MP attributes backends bit32 blobs boolean buffers builders caches callbacks catcodes characters chemistry commands containers context converters coroutine ctxrunner debug dir directives document documentdata environment epdf experiments ffi figures file fio floats font fonts functions global graphics gzip img interactions interfaces in job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 lum luatex lxml math mathematics md5 metapost mime moduledata modules mp mplib noads mode nodes number objects os package pagebuilders parametersets pdf pdfscanner physics publications regimes resolvers sandbox scripts set sio socket sorters statistics storage streams string structures table texconditionals texconfin texconstants texifs texisdefined texmodes texsystemmodes thirddata tokens tracers trackers typesetters unicode url userdata utilities vf visualizers xml zip zlib

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

# global (alias: \_G)

FFISUPPORTED	function	dofile	function
INITEXMODE	boolean	done	boolean
LUAMAJORVERSION	number	environment	table
LUAMINORVERSION	number	epdf	table
LUATEXCOREVERSION	number	error	function
LUATEXENGINE	string	experiments	table
LUATEXFUNCTIONALITY	number	ffi	table
LUATEXVERSION	number	ffilib	function
LUAVERSION	number	figures	table
MP	table	file	table
_LUAVERSION	number	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	grammar_unparsed_text_nop	userdata
characters	table	grammar_unparsed_text_yes	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
directives	table	languages	table
document	table	last	number
documentdata	table	layouts	table

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

unpack

function

function

rawlen

url	table
userdata	table
utf	table
utilities	table
v	number
vf	table

visualizers
xml
xpcall
zip
zlib

table
table
function
table
table

## attributes (context)

applyoverloads	function	ς	model	
colorintents	table		models	
N attribute			mpcolor	
D data			mpnamedcolor	
F enable			mpoptions	
F handler			namedcolorattr	ibutes
F register			none	
D registered		F	popset	
colors	table		processcolorco	mponents
N attribute			pushset	
F cmyk		F	register	
F cmyktogray		D	registered	
F cmyktorgb		F	registerspotco	lor
F colorcomponent	S	F	rgb	
D counts		F	rgbtocmyk	
B couple		F	rgbtogray	
F currentmodel		F	rgbtohsv	
F currentnamedmo	del	N	selector	
D data		F	setlist	
N default		F	setmodel	
F defineintermed	iatecolor	F	setpagecolormo	del
F definemultiton	ecolor	D	sets	
F defineprocessc	olor	F	spec	
F definesimplegr	ay	F	spot	
F definespotcolo	r	F	spotcolorname	
F definetranspar	ency	F	spotcolorparen	t
F enable		F	spotcolorvalue	
F filter		В	supported	
F forcedmodel		F	toattributes	
F forcesupport		F	transparencyco	mponents
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		table
F iccprofile			attribute	
F isblack			data	
N main		F	enable	

F handler			N darken	
F register			N difference	
D registered			N exclusion	
D values			N hardlight	
handlers	table		-	
list	data table		N hue	
			N lighten	
markasoverload			N luminosity	
names	data table		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		N	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
	function table		tvalue erlayers	number table
showcurrent	table	view	_	
showcurrent states	table	view N	erlayers	
showcurrent states F disabletrigger	table	<b>vie</b> w N F	erlayers attribute	
showcurrent states F disabletrigger F enabletriggeri	table	<b>view</b> N F D	erlayers attribute cleanup	
<pre>showcurrent states    F disabletrigger    F enabletriggeri    F finalize</pre>	table	<b>view</b> N F D	erlayers attribute cleanup data	table
<pre>showcurrent states   F disabletrigger   F enabletriggeri   F finalize   F initialize</pre>	table	view N F D F	erlayers attribute cleanup data define	table
showcurrent states F disabletrigger F enabletriggeri F finalize F initialize F process	table	view N F D F F	erlayers attribute cleanup data define definedlayoutc	table
showcurrent states F disabletrigger F enabletriggeri F finalize F initialize F process F selective	table	view N F D F F	erlayers attribute cleanup data define definedlayoutce enable	table
showcurrent states F disabletriggeri F enabletriggeri F finalize F initialize F process F selective F stacked	table	view N F D F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport	table
showcurrent states  F disabletriggeri F enabletriggeri F finalize F initialize F process F selective F stacked F stacker	table ing ng	View  N F D F F F F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler	table
showcurrent states  F disabletriggeri F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system	table ing ng	View  N F D F F F D D	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads	table ing ng function function	View  N F D F F F F F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies	table ing ng function function	View  N F D F F F F F D D D	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute	table ing ng function function	View  N F D F F F F D F F F F F F F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered	table
showcurrent states  F disabletriggeri F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute D data	table ing ng function function	View  N F D F F F D F F F F F F F F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered resolve_begin	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute D data F enable	table ing ng function function	View  N F D F F F F F F F F F F F F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered resolve_begin resolve_end	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute D data F enable F forcesupport	table ing ng function function	View  N F D F F F F F F F F F F F F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered resolve_begin resolve_end resolve_reset	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute D data F enable F forcesupport F handler	table ing ng function function	View  N F D F F F F F F F D F F D F F F F F	erlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered resolve_begin resolve_end resolve_reset resolve_step	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute D data F enable F forcesupport F handler T names	table ing ng function function	View  N F D F F F F F D F D F F F F F F F F	derlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered resolve_begin resolve_end resolve_reset resolve_step scopes	table
showcurrent states  F disabletrigger F enabletriggeri F finalize F initialize F process F selective F stacked F stacker system tooverloads transparencies N attribute D data F enable F forcesupport F handler T names N color	table ing ng function function	View  N F D F F F F D F F F F F F F F F F F	derlayers attribute cleanup data define definedlayoutce enable forcesupport handler hasorder listwise register registered resolve_begin resolve_end resolve_reset resolve_step scopes setfeatures	table

- B supported
- D values

#### backends (context)

F getfieldcategory

codeinjections table F aetfieldset F boxresourcedimensions F getformatoption F registerboxresource F gethpos F restoreboxresource F getmatrix current strina F getoutputfilename defaults table F getpos T codeiniections F getpreviewfigure F gethpos F getvpos F hasmatrix F getmatrix F insertrenderingwindow F getpos F aetypos F mergebookmarks F hasmatrix F mergereferences T nodeinjections F mergeviewerlayers T registrations F prerollreference D tables F presetsymbol included table F presetsymbollist B context F processrendering B date F registerdocumentcloseaction B id F registerdocumentopenaction B metadata F registeredsymbol B pdf F registerpagecloseaction install function F registerpageopenaction nodeinjections table F registersymbol F setfieldcalculationset F restore F save F setfigurealternative F transform F setfigurecolorspace function nothing F setfiguremask pdf table F setformat T codeiniections F setformsmethod F addbookmarks F setpagetransition F attachmentid F setupcanvas F clonefield F setupidentity F definefield F setxmpfile F definefieldset F startlayer F defineviewerlayer F startunicodetoactualtext F embedfile F startunicodetoactualtextdirect F enabletags F stoplayer F exportformdata F stopunicodetoactualtext F getbookmarks F stopunicodetoactualtextdirect F getdefaultfieldvalue F supportedformats

F unicodetoactualtext

F useviewerlayer F validfield

F validfieldcategory

F validfieldset

S comment

T nodeinjections

F addtags
F annotation
F attachfile

F changestackedlayer

F cmykcolor
F comment
F destination

F effect F graycolor

F injectbitmap F insertmovie F insertsound F insertswf F insertu3d

F knockout F negative

F overprint F positive

F reference
F rgbcolor
F spotcolor
F startlayer

F startstackedlayer

F stoplayer

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

F getspotcolorreference

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

T tables
D vfspecials

registrations table
tables table
timestamp function

## bit32 (basic lua)

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

## blobs (context)

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

## boolean (context)

tocontext function
tonumber function

#### buffers (context)

append	function
assign	function
collectcontent	function
erase	function
exists	function
getcontent	function
getlines	function
loadcontent	function
parallel	table

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function
run function
undent function

## builders (context)

kernel	table	T regi	stered
F hyphen	ation	F rese	t
F kernin	g	F set	
F ligatu	ring	F spli	t
F mlist_	to_hlist	F star	t
T origin	als	F stop	
F hypho	enate	F tag	
F kern:	ing	profiling	table
F liga	turing	F add	
paragraph	ı <b>s</b> table	F distance	2
T constr	uctors	F fixedpro	ofile
N attr	ibute	F get	
F defi	ne	F list	
F disa	ble	F pagehand	ler
F enab	le	F profile	00X
F hand	ler	F set	
T metho	ods	vspacing	table
F bas	sic	F analyze	
F def	fault	D categori	ies
F hpa	ack	F collapse	evbox
F one	eline	T data	
D name:	S	D map	
D numbe	ers	D skip	
F set		D snapme	thods
F star	t	F defines	napmethod
F stop		B fixed	
T expans	ion	F pagehand	iler
F trace	e	F resetpre	evdepth
F keepto	gether	F setmap	
F regist	ertogether	F setskip	
T soluti	.ons	F snapbox	
T spli	tters	F tocatego	ories
F def	fine	F tocatego	ory
F opt	timize	F vboxhand	dler

