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

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

## global (alias: \_G)

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

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

type

function

function

rawlen

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

codeinjections table F flushmergelaver F boxresourcedimensions F getbookmarks F getdefaultfieldvalue F registerboxresource F restoreboxresource F getfieldcategory current strina F aetfieldset defaults table F getformatoption T codeiniections F gethpos F gethpos F getinfo F getmatrix F getmatrix F getpos F getoutputfilename F aetypos F aetpos F hasmatrix F getpreviewfigure T nodeinjections F getypos T registrations F hasmatrix D tables F insertrenderingwindow included table F mergebookmarks B context F mergecomments B date F mergefields B id F mergereferences B metadata F mergeviewerlayers B pdf F prerollreference install function F presetsymbol nodeinjections table F presetsymbollist F restore F processrendering F save F registerdocumentcloseaction F transform F registerdocumentopenaction function nothing F registeredsymbol pdf table F registerpagecloseaction T codeiniections F registerpageopenaction F addbookmarks F registersymbol F analyzenormalsymbol F setfieldcalculationset F analyzesymbol F setfigurealternative F attachmentid F setfigurecolorspace F clonefield F setfiguremask F definefield F setformat F definefieldset F setformsmethod F defineviewerlaver F setpagetransition F embedfile F setupcanvas F enabletags F setupidentity F exportformdata F setxmpfile

F startlayer

F startunicodetoactualtext
F startunicodetoactualtextdirect

F stoplayer

F stopunicodetoactualtext
F stopunicodetoactualtextdirect

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

#### builders (context)

kernel	table	F reset
F hyphen	nation	F set
F kernin	ng	F split
F ligatu	ıring	F start
F mlist_	to_hlist	F stop
T origin	nals	F tag
F hyph	enate	<b>profiling</b> table
F kern	ing	F add
F liga	turing	F distance
paragraph	ı <b>s</b> table	F fixedprofile
T constr	uctors	F get
N attr	ibute	F list
F defi	ne	F pagehandler
F disa	ble	F profilebox
F enab	le	F set
F hand	ler	<b>vspacing</b> table
T meth	ods	F analyze
F bas	sic	D categories
F de	fault	F collapsevbox
F hpa	ack	T data
F one	eline	D map
D name		D skip
D numb	ers	D snapmethods
F set		F definesnapmethod
F star	t	B fixed
F stop		F forcestrutdepth
T expans	ion	F pagehandler
F trac		F setmap
F keepto	-	F setskip
	ertogether	F snapbox
T soluti		F synchronizepage
T spli		F tocategories
F det		F tocategory
	timize	F vboxhandler
T reg	gistered	

#### caches (context)

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

#### callback (basic tex)

find function
list function

register overloaded function

#### callbacks (context)

freeze	function	В	insert_local_par
known	function	В	kerning
list	data table	В	ligaturing
рор	function	В	linebreak_filter
push	function	В	mlist_to_hlist
register	function	В	open_read_file
report	function	В	post_linebreak_filter
supported	table	В	pre_dump
B append	_to_vlist_filter	В	pre_linebreak_filter
B build_p	page_insert	В	pre_output_filter
B buildpa	nge_filter	В	process_input_buffer
B call_e	lit	В	process_jobname
B contrib	oute_filter	В	process_output_buffer
B define	_font	В	process_rule
B find_c:	dmap_file	В	read_cidmap_file
B find_da	ata_file	В	read_data_file
B find_e	nc_file	В	read_enc_file
B find_fo	ont_file	В	read_font_file
B find_fo	ormat_file	В	read_map_file
B find_i	nage_file	В	read_opentype_file
B find_ma	p_file	В	read_pk_file
B find_o	entype_file	В	read_truetype_file
B find_o	rtput_file	В	read_typel_file
B find_pl	_file	В	read_vf_file
B find_re	ead_file	В	show_error_hook
B find_t	ruetype_file	В	show_error_message
B find_ty	/pel_file	В	show_lua_error_hook
B find_v	_file	В	show_warning_message
B find_w	rite_file	В	start_file
B finish	_pdffile	В	start_page_number
B finish	_pdfpage	В	start_run
B finish	_synctex	В	stop_file
B glyph_r	not_found	В	stop_page_number
B glyph_s	stream_provider	В	stop_run
B hpack_	filter		vpack_filter
B hpack_d	quality	В	vpack_quality
B hyphena	ite	В	wrapup_run

#### catcodes (context)

names data table
numbers data table

register function

#### characters (context)

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

-1	f		
shaped	function	D accentmapping	
shash	data table	D commandmapping	
shchars	data table	F defineaccents	
shcodes	data table	F safechar	
showstring	function	F toutf	
specialchars	data table	F toutfpattern	
specials	data table	textclasses	table
splits	table	tonumber	function
T char		ucchars	data table
T compat		uccode	function
subscripts	table	uccodes	data table
superscripts	table	uhash	data table
synonyms	data table	unicodechar	function

upper

table

tex

function

#### chemistry (context)

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

moleculefunctionmoleculeparseruserdatastartfunctionstopfunctionstructuresnumberundefinefunction

#### containers (context)

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

#### converters (context)

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

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

#### coroutine (basic lua)

create	function	status	function
isyieldable	function	wrap	function
resume	function	yield	function
runnina	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

