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 font fonts functions global graphics gzip imp interactions interfaces io job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 luatex lxml math mathematics md5 metapost mime moduledata modules mp mplib noads nodes number objects os package pagebuilders parametersets pdfe pdfscanner physics publications regimes resolvers sandbox scripts set sha2 sio socket sorters statistics storage streams string structures tab texconditionals texconfin texconstants texifs texisdefined texmodes texsystemmodes thirddata tokens tracers trackers typesetters unicode updaters url userdata utf8 utilities vf visualizers xml zip zlib

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

# global (alias: \_G)

FFISUPPORTED	function	document	table
INITEXMODE	boolean	documentdata	table
LUAMAJORVERSION	number	dofile	function
LUAMINORVERSION	number	drivers	table
LUATEXCOREVERSION	number	environment	table
LUATEXENGINE	string	error	function
LUATEXFUNCTIONALITY	number	experiments	table
LUATEXVERSION	number	ffi	table
LUAVERSION	number	ffilib	function
MP	function	figures	table
_LUAVERSION	number	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	getpos	function
boolean	table	getvpos	function
buffers	table	global	table
builders	table	<pre>grammar_parsed_text_one_nop</pre>	userdata
caches	table	<pre>grammar_parsed_text_one_yes</pre>	userdata
callback	table	<pre>grammar_parsed_text_two_nop</pre>	userdata
callbacks	table	<pre>grammar_parsed_text_two_yes</pre>	userdata
catcodes	table	<pre>grammar_unparsed_text_nop</pre>	userdata
characters	table	<pre>grammar_unparsed_text_yes</pre>	userdata
checkimage	function	graphics	table
chemistry	table	gregorian_to_jalali	function
collectgarbage	function	gzip	table
commands	table	img	table
containers	table	inspect	function
context	function	interactions	table
converters	table	interfaces	table
coroutine	table	io	table
ctxrunner	table	ipairs	function
debug	table	jalali_to_gregorian	function
dimen	function	job	table
dir	table	lang	table
dircodes	data table	languages	table
directives	table	layouts	table

lfs	table	rawlen	function
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	texifs	data table
pagebuilders	table	texio	table
pairs	function	texisdefined	data table
parametersets	table	texmodes	data table
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

function trackers

rawget

table

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

## attributes (context)

applyoverloads	function	N	mai n	
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	

E			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)

codeinjections table F getdefaultfieldvalue F boxresourcedimensions F getfieldcategory F getfieldset F registerboxresource F restoreboxresource F getformatoption current strina F aethpos defaults table F getinfo T codeiniections F getoutputfilename F gethpos F getpos F getpreviewfigure F getpos F getypos F getypos T nodeinjections F insertrenderingwindow T registrations F mergebookmarks D tables F mergecomments included table F mergefields B context F mergereferences R date F mergeviewerlayers Bid F prerollreference B metadata F presetsymbol B pdf F presetsymbollist install function F processrendering nodeinjections table F registerdocumentcloseaction F restore F registerdocumentopenaction F save F registeredsymbol F transform F registerpagecloseaction function nothina F registerpageopenaction table pdf F registersymbol T codeinjections F setfieldcalculationset F addbookmarks F setfigurealternative F analyzenormalsymbol F setfigurecolorspace F analyzesymbol F setfiguremask F attachmentid F setformat F clonefield F setformsmethod F definefield F setpagetransition F definefieldset F setupcanvas F defineviewerlayer F setupidentity F embedfile F setxmpfile F enabletags F startlaver F startunicodetoactualtext F exportformdata F startunicodetoactualtextdirect F fieldsurrounding F flushmergelayer F stoplayer F getbookmarks F stopunicodetoactualtext

F stopunicodetoactualtextdirect
F supportedformats

F useviewerlayer F validfield

F validfieldcategory

F unicodetoactualtext

F validfieldset

S comment

 ${\sf T}\ {\sf nodeinjections}$ 

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 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 set	
kernel	table		F split	
F hyphenation			F start	
F kerning			F stop	
F ligaturing		F	tag	
F mlist_to_hlist		prof	iling	table
T originals		F	add	
F hyphenate		F	distance	
F kerning		F	fixedprofile	
F ligaturing		F	get	
paragraphs	table	F	list	
T constructors		F	pagehandler	
N attribute		F	profilebox	
F define		F	set	
F disable		vspa	cing	table
F enable		F	analyze	
F handler		D	categories	
T methods		F	collapsevbox	
F basic		Т	data	
F default			D map	
F hpack			D skip	
F oneline			D snapmethods	
D names		F	definesnapmeth	od
D numbers		В	fixed	
F set		F	forcepageflush	
F start		F	forcestrutdept	h
F stop		F	getnofprevious	lines
T expansion		F	pagehandler	
F trace		F	pageoverflow	
F keeptogether		F	setmap	
F registertogethe	er	F	setskip	
T solutions		F	snapbox	
T splitters			synchronizepag	e
F define			tocategories	
F optimize			tocategory	
T registered		F	vboxhandler	
F reset				

## 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)

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 process rule B define font B find cidmap file B read cidmap file B find\_data\_file B read\_data\_file B find\_enc\_file B read\_enc\_file B find font file B read font file B find format file B read map file B find\_image\_file B read opentype file B find map file B read pk file B find opentype file B read\_truetype\_file B find\_output\_file B read\_type1\_file B find\_pk\_file B read\_vf\_file B find read file B show error hook B find\_truetype\_file B show\_error\_message B find\_type1\_file B show\_lua\_error\_hook B find\_vf\_file B show\_warning\_message B find write file B start file B finish pdffile B start page number B finish\_pdfpage B start run B finish\_synctex B stop\_file B font descriptor objnum provider B stop page number B glyph\_not\_found B stop\_run B glyph\_stream\_provider B vpack\_filter B hpack filter B vpack quality B hpack\_quality B wrapup\_run

#### catcodes (context)

names data table
numbers data table

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
tonumber
ucchars
uccode
uccodes
uhash
unicodechar
upper

table

function

data table function

data table

data table

function

function

#### chemistry (context)

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

moleculefunctionmoleculeparseruserdatastartfunctionstopfunctionstructuresnumberundefinefunction

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

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

## debug (basic lua)

debug	function	sethook	function
gethook	function	setlocal	function
getinfo	function	setmetatable	function
getlocal	function	setupvalue	function
getmetatable	function	setuservalue	function
getregistry	function	traceback	function
getupvalue	function	upvalueid	function
getuservalue	function	upvaluejoin	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

#### drivers (context)

convert function F character install function F rule instances table S name T lua T pdf T actions T actions F fetch F finalize F finalize F initialize F initialize F updatefontstate F reset F wrapup T flushers T flushers F character F character F rule F latelua F pdfliteral S name F pdfrestore T mps T actions F pdfsave F fetch F pdfsetmatrix F rule F finalize F initialize S name F reset prepare function wrapup function T flushers

## environment (context)

			_
argument	function	luafile	function
arguments	data table	luafilechunk	function
basicengines	data table	luatexengine	string
currentrun	number	luatexfuncitonality	number
default_texmfcnf	string	luatexversion	number
definefilefallback	function	maxnofruns	number
definefilesynonym	function	originalarguments	data table
engineflags	data table	outputfilename	string
filename	string	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
loadexamodes	function	validengines	data table
loadluafile	function	version	string