## 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
${\tt getfirstreadablefile}$	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 function known list data table function gog function push function register report function supported table B append to vlist filter B build page insert B buildpage filter B call edit B contribute filter B define font B find cidmap file B find data file B find\_enc\_file B find\_font\_file B find format file B find\_image\_file B find\_map\_file B find opentype file B find output file B find\_pk\_file B find read file B find\_truetype\_file B find\_type1\_file B find\_vf\_file B find write file B finish\_pdffile B finish\_pdfpage B finish\_synctex\_callback B glyph not found B glyph\_stream\_provider B hpack\_filter

B hpack\_quality

B hyphenate

B insert local par B kerning B ligaturing B linebreak filter B mlist to hlist B open\_read\_file B post\_linebreak\_filter B pre dump B pre linebreak filter B pre output filter B process input buffer B process jobname B process output buffer B process rule B read cidmap file B read data file B read\_enc\_file B read font file B read map file B read\_opentype\_file B read\_pk\_file B read truetype file B read type1 file B read vf file B show error hook B show\_error\_message B show\_lua\_error\_hook B show\_warning\_message B start file B start\_page\_number B start\_run B stop\_file B stop page number B stop run B vpack\_filter B vpack\_quality

#### catcodes (context)

names data table
numbers data table

register function

#### characters (context)

activeoffset	number	is spacing	data table
adobename	function	lcchars	data table
bidi	data table	lccode	function
blockrange	function	lccodes	data table
blocks	data table	lettered	function
casemap	table	lhash	data table
categories	data table	linebreaks	data table
category	function	lower	function
categorytags	data table	mathlists	data table
classifiers	table	mirrors	table
collapsed	data table	otfscripts	data table
contextname	function	private	table
csletters	data table	ranges	data table
data	data table	registerentities	function
decomposed	data table	remap hangul syllabe	function
description	function	setactivecatcodes	function
descriptions	data table	setlettercatcodes	function
detailtags	data table	shape	function
directions	table	shaped	function
emoji	table	shash	data table
F compact		shchars	data table
F known		shcodes	data table
F resolve		showstring	function
emojized	function	specialchars	data table
enccodes	data table	specials	data table
entities	data table	splits	table
fallbacks	data table	T char	
filters	data table	T compat	
fractions	table	subscripts	table
fromnumber	function	superscripts	table
fschars	data table	synonyms	data table
fscodes	data table	tex	table
getrange	function	D accentmapping	
graphemes	data table	D commandmapping	
hangul	data table	F defineaccents	
initialize	function	F safechar	
is_character	data table	F toutf	
is_command	data table	F toutfpattern	
is_letter	data table	textclasses	table
is_mark	data table	tonumber	function
is_punctuation	data table	ucchars	data table

uccodefunctionuccodesdata tableuhashdata table

unicodechar upper 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)

Α	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
resume	function	wrap	function
running	function	yield	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

## 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

## epdf (extra tex)

Array	function
Attribute	function
AttributeOwner_Type	function
Attribute_Type	function
Dict	function
<b>Object</b>	function

Object_Type	function
<b>PDFRectangle</b>	function
StructElement_Type	function
open	overloaded function
openMemStream	function
type	function

#### 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)

applvratio function function badname bases data table bitmapimage function boxnumber number data table cachepaths check function checkers data table converters data table current function defaultdepth number defaultheight number defaultsearch hool ean defaultwidth number done function function dummv existers data table exists function formats data table found data table function get aetinfo function getrealpage function function quess hash function identifiers data table identify function table images

F boxes
F check
F checksize
F clone
F copy
F immediatewrite
F keys

F keys
F new
F node

tion F ofindex
tion F package
table F print
tion F scan
er F serialize
table F tonode
tion F totable
table F types
table F write
tion include

function includers data table initialize function data table loaded data table localpaths magics data table mergegoodies function nofmissing number nofprocessed number order data table paths data table data table patterns pop function preferguality boolean programs data table function push registerpattern function registerresource function function registersuffix data table resources scale function function set function setlookups setmemstream function setorder function setpaths function suffixes data table

data table

used

#### file (basic lua)

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

function

function

function

function

function function function

function function

function function

function function

function function function

function

function

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	readline	function
readcardinal2	function	recordfilename	function
readcardinal3	function	setposition	function
readcardinal4	function	skipposition	function
readfixed2	function		

## floats (context)

analysemethod	function	nofstacked	function
${\it checkedpagefloat}$	function	pop	function
collect	function	push	function
consult	function	resave	function
flush	function	save	function
getvariable	function	stacked	function
hasstacked	function		

## font (basic tex)

addcharacters	function	id	function
current	function	max	function
define	function	nextid	function
each	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	S	F report
F aftercopyingch	aracters	F register
F applymanipulato	ors	F report
F assignmathpara	neters	N factor
B autocleanup		T features
F beforecopyingch	haracters	D afm
D cache		D otf
B cacheintex		D tfm
F calculatescale		F finalize
F checkedfeatures	S	F getfeatureaction
F checkedfilename	e	F getprivate
F cleanuptable		T handlers
F collectprocesso	ors	T afm

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 getactualtext	F cff

F cff2 F getfactors F cffcheck F getscales F checkhash F gotodatatable F cmap F normalizedaxis F colr T normalizedaxishash F readvariationdata F compact F cpal F reportskippedtable F ebdt F setvariabledata F eblc F hhea F ebsc F hmtx F hvar F expand F kern F extend F fvar F loadfont F gdef F loadshapes F getcomponents F loca F getinfo F math F glyf F maxp F mvar F gpos T gposhandlers F name F chainedcontext F os/2 F context F pack F cursive F parsecharstrings F extension F post F marktobase F registerextender F marktoligature F rehash F marktomark F sbix F stat F pair F single T streamreader F gsub F close T qsubhandlers F getposition F alternate F getsize F chainedcontext F look F context F open F extension F read2dot14 F readbyte F ligature 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 axistofactors F readcardinal3 F cleanname F readcardinal3le F getaxisscale F readcardinal4

F readcardinal4le	T statistics
F readchar	D usedfeatures
F readfixed2	F storepdfdata
F readfixed4	T svg
F readinteger	F filterglyph
F readintegerl	F topdf
F readinteger2	D svgcache
F readinteger2le	B svgenabled
F readinteger3	T tables
F readinteger3le	D baselines
F readinteger4	D features
F readinteger4le	D featuretypes
F readsignedbyte	D languages
F readstring	D scripts
F readtag	N version
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
F svg	T vf
N tableversion	T combinations
F unifymissing	F combine
F unpack	T combiner
F vhea	D commands
F vmtx	D helpers
F vorg	D math
F vvar	D predefined
F woff2otf	N version
registerpalette	D whatever
registerplugin	F hashfeatures
reorderlookups	F hashinstance
sbix	T hashmethods
F topdf	F normal
sbixcache	F virtual
sbixenabled	F initializefeatures
scriptandlanguage	T keys
setdynamics	T characters
setfeatures	T descriptions

F

Т

D

F F

T. a. a. a. a. a.	S	
T parameters	S name	
S ascender	S noglyphnames	5
S descender	S nostackmath	
S designsize	S psname	
T expansion	S textitalics	
S auto	S virtualized	
S shrink	D loadedfonts	
S step	S namemode	
S stretch	N noffontsloaded	
S extendfactor	N nofsharedfonts	
S factor	N nofsharedhashes	
S hfactor	N nofsharedvector	`S
S mathsize	N privateoffset	
T protrusion	D privateslots	
S auto	F readanddefine	
S quad	F registerfeature	
S scaledpoints	F resetfeature	
S scriptpercentage	B resolvevirtualt	:00
S scriptscriptpercentage	F scale	
S size	F scaled	
S slantfactor	F setfactor	
S slantperpoint	F setfeature	
T spacing	F setname	
S extra	B sharefonts	
S shrink	F trytosharefont	
S stretch	N version	
S width	current	function
S units	currentid	function
S vfactor	definers	table
S xheight	F addlookup	
T properties	F analyze	
S autoitalicamount	F applypostproces	sors
S cidinfo	F checkedmode	
S embedding	F checkedscript	
S encodingbytes	F current	
S filename	S defaultlookup	
S finalized	F define	
S fontname	F getspecification	on
S format	F internal	
S fullname	F loadfont	
S hasitalics	F makespecificati	.on
S hasmath	T methods	
S mathitalics	F install	
S mode	D variants	

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 alternate	S
F name		T dotless	
F spec		S commen	t
definetypeface	function	S featur	е
encodings	table	N value	
T agl		T kerns	
D ctxcodes		S name	
D extras		S version	
D names		D designsizes	
D synonyms		D filenames	
D unicodes		F getcomposition	S
D cache		T list	
F is_known		F load	
D known		F prepare_featur	es
F load		F register	
F make_unicode_ve	ctor	F registerpostpr	ocessor
D math		F report	
N version		T suffixes	
enhanceid	function	handlers	table
expansions	data table	hashes	table
formats	data table	D characters	
getalternate	function	D classes	
getkern	function	D csnames	
getmultiple	function	D descriptions	
getsubstitution	function	D dynamics	
getters	table	D emwidths	
T alternate		D exheights	
F opentype		D extensibles	
T kern		D features	
F opentype		D identifiers	
F type1		D italics	
T multiple		D lastmathids	
F opentype		D marks	
T substitution		D modes	
F opentype		D modes D originals	
	table	D modes	