#### experiments (context)

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

register function report function show function value function

#### figures (context)

F immediatewriteobject

F keys

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

suffixes

used

data table

data table

## file (basic lua)

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

## fio (extra lua)

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

#### floats (context)

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

## font (basic tex)

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

## fonts (context)

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

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

F cff	F getaxisscale
F cff2	F getfactors
F cffcheck	F getscales
F checkhash	F gotodatatable
F cmap	F normalizedaxis
Fcolr	T normalizedaxishash
F compact	F readvariationdata
F cpal	F reportskippedtable
F ebdt	F setvariabledata
F eblc	F hhea
F ebsc	F hmtx
F expand	F hvar
F extend	F kern
F fvar	F loadfont
F gdef	F loadshapes
F getcomponents	F loca
F getinfo	F math
F glyf	F maxp
F gpos	F mvar
T gposhandlers	F name
F chainedcontext	F os/2
F context	F pack
F cursive	F parsecharstrings
F extension	F post
F marktobase	F registerextender
F marktoligature	F rehash
F marktomark	F sbix
F pair	F stat
F single	T streamreader
F gsub	F close
T gsubhandlers	F getposition
F alternate	F getsize
F chainedcontext	F look
F context	F open
F extension	F read2dot14
F ligature	F readbyte
F multiple	F readbytes
F 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 readcardinal4 F scriptandlanguage F readcardinal4le F setdynamics F readcardinaltable F setfeatures F readchar T statistics F readfixed2 D usedfeatures F readfixed4 F storepdfdata F readinteger T sva F readinteger1 F filterglyph F readinteger2 F topdf F readinteger2le D sygcache F readinteger3 B sygenabled T tables F readinteger3le F readinteger4 D baselines F readinteger4le D features F readintegertable D featuretypes F readsignedbyte D languages F readstring D scripts N version F readtag F setposition T pfb F size F loadvector F skip T tfm F skiplong F addtounicode F skipposition D features F skipshort N maxnestingdepth F writebyte N maxnestingsize F writecardinal2 F reencode F writecardinal4 F setfeatures F writestring N version F svg T vf N tableversion T combinations F unifymissing F combine F unpack T combiner F vhea D commands D helpers F vmtx D math F vorg F vvar D predefined F woff2otf N version D whatever F registerpalette F registerplugin F hashfeatures F reorderlookups F hashinstance T sbix T hashmethods F topdf F normal F virtual D sbixcache B sbixenabled F initializefeatures

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

F addlookup F analyze F applypostproces F checkedmode F checkedscript F current S defaultlookup F define F getspecificatio F internal F loadfont F makespecificati	n	getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution F opentype	function function function table
F install		goodies	table
D variants		D colorschemes	
F read		T data	
F register		T dejavu-math	
F registered		S author	
F registersplit		S comment	
F resetnullfont		S copyright	
F resolve		B initialized	
T resolvers		T mathematics	
F file		T alternates	
F name		T dotless	
F spec	function	S comment	
definetypeface	function	S feature	2
encodings	table	N value	
T agl		T kerns S name	
D ctxcodes			
D extras D names		S version T schola-math	
		S author	
D synonyms D unicodes		S comment	
D cache		S copyright	
F is_known		B initialized	
D known		T mathematics	
F load		T alternates	
F make unicode ve	ector	T dotless	
D math		S comment	+
N version		S feature	
enhanceid	function	N value	-
expansions	data table	T kerns	
formats	data table	S name	
getalternate	function	S version	
J		2 70.520	

D designsizes		F	checkflags	
D filenames		F	checkmerge	
F getcompositions		F	checksteps	
T list		F	collectanchors	
F load		D	commands	
F prepare_features	5	F	descriptiontosl	ot
F register		F	dimenfactor	
F registerpostpro	cessor	F	expandglyph	
F report		Т	extraprivates	
T suffixes		F	fontpatternhass	ize
handlers	table	F	getcoloredglyph	S
hashes	table	F	getdigitwidth	
D characters		F	getinstancespec	
D classes		F	getparameters	
D csnames		F	getprivatecharo	rnode
D descriptions		F	getprivatenode	
D dynamics		F	getprivates	
D emwidths		F	getprivateslot	
D exheights		F	hasprivate	
D extensibles		F	indextoslot	
D features		F	name	
D identifiers		F	nametoslot	
D italics		F	prependcommands	
D lastmathids		F	privateslot	
D marks		F	setdigitwidth	
D modes		F	splitfontpatter	n
D originals			tochar	
D parameters			font	function
T processes		iter	ators	table
D properties		F	characters	
D quads		F	descriptions	
D resources			glyphs	
T setdynamics		logg	ers	table
T shapes		F	add_placeholder	S
D spaces		D	category_to_pla	ceholder
D spacings		F	format	
T streams		F	onetimemessage	
D unicodes		F	register	
D variants			reportdefinedfo	
D xheights			reportusedfeatu •	
helpers	table	mapp	_	table
F addextraprivate			addtounicode	
F addprivate			fromunicode16	
F appendcommands		F	loadfile	