#### experiments (context)

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

register function report function show function value function

#### figures (context)

F immediatewrite

F keys

F immediatewriteobject

applvratio function F new badname function F node bases data table F ofindex bitmapimage function F package boxnumber number F print data table cachepaths F scan check function F serialize checkers data table F tonode converters data table F totable current function F types defaultdepth number F write defaultheight number include includers defaultsearch hool ean defaultwidth initialize number done function loaded function localpaths dummv existers data table magics exists function mergegoodies formats data table nofmissing found data table nofprocessed function order get aetinfo function paths getpdfinfo function patterns getrealpage function pop preferguality function auess guessfromstring function programs function hash push identifiers data table registerpattern identify function registerresource table registersuffix images resources F boxes scale F check set F checksize setlookups F clone setmemstream F copy F fields setorder

function

function

data table

function

data table

data table

data table

function

boolean

function

number

number data table

setpaths

suffixes

used

## 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
${\tt checked page float}$	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	function	read_tfm	function
fonts	table	read_vf	function
frozen	function	setexpansion	function
getfont	overloaded function	setfont	function

## fonts (context)

_		
analyzers	table	F currentfonthasfeature
D features		D designsizes
D initializers		D dontembed
D methods		F enhanceparameters
F setstate		T enhancers
D states		T afm
B useunicodemarks		F apply
checkers	table	F patch
F getmissing		T patches
F missing		F register
F placeholder		F report
cid	table	F register
F getmap		F report
F loadfile		T otf
collections	table	F addfeature
F checkenabled		F apply
F clonevector		F enhance
F define		F patch
T definitions		T patches
F found		F register
F prepare		F report
F process		F register
F registermain		F report
F report		T tfm
F reset		F apply
T vectors		F patch
constructors	table	T patches
F addcharacters		F register
F addcoreunicodes	5	F report
F aftercopyingch	aracters	F register
F applymanipulato	ors	F report
F assignmathpara	neters	N factor
B autocleanup		T features
F beforecopyingch	naracters	D afm
D cache		D otf
B cacheintex		D tfm
F calculatescale		F finalize
F checkedfeatures	5	F getfeatureaction
F checkedfilename	2	F getmathparameter
F cleanuptable		F getprivate
F collectprocesso	ors	T handlers

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

F cff F getaxisscale F cff2 F getfactors F cffcheck F getscales F checkhash F gotodatatable F cmap F normalizedaxis T normalizedaxishash F colr F compact F readvariationdata F cpal F reportskippedtable F setvariabledata F ebdt F eblc F hhea F hmtx F ebsc F hvar F expand F extend F kern F fvar F loadfont F gdef F loadshapes F loca F getcomponents F getinfo F math F glyf F maxp F gpos F mvar F name T gposhandlers 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 qsub F close T qsubhandlers F getposition F alternate F getsize F chainedcontext F look F context F open F extension F read2dot14 F ligature F readbyte F multiple F readbytes F reversechainedcontextsingle F readbytetable F single F readcardinal F gvar F readcardinal1 F head F readcardinal2 T helpers F readcardinal2le F readcardinal3 F axistofactors F cleanname F readcardinal3le

F readcardinal4 F scriptandlanguage F readcardinal4le F setdynamics F readcardinaltable F setfeatures F readchar T statistics F readfixed2 D usedfeatures F readfixed4 F storepdfdata F readinteger T sva F readinteger1 F filterglyph F readinteger2 F topdf F readinteger2le D sygcache F readinteger3 B sygenabled T tables F readinteger3le F readinteger4 D baselines F readinteger4le D features F readintegertable D featuretypes F readsignedbyte D languages F readstring D scripts N version F readtag F setposition T pfb F size F loadvector F skip T tfm F skiplong F addtounicode F skipposition D features F skipshort N maxnestingdepth F writebyte N maxnestingsize F writecardinal2 F reencode F writecardinal4 F setfeatures F writestring N version T vf F svg N tableversion T combinations F unifymissing F combine F unpack T combiner F vhea D commands D helpers F vmtx D math F vorg F vvar D predefined F woff2otf N version D whatever F registerpalette F registerplugin F hashfeatures F reorderlookups F hashinstance T sbix T hashmethods F topdf F normal F virtual D sbixcache B sbixenabled F initializefeatures

T keys	S vfactor	
T characters	S wdelta	
T descriptions	S width	
T parameters	S embedding	
S ascender	S encodingby	tes
S descender	S filename	
S designsize	S finalized	
T expansion	S fontname	
S auto	S format	
S shrink	S fullname	
S step	S hasitalics	
S stretch	S hasmath	
S extendfactor	S mathitalics	5
S factor	S mode	
S hfactor	S name	
S mathsize	S noglyphname	es
S mode	S nostackmath	
T protrusion	S psname	
S auto	S textitalics	5
S quad	S virtualized	d
S scaledpoints	D loadedfonts	
S scriptpercentage	S namemode	
S scriptscriptpercentage	N noffontsloaded	I
S size	N nofsharedfonts	;
S slantfactor	N nofsharedhashe	es
S slantperpoint	N nofsharedvecto	ors
T spacing	N privateoffset	
S extra	D privateslots	
S shrink	F readanddefine	
S stretch	F registerfeatur	re
S width	F resetfeature	
S units	B resolvevirtual	.too
S vfactor	F scale	
S width	F scaled	
S xheight	F setfactor	
T properties	F setfeature	
S autoitalicamount	F setmathparamet	er
S cidinfo	F setname	
T effect	B sharefonts	
S ddelta	F trytosharefont	<u>.</u>
S effect	N version	
S factor	current	function
S hdelta	currentid	function
S hfactor	definers	table

F addlookup F analyze F applypostproces F checkedmode F checkedscript F current S defaultlookup F define F getspecificatio F internal F loadfont F makespecificati	n	getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution F opentype	function function function table
F install		goodies	table
D variants		D colorschemes	
F read		T data	
F register		T dejavu-math	
F registered		S author	
F registersplit		S comment	
F resetnullfont		S copyright	
F resolve		B initialized	
T resolvers		T mathematics	
F file		T alternates	i
F name		T dotless	
F spec		S commen	
definetypeface 	function	S feature	9
encodings	table	N value	
T agl		T kerns	
D ctxcodes		S name	
D extras		S version	
D names		T schola-math	
D synonyms		S author	
D unicodes		S comment	
D cache		S copyright B initialized	
F is_known			
D known		T mathematics	
F load	etan	T alternates T dotless	1
F make_unicode_ve	ector	S commen	_
N version		S commen	
enhanceid	function		=
expansions	data table	N value T kerns	
formats	data table	S name	
getalternate	function		
gerarremare	TUTICLIUII	S version	

D designsizes		Fa	ppendcommands	
D filenames		Fc	heckflags	
F getcompositions		Fc	heckmerge	
T list		Fc	hecksteps	
F load		Fc	ollectanchors	
F prepare_features		Dс	ommands	
F register		Fd	escriptiontoslo	ot
F registerpostproc	essor	Fd	imenfactor	
F report		Fe	xpandglyph	
T suffixes		Тe	xtraprivates	
handlers	table	Ff	ontpatternhass:	ize
hashes	table	Fg	etcoloredglyph	5
D characters		Fg	etdigitwidth	
D classes		Fg	etinstancespec	
D csnames		Fg	etparameters	
D descriptions		Fg	etprivatecharo	rnode
D dynamics		Fg	etprivatenode	
D emwidths		Fg	etprivates	
D exheights		Fg	etprivateslot	
D extensibles		F h	asprivate	
D features		Γi	ndextoslot	
D identifiers		Fn	ame	
D italics		Fn	ametoslot	
D lastmathids		Fρ	rependcommands	
D marks		Fρ	rivateslot	
D mathparameters		Fs	etdigitwidth	
D modes		Fs	plitfontpatter	ı
D originals		Ft	ochar	
D parameters		infof	ont	function
T processes		itera	tors	table
D properties		Fc	haracters	
D quads		Fd	escriptions	
D resources		Fg	lyphs	
T setdynamics		logge	rs	table
T shapes		Fa	dd_placeholder	5
D spaces		D c	ategory_to_plac	ceholder
D spacings		Ff	ormat	
T streams		Fo	netimemessage	
D unicodes		Fr	egister	
D variants		Fr	eportdefinedfo	nts
D xheights			eportusedfeatu	res
helpers	table	mappi	ngs	table
F addextraprivate		Fa	ddtounicode	
F addprivate		Ff	romunicode16	