D properties			F format	
D quads			F onetimemessa	age
D resources			F register	
T setdynamics			F reportdefine	edfonts
T shapes			F reportusedfe	
D spaces		п	nappings	table
D spacings			F addtounicode	
T streams			F fromunicode	
D unicodes			F loadfile	
D variants			F loadline	
D xheights			F makenamepars	ser
helpers	table		D overloads	
F addextraprivate	e		F reset	
F addprivate			F tounicode	
F checkflags			F tounicode16	
F checkmerge			F tounicode16s	sequence
F checksteps		n	netapost	table
F descriptiontos	lot		F boundingbox	
F dimenfactor			F boxtomp	
F expandglyph			F draw	
F fontpatternhas	size		F fill	
F getcoloredglyp	hs		F maxbounds	
F getdigitwidth			F output	
F getinstancespe	с		F paths	
F getparameters			F widthline	
F getprivatechar	ornode		F zeroline	
F getprivatenode		n	np	table
F getprivates			D cache	
F getprivateslot			B inline	
F hasprivate			N version	
F indextoslot		r	names	data table
F name		r	nulldata	data table
F nametoslot		ı	rotrusions	data table
F setdigitwidth		ı	readers	table
F splitfontpatte	rn		F afm	
F tochar			F check_lua	
infofont	function		F check_tfm	
iterators	table		F lua	
F characters			F ofm	
F descriptions			F opentype	
F glyphs			F otf	
loggers	table		F pfb	
F add_placeholde	rs		D sequence	
D category_to_pla	aceholder		F tfm	

F	ttc		spec	ifiers	table
F	ttf		D	contextmerged	
F	woff		F	contextnumber	
rese	rveid	function	D	contextnumbers	
sele	ct	table	D	contextsetups	
D	alternatives		F	contexttostring	
F	bodyfont		F	definecontext	
D	data		F	mergecontext	
F	default		F	presetcontext	
D	defaults		F	registercontext	
F	definefallbackfa	mily	F	showcontext	
F	definefontfamily		F	splitcontext	
F	definefontfamily	preset	D	synonyms	
D	extras		D	variants	
F	fallback		symb	ools	table
D	fallbacks		Т	emoji	
F	features			F checked	
F	filefallback			F resolved	
F	fontdata		F	uselibrary	
F	fontfallback		tabl	Les	table
F	fontsynonym		D	data	
F	goodies		F	savefont	
F	mathfallback		F	saveoriginal	
D	methods		trac	cers	table
D	presets		trea	atments	table
F	registerfallback		F	applyfixes	
F	registerfiles		D	data	
F	registerfontalte	rnative	S	filename	
F	registerfontfami	ly	F	ignoredfile	
F	textfallback		F	report	
F	typeface		F	trace	

F typescript F userdata typefaces table

## 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	ofindex	function
check	function	package	function
checksize	function	print	function
clone	function	scan	function
сору	function	serialize	function
immediatewrite	function	tonode	function
keys	function	totable	function
new	function	types	function
node	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)

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

F define

F list

writestatus

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

function

#### io (basic lua)

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

loadchunk function
loaddata function
loadlines function
noflines function

open overloaded function
output overloaded function

pathseparator string

function

read 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

# 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		F lowerright	
passes	table	F markregionbox	

Fη		F xy	
F on	nsamepage	Fy	
F ov	verlapping	register	function
Fр		save	function
T pa	age	structure	table
F pa	aragraph	D collected	
F pa	arindent	T components	
F po	osition	T tobesaved	
Fr		T branches	
F re	egion	S name	
F re	eplace	S type	
F ri	ightskip	variables	table
F se	et	D checksums	
F se	etall	D collected	
F se	etregionbox	F getchecksum	
D to	bbesaved	F makechecksum	
F up	pperleft	F restore	
F up	pperright	F save	
S us	sed	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)

associate	function	F setfeatures	
associated	data table	installed	function
association	function	labels	table
counters	data table	F define	
current	function	F split	
data	data table	loadable	function
decimals	data table	loadwords	function
define	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	
F registerpattern		T enablers	

B enables

F found F load

T methods N threshold

### layouts (context)

status table
 F isleftpage

F leftorrightpageaction

#### lfs (extra lua)

lock dir

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

overloaded function

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

### libraries (context)

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

extratex data table
functions data table
globals data table

#### lmx (context)

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

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

initialize	function
inject	function
lmxfile	function

loadedfile	function
make	function
new	function
overloaderror	function
popupfile	function
print	function
pv	function
report	function
reset	function
result	function
set	function
show	function
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	escaped	function
adddocumentcolorspace	function	finalizedocument	function
adddocumentextgstate	function	finalizepage	function
adddocumentpattern	function	finishtransparencycode	function
adddocumentshade	function	flushobject	function
addtocatalog	function	flushstreamfileobject	function
addtoinfo	function	flushstreamobject	function
addtonames	function	formats	data table
addtopageattributes	function	frompdfdoc	function
addtopageresources	function	fromsixteen	function
addtopagesattributes	function	getcompression	function
addxmpinfo	function	gethpos	function
annotationspecification	function	getmatrix	function
array	function	getpos	function
boolean	function	getversion	function
border	function	getvpos	function
checkedkey	function	graycode	function
checkedvalue	function	hasmatrix	function
circularshade	function	id	function
cmykcode	function	injectxmpinfo	function
collectedresources	function	insertxmpinfo	function
color	function	layerreference	function
colorspace	function	limited	function
colorspaceconstants	data table	linearshade	function
colorspec	function	majorversion	function
colorvalue	function	minorversion	function
colorvalues	function	nametree	function
compresslevel	function	null	function
constant	function	number	function
delayedobject	function	objectcompresslevel	function
destinationspecification	function	pagereference	function
dictionary	function	patternstream	function
docstring	function	pdfcolor	function
epdf	table	pdftimestamp	function
F contenttotext		permitdetail	function
F expand		protectresources	boolean
F expanded		rectangle	function
F getpagecontent		reference	function
F getstructure		registerannotation	function
F load		registerdestination	function
F unload		registerdocumentfinalizer	function

registerpagefinalizer	function	string	function
registerpattern	function	timestamp	function
reserveobject	function	toeight	function
rgbcode	function	topdfdoc	function
rotationcm	function	tosixteen	function
setcompression	function	transform	function
setdates	function	transparency	function
settime	function	transparencycode	function
settrailerid	function	transparencygroups	table
setversion	function	B none	
shareobject	function	transparencyvalue	function
shareobjectreference	function	unicode	function
spotcode	function	verbose	function
stream	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
counter	function	utfchartabletopattern	function
endstripper	function	version	function
finder	function		

## ltn12 (extra lua)

BLOCKSIZE	number	umber F simplify	
filter	table	F ta	ble
F chain		source	table
F cycle		F ca	t
pump	table	F ch	ain
F all		F em	pty
F step		F er	ror
sink	table	F fi	le
F chain		F re	wind
F error		F si	mplify
F file		F st	ring
F null			

#### lua (basic tex)

bytecode	table
bytedata	data table
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
getluaname	function
lastbytecode	number
macros	table
<b>.</b>	

F resolvestring F resolving

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

#### luatex (context)

cleanuptempfiles function F enable currentfile function F finish registerdumpactions function F pause registerpageactions function F registerdisabler registerstartactions function F registerenabler registerstopactions function F resetfilename registertempfile function F resume starttime number F setfilename synctex table

## 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 userdata
checkindex	function	idsplitter	
collected	function	include	
command	function	inclusion	
concat	function	inclusions	function
concatrange	range function index		function
content	t function <b>inlineverbatim</b>		function
context	function installsetup		function
convert	function last		function
count	function	lastatt	function
delete	function	lastmatch	function
direct	function	lastpar	function
directives	table <b>load</b>		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	
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)

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

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

function

type

## mathematics (context)

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

#### md5 (extra lua)

HEX	function
crypt	function
dec	function
decrypt	function
exor	function

hex function
sum function
sumHEXA overloaded function
sumhexa overloaded function

# metapost (context)

analyzeplugins	function	getstatistics	function
checkformat	function	gettext	function
checktexts	function	graphic	function
collapse	boolean	graphic_base_pass	function
colorinitializer	function	initializescriptrunner	function
comment	function	instance	function
convert	function	intermediate	table
defaultformat	string	T actions	
defaultinstance	string	F makempy	
defaultmethod	string	lastlog	string
directrun	function	load	function
escaped	function	makempy	table
exectime	table	N nofconverted	
extensiondata	data table	F processgraphics	
filterclippath	function	F registerfile	
flush	function	maketext	function
flushers	table	metafun	table
T pdf		F interpolate	
F comment		F topath	
F flushfigure		method	number
F startfigure		mptopdf	table
F stopfigure		F convertmpstopdf	
F textfigure		N nofconverted	
flushliteral	function	n	number
flushnormalpath	function	nvformat	function
flushreset	function	optimize	boolean
fonts	table	parse	function
F define		pdfliterals	function
T flusher		pluginactions	function
F flushfigure		popvariable	function
F startfigure		popvariables	function
F stopfigure		process	function
N instances		processplugins	function
F process		processspecial	function
format	function	properties	table
format_number	function	pushvariable	function
format_string	function	pushvariables	function
formatnumber	function	quickanddirty	function
getclippath	function	reducetogray	boolean
getextensions	function	reporterror	function
getjobdata	function	reset	function

resetlastlog	function
resetplugins	function
runscript	function
scripterror	function
setextensions	function
setoutercolor	function
settext	function
setvariable	function
showlog	boolean
simple	function
startgraphic	function
stopgraphic	function
svformat	function
tex	table