F makenameparser D overloads F reset F definefontfamily F reset F tounicode F tounicodel6 F tounicodel6 F tounicodel6 F tounicodel6sequence metapost F boundingbox F proset F boundingbox F proset F boundingbox F filefallback F fontdata F fontfallback F filefallback F fontdata F fontfallback F filefallback F fontfallback F fontfallback F filefallback F paths D methods D methods D methods D methods D methods F registerfallback F registerfollback F typeface F ty	F loadline		D defaults
D overloads F reset F tounicode F tounicode F tounicodel6 F tounicodel6sequence  metapost F boundingbox F boutomp F draw F fill F maxbounds F output F paths F widthline F zeroline F zeroline B nline N version Names			
F reset F tounicode F tounicode16 F tounico	•		-
F tounicode F tounicode16 F tounicode16sequence  metapost  f table F features F boundingbox F boundingbox F filefaltback F form F form F form F fill F fontsynonym F fontfaltback F paths F output F maxbounds F widthline F zeroline F zeroline F zeroline B inline N version  names	F reset		
## Tounicodel6sequence	F tounicode		
metapost       table       F features         F boundingbox       F filefallback       F fontdata         F draw       F fontdata       F fontdata         F draw       F fontfallback       F fontsynonym         F fill       F fontsynonym       F fontsynonym         F maxbounds       F goodies       F mathfallback         F output       F mathfallback       D methods         F paths       D methods       D methods         F widthline       D presets       F registerfollback         F widthline       F registerfallback       F registerfollback         MD       F registerfollback       F registerfollback         N version       F registerfontfamily       F textfallback         N version       F registerfontfamily       F textfallback         N version       F textfallback       F typeface         nulldata       data table       F typescript         protrusions       data table       F typescript         protrusions       data table       F typescript         p check_lua       F contextnumber       F contextnumber         F lua       D contextsetups       F contextsetups         F ofm       F contexttostring       F definecontext	F tounicode16		F fallback
metapost       table       F features         F boxtomp       F filefallback         F draw       F fontdata         F draw       F fontfallback         F fill       F fontsynonym         F maxbounds       F goodies         F output       F mathfallback         F paths       D methods         F widthline       D methods         F widthline       F registerfallback         F zeroline       F registerfallback         Mp       table       F registerfontfamily         D cache       F registerfontfamily         B inline       F registerfontfamily         N version       F textfallback         names       data table       F typeface         nulldata       data table       F typescript         protrusions       data table       F typescript         protrusions       data table       F userdata         readers       table       Specifiers       table         F afm       D contextmumber       D contextnumbers         F lua       D contextsetups       F contexttostring       F contexttostring         F ofm       F propertiontext       F pregistercontext       F pregistercontext	F tounicode16sequ	ence	D fallbacks
F boundingbox F boxtomp F draw F fill F fontdata F fill F fontsynonym F maxbounds F output F paths F widthline F zeroline F zeroline F zeroline B inline N version Names data table F typeface Nulldata D data table F typeface F suserdata F suserdata F check_lua F ofm F check_Lua F ofm F check_tfm F opentype F off F off F opentype F off F opentype F ttf F yes F ttf F yes F yes F registercontext F ttf F ttf F ttf F ttf F woff F woff F woff F solved F table F filefallback F f fontdata F f fontfallback F goodies F methods D methods D methods D methods F methods D methods F registerfallback F registerfollback F registerfollback F registerfollback F registerfontanily F textfallback F typeface F typeface F typeface F typeface F typescript F typeface F typescript F userdata F contextnumber F contextnumber F contextnumber F definecontext F prob F presetcontext F prob F presetcontext F splitcontext F splitcontext F ttc F ttf D synonyms D variants F eserveid F checked F resolved F bodyfont F data F uselibrary			F features
F boxtomp F draw F draw F fill F fill F maxbounds F output F maxbounds F output F paths F output F paths D methods F widthline F zeroline F zeroline F registerfallback  mp table F registerfontalternative B inline N version N version Adat atable F textfallback F typeface  nulldata data table F typescript protrusions data table F suserdata  readers F afm F check_lua F check_Lua F check_tfm F lua D contextmerged F contextnumber F lua F ofm F opentype F off F off F off F off F off F registerfontalternative F tiff F pfb D sequence F f registerfontext F f meregeontext F true F showcontext F true F true F showcontext F true F showcontext F true F true F showcontext F true F true F showcontext F splitcontext F splitcontext F true F true F true F true F showcontext F true F true F true F showcontext F true F true F true F true F showcontext F splitcontext F true F true F true F checked F checked F resolved F resolved F resolved F resolved	-		F filefallback
F fill F fontsynonym F maxbounds F goodies F output F mathfallback F paths F widthline F zeroline T	_		F fontdata
F maxbounds F output F paths F paths F yidthline F zeroline T zero	F draw		F fontfallback
F output F paths F paths F widthline F zeroline  T zer	F fill		F fontsynonym
F paths F widthline F zeroline  The zeroline	F maxbounds		F goodies
F paths F widthline F zeroline  The zeroline	F output		F mathfallback
mp table F registerfallback  mp table F registerfiles  D cache B inline N version  names data table protrusions data table F afm F check_lua F check_tfm F opentype F off F opentype F off F opentype F off F type F off F type F type F type F type F type F type F typescript F typescript F typescript F contextnumber F check_tfm F opentype F off F opentype F off F opentype F off F typescript F presetcontext F pfb F opentype F typescript F presetcontext F pfb F opentype F definecontext F f tr F presetcontext F tr F tr F tr F showcontext F tr F t			D methods
## F zeroline    Mathematical English			D presets
D cache B inline N version  names data table protrusions data table F typescript protrusions  F afm F check_lua F check_tfm F opentype F off F opentype F off F ttc F stf D sequence F ttf F ttc F ttf F ttc F ttf F ttc F ttf F woff F twellar F was alle F twellar F twellar F twellar F twellar F twellar F contextnumber F definecontext F pwoff F treeserveid F tunction Symbols F checked F checked F checked F temoji D alternatives F bodyfont D data  F resolved F resolved F resolved F resolved F resolved F uselibrary	F zeroline		F registerfallback
B inline N version  N version  Resident and the protrusions data table  Frame table Frame	mp	table	F registerfiles