F loadfile		F default
F loadline		D defaults
F makenameparser		F definefallbackfamily
D overloads		F definefontfamily
F reset		F definefontfamilypreset
F tounicode		D extras
F tounicode16		F fallback
F tounicode16sequ	ience	D fallbacks
metapost	table	F features
F boundingbox		F filefallback
F boxtomp		F fontdata
F draw		F fontfallback
F fill		F fontsynonym
F maxbounds		F goodies
F output		F mathfallback
F paths		D methods
F widthline		D presets
F zeroline		F registerfallback
mp	table	F registerfiles
D cache		F registerfontalternative
B inline		F registerfontfamily
N version	data tabla	F textfallback
names	data table	F typeface
nulldata	data table	F typescript
protrusions readers	data table table	F userdata  specifiers table
	table	
F afm		D contextmerged
F check_lua F check_tfm		F contextnumber D contextnumbers
F lua		D contextsetups
F ofm		F contexttostring
F opentype		F definecontext
Fotf		F mergecontext
F pfb		F presetcontext
D sequence		F registercontext
F tfm		F showcontext
F ttc		F splitcontext
F ttf		D synonyms
F woff		D variants
reserveid	function	symbols table
select		
Setect	table	T emoji
D alternatives	table	T emoji F checked
	table	
D alternatives	table	F checked

tables	table	D data	
D data		S filename	
F savefont		F ignoredfile	
F saveoriginal		F report	
tracers	table	F trace	
treatments	table	typefaces	table

F applyfixes

#### 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

## img (basic tex)

boxes	function	node	function
check	function	ofindex	function
checksize	function	package	function
clone	function	print	function
сору	function	scan	function
fields	function	serialize	function
immediatewrite	function	tonode	function
immediatewriteobject	function	totable	function
keys	function	types	function
new	function	write	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 function cachesetup checkedspecification function complete constants corenamespaces currentinterface string currentresponse string definecommand function defined function doifelsemessage function elements 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

data table data table

data table data table data table

F list

registernamespace registerscanner scanners setconstant setcount setdimen setelement setformat setmacro setmessage setmessages settranslation setupstrings setuserinterface setvalidkevs setvariable

showmessage

translations

variables

writestatus

usednamespaces

strings

syntax

tolist

storedscanners

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

function

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

read function 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	F check	
datasets	table	D collected	
D collected		F count	
F extend		F define	
F getdata		F find	
F setdata		F first	
D tobesaved		F get	
disablesave	function	F getcollected	
embedded	table	F getdata	
D collected		F getfield	
D tobesaved		F gettobesaved	
fileobjreferences	table	F inlist	
D collected		F last	
D tobesaved		F list	
files	table	F save	
D collected		F savetagged	
F context		D tobesaved	
B forcerun		positions	table
F run		F b_column	
D tobesaved		F b_region	
getrandomseed	function	Fc	
initialize	function	D collected	
load	function	F column	
loadother	function	F copy	
objects	table	F depth	
D collected		F e_column	
F get		F e_region	
F number		F enhance	
F page		F extra	
F save		T free	
F set		F get	
D tobesaved		F getreserved	
pack 	boolean	F gettobesaved	
packversion	number	F hangafter	
pagestates	table	F hangindent	
D collected		F height	
F extend		F hsize	
F realpage		F leftskip	
F setstate		F lowerleft	
D tobesaved	+2612	F lowerright	
passes	table	F markregionbox	

Fn	F xy	
F onsamepage	Fy	
F overlapping	register	function
F p	save	function
T page	structure	table
F paragraph	D collected	
F parindent	T components	
F position	T tobesaved	
Fr	T branches	
F region	S name	
F replace	S type	
F rightskip	variables	table
F set	D checksums	
F setall	D collected	
F setregionbox	F getchecksum	
D tobesaved	F makechecksum	
F upperleft	F restore	
F upperright	F save	
S used	F setchecksum	

D tobesaved

number

version

F whd

F x

F width

## 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 F load B enables T methods F found 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
inherited	table
S color-backgro	ound-four
S color-backgro	und-one

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

initialize	function
inject	function
lmxfile	function

loadedfile	function
make	function
new	function
overloaderror	function
popupfile	function
print	function
pv	function
report	function
reset	function
result	function
set	function
show	function
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	docstring	function
adddocumentcolorspace	function	epdf	table
adddocumentextgstate	function	F contenttotext	
adddocumentpattern	function	F expanded	
adddocumentshade	function	F getpagecontent	
addtocatalog	function	F getstructure	
addtoinfo	function	T image	
addtonames	function	F close	
addtopageattributes	function	F copy	
addtopageresources	function	F open	
addtopagesattributes	function	F query	
addxmpinfo	function	F load	
annotationspecification	function	F plugin	
array	function	T resolvers	
boolean	function	F destinations	
border	function	F embeddedfiles	
checkedkey	function	F javascripts	
checkedvalue	function	F layers	
circularshade	function	F pages	
cmykcode	function	F structure	
collectedresources	function	F widgets	
color	function	F unload	
colorspace	function	escaped	function
colorspaceconstants	data table	finalizedocument	function
colorspec	function	finalizefonts	function
colorvalue	function	finalizepage	function
colorvalues	function	finishtransparencycode	function
compresslevel	function	flags	table
constant	function	T annotations	
copyarray	function	N AutoView	
copyboolean	function	N Hidden	
copyconstant	function	N Invisible	
copydictionary	function	N Locked	
copyfloat	function	N LockedContents	
copyinteger	function	N NoRotate	
copynumber	function	N NoView	
copystring	function	N NoZoom	
copyunicode	function	N Print	
delayedobject	function	N Printable	
destinationspecification	function	N ReadOnly	
dictionary	function	N ToggleNoView	

N auto		getvpos	function
N hidden		graycode	function
N printable		id	function
T widgets		includechar	function
N Comb		includefont	function
N CommitOnSelChange		injectxmpinfo	function
N DoNotScroll		insertxmpinfo	function
N DoNotSpellCheck		layerreference	function
N Edit		limited	function
N FileSelect		linearshade	function
N MultiLine		literal	function
N NoExport		majorversion	function
N NoToggleToOff		minorversion	function
N Password		nametree	function
N PopUp		nofpages	function
N PushButton		null	function
N Radio		number	function
N RadiosInUnison		objectcompresslevel	function
N ReadOnly		pagereference	function
N Required		patternstream	function
N RichText		pdfcolor	function
N Sort		pdftimestamp	function
N file		permitdetail	function
N fixed		print	function
N nocheck		protectresources	boolean
N protected		rectangle	function
N readonly		reference	function
N required		registerannotation	function
N sorted		registerdestination	function
N unavailable		registerdocumentfinalizer	function
flushobject	function	registerfont	function
flushstreamfileobject	function	registerpagefinalizer	function
flushstreamobject	function	registerpattern	function
formats	data table	reserveobject	function
frombytes	function	rgbcode	function
fromeight	function	rotationcm	function
frompdfdoc	function	setcompression	function
fromsixteen	function	setdates	function
getcompression	function	settime	function
gethpos	function	settrailerid	function
getmetadata	function	setversion	function
getpageproperties	function	shareobject	function
getpos	function	shareobjectreference	function
getversion	function	spotcode	function