F setfrombuffer	
texerrors	boolean
texexp	function
textextsdata	function
theclippath	function
tographic	function
totable	function
unload	function
untagvariable	function
variables	table

F get F reset F set

## mime (extra lua)

b64 decode decodet	function function table	qp qpwrp stuff	function function function
F base64		unb64	function
F quoted-	printable	unqp	function
dot	function	wrap	function
encode	function	wrapt	table
encodet	table	F base64	
F base64		F defaul	t
F quoted-	printable	F quoted	printable
eol	function	F text	
normalize	function	wrp	function

# mp (context)

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

defaultcolormodel	function	positioncurve	function
dimension	function	positionpage	function
disposehash	function	positionpath	function
disposestore	function	positionpxy	function
finish_saving_data	function	positionregion	function
format	function	positionwhd	function
formatted	function	positionxy	function
fprint	function	prefix	function
fromstore	function	print	function
get	table	processingmode	function
F boolean		quadruple	function
F number		quoted	function
F numeric		report	function
F string		save_data	function
get_outline_text	function	setcount	function
getcount	function	setdimen	function
getdimen	function	settoks	function
gettoks	function	size	function
graphformat	function	start_saving_data	function
inhash	function	stop_saving_data	function
integer	function	systemmode	function
isarray	function	tb_dimensions	function
mode	function	texstr	function
n	function	texvar	function
newhash	function	tohash	function
newstore	function	tostore	function
numeric	function	triplet	function
pair	function	tt_dimensions	function
path	function	tt_initialize	function
positionanchor	function	vprint	function
positionbox	function		

#### mplib (extra tex)

fields function
finder function
finders table

F file
F mpstemplate

get\_boolean function
get\_number function

get\_numeric function
get\_string function

new overloaded function

pen\_info function
preprocessed function
version function

## noads (context)

F relocate

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		processneste	<b>d</b> function
F fixscripts		processors	table
F italics		F mlist_to_h	ist
F kernpairs		T unscript	
F makeup		processouter	function

#### node (basic tex)

F getid

check discretionaries function F aetkern check discretionary function F getlang copy function F getleader copy list function F aetlist function count F getnext function current attr F getnucleus dimensions function F getoffsets direct table F getpenalty F check discretionaries F getprev F check discretionary F getproperty F copy F getshift F copy list F aetsub F getsubtype F count F current attr F getsup F dimensions F aetwhd F effective glue F getwidth F end\_of\_math F has\_attribute F find attribute F has field F has glyph F first glyph F flatten discretionaries F hpack F flush list F insert after F flush node F insert before F flush properties table F is char F is direct F free F get attribute F is glyph F get\_properties\_table F is node F get\_synctex\_fields F is\_zero\_glue F getattributelist F kerning F aetboth F last node F getbox F lenath F getchar F ligaturing F getcomponents F new F getdepth F protect glyph F getdir F protect\_glyphs F getdisc F protrusion\_skippable F getfam F rangedimensions F getfield F remove F getfont F set\_attribute F getglue F set\_properties\_mode F getheight F set synctex fields

F setattributelist

F sethoth F write F setbox effective glue function end of math function F setchar family font function F setcomponents fields function F setdepth find attribute function F setdir first glyph function F setdisc F setfam fix node lists function F setfield flatten discretionaries function F setfont flush list function flush node function F setalue flush properties table function F setheight F setkern free function get attribute function F setland get properties table function F setleader function F setlink aetboth function F setlist getchar getdisc function F setnext getfield function F setnucleus getfont function F setoffsets F setpenalty aetalue function aetid function F setprev getleader function F setproperty F setshift getlist function F setsplit aetnext function getprev function F setsub getproperty function F setsubtype getsubtype function F setsup F setwhd getwhd function has attribute function F setwidth has field function F slide has glyph function F tail F todirect hpack function id function F tonode insert after function F tostring insert before function F traverse is char function F traverse\_char is glyph function F traverse\_id F unprotect\_glyph is node function F unprotect\_glyphs is\_zero\_glue function F unset\_attribute kerning function F usedlist last node function length function F uses font ligaturing function F vpack

mlist_to_hlist	function	subtypes	function
new	function	tail	function
next	function	tostring	function
prev	function	traverse	function
protect_glyph	function	traverse_char	function
protect_glyphs	function	traverse_id	function
protrusion_skippable	function	type	function
rangedimensions	function	types	function
remove	function	unprotect_glyph	function
set_attribute	function	unprotect_glyphs	function
set_properties_mode	function	unset_attribute	function
setfield	function	usedlist	function
setglue	function	uses_font	function
setproperty	function	vpack	function
setwhd	function	whatsits	function
slide	function	write	function
subtype	function		

## nodes (context)

accentcodes	data table	fencecodes	data table
aligned	function	fields	function
append	function	fillcodes	data table
apply	function	find attribute	function
applyvisuals	function	first_glyph	function
astable	function	firstcharacter	function
basepoints	function	firstcharinbox	function
boundarycodes	data table	firstdirinbox	function
boxes	table	firstglyph	function
F dimensions		flush	function
F direct		flush list	function
F found		flush_node	function
F reset		free	function
F restore		fullhpack	function
F save		getattr	function
builders	table	getattribute	function
F buildpage_filter		getbox	function
F vpack_filter		getchar	function
check_discretionaries	function	getdisc	function
codes	data table	getfield	function
concat	function	getfont	function
сору	function	getglue	function
copy_list	function	getid	function
copy_node	function	getleader	function
count	function	getlist	function
countall	function	getnext	function
current_attr	function	getprev	function
delete	function	getsubtype	function
destinations	table	getwhd	function
N attribute		gluecodes	data table
T done		glyphcodes	data table
F handler		glyphdir_is_equal	data table
T stack		glyphdir_is_opposite	data table
dimensionfields	data table	glyphdir_is_orthogonal	data table
dimensions	function	handlers	table
dir_is_pop	data table	F accessibility	
dir_negation	data table	F alignbackgrounds	
discodes	data table	F backgrounds	
discretionarycodes	data table	F characters	
effective_glue	function	F checkforleaks	
end_of_math	function	F checkglyphs	

F cleanupbox		is node	function
F cleanuppage		is nut	function
F export		is_rotated	data table
F finalize		is zero glue	function
F flatten		ischar	function
F flattenline		isglyph	function
F migrate		kerncodes	data table
F protectglyphs		kerning	function
F stripping		keys	table
F textbackgrounds		T whatsit	tabte
F unprotectglyphs		last_node	function
has attribute	function	leadercodes	data table
has_field	function	leftmarginwidth	function
has_glyph	function	length	function
hpack	function	ligaturing	function
idstostring	function	linefillers	table
ignorablefields	data table	D data	tabte
injections	table	F define	
F copy	cable	F enable	
F getligaindex		F handler	
F getthreshold		lines	table
F handler		T boxed	table
F installgetspaceboth			
F installnewkern		F register F setup	
		·	
F isspace F keepcounts		F stage_one	
F reset		F stage_two D data	
F resetcounts		F finalize	
F setcursive		F number	
F setkern		N scratchbox	
F setligaindex		link	function
F setmark		linked	function
F setmove		list	function
F setposition		listablefields	data table
F setspacekerns		listcodes	data table
insert after	function	listtoutf	function
insert_before	function	load	function
insert_list_after	function	locate	function
installattributehandler	function	margincodes	data table
is_char	function	marginkerncodes	data table
is_direct	function	marginkerncodes	table
is_display_math	function	F get	table
is_glyph	function	mathcodes	data table
<del>-</del> : ::		mathcodes maxboxwidth	
is_mirrored	data table	IIIAXDOXWIQTN	function

mlist to hlist function F free new function F fullhpack noadcodes data table F get\_components table noadoptions F get synctex fields N axis F getattr N exact F getattribute N left F getattributelist N middle F getattrlist N no axis F getboth N right F getbox N set F getboxglue N unused 1 F getchar N unused 2 F getcomponents nodecodes data table F getdepth nopts function F getdir table nuts F getdisc F append F getdiscretionary F apply F getfam F getfield F applyvisuals F check discretionaries F getfont F concat F getglue F copy F getheight F copy\_list F getid F getkern F copy\_no\_components F copy node F getlang F copy\_only\_glyphs F getlanguage F copy\_properties F getleader F copyvisual F getlist F count F getnext F count\_components F getnucleus F countall F getoffsets F current\_attr F getpenalty F delete F getprev F dimensions F getprop F effective\_glue F getshift F end of math F getsub F find\_attribute F getsubtype F first\_glyph F getsup F firstcharacter F getsurround F firstcharinbox F aetwhd F firstqlyph F getwidth F flush F has\_attribute F flush list F has field