N version  names data table  nulldata data table  protrusions data table  F typescript  protrusions  readers table  F afm  F check_lua  F check_tfm  F check_tfm  F opentype  F off  F opentype  F off  F off  F off  F opentype  F thef  F thef  D sequence  F tfm  F theck	D cache		F registerfontalternative
namesdata tableF typefacenulldatadata tableF typescriptprotrusionsdata tableF userdatareaderstablespecifierstableF afmD contextmergedF check_luaF contextnumberF check_tfmD contextsetupsF luaD contextsetupsF ofmF contextostringF opentypeF definecontextF otfF mergecontextF pfbF presetcontextD sequenceF registercontextF tfmF showcontextF ttcF splitcontextF ttfD synonymsF woffD variantsreserveidfunctionsymbolsselecttableD alternativesF checkedF bodyfontF resolvedD dataF uselibrary	B inline		F registerfontfamily
nulldata       data table       F typescript         protrusions       data table       F userdata         readers       table       specifiers       table         F afm       D contextmerged       F contextnumber         F check_lua       F contextnumbers       D contextsetups         F lua       D contextsetups       F contexttostring         F ofm       F contexttostring       F definecontext         F off       F mergecontext       F presetcontext         F pfb       F presetcontext       F registercontext         F tfm       F showcontext       F showcontext         F ttf       D synonyms       D variants         reserveid       function       symbols       table         Select       table       T emoji       F checked         F bodyfont       F resolved       F resolved         D data       F uselibrary	N version		F textfallback
protrusions     data table     F userdata       readers     table     specifiers     table       F afm     D contextmerged       F check_lua     F contextnumber       F check_tfm     D contextnumbers       F lua     D contextsetups       F ofm     F contexttostring       F opentype     F definecontext       F off     F mergecontext       F pfb     F presetcontext       D sequence     F registercontext       F tfm     F showcontext       F ttc     F splitcontext       F ttf     D synonyms       F woff     D variants       reserveid     function     symbols     table       T emoji     F checked       F bodyfont     F resolved       D data     F uselibrary	names	data table	F typeface
readers     table     specifiers     table       F afm     D contextmerged       F check_lua     F contextnumber       F check_tfm     D contextnumbers       F lua     D contextsetups       F ofm     F contexttostring       F opentype     F definecontext       F otf     F mergecontext       F pfb     F presetcontext       D sequence     F registercontext       F tfm     F showcontext       F ttc     F splitcontext       F ttf     D synonyms       F woff     D variants       reserveid     function     symbols     table       select     table     T emoji       D alternatives     F checked       F bodyfont     F resolved       D data     F uselibrary	nulldata	data table	F typescript
F afm F check_lua F check_lua F check_tfm D contextnumber F check_tfm D contextnumbers F lua D contextsetups F ofm F contexttostring F opentype F definecontext F otf F mergecontext F pfb F presetcontext D sequence F tfm F showcontext F ttc F ttc F ttc F ttc F splitcontext F ttf D synonyms F woff D variants  reserveid function select D alternatives F bodyfont F resolved F resolved F resolved F uselibrary	protrusions	data table	F userdata
F check_lua	readers	table	<pre>specifiers table</pre>
F check_tfm  F lua  D contextnumbers  F lua  D contextsetups  F ofm  F contexttostring  F opentype  F definecontext  F otf  F mergecontext  F pfb  F presetcontext  D sequence  F tfm  F showcontext  F ttc  F splitcontext  F ttc  F splitcontext  F ttf  D synonyms  F woff  D variants  reserveid function symbols table  select table  T emoji  D alternatives  F bodyfont  D data  F uselibrary	Fafm		D contextmerged
F lua D contextsetups F ofm F context tostring F opentype F definecontext F otf F mergecontext F pfb F presetcontext D sequence F register context F tfm F show context F ttc F split context F ttf D synonyms F woff D variants  reserveid function symbols table select table T emoji D alternatives F bodyfont F resolved D data F uselibrary	F check_lua		F contextnumber
F ofm F contexttostring F opentype F definecontext F otf F mergecontext F pfb F presetcontext  D sequence F registercontext F tfm F showcontext F ttc F splitcontext F ttf D synonyms F woff D variants  reserveid function symbols table  select table T emoji D alternatives F checked F bodyfont F resolved D data F uselibrary	F check_tfm		D contextnumbers
F opentype F otf F otf F otf F pfb F presetcontext  D sequence F tfm F showcontext  F ttc F ttc F splitcontext  F ttf D synonyms F woff D variants  reserveid function symbols table  select table T emoji D alternatives F bodyfont F uselibrary	F lua		D contextsetups
F otf F pfb F presetcontext  D sequence F tfm F showcontext F ttc F ttc F splitcontext  F ttf D synonyms F woff D variants  reserveid function symbols table  select table T emoji D alternatives F bodyfont F resolved D data F uselibrary	F ofm		F contexttostring
F pfb F presetcontext  D sequence F registercontext  F tfm F showcontext  F ttc F splitcontext  F ttf D synonyms  F woff D variants  reserveid function symbols table  select table T emoji  D alternatives F checked  F bodyfont F resolved  D data F uselibrary	F opentype		F definecontext
D sequence F tfm F showcontext F ttc F ttc F splitcontext F ttf D synonyms F woff D variants  reserveid function select table T emoji D alternatives F bodyfont D data F uselibrary	F otf		F mergecontext
F tfm F showcontext F ttc F splitcontext F ttf D synonyms F woff D variants  reserveid function symbols table select table T emoji D alternatives F bodyfont F resolved D data F uselibrary	F pfb		F presetcontext
F ttc F splitcontext F ttf D synonyms F woff D variants  reserveid function symbols table select table T emoji D alternatives F bodyfont F resolved D data F uselibrary	D sequence		F registercontext
F ttf D synonyms F woff D variants  reserveid function symbols table select table T emoji D alternatives F bodyfont F resolved D data F uselibrary	F tfm		F showcontext
F woff D variants  reserveid function symbols table  select table T emoji  D alternatives F checked F bodyfont F resolved D data F uselibrary	F ttc		F splitcontext
reserveid     function     symbols     table       select     table     T emoji       D alternatives     F checked       F bodyfont     F resolved       D data     F uselibrary	F ttf		D synonyms
selecttableT emojiD alternativesF checkedF bodyfontF resolvedD dataF uselibrary	F woff		D variants
D alternatives F checked F bodyfont F resolved D data F uselibrary	reserveid	function	symbols table
F bodyfont F resolved D data F uselibrary	select	table	T emoji
D data F uselibrary	D alternatives		F checked
	F bodyfont		F resolved
table table	D data		F uselibrary
r default Lables Lable	F default		tables table