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

## lpeg (basic lua)

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

#### ltn12 (extra lua)

BLOCKSIZE		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 tabl
bytedone	table
B page-cst	
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

table	F required	
data table	F reset	
table	F resolvestring	
	F resolving	
function	F showdefinitions	
function	mask	string
function	messages	data table
number	name	table
function	newtable	function
function	numbers	data table
function	registercode	function
function	registeredcodes	function
function	registerfinalizer	function
function	registername	function
function	setbytecode	function
number	setluaname	function
table	startupfile	string
	version	string

#### luatex (context)

cleanuptempfiles currentfile registerdumpactions registerpageactions registerstartactions registerstopactions registertempfile starttime synctex

function function function function function function function number table F finish
F pause
F popline
F pushline

F registerdisabler
F registerenabler
F resetfilename
F resume
F setfilename

F setup
F start
F stop
F wrapup

F collect
F disable
F enable

## lxml (context)

- 442 - 4	for the co	£1h	£
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	F compare	
registerentity	function	F flush	
removesetup	function	F reset	
resetcdata	function	F show	
resetsetups	function	F sort	
resolvedentity	function	splitid	function
root	function	startraw	function
save	function	startunescaped	function
serialize	function	stopraw	function
setaction	function	stopunescaped	function
setatt	function	store	function
setattribute	function	strip	function
setcdata	function	stripped	function
${\tt setcommandtonone}$	function	tag	function
${\tt setcommandtotext}$	function	text	function
setpar	function	tobuffer	function
setparam	function	tofile	function
setparameter	function	toparameters	function
setsetup	function	toverbatim	function
snippet	function	verbatim	function
sorters	table	withindex	function
F add		xmltexhandler	data table

#### math (basic lua)

-1	£		and the same
abs	function	maxinteger	number
acos	function	min	function
asin	function	mininteger	number
atan	function	mod	function
atan2	function	modf	function
ceil	function	odd	function
ceiling	function	рi	number
cos	function	pow	function
cosd	function	rad	function
cosh	function	random	overloaded function
deg	function	randomseed	function
div	function	round	function
even	function	setrandomseedi	function
exp	function	sin	function
floor	function	sind	function
fmod	function	sinh	function
frexp	function	sqrt	function
huge	number	tan	function
initialseed	number	tand	function
ldexp	function	tanh	function
log	function	tointeger	function
log10	function	type	function
max	function	ult	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		remapalphabets	function
charactersets	data table	renderings	table
checkaccentbaseheight	function	D mappings	
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)

anal vaanl vai na	function	********	function
analyzeplugins checkformat	function	getstatistics gettext	function
checktexts	function		function
	function	graphic graphic_base_pass	function
CM	boolean		function
collapse colorinitializer	function	installplugin intermediate	table
comment	function		table
	function	T actions	
convert		F makempy	4
defaultformat defaultinstance	string	isobject	function
defaultmethod	string	lastlog load	string function
deraultmethod directrun	string		table
	function	makempy	table
escaped	function	N nofconverted	
exectime extensiondata	table data table	F processgraphics	
	function	F registerfile maketext	function
filterclippath	function	maketext metafun	table
flush			table
flushers	table	F interpolate	
T pdf		F topath	
F comment		method	number
F flushfigure		mptopdf	table
F startfigure		F convertmpstopdf	
F stopfigure		N nofconverted	
F textfigure		n 	number
flushliteral	function	nofscriptruns	function
flushnormalpath	function	nvformat	function
flushreset	function	optimize	boolean
fonts	table	parse	function
F define		pdfliterals	function
T flusher		pluginactions	function
F flushfigure		popformat · .	function
F startfigure		popscriptrunner	function
F stopfigure		popvariable	function
N instances		popvariables	function
F process		preparetextextsdata	function
format_number	function	process	function
format_string	function	processplugins	function
formatnumber	function	processspecial	function
getclippath	function	properties	table
getextensions	function	pushformat	function
getjobdata	function	pushscriptrunner	function

pushvariable pushvariables	function function	stopgraphic svformat	function function
quickanddirty	function	sxsy	function
reducetogray	boolean	tex	table
reporterror	function	F get	
reset	function	F reset	
resetlastlog	function	F set	
resetplugins	function	F setfrombuffer	
run	function	texerrors	boolean
runscript	function	texexp	function
scripterror	function	theclippath	function
setextensions	function	tographic	function
setoutercolor	function	totable	function
settext	function	unload	function
setvariable	function	untagvariable	function
showlog	boolean	use_one_pass	boolean
simple	function	variables	table
startgraphic	function		

#### 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	-	function
CurrentWidth	function	PageDepth 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
Finteger		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 function	number	function
getmacro		numeric	function
gettoks	function	pair	function
graphformat	function	pairpoints	function

path	function	print	function
pathleft	function	processingmode	function
pathlength	function	quadruple	function
pathpoint	function	quadruplepoints	function
pathpoints	function	quoted	function
pathreset	function	report	function
pathright	function	set	table
place_buffermake	function	F path	
place_buffersize	function	setcount	function
place_bufferslot	function	setdimen	function
place_bufferwipe	function	setmacro	function
points	function	settoks	function
positionanchor	function	size	function
positionbox	function	string	function
positioncurve	function	systemmode	function
positionpage	function	texstr	function
positionpath	function	texvar	function
positionpxy	function	tohash	function
positionregion	function	triplet	function
positionwhd	function	tripletpoints	function
positionxy	function	vprint	function
prefix	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
preprocessed function
solve\_path function
statistics function
version function

#### noads (context)

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

#### 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 insert after F free F get attribute F insert before F get\_properties\_table F is char F get\_synctex\_fields F is direct F getattributelist F is\_glyph F aetboth F is node F getbox F is zero glue F getchar F kerning F getcomponents F last\_node F getdata F length F getdepth F ligaturing F getdir F new F getdirection F prepend\_prevdepth F getdisc F protect glyph F getexpansion F protect\_glyphs F getfam F protrusion\_skippable F getfield F rangedimensions

F remove

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 setbox	F unprotect_glyphs	
	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	id	function
	insert_after	function
F traverse_char	111361 t_a1 te1	Tunction

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

# nodes (context)

accented of	data table	disccodes	data table
accentcodes aligned	function	discretionarycodes	data table
append	function	effective_glue	function
	function	end of math	function
apply applyvisuals	function	fencecodes	data table
astable	function	fields	function
basepoints	function	fillcodes	data table
boundarycodes	data table		function
boxes	table	<pre>find_attribute first_glyph</pre>	function
	table	first_gtypn firstcharacter	function
F dimensions		firstcharinbox	function
F direct		firstdirinbox	function
F found			
F reset		firstglyph	function
F restore		flatten_discretionaries	function
F save	4-h1-	flush	function
builders	table	flush_list	function
F buildpage_filter		flush_node	function
F vpack_filter		free	function
check_discretionaries	function	fullhpack	function
codes	data table	getattr	function
concat	function	getattribute	function
сору	function	getbox	function
copy_list	function	getchar	function
copy_node	function	getdisc	function
count	function	getfield	function
countall	function	getfont	function
current_attr	function	getglue	function
delete	function	getid	function
destinations	table	getleader	function
N attribute		getlist	function
T done		getnext	function
F handler		getprev	function
T stack		getsubtype	function
dimensionfields	data table	getwhd	function
dimensions	function	gluecodes	data table
dir_is_pop	data table	gluevalues	data table
dir_negation	data table	glyphcodes	data table
dircodes	data table	glyphdir_is_equal	data table
directioncodes	data table	glyphdir_is_opposite	data table
directionvalues	data table	glyphdir_is_orthogonal	data table
dirvalues	data table	handlers	table