F flush node

F has\_glyph

F lateluafunction F hpack F insert\_after F leader F insert\_before F leftmarginkern F insert list after F leftskip F is char F lineskip F mathchar F is direct F is\_display\_math F mathtextchar F is glyph F negatedglue F is\_node F noad F is\_nut F pdfannotation F is zero glue F pdfdestination F ischar F pdfdirectliteral F isqlyph F pdfliteral F pdforiginliteral F kerning F last node F pdfpageliteral F leftmarginwidth F pdfrawliteral F length F pdfrestore F pdfsave F ligaturing F pdfsetmatrix F link F linked F penalty F locate F radical F mlist\_to\_hlist F register F nestedtracedslide F rightmarginkern F new F rightskip T pool F rule F accent F shrink F baselineskip F special F boundary F stretch F choice F subbox F cleanup F submlist F delim F temp F delimiter F textdir F disc F usage F emptyrule F userattributes F fence T userids F fontkern N margins.inline F fraction N property F glue N splitters.one F gluespec N splitters.two F glyph F userlist F hlist F userlua F italickern F usernumber F kern F userrule F latelua F userstring

F usertokens F setlist F vlist F setnext F wordboundary F setnucleus F prepend F setoffsets F protect glyph F setpenalty F protect\_glyphs F setprev F protrusion\_skippable F setprop F rangedimensions F setshift F rawprop F setsplit F reference F setsub F rehpack F setsubtype F remove F setsup F repackhlist F setsurround F replace F setunsetattributes F rightmarginwidth F setvisual T rules F setvisuals F userrule F setwhd F setwidth F set attribute F slide F set components F set\_synctex\_fields F somepenalty F setattr F somespace F setattribute F splitbox F setattributelist F tail F setattributes F take\_components F setattrlist F takeattr F setboth F takebox F setbox F takelist F setboxglue F theprop F setchar F tonode F setcomponents F tonodes F setdepth F tonut F setdir F tosequence F setdisc F tostring F setdiscretionary F tracedslide F traverse F setfam F setfield F traverse char F setfont F traverse\_id F setglue T typesetters F setheight F tohbox F setkern F tohpack F setlang F tonodes F setlanguage F tovbox F setleader F tovpack

F unprotect\_glyph

F setlink

F unprotect_glyphs		F pdfsetmatrix	
F unset_attribute		F register	
F unsetattribute		F rule	
F unsetattributes		F special	
F untracedslide		F usage	
F use_components		F usernumber	
F usedlist		F vlist	
F uses_font		prepend	function
F vianodes		print	function
F vianuts		processors	table
F vpack		F contribute_filter	
F write		B enabled	
packlist	function	F hpack_filter	
pardir_is_equal	data table	F post_linebreak_filter	
pardir_is_opposite	data table	F pre_linebreak_filter	
pardir_is_parallel	data table	F tracer	
partextdir_is_equal	data table	processranges	function
penaltycodes	data table	processwords	function
plugindata	table	properties	table
F finalizer		T actions	
F initializer		F delayed	
S name		F fdelayed	
T namespace		F immediate	
N attribute		F attach	
D data		T data	
F enable		F delayed	
F handler		protect_glyph	function
F register		protect_glyphs	function
D registered		protrusion_skippable	function
D values		pts	function
F processor		radicalcodes	data table
points	function	rangedimensions	function
pool	table	reference	function
F baselineskip		references	table
F cleanup		N attribute	
F glyph		T done	
F hlist		F handler	
F kern		T stack	
F latelua		rehpack	function
F lineskip		remove	function
F pdfdirectliteral		repackhlist	function
F pdforiginliteral		replace	function
F pdfrestore		report	function
F pdfsave		rightmarginwidth	function

rulecodes	data table	F getparameters	
rules	table	F getsamples	
D data		F resetsamples	
F define		F takesample	
F enable		somepenalty	function
F handler		somespace	function
T ruleactions		splitbox	function
F box		stripdiscretionaries	function
F draw		stripping	table
F fill		T glyphs	
F mp		F set	
F stroke		striprange	function
F userrule		tail	function
save	function	takeattr	function
serialize	function	takebox	function
serializebox	function	tasks	table
set_attribute	function	F actions	
setattr	function	F appendaction	
setattribute	function	F disableaction	
setattributes	function	F disablegroup	
setboth	function	F enableaction	
setbox	function	F enablegroup	
setboxtonaturalwd	function	F freeze	
setfield	function	F freezegroup	
setglue	function	F new	
setlink	function	F prependaction	
setlist	function	F removeaction	
setnext	function	F replaceaction	
setprev	function	F restart	
setunsetattributes	function	F setaction	
setwhd	function	F showactions	
shifts	table	F table	
D data		textdir_is_equal	data table
F define		textdir_is_is	data table
F enable		textdir_is_opposite	data table
F handler		textdir_is_parallel	data table
show	function	tobasepoints	function
showboxes	function	tocentimeters	function
showcodes	function	tociceros	function
showlist	function	todidots	function
showsimplelist	function	todimen	function
skipcodes	data table	toinches	function
slide	function	tomillimeters	function
snapshots	table	tonewciceros	function

tonewdidots	function	C pofetons	
tonode	function	F nofsteps	
tonodes	function	F register	
tonut	function	F reset	
		F start	
topicas	function	F stop	
topoints	function	F stop	
toscaledpoints	function	T transparencies	
tosequence	function	F reset	
tostring	function	F set	
totable	function	F setlist	
totree	function	traverse	function
toutf	function	traverse_char	function
tracers	table	traverse_id	function
T characters		typesetters	table
F collect		F hbox	
F equal		F hpack	
F start		F tohbox	
F string		F tohpack	
F unicodes		F tonodes	
T colors		F tovbox	
F reset		F tovpack	
F set		F vpack	
F setlist		unprotect_glyph	function
F fontchar		unprotect_glyphs	function
T frequencies		unset_attribute	function
F register		unsetattribute	function
T pool		unsetattributes	function
T nodes		usedlist	function
F rule		usercodes	data table
T nuts		vianodes	function
F rule		vianuts	function
F resetproperties		visualizebox	function
F rule		visualizers	table
F setlist		F attribute	
F setproperties		T attributes	
F start		F box	
T steppers		F handler	
F check		F markfonts	
F codes		F setfont	
F features		F setlayer	
F font		F setruledglyph	
F glyphs		F setvisual	
F message		vpack	function
F messages		whatcodes	data table
r messages		wiia LCOUES	uata table

whatsitcodes write data table 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)

platform string

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	setlocale	overloaded function
exec	overloaded function	sleep	function
execute	overloaded function	spawn	overloaded function
exit	function	time	function
fulltime	function	times	function
getenv	overloaded function	timezone	function
gettimeofday	function	tmpdir	function
isleapyear	function	tmpname	function
launch	function	today	function
libsuffix	string	type	string
localtime	function	uname	function
name	string	uuid	function
newline	string	validdate	function
nofdays	function	weekday	function
now	function	where	function
pipeto	function	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	string
poplibpath	function
popluapath	function
preload	table
pushlibpath	function
pushluapath	function
searchers	table
searchpath	function
seeall	function

# pagebuilders (context)

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

# pdf (basic tex)

disablecommand	function	hasmatrix	function
fontname	function	immediateobj	function
fontobinum	function	mapfile	function
fontsize	function	mapline	function
getcatalog	function	maxobinum	function
getcompresslevel	function	newcolorstack	function
getcreationdate	function	obj	function
getdecimaldigits	function	objtype	function
getdestmargin	function	pageref	function
getgentounicode	function	print	function
gethpos	function	refobi	function
getignoreunknownimages	function	registerannot	overloaded function
getimageresolution	function	reserveobj	function
getinclusionerrorlevel	function	setcatalog	overloaded function
getinfo	function	setcompresslevel	function
getlastannot	function	setdecimaldigits	function
getlastlink	function	setdestmargin	function
getlastobi	function	setfontattributes	function
getlinkmargin	function	setgentounicode	function
getmajorversion	function	setignoreunknownimages	function
getmatrix	function	setimageresolution	function
getminorversion	function	setinclusionerrorlevel	function
getnames	function	setinfo	overloaded function
getobjcompresslevel	function	setlinkmargin	function
getomitcidset	function	setmajorversion	function
getorigin	function	setminorversion	function
getpageattributes	function	setnames	overloaded function
getpageresources	function	setobjcompresslevel	function
getpagesattributes	function	setomitcidset	function
getpkresolution	function	setorigin	function
getpos	function	setpageattributes	overloaded function
getretval	function	setpageresources	overloaded function
getsuppressoptionalinfo	function	setpagesattributes	overloaded function
getthreadmargin	function	setpkresolution	function
gettrailer	function	setsuppressoptionalinfo	function
gettrailerid	function	setthreadmargin	function
getversion	function	settrailer	overloaded function
getvpos	function	settrailerid	overloaded function
getxformattributes	function	setxformattributes	function
getxformmargin	function	setxformmargin	function
getxformresources	function		

setxformresources function xformname

function

# pdfscanner (context)

scan function

# physics (context)

units table

F registerunit

D tables

# publications (context)

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

T coto	C 2222	
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	enhancers	table
S author	F details	
S institution	F order	
S organization	F suffixes	
S subtitle	finder	function
S title	firstofrange	function
S year	found	function
T optional	get	function
T required	getcasted	function
T sets	getdetail	function
T authors	getdirect	function
T virtual	getfaster	function
comment	getfield	function
copyright	getfuzzy	function
fields	getindex	function
name	inspectors	data table
types	journals	table
S author	F abbreviated	
S editor	F add	
S keywords	F expanded	
S number	F load	
S page	F save	
, •		