D data
F savefont

F saveoriginal

tracers table
treatments table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

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	node	function
check	function	ofindex	function
checksize	function	package	function
clone	function	print	function
сору	function	scan	function
fields	function	serialize	function
immediatewrite	function	tonode	function
${\it immediatewriteobject}$	function	totable	function
keys	function	types	function
new	function	write	function

#### interactions (context)

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

#### interfaces (context)

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

F define

F list

writestatus

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

Fn		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)

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

T enablers
B enables
F found

F load

T methods

N threshold

### layouts (context)

status table
 F isleftpage

F leftorrightpageaction

#### lfs (extra lua)

lock dir

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

overloaded function

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

### libraries (context)

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

extratex data table
functions data table
globals data table

### lmx (context)

color	function
convert	function
convertfile	function
convertstring	function
einject	function
eprint	function
escape	function
finalized	function
finject	function
fprint	function
get	function
getvariables	function
htmfile	function
html	table
Fa	
F td	
F th	
include	function
inherited	table
S color-backgro	ound-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	reportlines	function
categories	function	setformats	function
direct	function	setformatters	function
disable	function	setlogfile	function
enable	function	setmessenger	function
exporters	table	setprocessor	function
extendbanner	function	setprogram	function
finalactions	function	settarget	function
flush	function	settimedlog	function
help	function	settranslations	function
loggingerrors	function	show	function
messenger	function	show_close	function
new	function	show_load	function
newline	function	show_open	function
poptarget	function	simple	function
pushtarget	function	simpleline	function
registerfinalactions	function	simplelines	function
report	function	start_page_number	function
reportbanner	function	starterrorlogging	function
reported	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

## lpdf (context)

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

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

transparency transparencycode transparencygroups function
function
table

transparencyvalue unicode verbose function function function

B none

## lpeg (basic lua)

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

## ltn12 (extra lua)

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

# lua (basic tex)

bytecode	table	F loaded	
bytedata	data table	F required	
bytedone	table	F reset	
B page-cst		F resolvestring	
collectgarbage	function	F resolving	
delay	function	mask	string
finalize	function	messages	data table
firstbytecode	number	name	table
flush	function	newtable	function
flushdelayed	function	numbers	data table
${\tt get\_functions\_table}$	function	registercode	function
getbytecode	function	registeredcodes	function
getcalllevel	function	registerfinalizer	function
getluaname	function	registername	function
getstacktop	function	setbytecode	function
lastbytecode	number	setluaname	function
macros	table	startupfile	string
B enabled		version	string

#### luatex (context)

F collect

F disable

cleanuptempfiles function currentfile function registerdumpactions function registerpageactions function registerstartactions function registerstopactions function registertempfile function starttime number synctex table F blockfilename

F enable

F finish

## lxml (context)

		63	
addindex	function	flush	function
all	function	flushlinewise	function
applyfunction	function	flushsetups	function
applyselectors	function	flushspacewise	function
att	function	get_id	function
attribute	function	getid	function
badinclusions	function	getindex	function
chainattribute	function	id	function
checkindex	function	idsplitter	userdata
collected	function	include	function
command	function	inclusion	function
concat	function	inclusions	function
concatrange	function	index	function
content	function	inlineverbatim	function
context	function	installsetup	function
convert	function	last	function
count	function	lastatt	function
delete	function	lastmatch	function
direct	function	lastpar	function
directives	table	load	function
F after		loadbuffer	function
F before		loaddata	function
F handle		loaded	table
F load		main	function
F setup		match	function
displayverbatim	function	name	function
doif	function	namespace	function
doifelse	function	nonspace	function
doifelseempty	function	par	function
doifelsetext	function	param	function
doifempty	function	parameter	function
doifnot	function	path	function
doifnotempty	function	popmatch	function
doifnottext	function	pos	function
doiftext	function	position	function
element	function	pure	function
elements	function	pushmatch	function
entities	data table	raw	function
filter	function	rawroot	function
filterlist	function	rawtex	function
first	function	refatt	function

register	function	F compare	
registerentity	function	F flush	
removesetup	function	F reset	
resetcdata	function	F show	
resetsetups	function	F sort	
resolvedentity	function	splitid	function
root	function	startraw	function
save	function	startunescaped	function
serialize	function	stopraw	function
setaction	function	stopunescaped	function
setatt	function	store	function
setattribute	function	strip	function
setcdata	function	stripped	function
${\tt setcommandtonone}$	function	tag	function
${\tt setcommand to text}$	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	mayintagan	number
		maxinteger	
acos	function	min	function
asin	function	mininteger	number
atan	function	mod	function
atan2	function	modf	function
ceil	function	odd	function
ceiling	function	pi	number
cos	function	pow	function
cosd	function	rad	function
cosh	function	random	overloaded function
deg	function	randomseed	function
div	function	round	function
even	function	setrandomseedi	function
exp	function	sin	function
floor	function	sind	function
fmod	function	sinh	function
frexp	function	sqrt	function
huge	number	tan	function
initialseed	number	tand	function
ldexp	function	tanh	function
log	function	tointeger	function
log10	function	type	function
max	function	ult	function

## mathematics (context)

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

#### md5 (extra lua)

HEX	function
crypt	function
dec	function
decrypt	function
exor	function

hex function
sum function
sumHEXA overloaded function
sumhexa overloaded function