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

listcodes	data table	F dimensions
listtoutf	function	F effective_glue
literalvalues	data table	F end of math
load	function	F find_attribute
locate	function	F first_glyph
margincodes	data table	F firstcharacter
marginkerncodes	data table	F firstcharinbox
markers	table	F firstglyph
F get		F flatten_discretionaries
mathcodes	data table	F flush
maxboxwidth	function	F flush_list
mlist_to_hlist	function	F flush_node
new	function	F free
noadcodes	data table	F fullhpack
noadoptions	table	F get_components
N axis		F get_synctex_fields
N exact		F getattr
N left		F getattribute
N middle		F getattributelist
N no_axis		F getattrlist
N right		F getboth
N set		F getbox
N unused_1		F getboxglue
N unused_2		F getchar
nodecodes	data table	F getcomponents
nopts	function	F getdata
nuts	table	F getdepth
F append		F getdir
F apply		F getdirection
F applyvisuals		F getdisc
F check_discretionaries		F getdiscretionary
F concat		F getexpansion
F copy		F getfam
F copy_list		F getfield
F copy_no_components		F getfont
F copy_node		F getglue
F copy_only_glyphs		F getheight
F copy_properties		F getid
F copyvisual		F getkern
F count		F getlang
F count_components		F getlanguage
F countall		F getleader
F current_attr		F getlist
F delete		F getnext

F aetnucleus F boundary F getoffsets F choice F cleanup F getpenalty F delim F getprev F getprop F delimiter F direction F getshift F getsub F disc F getsubtype F emptyrule F fence F getsup F getsurround F fontkern F fraction F getvalue F getwhd F alue F getwidth F gluespec F has attribute F glyph F has\_field F hlist F has\_glyph F italickern F hpack F kern F latelua F insert after F insert before F lateluafunction F leader F insert\_list\_after F is\_char F leftmarginkern F is\_direct F leftskip F is\_display\_math F lineskip F is\_glyph F mathchar F is\_node F mathtextchar F is\_nut F negatedglue F is\_zero\_glue F noad F outlinerule F ischar F isdone F pdfannotation F isqlyph F pdfdestination F pdfdirectliteral F kerning F last node F pdfliteral F leftmarginwidth F pdforiginliteral F pdfpageliteral F length F pdfrawliteral F ligaturing F link F pdfrestore F pdfsave F linked F pdfsetmatrix F locate F mlist\_to\_hlist F penalty F nestedtracedslide F radical F new F register T pool F rightmarginkern F accent F rightskip F baselineskip F rule

F shrink F set attribute F special F set\_components F stretch F set\_synctex\_fields F subbox F setattr F submlist F setattribute F setattributelist F temp F textdir F setattributes F usage F setattrlist F sethoth F userattributes Tuserids F setbox N margins.inline F setboxalue N property F setchar N splitters.one F setcomponents N splitters.two F setdata F userlist F setdepth F userlua F setdir F usernumber F setdirection F userrule F setdisc F userstring F setdiscretionary F usertokens F setexpansion F vlist F setfam F wordboundary F setfield F prepend F setfont F processranges F setglue F processwords F setheight F protect\_glyph F setkern F protect\_glyphs F setlang F protrusion skippable F setlanguage F rangedimensions F setleader F setlink F rawprop F reference F setlist F rehpack F setnext F remove F setnucleus F repackhlist F setoffsets F setpenalty F replace F rightmarginwidth F setprev T rules F setprop F setshift T ruleactions F box F setsplit F draw F setsub F fill F setsubtype F mp F setsup F stroke F setsurround

F setunsetattributes

F userrule

	F 1 1	
F setvalue	F tovbox	
F setvisual	F tovpack	
F setvisuals	F unprotect_glyph	
F setwhd	F unprotect_glyphs	
F setwidth	F unset_attribute	
F slide	F unsetattribute	
F somepenalty	F unsetattributes	
F somespace	F untracedslide	
F splitbox	F use_components	
F striprange	F usedlist	
F tail	F uses_font	
F take_components	F vianodes	
F takeattr	F vianuts	
F takebox	F vpack	
F takelist	F write	
F theprop	packlist	function
F tonode	pardir_is_equal	data table
F tonodes	pardir_is_opposite	data table
F tonut	pardir_is_parallel	data table
F tosequence	partextdir_is_equal	data table
F tostring	pdfliteralvalues	data table
F tracedslide	penaltycodes	data table
F traverse	plugindata	table
F traverse_char	F finalizer	
F traverse_glyph	F initializer	
	r illittatizei	
F traverse_id	S name	
<del>-</del>		
F traverse_id	S name	
F traverse_id F traverse_list	S name T namespace	
F traverse_id F traverse_list T traversers	S name T namespace N attribute	
F traverse_id F traverse_list T traversers F boundary	S name T namespace N attribute D data	
F traverse_id F traverse_list T traversers F boundary F char	S name T namespace N attribute D data F enable	
F traverse_id F traverse_list T traversers F boundary F char F dir	S name T namespace N attribute D data F enable F handler	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc	S name T namespace N attribute D data F enable F handler F register	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue	S name T namespace N attribute D data F enable F handler F register D registered	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph	S name T namespace N attribute D data F enable F handler F register D registered D values	function
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist	S name T namespace N attribute D data F enable F handler F register D registered D values F processor	function table
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list	S name T namespace N attribute D data F enable F handler F register D registered D values F processor points	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list F next	S name T namespace N attribute D data F enable F handler F register D registered D values F processor points pool	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list F next F node	S name T namespace N attribute D data F enable F handler F register D registered D values F processor points pool F baselineskip	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list F next F node F vlist	S name T namespace N attribute D data F enable F handler F register D registered D values F processor  points  pool F baselineskip F cleanup	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list F next F node F vlist F whatsit	S name T namespace N attribute D data F enable F handler F register D registered D values F processor  points  pool  F baselineskip F cleanup F glyph	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list F next F node F vlist F whatsit T typesetters	S name T namespace N attribute D data F enable F handler F register D registered D values F processor points pool  F baselineskip F cleanup F glyph F hlist	
F traverse_id F traverse_list T traversers F boundary F char F dir F disc F glue F glyph F hlist F list F next F node F vlist F whatsit T typesetters F tohbox	S name T namespace N attribute D data F enable F handler F register D registered D values F processor points pool  F baselineskip F cleanup F glyph F hlist F kern	

F pdfdirectliteral		report	function
F pdforiginliteral		rightmarginwidth	function
F pdfrestore		rulecodes	data table
F pdfsave		rules	table
F pdfsetmatrix		D data	cabic
F register		F define	
F rule		F enable	
F special		F handler	
F usage		F userrule	
F usernumber		save	function
F vlist		serialize	function
prepend	function	serializebox	function
print	function	set attribute	function
processors	table	setattr	function
F contribute_filter		setattribute	function
B enabled		setattributes	function
F hpack_filter		setboth	function
F post_linebreak_filter		setbox	function
F pre_linebreak_filter		setboxtonaturalwd	function
· F tracer		setfield	function
properties	table	setglue	function
T actions		setlink	function
F delayed		setlist	function
F fdelayed		setnext	function
F immediate		setprev	function
F attach		setunsetattributes	function
T data		setwhd	function
F delayed		shifts	table
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	