S

S

Т

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		refman_to_btx	function
F dataset		resolvedname	function
F force		save	function
F global		search	function
F local		setcategory	function
F nofregistered		setspecification	function
F prepareentries		singularorplural	function
F register		sortedentries	function
F sameasprevious		sortmethods	table
T sorters		T authoryear	
F cite		T sequence	
F dataset		specifications	table
F default		T default	
F index		S author	
F list		S comment	
F reference		S copyright	
F short		S name	
F used		S version	
F uservariable		D virtual	
listvariants	table	splitauthor	function
F default		splitoneauthor	function
F index		statistics	table
F num		N nofbytes	
F short		N nofdatasets	
F tag		N nofdefinitions	
load	function	N nofshortcuts	
loadbibdata	function	tables	table
loaddefinitionfile	function	D implicits	
loaders	table	D origins	
F bbl		D privates	
F bib		D sets	
F buffer		D specials	
F endnote		D types	
F json		D virtuals	
F lua		tags	function

tracers table F author
F showdatasetauthors F string
F showdatasetcompleteness usedataset
F showdatasetfields usedentric
F showentry writers

F showfields
F showhashedauthors
F showtables
F showvariants

typesetters table

usedataset function
usedentries function
writers table

F author
F keyword
F pagenumber
F range

## regimes (context)

cleanup	function
disable	function
enable	function
fromregime	function
pop	function

process function
push function
toregime function
translate function

## resolvers (context)

-11	£	et de de de	£
allprefixes	function	findpath	function
appendhash 	function	findtexfile	function
automount	function	findwildcardfile	function
automounted	table	findwildcardfiles	function
booleanvariable	function	formatofsuffix	function
cacheversion	string	formatofvariable	function
checkedvariable	function	formats	data table
cleanedpathlist	function	foundintree	function
cleanpath	function	foundintrees	function
cleanpathlist	function	generators	data table
concatinators	data table	get_from_content	function
configbanner	string	getenv	function
configurationfiles	function	getextrapaths	function
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 popextrapath function starttiming 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

F disable

F enable

F handler

N inter\_char\_half\_shrink\_factor

N inter\_char\_half\_stretch\_factor

N inter\_char\_hangul\_penalty

N inter\_char\_quarter\_shrink\_factor

N inter\_char\_quarter\_stretch\_factor

N inter\_char\_shrink\_factor

N inter\_char\_stretch\_factor

N inter\_word\_stretch\_factor

handlers data table table hash iniectors data table installdataset function installmethod function numbertocategory data table numbertodataset data table numbertohandler data table reset function function set data table splitters

## set (context)

contains function
create function
tolist function

tonumber function
totable 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		

# socket (extra lua)

BLOCKSIZE	number	S cc
_DATAGRAMSIZE	number	S comments
_DEBUG	boolean	S connection
_SETSIZE	number	S content-description
_SOCKETINVALID		S content-disposition
bind	function	S content-encoding
choose	function	S content-id
connect	function	S content-language
connect4	function	S content-length
connect6	function	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	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	ι	S pragma

S proxy-auth	enticate	protect	function
S proxy-author		select	function
S range	0112811011	sink	function
S received		sinkt	table
S received	rom mta	F close-when-	
S references		F default	Jone
S references			1
S remote-mta		F http-chunke	J
		F keep-open <b>skip</b>	function
S reply-to		sleep	function
S reporting-			table
S resent-bcc S resent-cc		smtp	table
		S DOMAIN	
S resent-date		N PORT	
S resent-from		S SERVER	
S resent-mes		N TIMEOUT	
S resent-rep		S ZONE	
S resent-send	der	F message	
S resent-to		F open	
S retry-afte		F send	£
S return-patl	h	source	function
S sender		sourcet	table
S server		F by-length	
S smtp-remote	e-recipient	F default	
S status		F http-chunke	
S subject		F until-close	
S te		tcp	function
S to		tcp4	function
S trailer		tcp6	function
S transfer-e	ncoding	tp	table
S upgrade		N TIMEOUT	
S user-agent		F connect	
S vary		try	function
S via		udp	function
S warning		udp4	function
S will-retry		udp6	function
S www-authen	ticate	url	table
S x-mailer		F absolute	
http	table	F build	
N TIMEOUT		F build_path	
S USERAGENT		F escape	
F genericform		F parse	
F open		F parse_path	
F request		F unescape	
newtry	function		

#### sorters (context)

basicsorter function
comparers table
 F basic
constants table
 S defaultdigits
 S defaultlanguage
 S defaultmethod
 N digitsmaximum

N ignoredoffset
N replacementoffset
T validmethods

N digitsoffset

B ch
B mc
B mm

B pm B uc B zc B zm

definitions data table firstofsplit function packch function packuc function setlanguage sort function table

F utf

strip function
tracers data table
update function

## statistics (context)

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

## status (basic tex)

resetmessages function

# storage (context)

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

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

## streams (context)

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

# string (basic lua)

autodouble	function	quoted	function
autosingle	function	rep	function
booleanstring	function	replacenewlines	function
byte	function	reverse	function
<b>bytepairs</b>	function	split	function
bytes	function	splitlines	function
bytetable	function	splitup	function
char	function	strip	function
characterpairs	function	sub	function
characters	function	tformat	function
checkedsplit	function	toHEX	function
collapsespaces	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	unquote	function
is_empty	function	unquoted	function
itself	function	upper	function
len	function	utfcharacter	function
limit	function	utfcharacters	function
longtostring	function	utflength	function
lower	function	utfpadd	function
match	function	utfpadding	function
nospaces	function	utfvalue	function
nspaces	table	utfvalues	function
optionalquoted	function	valid	function
quote	function		

## structures (context)

atlocation	function	F previous	
blocks	table	F raw	
D collected		F record	
F define		F reset	
F print		F restart	
F save		F restore	
F select		F save	
F setstate		F set	
D states		F setlevel	
D tobesaved		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
S method		documents	table
F overload		D data	
F place		F initialize	
F register		F preset	
F setup		F reset	
counters	table	floats	table
F add		formulas	table
F analyze		helpers	table
F check		F analyze	
D collected		F formulanumber	
F compact		F merged	
F converted		F page	
F currentvalue		F pageofinternal	
D data		F prefix	
F define		F prefixlastpage	
F first		F prefixpage	
F get		F simplify	
F last		F title	
F next		F touserdata	
F prev		inserts	table

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

	F ordered		F filterdefault
	F postpone		D filters
	F resetpostponed		D flaginternals
	F restore		F from
	F save		D functions
	F setstate		F get
	D states		F getcurrentmetadata
	F store		F getcurrentprefixspec
pa	ges	table	F getinnermethod
	F analyze		F getinternalcachedlistreference
	D collected		F getinternallistreference
	F in_body		F getinternalreference
	F is_odd		F getoutermethod
	N nofpages		D handlers
	F number		F identify
	F on_right		F import
	F save		F inject
	D tobesaved		F injectcurrentset
re	ferences	table	S innermethod
	F analyze		D internals
	F checkedfile		F load
	F checkedfileorurl		F loadpresets
	F checkedprogram		F mark
	F checkedrealpage		S outermethod
	F checkedurl		D pages
	D collected		U prefixsplitter
	U componentsplitter		D productdata
	F currentmetadata		T programs
	F currentorder		T data
	D currentset		F define
	F define		F get
	D defined		F realpageofpage
	D derived		U referencesplitter
	F enableinteraction		D referred
	F enhance		F referredpage
	D executers		F registerfinalizer
	F expandcurrent		F registerinitializer
	F export		F registerpage
	T files		F reset
	T data		D runners
	F define		F set
	F found		F setandgetattribute
	F get		F setcomponent
	F filter		F setinternalreference

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 load
D usedinternals	F matchingtilldepth
D usedviews	F numberatdepth
F valid	F numbers
<b>registers</b> table	F popblock
F analyze	F prefixedconverted
D collected	F pushblock
F compare	F register
F define	D registered
F enhance	F reportstructure
F extend	F save
F filter	T sectionblockdata
F filtercollected	T bodypart
F finalize	S bookmark

F set		tags	table
F setblock		F elementtag	
F setchecker		F finishexport	
F setentry		F getid	
F setinitialblock		F getmetadata	
F setlevel		F handler	
F setnumber		F initializeexport	
F structuredata		D labels	
F title		F last	
D tobesaved		F lastinchain	
F typesetnumber		F locatedtag	
F userdata		T patterns	
B verbose		U splitter	
sets	table	D properties	
F define		F registermetadata	
F get		F restart	
F getall		F setaspect	
D setlist		F setattributehash	
specials	table	F setcombination	
D collected		F setconstruct	
F retrieve		F setfigure	
F store		F sethighlight	
D tobesaved		F setitem	
synonyms	table	F setitemgroup	
F analyzed		F setlist	
D collected		F setnotation	
F compare		F setnotationsymbol	
F define		F setproperty	
F filter		F setregister	
F finalize		F setsorting	
F flush		F setsynonym	
F isshown		F settablecell	
F isused		F settabulatecell	
F meaning		F settagdelimitedsymbol	
F prepare		F settagsubsentencesymbo	ıl
F process		F setupexport	
F register		F setuserproperties	
F registershown		D specifications	
F registerused		F start	
F resetshown		F stop	
F resetused		F strip	
F sort		D taglist	
F synonym		T usewithcare	
D tobesaved		T images	