# metapost (context)

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

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

## mime (extra lua)

b64	function	qp	function
decode	function	qpwrp	function
decodet	table	stuff	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	OverlayLineWidth	function
BottomHeight	function	OverlayOffset	function
BottomSpace	function	OverlayWidth	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	SubPageNumber	function
LayoutColumnWidth	function	TextHeight	function
LayoutColumns	function	TextWidth	function
LeftEdgeDistance	function	TopDistance	function
LeftEdgeWidth	function	TopHeight	function
LeftMarginDistance	function	TopSkip	function
LeftMarginWidth	function	TopSpace	function
LineHeight	function	VSize	function
MakeupHeight	function	_f_	function
MakeupWidth	function	_get_count_	function
NOfColumns	function	_get_dimen_	function
NOfPages	function	_get_macro_	function
N0fSubPages	function	_get_toks_	function
OnOddPage	function	_set_count_	function
OnRightPage .	function	_set_dimen_	function
OuterEdgeDistance	function	_set_macro_	function
OuterEdgeWidth	function	_set_toks_	function
OuterMarginDistance	function	aux	table

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

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

#### mplib (extra tex)

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

F mpstemplate

finish function
get\_boolean function

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

new overloaded function

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

## noads (context)

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		proc	ess	function
F families		proc	essnested	function
F fixscripts		proc	essors	table
F italics		F	mlist_to_hlis	t
F kernpairs		Т	unscript	
F makeup		proc	essouter	function

#### node (basic tex)

F getheight

check discretionaries function F getid check discretionary function F getkern copy function F getlang copy list function F getleader function count F aetlist function current attr F getnext dimensions function F getnucleus direct table F aetoffsets F check discretionaries F getpenalty F check discretionary F getprev F copy F getproperty F copy list F getshift F getsub F count F current attr F getsubtype F dimensions F aetsup F effective glue F aetwhd F end\_of\_math F getwidth F find attribute F has attribute F has field F first glyph F flatten discretionaries F has glyph F flush list F hpack F flush node F insert\_after F insert before F flush properties table F is char F free F get attribute F is direct F get\_properties\_table F is glyph F get\_synctex\_fields F is node F getattributelist F is\_zero\_glue F aetboth F kernina F getbox F last node F getchar F length F ligaturing F getcomponents F getdepth F new F prepend\_prevdepth F getdir F getdirection F protect\_glyph F getdisc F protect\_glyphs F getfam F protrusion skippable F getfield F rangedimensions F remove F getfont F getglue F set attribute

F set\_properties\_mode

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

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

## nodes (context)

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

F accessibility		insert_list_after	function
F backgrounds		installattributehandler	
F backgroundspage		is char	function
F backgroundsvbox		is direct	function
F characters		is_display_math	function
F checkforleaks		is_glyph	function
F checkglyphs		is mirrored	data table
F cleanupbox		is node	function
F cleanuppage		is_nut	function
F export		is_rotated	data table
F finalizebox		is_zero_glue	function
F flatten		ischar	function
F flattenline		isglyph	function
F migrate		kerncodes	data table
F protectglyphs		kerning	function
F stripping		keys	table
F textbackgrounds		T whatsit	
F unprotectglyphs		last node	function
has attribute	function	_ leadercodes	data table
has field	function	leftmarginwidth	function
has_glyph	function	length	function
hpack	function	ligaturing	function
idstostring	function	linefillers	table
ignorablefields	data table	D data	
injections	table	F define	
F copy		F enable	
F getligaindex		F filler	
F getthreshold		F handler	
F handler		lines	table
F installgetspaceboth		T boxed	
F installnewkern		F register	
F isspace		F setup	
F keepcounts		F stage_one	
F reset		F stage_two	
F resetcounts		D data	
F setcursive		F finalize	
F setkern		F number	
F setligaindex		N scratchbox	
F setmark		link	function
F setmove		linked	function
F setposition		list	function
F setspacekerns		listablefields	data table
insert_after	function	listcodes	data table
insert_before	function	listtoutf	function

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

F getprop F direction F getshift F disc F getsub F emptyrule F fence F getsubtype F getsup F fontkern F fraction F getsurround F aetwhd F alue F aetwidth F gluespec F has attribute F glyph F has field F hlist F has glyph F italickern F kern F hpack F insert\_after F latelua F insert before F lateluafunction F insert\_list\_after F leader F leftmarginkern F is\_char F is\_direct F leftskip F lineskip F is display math F mathchar F is glyph F mathtextchar F is node F is nut F negatedglue F is\_zero\_glue F noad F ischar F outlinerule F isdone F pdfannotation F isglyph F pdfdestination F kerning F pdfdirectliteral F pdfliteral F last\_node F leftmarginwidth F pdforiginliteral F length F pdfpageliteral F pdfrawliteral F ligaturing F pdfrestore F link F linked F pdfsave F locate F pdfsetmatrix F mlist\_to\_hlist F penalty F nestedtracedslide F radical F new F register F rightmarginkern T pool F rightskip F accent F baselineskip F rule F boundary F shrink F choice F special F cleanup F stretch F subbox F delim

F submlist

F delimiter

F temp F setchar F textdir F setcomponents F usage F setdepth F userattributes F setdir T userids F setdirection N margins.inline F setdisc N property F setdiscretionary N splitters.one F setfam F setfield N splitters.two F userlist F setfont F userlua F setalue F usernumber F setheight F userrule F setkern F userstring F setland F usertokens F setlanguage F vlist F setleader F wordboundary F setlink F setlist F prepend F setnext F processranges F processwords F setnucleus F protect glyph F setoffsets F protect\_glyphs F setpenalty F protrusion\_skippable F setprev F rangedimensions F setprop F rawprop F setshift F reference F setsplit F rehpack F setsub F remove F setsubtype F repackhlist F setsup F replace F setsurround F rightmarginwidth F setunsetattributes T rules F setvisual F userrule F setvisuals F set attribute F setwhd F setwidth F set\_components F set synctex fields F slide F setattr F somepenalty F setattribute F somespace F setattributelist F splitbox F setattributes F striprange F setattrlist F tail F setboth F take\_components