F takesample		tonut
somepenalty	function	topicas
somespace	function	topoints
splitbox	function	toscaledpoints
stripdiscretionaries	function	tosequence
stripping	table	tostring
	tabte	totable
T glyphs F set		totree
subtypes	data table	toutf
tail	function	tracers
takeattr	function	T characters
takebox	function	F collect
tasks	table	
	table	F equal
F actions		F start
F appendaction		F string
F disableaction		F unicodes
F disablegroup		T colors
F enableaction		F reset
F enablegroup		F set
F freeze		F setlist
F freezegroup		F fontchar
F new		T frequencies
F prependaction		F register
F removeaction		T pool
F replaceaction		T nodes
F restart		F rule
F setaction		T nuts
F showactions		F rule
F table		F resetproperties
textdir_is_equal	data table	F rule
textdir_is_is	data table	F setlist
textdir_is_opposite	data table	F setproperties
textdir_is_parallel	data 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

function function function function function function function function function table

F start		unprotect_glyph	function
F stop		unprotect_glyphs	function
F stop		unset_attribute	function
T transparencies		unsetattribute	function
F reset		unsetattributes	function
F set		usedlist	function
F setlist		usercodes	data table
traverse	function	uses_font	function
traverse_char	function	vianodes	function
traverse_glyph	function	vianuts	function
traverse_id	function	visualizebox	function
traverse_list	function	visualizers	table
traversers	table	F attribute	
F char		T attributes	
F glyph		F box	
F list		F handler	
F node		F markfonts	
typesetters	table	F register	
F hbox		F setfont	
F hpack		F setlayer	
F tohbox		F setruledglyph	
F tohpack		F setvisual	
F tonodes		vpack	function
F tovbox		whatcodes	data table
F tovpack		whatsitcodes	data table
F vpack		write	function

# number (context)

	function	tocentimeters	function
basepoints	function	tociceros	function
bytetodecimal	function	tocontext	function
compactfloat	function	todidots	function
decimaltobyte	function	todimen	function
dimenfactors	data table	toevenhex	function
formatted	function	toinches	function
formattedfloat	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
tobasepoints	function	valid	function
tobitstring	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 function extralibpaths function extraluapath function extraluapaths function helpers table libpaths function loaded table loaders table loadlib function luapaths function path overloaded string poplibpath function popluapath function table preload pushlibpath function pushluapath function searchers table searchpath function

seeall

function

# pagebuilders (context)

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

# pdf (basic tex)

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

setorigin	function	setthreadmargin	function
setpageattributes	overloaded function	settrailer	overloaded function
setpageresources	overloaded function	settrailerid	overloaded function
setpagesattributes	overloaded function	setxformattributes	function
setpkresolution	function	setxformmargin	function
setrecompress	function	setxformresources	function
setsuppressoptionalinfo	function	xformname	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		S title		
collected	data table	S volume		
components	table	S year		
F author		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
comment	getfaster	function
copyright	getfield	function
fields	getfuzzy	function
name	getindex	function
types	inspectors	data table
S author	journals	table
S editor	F abbreviated	
S keywords	F add	
S number	F expanded	
S page	F load	

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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 string D virtuals function function tags usedataset table usedentries function tracers table

F author

writers F showdatasetauthors F showdatasetcompleteness F author F showdatasetfields F keyword F showentry F pagenumber F range

F showhashedauthors

F showfields

D types

# regimes (context)

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

### resolvers (context)

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

locateformat function data table savers data table locators scandata function luacnffallback strina scanfiles function luacnfname table string schemes luacnfspec string T cleaners luacnfstate string F md5 table macros F none F convertfile F strip F decodecomment F cleanname F enablecomment F fetchstring F fetchtable F encodecomment F install F preprocessed setdvnamic function F processmk setenv function F processmkvi F version setmemstream function maxreadlevel number showpath function methodhandler function simplescanfiles function openbinfile function splitconfigurationpath function openers data table splitexpansions function openfile function splitmethod function opentexfile function splitpath function ownpath strina stackpath function starttiming function popextrapath function function stoptiming function poppath data table suffixes data table prefixes prependhash function suffixmap data table suffixofformat pushextrapath function function pushpath function texdatablob function registerextrapath function toppath function 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 function data table usertypes renew renewcache function usezipfile function repath function validatedpath function function variable function reset variableofformat resetextrapaths function function variableofformatorsuffix resetmemstream function function resetresolve function wildcardpattern function

function

resolve

### 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_shrink_factor		F zerowidthspace_before		
N inter_char_half_stretch_factor		installdataset	function	
N inter_char_hangul_penalty		installmethod	function	
N inter_char_quart	er_shrink_factor	numbertocategory	data table	
N inter_char_quart	er_stretch_factor	numbertodataset	data table	
N inter_char_shrin	k_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
readcardinaltable	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
Врс		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	noftables	number
data	table	register	function
mark	function	shared	data table
marked	function	storedfunctions	data table
max	number	strip	boolean
min	number	tofmodules	number
nofmodules	number	toftables	number

### streams (context)

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

# string (basic lua)

autodouble	function		4
		quote	function
autosingle	function	quoted	function
booleanstring	function	rep	function
byte	function	replacenewlines	function
bytepairs	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 merge		descriptions	table
F merge S method			table table
		descriptions	
S method		descriptions documents	
S method F overload		descriptions documents D data	
S method F overload F place		descriptions documents  D data F initialize F preset F reset	
S method F overload F place F register	table	descriptions documents  D data F initialize F preset F reset floats	
S method F overload F place F register F setup	table	descriptions documents  D data F initialize F preset F reset	table
S method F overload F place F register F setup Counters	table	descriptions documents  D data F initialize F preset F reset floats	table
S method F overload F place F register F setup Counters F add	table	descriptions documents  D data F initialize F preset F reset floats formulas	table table
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
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
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
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
S method F overload F place F register F setup  COUNTERS F add F analyze F check D collected F compact F converted	table	descriptions documents  D data F initialize F preset F reset floats formulas helpers F analyze F formulanumber F merged F page	table table
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	table	descriptions documents  D data F initialize F preset F reset floats formulas helpers F analyze F formulanumber F merged F page F pageofinternal	table table
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
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
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

inserts	table	T resu	ult
D data			edlistnumber
F define			edlistprefixednumber
F getdata			edlisttitle
F getlocation			tionblocks
F getname			tionnumber
F getnumber		F size	
F setlocation		F titl	
F setup			esaved
D stored		F user	
itemgroups	table		rvalue
lists	table	marks	table
F addto		D data	
F analyze		F defi	
B autoreorder		F exis	
D cached		F feto	ch
D collected		F feto	challmarks
F discard		F feto	ched
F enhance		F feto	chonemark
T enhancers		F feto	chtwomarks
F filter		F get	
F formulanumber		F numb	ber
F getresult		F rela	ate
F groupindex		F rese	et
F hasnumberdata		F set	
F haspagedata		F show	N
F hastitledata		F synd	chronize
F iscached		F titl	le
D kinds		T trad	cers
F label		Fsh	nowtable
F location		notes	table
D names		F chec	ck_spacing
F number		F chec	ckpagechange
D ordered		F defi	ine
F page		F doi1	fonsamepageasprevious
F popnesting		F get	
F prefix		F geto	deltapage
F prefixednumber		F geti	internal
F prefixedpage		F getr	n
F process		F gets	state
D pushed			content
F pushnesting		Finte	
F realpage		Finte	ernalid
F reordered		F list	tindex