## table (basic lua)

allkeys	function	print	function
append	function	remove	function
are equal	function	reverse	function
collapsed	function	reversed	function
collapsedhash	function	save	function
compact	function	sequenced	function
concat	function	serialize	function
contains	function	setmetatablecall	function
сору	function	setmetatableindex	function
count	function	setmetatableindices	function
derive	function	setmetatablekey	function
deserialize	function	setmetatablenewindex	function
drop	function	sort	function
fastcopy	function	sorted	function
fastserialize	function	sortedhash	function
filtered	function	sortedhashkeys	function
flattened	function	sortedhashonly	function
fromhash	function	sortedindexonly	function
getmetatablekey	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
merge	function	twowaymapper	function
merged	function	unique	function
mirrored	function	unnest	function
move	function	unpack	function
pack	function	values	function
prepend	function		

# tex (basic tex)

attribute	table	getmuglue	function
badness	function	getmuskip	function
box	table	getnest	function
catcode	table	getsfcode	function
conditionals	data table	getskip	function
constants	data table	gettoks	function
count	table	getuccode	function
cprint	function	glue	table
ctdcatcodes	number	hashtokens	function
ctxcatcodes	number	ifs	data table
definefont	function	inicatcodes	number
delcode	table	init_rand	function
dimen	table	isattribute	function
directives	data table	isbox	function
enableprimitives	function	iscount	overloaded function
error	function	isdefined	function
extraprimitives	function	isdimen	overloaded function
finish	function	ismuskip	overloaded function
fontidentifier	function	isskip	overloaded function
fontname	function	istoken	function
force_synctex_line	function	istoks	function
force_synctex_tag	function	lccode	table
fprint	function	linebreak	function
get	function	lists	table
get_synctex_line	function	lua_math_random	function
get_synctex_mode	function	lua_math_randomseed	function
get_synctex_tag	function	luacatcodes	number
getattribute	function	mathcode	table
getbox	function	modes	data table
getboxresourcedimensions	function	muglue	table
getcatcode	function	muskip	table
getcount	function	nest	table
getdelcode	function	nilcatcodes	number
getdelcodes	function	normal_rand	function
getdimen	function	notcatcodes	number
getglue	function	number	function
getlccode	function	primitives	function
getlist	function	print	function
getmath	function	prtcatcodes	number
getmathcode	function	resetparagraph	function
getmathcodes	function	romannumeral	function

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

#### texconfig (basic tex)

error\_line number
expand\_depth number
formatname string
half\_error\_line number
hash\_extra number

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)

setescape function
write function

write\_nl function

## token (basic tex)

create	function	is_token	function
<pre>get_active</pre>	function	put_next	function
get_cmdname	function	scan_code	function
get_command	function	scan_csname	function
get_csname	function	scan_dimen	function
get_expandable	function	scan_glue	function
get_id	function	scan_int	function
get_index	function	scan_keyword	function
get_macro	function	scan_string	function
get_meaning	function	scan_token	function
get_mode	function	scan_toks	function
get_next	function	scan_word	function
get_protected	function	set_macro	function
get_tok	function	type	function

## tokens (context)

astab	le	function		defined	function
bgrou	р	userdata		egroup	userdata
bits		table		getters	table
Na	ctive			F box	
N a	lignment			F count	
N b	egingrou	р		F dimen	
Nc	haracter			F glue	
N c	lose			F macro	
N c	omment			F meaning	
Νe	ndgroup			F skip	
Νe	ndofline			F token	
Νe	scape			hbox	userdata
Νi	gnore			istoken	function
Νi	nvalid			letter	function
Νl	etter			letters	function
N m	athshift			other	function
N o	pen			pickup	function
N o	ther			printlist	function
N p	arameter			scanners	table
Ns	pace			F boolean	
Ns	ubscript			F code	
Ns	uperscri	pt		F condition	nal
Nw	hitespac	e		F count	
colle	ctors	table		F csname	
T d	ata			F dimen	
F d	efaultwo	rds		F dimension	n
F d	owithwor	ds		F glue	
Ff	lush			F integer	
Γi	nstall			F keyword	
Fr	egister			F list	
Tr	egistere	d		F lxmlid	
Fs	how			F number	
Ft	est			F scanclos	е
compi		function		F scanoper	ı
const	ant	function		F skip	
conve	rters	table		F string	
S t	oboolean			F token	
	odimen			F tokens	
S t	oglue			F toks	
S t	onumber			F word	
S t	ostring			scantable	function

<b>setters</b> table	F boolean
F box	F code
F count	F conditional
F dimen	F count
F glue	F csname
F macro	F dimen
F skip	F dimension
<b>shortcuts</b> table	F glue
T bits	F integer
N active	F keyword
N alignment	F list
N begingroup	F lxmlid
N character	F number
N close	F scanclose
N comment	F scanopen
N endgroup	F skip
N endofline	F string
N escape	F token
N ignore	F tokens
N invalid	F toks
N letter	F word
N mathshift	F scannumber
N open	F scanopen
N other	F scanstring
N parameter	F scanword
N space	F toboolean
N subscript	F todimen
N superscript	T tokens
N whitespace	F astable
N close	U bgroup
F inspect	T collectors
N open	F defaultwords
F report	F dowithwords
F scanboolean	F flush
F scanclose	F install
F scancode	F register
F scanconditional	F show
F scancsname	F test
F scandimen	F compile
F scandimension	F constant
F scaninteger	T converters
F scankeyword	S toboolean
F scanlist	S todimen
T scanners	S toglue

S tonumber N close S tostring F inspect F defined N open U egroup F report T getters F scanboolean F box F scanclose F count F scancode F dimen F scanconditional F scancsname F glue F macro F scandimen F scandimension F meaning F scaninteger F skip F token F scankeyword F scanlist U hbox F scannumber F istoken F letter F scanopen F letters F scanstring F other F scanword F pickup F toboolean F printlist F todimen F scantable F tonumber T setters F tostring F box U vbox F count U vtop F dimen F tonumber F tostring F glue

F macro

F skip T shortcuts vbox

vtop

userdata

userdata

#### 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	register	function
default	function	report	function
disable	function	reset	function
dumphashtofile	function	savehash	function
enable	function	show	function
list	function	value	function
name	string		

# typesetters (context)

-14	4-11-		
alignments	table	T handlers	
F handler		F installhandler	
F set	+-h1-	F processmath	
breakpoints	table	F set	
F define		F setcolor	
F handler		F setmath	
D mapping		F tomode	4-61-
T methods		firstlines	table
T numbers		T actions	
F set		F default	
F setreplacement		Fline	
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	·	F default	
F setcharacteral	ign	F addanchortoline	
characters	table	F addtoline	
F handler		F calculatedelta	
T methods		F checkline	
F replacenbsp		F handler	
F replacenbspace	s	F moveinline	
checkers	table	F 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)

scii	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		toutf32string	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	
<b>yrapheme</b>	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		Flen	
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	
atin1	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

F	utf32_to_utf8_le_t
F	utf32_to_utf8_t
F	utf8_to_utf16
F	utf8_to_utf16_be
F	utf8_to_utf16_le
F	utf8_to_utf8_t
F	values
F	xstring

#### url (context)

addscheme	function
barepath	function
construct	function
escape	function
filename	function
hashed	function

hasscheme function
query function
split function
toquery function
unescapeget function