F takeattr

F takebox

F setbox

F setboxglue

F takelist F theprop F tonode F tonodes	packlist pardir_is_equal pardir_is_opposite pardir_is_parallel	function data table data table data table
F tonut	partextdir_is_equal	data table
F tosequence	pdfliteralvalues	data table
F tostring	penaltycodes	data table
F tracedslide	plugindata	table
F traverse	F finalizer	
F traverse_char	F initializer	
F traverse_glyph	S name	
F traverse_id	T namespace	
F traverse_list	N attribute	
T traversers	D data	
F boundary	F enable	
F char	F handler	
F disc	F register	
F glue	D registered	
F glyph	D values	
F hlist	F processor	
F list	points	function
F next	pool	table
F node	F baselineskip	
F vlist	F cleanup	
F whatsit	F glyph	
T typesetters	F hlist	
F tohbox	F kern	
F tohpack	F latelua	
F tonodes	F lineskip	
F tovbox	F pdfdirectliteral	
F tovpack	F pdforiginliteral	
F unprotect_glyph	F pdfrestore	
F unprotect_glyphs	F pdfsave	
F unset_attribute	F pdfsetmatrix	
F unsetattribute	F register	
F unsetattributes	F rule	
F untracedslide	F special	
F use_components	F usage	
F usedlist	F usernumber	
F uses_font	F vlist	
F vianodes	prepend	function
F vianuts	print	function
F vpack	processors	table
F write	F contribute_filter	

B enabled		save	function
		serialize	function
F hpack_filter		serialize serializebox	function
F post_linebreak_filter		set attribute	function
F pre_linebreak_filter F tracer		setattr	function
	table	setattribute	function
properties	table	setattributes	function
T actions		setboth	function
F delayed			
F fdelayed		setbox	function
F immediate		setboxtonaturalwd	function
Fattach		setfield	function
T data		setglue	function
F delayed		setlink	function
protect_glyph	function	setlist	function
protect_glyphs	function	setnext	function
protrusion_skippable	function	setprev	function
pts	function	setunsetattributes	function
radicalcodes	data table	setwhd	function
rangedimensions	function	shifts	table
reference	function	D data	
references	table	F define	
N attribute		F enable	
T done		F handler	
F handler		show	function
T stack		showboxes	function
rehpack	function	showcodes	function
remove	function	showlist	function
repackhlist	function	showsimplelist	function
replace	function	skipcodes	data table
report	function	skipvalues	data table
rightmarginwidth	function	slide	function
rulecodes	data table	snapshots	table
rules	table	F getparameters	
D data		F getsamples	
F define		F resetsamples	
F enable		F takesample	
F handler		somepenalty	function
T ruleactions		somespace	function
F box		splitbox	function
F draw		stripdiscretionaries	function
F fill		stripping	table
F mp		T glyphs	
F stroke		F set	
F userrule		tail	function

takeattr	function	T characters	
takebox	function	F collect	
tasks	table	F equal	
F actions		F start	
F appendaction		F string	
F disableaction		F unicodes	
F disablegroup		T colors	
F enableaction		F reset	
F enablegroup		F set	
F freeze		F setlist	
F freezegroup		F fontchar	
F new		T frequencies	
F prependaction		F register	
F removeaction		T pool	
F replaceaction		T nodes	
F restart		F rule	
F setaction		T nuts	
F showactions		F rule	
F table		F resetproperties	
textdir_is_equal	data table	F rule	
textdir_is_is	data table	F setlist	
textdir_is_opposite	data table	F setproperties	
textdir_is_parallel	data table	F start	
tobasepoints	function	T steppers	
tocentimeters	function	F check	
tociceros	function	F codes	
todidots	function	F features	
todimen	function	F font	
toinches	function	F glyphs	
tomillimeters	function	F message	
tonewciceros	function	F messages	
tonewdidots	function	F nofsteps	
tonode	function	F register	
tonodes	function	F reset	
tonut	function	F start	
topicas	function	F stop	
topoints	function	F stop	
toscaledpoints	function	T transparencies	
tosequence	function	F reset	
tostring	function	F set	
totable	function	F setlist	
totree	function	traverse	function
toutf	function	traverse_char	function
tracers	table	traverse_glyph	function

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

function

unsetattributes

## 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 overloaded string poplibpath function popluapath function table preload pushlibpath function pushluapath function searchers table searchpath function

seeall

function

# pagebuilders (context)

F setarea

<b>columnsets</b> 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	mixedcolumns table
F noto	F cleanup
F prepareflush	F finalize
F put	F getlist
F registerarea	F getrest
F reset	F getsplit

F setsplit

# pdf (basic tex)

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

setrecompress	function	setxformattributes	function
setsuppressoptionalinfo	function	setxformmargin	function
setthreadmargin	function	setxformresources	function
settrailer	overloaded function	xformname	function
settrailerid	overloaded function	1	

# pdfe (context)

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

# pdfscanner (context)

scan function

# physics (context)

units table

F registerunit

D tables

## publications (context)

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

T sets	S pages	
T author	S volume	
T editionset	S version	
T virtual	D virtual	
T demo-a	T virtualfields	
S category	B authornum	
T extra	B authoryear	
T fields	B authoryears	
S author	B num	
S institution	B suffix	
S organization	datasets	table
S subtitle	detailed	table
S title	endnotes_to_btx	function
S year	enhancer	table
T optional	S arguments	
T required	T askip	
T sets	B dirty	
T author	T gskip	
T virtual	T kind	
T demo-b	T list	
S category	T system	
T extra	T order	
T fields	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