T numbers		F define
F ordered		F found
F postpone		F get
F resetpostponed		F filter
F restore		F filterdefault
F save		D filters
F setstate		D flaginternals
D states		F from
F store		D functions
pages	table	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		D handlers
F number		F identify
F on_right		F import
F save		F inject
D tobesaved		F injectcurrentset
F toranges		S innermethod
F toranges references	table	S innermethod D internals
	table	
references	table	D internals
references F analyze	table	D internals F load
references F analyze F checkedfile	table	D internals F load F loadpresets
references F analyze F checkedfile F checkedfileorurl	table	D internals F load F loadpresets F mark
references F analyze F checkedfile F checkedfileorurl F checkedprogram	table	D internals F load F loadpresets F mark S outermethod
references F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage	table	D internals F load F loadpresets F mark S outermethod D pages
references F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs
references F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata
references F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs
references F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter F currentmetadata	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data
references F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter F currentmetadata F currentorder	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T 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	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T 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	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F 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	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F 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	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F 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	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F registerfinalizer F registerinitializer
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 F export	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F registerinalizer F 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	table	D internals F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F registerfinalizer F registerinitializer

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	F getcurrentlevel
T urls	F getlevel
T data	F getnumber
F define	F internalreference
F found	D levelmap
F get	D levels
F untex	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 res	setused
T bodypart		F so	rt
S bookmark		F syı	nonym
F set		D tol	besaved
F setblock		tags	table
F setchecker		F ele	ementtag
F setentry		F fir	nishexport
F setinitialblock		F get	textradata
F setlevel		F get	tid
F setnumber		F get	tmetadata
F showstructure		F har	ndler
F structuredata		F in:	itializeexport
F title		D la	bels
D tobesaved		F las	st
F typesetnumber		F las	stinchain
F userdata		F lo	catedtag
B verbose		T pat	tterns
sets	table	Us	splitter
F define		D pro	operties
F get		F reg	gisterextradata
F getall		F reg	gistermetadata
D setlist		F res	start
specials	table		taspect
D collected		F set	tattributehash
F retrieve			tcombination
F store			tconstruct
D tobesaved			tfigure
synonyms	table		tfloat
F analyzed			tformulacontent
D collected			thighlight
F compare			titem
F define			titemgroup
F filter			tlist
F finalize			tnotation
F flush			tnotationsymbol 
F isshown			tproperty
F isused			tpublication
F meaning			tregister
F prepare			tsorting
F process			tsynonym
F register F registershown			ttablecell ttabulatecell
F registersnown F registerused			ttagutatecett ttagdelimitedsymbol
-			
F resetshown		r set	ttagsubsentencesymbol

F setupexport
F setuserproperties
D specifications
F start

F stop

F strip
D taglist
T usewithcare

T images

### table (basic lua)

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

# tex (basic tex)

attribute	table	getmath	function
badness	function	getmathcode	function
box	table	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
<pre>get_synctex_mode</pre>	function	istoks	function
get_synctex_tag	function	lccode	table
getattribute	function	linebreak	function
getbox	function	lists	table
getboxresourcebox	function	lua_math_random	function
getboxresourcedimensions	function	lua_math_randomseed	function
getcatcode	function	luacatcodes	number
getcount	function	mathcode	table
getdelcode	function	modes -	data table
getdelcodes	function	muglue	table
getdimen	function	muskip	table
getglue	function	nest	table
getlccode	function	nilcatcodes	number
getlist	function	normal_rand	function
getlocallevel	function	notcatcodes	number

number	function	setnest	function
primitives	function	setsfcode	function
print	function	setskip	function
prtcatcodes	number	settoks	function
resetparagraph	function	setuccode	function
romannumeral	function	sfcode	table
round	function	shipout	function
run	function	show_context	function
runtoks	function	skip	table
saveboxresource	function	sp	function
scale	function	splitbox	function
scantoks	function	sprint	function
set	function	systemmodes	data table
set_synctex_line	function	takebox	function
set_synctex_mode	function	texcatcodes	number
set_synctex_no_files	function	toks	table
set_synctex_tag	function	tpacatcodes	number
setattribute	function	tpbcatcodes	number
setbox	function	tprint	function
setcatcode	function	trackers	data table
setcount	function	triggerbuildpage	function
setdelcode	function	txtcatcodes	number
setdimen	function	type	function
setglue	function	uccode	table
setlccode	function	uniform_rand	function
setlist	function	uniformdeviate	function
setmath	function	uprint	function
setmathcode	function	useboxresource	function
setmuglue	function	vrbcatcodes	number
setmuskip	function	write	function

#### texconfig (basic tex)

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)

closeinput function setescape function write function write\_nl function

# 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)

astal	ble	function		U	loadfound	ltypescriptfile	
bgrou	up	userdata		U	resetctxs	canner	
bits		table		U	rlap		
N	active			U	scratchco	unter	
N	N alignment			U scratchdimen			
N begingroup			U scratchmuskip				
N character				U scratchskip			
N close				U	scratchto	ken	
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	startxtit	le	
N	open			U	stopcolum	nns	
N	other			U	U stoptabulate		
N	parameter			U	stoptitle		
N	space			U	stopxtitle		
N	subscript				texsetup		
N	superscri	pt		coll	ectors	table	
	whitespac			Т	data		
cache	е	table		F defaultwords			
	NC				dowithwor	ds	
U	NR			F	flush		
	bf				install		
	color				register		
	colordefa				registere	ed	
	colordeff				show		
	colordeff				test •		
	colordefr				ands	data table	
	dofinishr			comp		function	
	dostartte				tant	function	
	finishjob				erters	table	
	firstofon	-			toboolean		
		oarguments			todimen		
	gobbleone	argument			toglue 		
	goto				tonumber		
	iftrue				tostring		
U	input			crea	те	function	

defined	function	F lxmlid
	userdata	
egroup	table	F number F real
getters	table	
F box		F scanclose
F count		F scanopen
F dimen		F 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	<b>setters</b> 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 string	S	<b>shortcuts</b> table
T 3 string	S	T bits
T 4 string	S	N active
T 5 string	S	N alignment
T 6 string	S	N begingroup
T 7 string	S	N character
T 8 strings		N close
printlist	function	N comment
scanners	table	N endgroup
F argument		N endofline
F boolean		N escape
F code		N ignore
F conditio	nal	N invalid
F count		N letter
F csname		N mathshift
F dimen		N open
F dimension		N other
F float		N parameter
F glue		N space
F integer		N subscript
F keyword		N superscript
F keywordcs		
F kevwordo	S	N whitespace
F keywordc F list	S	N whitespace N close

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

## unicode (extra lua)

ascii	table	F	len	
F byte		F	lower	
F char		F	match	
F dump		F	rep	
F find		F	reverse	
F format		F	sub	
F gfind		F	upper	
F gmatch		tout	f32string	function
F gsub		utf8		table
F len		F	byte	
F lower		F	char	
F match		F	characters	
F rep		F	chrlen	
F reverse		F	count	
F sub		F	dump	
F upper		F	filetype	
grapheme	table	F	find	
F byte		F	format	
F char		F	gfind	
F dump		F	gmatch	
F find		F	gsub	
F format		F	is_valid	
F gfind		F	len	
F gmatch		F	length	
F gsub		F	lower	
F len		F	magic	
F lower		F	match	
F match		F	remapper	
F rep		F	rep	
F reverse		F	replacer	
F sub		F	reverse	
F upper		F	split	
latin1	table	F	splitlines	
F byte		F	sub	
F char		F	subtituter	
F dump		F	tocodes	
F find		F	toeight	
F format		F	toentities	
F gfind		F	tostring	
F gmatch		F	totable	
F gsub		F	upper	

