F runtime		F tostring	
F settings_to_a	rray	setters	table
F settings_to_a	rray_obey_fences	F disable	
F settings_to_a	rray_with_repeat	F enable	
F settings_to_ha	ash	F initialize	
F settings_to_ha	ash_colon_too	F list	
F settings_to_ha	ash_strict	F new	
F settings_to_ha	ash_tolerant	F register	
F settings_to_n	umbers	F report	
F settings_to_se	et	F reset	
F simple_hash_to	o_string	F show	
F splitmethod		stacker	table
F splitthousand	S	F new	
F stepper		storage	table
F stripped_sett:	ings_to_array	F allocate	
F unittotex		F checked	
F unittoxml		F mark	
randomizer	table	F marked	
F get		F setinitialize	r
F getnumber		F sparse	
. 5		i sparse	
F getseed		streams	table
			table
F getseed		streams	table
F getseed F popseed		<b>streams</b> F close	table
F getseed F popseed F pushseed		streams F close F getposition	table
F getseed F popseed F pushseed F reuseseed		streams F close F getposition F look	table
F getseed F popseed F pushseed F reuseseed F setseed	function	streams F close F getposition F look F open	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi	function table	streams F close F getposition F look F open F openstring	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report		streams F close F getposition F look F open F openstring F read2dot14	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers		streams  F close F getposition F look F open F openstring F read2dot14 F read2dot4	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction		F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbytes	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbytes F readbytetable	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbytes F readbytetable F readcardinal	table
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal	
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup F enableaction	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal1 F readcardinal2	
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup F enablegroup	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal2 F readcardinal2	LE
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup F enablegroup D functions	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal F readcardinal2 F readcardinal3	LE
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup F enablegroup D functions F localize	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal F readcardinal2 F readcardinal3 F readcardinal3	LE Le
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup F enablegroup D functions F localize F new	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4	LE Le
F getseed F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup F enablegroup D functions F localize F new F nodeprocessor	table	F close F getposition F look F open F openstring F read2dot14 F read2dot4 F readbyte F readbyte F readbytes F readcardinal F readcardinal F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinal4	LE Le

F	readinteger			U collapse	
F	readinteger1			U prune	
F	readinteger2			U prune and colla	ose
F	readinteger2le			U prune and no emp	oty
F	readinteger3			U prune and to spa	ace
F	readinteger3le			U retain	
F	readinteger4			U retain and colla	apse
F	readinteger4le			U retain and no en	npty
F	readintegertable		F	striplines	
F	readsignedbyte		F	striplong	
F	readstring		F	tabtospace	
F	setposition		Т	tracers	
F	size		tabl	.es	table
F	skip		F	accesstable	
F	skipbytes		F	definedtable	
F	skiplong		F	definetable	
F	skipshort		F	encapsulate	
stri	ngs	table	F	insertaftervalue	
F	collapse		F	insertbeforevalue	
F	collapsecrlf		F	migratetable	
Т	formatters		F	removevalue	
	F add		F	replacevalue	
	F new		temp	lates	table
F	newcollector		F	load	
F	newrepeater		F	replace	
F	nice		F	replacer	

T striplinepatterns

F resolve

## vf (context)

char	function	pdf	function
down	function	рор	function
fontid	function	push	function
image	function	right	function
node	function	rule	function
nop	function	special	function

## visualizers (context)

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

## xml (context)

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

F undefined		F chainattribute	
F upper		F count	
fillin	function	F default	
filter	function	F elements	
finalizers	table	F empty	
F paragraphs		F first	
T tex		F function	
F all		F index	
F attribute		F last	
F chainattribute		F lowerall	
F chainpath		F match	
F command		F name	
F concat		F position	
F concatrange		F reverse	
F context		F table	
F count		F tag	
F ctxtext		F tags	
F default		F text	
F first		F texts	
F function		F upperall	
F index		first	function
F last		found	function
F lettered		functions	table
F lower		F classes	
F lowerall		F hasclass	
F match		getbuffer	function
F name		gethandlers	function
F param		gethandlersfunction	function
F parameter		helpers	table
F position		F recursetext	_
F reverse		include	function
F stripped		inclusion	function
F tag		inclusions	function
F tags		index	function
F text		inheritedconvert	function
F upper		inject	function
F upperall		inject_element	function
F xml		<u>inject_element_after</u>	function
T xml		<pre>inject_element_before</pre>	function
Fall		injectafter	function
Fatt		injectbefore	function
F attribute		insert	function
F attributes		insert_element	function
F cdata		insert_element_after	function

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

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

#### zip (extra lua)

archivestableopenarchivefunctionclosefunctionopenfilefunctionclosearchivefunctionregisteredfilestableopenoverloaded functiontypefunction

#### zlib (extra lua)

adler32 function
compress function
compressobj function
crc32 function

decompress
decompressobj function
version function