## utilities (context)

debugger	table	F skiplong	
F disable		F skipposition	
F enable		F skipshort	
F savestats		F writebyte	
F showstats		F writecardinal2	
F showtraceback		F writecardinal4	
files	table	F writestring	
F close		formatters	table
F getposition		F formatcolumns	
F getsize		F list	
F look		F stripzeros	
F open		garbagecollecto	table
F read2dot14		F check	
F readbyte		N criterium	
F readbytes		B enabled	
F readbytetable		lua	table
F readcardinal		B alwaysstripcode	
F readcardinal1		F checkmemory	
F readcardinal2		F compile	
F readcardinal2le		F loadedluacode	
F readcardinal3		F loadstring	
F readcardinal3le		F loadstripped	
F readcardinal4		N nofstrippedbyte	S
F readcardinal4le		N nofstrippedchun	ks
F readchar		F registerfinaliz	er
F readfixed2		B stripcode	
F readfixed4		T strippedchunks	
F readinteger		F strippedloadstr	ing
F readinteger1		T suffixes	
F readinteger2		S lua	
F readinteger2le		S luc	
F readinteger3		S lui	
F readinteger3le		S luj	
F readinteger4		S luv	
F readinteger4le		S tma	
F readsignedbyte		S tmc	
F readstring		S tua	
F readtag		S tuc	
			4-61-
F setposition		packers	table
F setposition F size		F hashed	table

```
F pack
                                                                       B latin-modern-light
    F simplehashed
                                                                       B latin-modern-light-designsize
                                                                       B modern-light
    F strip
    F unpack
                                                                     T modern-mono.modern-base-mono
   N version
                                                                       B modern-base-mono
                        table
parsers
                                                                       B modern-mono
    F add_settings_to_array
                                                                     T modern-variable.latin-modern-variable-designsize.la
    F arguments to table
                                                                       B latin-modern-variable
    F array_to_string
                                                                       B latin-modern-variable-designsize
                                                                       B modern-variable
    F csvsplitter
    F getparameters
                                                                     T modernvariable.modern-variable
    F groupedsplitat
                                                                       B modern-variable
    F hash_to_string
                                                                       B modernvariable
    T hashes
                                                                     T modernvariablelight, modern-variable-light
     T settings to set
                                                                       B modern-variable-light
       T max.fit.broad.auto
                                                                       B modernvariablelight
         B auto
                                                                     T serif.sans.mono
         B broad
                                                                       R mono
         B fit
                                                                       B sans
         B max
                                                                       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, moderneed, latin-modern-condensed
         R latin-modern
                                                                       B paper
         B latin-modern-condensed
                                                                       B rightpage
         B latin-modern-variable
                                                                       B text
         B modern
                                                                  F iterator
         B modern-condensed
                                                                  F keq to hash
         B modern-variable
                                                                  F listitem
       T modern, latin-modern-designsize, latin-modern
                                                                  F make_settings_to_hash_pattern
         B latin-modern
                                                                  F mergehashes
         B latin-modern-designsize
                                                                  F options to array
         B modern
                                                                  F options to hash
       T modern, modern-base
                                                                  T patterns
         B modern
                                                                    U settings to array
         B modern-base
                                                                    U settings_to_hash_a
       T modern-condensed, latin-modern-condensed-designsize, latin Umosdetrbingsngdeen_beadshmodern-light-condensed, latin-modern-l
         B latin-modern-condensed
                                                                    U settings_to_hash_c
         B latin-modern-condensed-designsize
                                                                    U unittotex
         B latin-modern-light-condensed
                                                                  F process_stripped_settings
         B modern-condensed
                                                                  F rfc4180splitter
         B modern-light-condensed
                                                                  F runtime
       T modern-light, latin-modern-light-designsize, latin-modernFlightings_to_array
```

F++: +		5h1-	
F settings_to_arra		F enable	
F settings_to_arra		F initiali.	že
F settings_to_hash		F list	
F settings_to_hash	_	F new	
F settings_to_hash	_	F register	
F settings_to_numb	ers	F report	
F settings_to_set		F reset	
F simple_hash_to_s	tring	F show	
F splitmethod		stacker	table
F splitthousands		F new	
F stepper		storage	table
F stripped_setting	s_to_array	F allocate	
F unittotex		F checked	
F unittoxml		F mark	
randomizer	table	F marked	
F get		F setiniti	alizer
F getnumber		F sparse	
F getseed		streams	table
F popseed		F close	
F pushseed		F getposit	ion
F reuseseed		F look	
F setseed		F open	
F setseedi		F read2dot	14
report	function	F read2dot	1
sequencers	table	F readbyte	
F appendaction		F readbyte	5
F appendgroup		F readbyte	table
F compile		F readcard	inal
F disableaction		F readcard	inal1
F disablegroup		F readcard	inal2
F enableaction		F readcard	inal2LE
F enablegroup		F readcard	inal3
D functions		F readcard	inal3le
F localize		F readcard	inal4
F new		F readchar	
F nodeprocessor		F readfixed	12
F prependaction		F readfixed	14
F prependgroup		F readinte	ger
F removeaction		F readinte	jer1
F replaceaction		F readinte	jer2
F setkind		F readinte	ger2le
F tostring		F readinte	ger3
setters	table	F readinte	ger3le
F disable		F readinte	ger4

F readinteger4le		U	retain
F readsignedbyte		U	retain and collapse
F readstring		U	retain and no empty
F setposition		F st	triplines
F size		F st	triplong
F skip		F ta	abtospace
F skipbytes		T tr	racers
F skiplong		tables	table
F skipshort		F ac	ccesstable
strings	table	F de	efinedtable
F collapsecrlf		F de	efinetable
T formatters		F er	ncapsulate
F add		Fir	nsertaftervalue
F new		Fir	nsertbeforevalue
F newcollector		F mi	igratetable
F newrepeater		F re	emovevalue
F nice		F re	eplacevalue
T striplinepatter	ns	templa	ates table
U collapse		F lo	oad
U prune		F re	eplace
U prune and col	lapse	F re	eplacer

U prune and no empty

F resolve

#### vf (context)

char	function
down	function
fontid	function
image	function
node	function
nop	function

pop function
push function
right function
rule function
special function

## visualizers (context)

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

## xml (context)

addentitiesdoctype	function	defaulthandlers	table
addspecialcode	function	D file	cabic
after	function	D parsedxml	
all	function	D string	
applylpath	function	D tex	
applyselector	function	D texline	
assign	function	D texspace	
attribute	function	D verbose	
badinclusions	function	defaultprotocol	string
before	function	delete	function
body	function	<del>delete element</del>	function
builtinentities	table	despecialized	function
B amp		each	function
B apos		each element	function
B gt		_ elements	function
B lt		elementtocdata	function
B quot		empty	function
cdata	function	entities	data table
cdatatotext	function	erase	function
checkbom	function	errorhandler	function
checkerror	function	escaped	function
checknamespace	function	expressions	table
checkns	function	F boolean	
cleansed	function	F child	
collect	function	F contains	
<pre>collect_elements</pre>	<del>function</del>	F count	
collect_tags	function	F error	
collect_texts	<del>function</del>	F find	
collected	function	F idstring	
collecttexts	function	F lower	
content	function	F name	
convert	function	F number	
сору	function	F oneof	
count	function	F print	
cprint	function	F quit	
CSS	table	F tag	
F applyselector		F text	
F colorspecification		F undefined	
F dimension		F upper	
F fontspecification		fillin	function
F padding		filter	function

finalizers	table	F first	
F paragraphs		F function	
T tex		F index	
F all		F last	
F attribute		F lowerall	
F chainattribute		F match	
F chainpath		F name	
F command		F position	
F concat		F reverse	
F concatrange		F table	
F context		F tag	
F count		F tags	
F ctxtext		F text	
F default		F texts	
F first		F upperall	
F function		first	function
F index		found	function
F last		functions	table
F lettered		getbuffer	function
F lower		gethandlers	function
F lowerall		gethandlersfunction	function
F match		helpers	table
F name		F recursetext	
F param		include	function
F parameter		inclusion	function
F position		inclusions	function
F reverse		index	function
F stripped		inheritedconvert	function
F tag		inject	function
F tags		<del>inject_element</del>	<b>function</b>
F text		<del>inject_element_after</del>	<b>function</b>
F upper		inject_element_before	<b>function</b>
F upperall		injectafter	function
T xml		injectbefore	function
F all		insert	function
F att		insert_element	function
F attribute		<del>insert_element_after</del>	<del>function</del>
F attributes		insert_element_before	<del>function</del>
F cdata		insertafter	function
F chainattribute		insertbefore	function
F count		insertcdata	function
F default		insertcomment	function
F elements		inspect	function
F empty		is_valid	function

kind	function	renamespace	function
last	function	reparsedentitylpeg	userdata
lastmatch	function	replace	function
load	function	replace_element	<del>function</del>
lpath	function	resetinjectors	function
lpathcached	function	resolvens	function
lpathcalls	function	root	function
lshow	function	save	function
makestandalone	function	selection	function
match	function	separate	function
name	function	serialize	function
newhandlers	function	serializetotext	function
nodesettostring	function	setcdata	function
originalload	function	setcomment	function
package	function	sethandlersfunction	function
parent	function	setinjectors	function
parsedentitylpeg	userdata	setproperty	function
pihandlers	table	settings	function
F injector		specialcodes	table
F tex		S "	
placeholders	table	S #	
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>	<del>function</del>	S	
process_elements	<del>function</del>	S }	
processattributes	function	S ~	
profiled	table	specialhandler	table
pushmatch	function	sprint	function
raw	function	string	function
registerentity	function	strip	function
registerns	function	strip_whitespace	function
reindex	function	stripelement	function
remap_name	<del>function</del>	stripleadingspaces	function
remap_namespace	function	table	function
remap_tag	function	text	function
remapname	function	textonly	function
remapnamespace	function	texttocdata	function
remaptag	function	tocdata	function

toelement	function	unescapedentitylpeg	userdata
tostring	function	unprivatized	function
totable	function	unspecialized	function
toxml	function	withelement	function
tprint	function	withelements	function
traverse	function	wrap	function
unescaped	function	xmlns	table

#### zip (extra lua)

archivestableopenarchivefunctionclosefunctionopenfilefunctionclosearchivefunctionregisteredfilestableopenoverloaded functiontypefunction

#### zlib (extra lua)

adler32 function
compress function
compressobj function
crc32 function

decompress
decompressobj function
version function