F ustring	
F utf16_to_utf8_be	
F utf16_to_utf8_be_t	
F utf16_to_utf8_le	
F utf16_to_utf8_le_t	
F utf16_to_utf8_t	
F utf32_to_utf8_be	
F utf32_to_utf8_be_t	
F utf32_to_utf8_le	

## 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)

dobuggon	+ahla	_		
debugger	table		size	
F disable			skip	
F enable			skiplong	
F savestats			skipposition	
F showstats			skipshort	
F showtraceback	+=h1 =		writebyte	
files	table		writecardinal2	
F close			writecardinal4	
F getposition			writestring	
F getsize			natters	table
F look		-	formatcolumns	
F open		-	list	
F read2dot14			stripzeros	
F readbyte		_	agecollector	table
F readbytes			check	
F readbytetable			criterium	
F readcardinal			enabled	
F readcardinal1		lua		table
F readcardinal2		В	alwaysstripcode	
F readcardinal2le			checkmemory	
F readcardinal3		F	compile	
F readcardinal3le		F	loadedluacode	
F readcardinal4		F	loadstring	
F readcardinal4le		F	loadstripped	
F readcardinaltable	2	N	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-modern-
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-variable,moddepangecondensed,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-mode	rn 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-d	esignsize,latin Un <b>odetrings<u>n</u>dænskæds/mi</b> ddern-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_str	ripped_settings	F replaceaction	
F rfc4180spli	··· <del>-</del>	F setkind	
F runtime		F tostring	
F settings_to	o_array	setters	table
F settings_to	o_array_obey_fences	F disable	
F settings_to	o_array_with_repeat	F enable	
F settings_to	o_hash	F initialize	
F settings_to	o_hash_colon_too	F list	
F settings_to	o_hash_strict	F new	
F settings_to	o_hash_tolerant	F register	
F settings_to	o_numbers	F report	
F settings_to	o_set	F reset	
F simple_hash	n_to_string	F show	
F splitmethod	d	stacker	table
F splitthousa	ands	F new	
F stepper		storage	table
F stripped_se	ettings_to_array	F allocate	
F unittotex		F checked	
F unittoxml		F mark	
randomizer	table	F marked	
F get		F setinitializer	
F getnumber		F sparse	
			table
F getseed		streams	Lubic
F getseed F popseed		<b>streams</b> F close	tabte
			tabte
F popseed F pushseed F reuseseed		F close F getposition F look	tubte
F popseed F pushseed F reuseseed F setseed		F close F getposition F look F open	tubte
F popseed F pushseed F reuseseed F setseed F setseedi		F close F getposition F look F open F read2dot14	table
F popseed F pushseed F reuseseed F setseed F setseedi report	function	F close F getposition F look F open F read2dot14 F read2dot4	cabic
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers	table	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte	cabic
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction	table	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes	cabic
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 read2dot14 F read2dot4 F readbyte F readbytes F readbytetable	casec
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 read2dot14 F read2dot4 F readbyte F readbytes F readbytetable F readcardinal	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction	table on o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytestable F readcardinal F readcardinal	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup	table on o ion up	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal2 F readcardinal2LE	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2LE F readcardinal3	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup D functions	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytetable F readcardinal F readcardinal F readcardinal2 F readcardinal2LE F readcardinal3	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup D functions F localize	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytestable F readcardinal F readcardinal1 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal3 F readcardinal4	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup D functions F localize F new	table on o o o o o o o o o o o o o o o o o o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinal4	
F popseed F pushseed F reuseseed F setseed F setseedi  report  sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enableaction F enablegroup D functions F localize F new F nodeprocess	table on o o o o o o o o o o o o o o o o o o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinaltable F readcardinaltable	
F popseed F pushseed F reuseseed F setseed F setseedi  report  sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enableaction F enablegroup D functions F localize F new F nodeprocess F prependaction	table  on  o  ion  up  on  o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinaltable F readchar F readfixed2	
F popseed F pushseed F reuseseed F setseed F setseedi  report  sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enableaction F enablegroup D functions F localize F new F nodeprocess	table on o o o o o o o o o o o o o o o o o o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinaltable F readcardinaltable	

F readinteger1			U prune	
F readinteger2			U prune and collap	se
F readinteger2le			U prune and no emp	oty
F readinteger3			U retain	
F readinteger3le			U retain and colla	apse
F readinteger4			U retain and no en	npty
F readinteger4le		F	striplines	
F readintegertable		F	striplong	
F readsignedbyte		F	tabtospace	
F readstring		Т	tracers	
F setposition		tabl	.es	table
F size		F	accesstable	
F skip		F	definedtable	
F skipbytes		F	definetable	
F skiplong		F	encapsulate	
F skipshort		F	insertaftervalue	
strings	table	F	insertbeforevalue	
F collapsecrlf		F	migratetable	
T 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

U collapse

F resolve

# vf (context)

function	pdf	function
function	pop	function
function	push	function
function	right	function
function	rule	function
function	special	function
	function function function function	function pop function push function right function rule

## 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	F padding	
addspecialcode	function	F stylevalue	
after	function	F todimension	
all	function	defaulthandlers	table
applylpath	function	D file	
applyselector	function	D parsedxml	
assign	function	D string	
attribute	function	D tex	
badinclusions	function	D texline	
before	function	D texspace	
body	function	D verbose	
builtinentities	table	defaultprotocol	string
B amp		delete	function
B apos		<del>delete_element</del>	function
B gt		despecialized	function
B lt		each	function
B quot		<del>each_element</del>	<del>function</del>
cdata	function	elements	function
cdatatotext	function	elementtocdata	function
checkbom	function	empty	function
checkerror	function	entities	data table
checknamespace	function	erase	function
checkns	function	errorhandler	function
cleansed	function	escaped	function
collect	function	expressions	table
<pre>collect_elements</pre>	<del>function</del>	F boolean	
collect_tags	function	F child	
collect_texts	<del>function</del>	F contains	
collected	function	F count	
collecttexts	function	F error	
content	function	F find	
convert	function	F hasclass	
сору	function	F idstring	
count	function	F lower	
cprint	function	F name	
css	table	F number	
F applyselector		F oneof	
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		<pre>inject_element</pre>	function
F xml		<pre>inject_element_after</pre>	function
T xml		<pre>inject_element_before</pre>	function
F all		injectafter	function
F att		injectbefore	function
F attribute		insert	function
F attributes		insert_element	function
F cdata		<u>insert_element_after</u>	function

<pre>insert_element_before</pre>	function	registerns	function
insertafter	function	reindex	function
inserthefore	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	resetinjectors	function
lpathcalls lshow	function	resetinjectors	function
makestandalone			
	function function	root	function function
match		save	
name	function	selection	function
newhandlers	function	separate	function
nodesettostring	function	serialize	function
originalload	function	serializetotext	function
package	function	setcdata	function
parent	function	setcomment	function
parsedentitylpeg	userdata	sethandlersfunction 	function
pihandlers	table	setinjectors	function
F injector		setproperty	function
F tex		settings	function
placeholders	table	specialcodes	table
F unknown_any_entity		S "	
F unknown_dec_entity		S #	
F unknown_hex_entity		S \$	
popmatch	function	S %	
position	function	S &	
privatecodes	table	S '	
privatetoken	function	S <	
process	function	S >	
<pre>process_attributes</pre>	function	S \	
<del>process_elements</del>	<del>function</del>	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>	function	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