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

D sets F showtables D specials F showvariants typesetters table D types D virtuals F author function tags F string table function tracers usedataset usedentries function F showdatasetauthors writers table F showdatasetcompleteness F showdatasetfields F author

F showdatasetfields
F showentry
F showfields
F showhashedauthors

# regimes (context)

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

### resolvers (context)

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

locateformat function data table savers data table locators scandata function luacnffallback strina scanfiles function luacnfname table string schemes luacnfspec string T cleaners luacnfstate string F md5 table macros F none F convertfile F strip F decodecomment F cleanname F enablecomment F fetchstring F fetchtable F encodecomment F install F preprocessed setdvnamic function F processmk setenv function F processmkvi F version setmemstream function maxreadlevel number showpath function methodhandler function simplescanfiles function openbinfile function splitconfigurationpath function openers data table splitexpansions function openfile function splitmethod function opentexfile function splitpath function ownpath strina stackpath function starttiming popextrapath function 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

#### sha2 (context)

digest256 function
digest384 function

digest512 function

### sio (context)

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

### socket (extra lua)

BLOCKSIZE	number	S cc
DATAGRAMSIZE	number	S comments
DEBUG	boolean	S connection
SETSIZE	number	
SOCKETINVALID		S content-description 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-charse	et	S if-unmodified-since
S accept-encod:	ing	S in-reply-to
S accept-langua	age	S keywords
S accept-ranges	S	S last-attempt-date
S action		S last-modified
S age		S location
S allow		S max-forwards
S alternate-re	cipient	S message-id
S arrival-date		S mime-version
S authorization	n	S original-envelope-id
S bcc		S original-recipient
S cache-contro	l	S pragma

S provv	authenticate	F b64	
	authorization	F decode	
S range	autil0112at1011	T decodet	
S receiv	ad	F base64	
	ed-from-mta	F quoted-printa	ahla
S refere		F dot	ab te
S refere		F encode	
S remote		T encodet	
		F base64	
S reply-			.h1.a
S report		F quoted-print	abte
S resent		F eol	
S resent		F normalize	
S resent		F qp	
S resent		F qpwrp	
	-message-id	F stuff	
	-reply-to	F unb64	
S resent		F unqp	
S resent		F wrap	
S retry-		T wrapt	
S return		F base64	
S sender		F default	
S server		F quoted-printa	able
	emote-recipient	F text	
S status		F wrp	
S subjec	t	newtry	function
S te		protect	function
S to		select · ·	function
S traile		sink	function
	er-encoding	sinkt	table
S upgrad		F close-when-don	e
S user-a	gent	F default	
S vary		F http-chunked	
S via		F keep-open	
S warnin		skip	function
	etry-until	sleep	function
	thenticate	smtp	table
S x-mail		S DOMAIN	
http	table	N PORT	
N TIMEOUT	_	S SERVER	
S USERAGEN		N TIMEOUT	
F genericf	orm	S ZONE	
F open		F message	
F request	4-41-	F open	
mime	table	F send	

		_	
source	function	try	function
sourcet	table	udp	function
F by-length		udp4	function
F default		udp6	function
F http-chunked		url	table
F until-closed		F absolute	
tcp	function	F build	
tcp4	function	F build_path	
tcp6	function	F escape	
tp	table	F parse	
N TIMEOUT		F parse_path	
F connect		F unescape	

#### sorters (context)

basicsorter	function	B pm	
comparers	table	B uc	
F basic		B zc	
constants	table	B zm	
S defaultdigits		definitions	data table
S defaultlanguag	e	firstofsplit	function
S defaultmethod		packch	function
N digitsmaximum		packuc	function
N digitsoffset		replacementlist	function
N ignoredoffset		setlanguage	function
N replacementoff	set	sort	function
T validmethods		splitters	table
B ch		F utf	
B mc		strip	function
B mm		tracers	data table
Врс		update	function

### statistics (context)

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

### status (basic tex)

list function setexitcode function

resetmessages function

#### storage (context)

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

# streams (context)

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

# string (basic lua)

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

### structures (context)

	_		
atlocation	function	F 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 found
		F get
F postpone F resetpostponed		r get F filter
F restore		F filterdefault
F save		D filters
F setstate		D flaginternals
D states		F from
F store		D functions
pages	table	F get
F allmarked	table	F getcurrentmetadata
F analyze		F getcurrentprefixspec
D collected		F getinnermethod
F in_body		F getinternalcachedlistreference
F is_odd		F getinternallistreference
F mark		F getinternalreference
F marked		F getoutermethod
N nofpages		D handlers
Fnumber		F identify
F on right		F import
F save		Finject
D tobesaved		F injectcurrentset
F toranges		S innermethod
5		
references	table	D internals
references F analyze	table	D internals F load
	table	
F analyze	table	F load
F analyze F checkedfile	table	F load F loadpresets
F analyze F checkedfile F checkedfileorurl	table	F load F loadpresets F mark
F analyze F checkedfile F checkedfileorurl F checkedprogram	table	F load F loadpresets F mark S outermethod
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage	table	F load F loadpresets F mark S outermethod D pages
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter F currentmetadata	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter F currentmetadata F currentorder	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter F currentmetadata F currentorder D currentset	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedrealpage F checkedurl D collected U componentsplitter F currentmetadata F currentorder D currentset F define	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedural D collected U componentsplitter F currentmetadata F currentorder D currentset F define D defined	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedural D collected U componentsplitter F currentmetadata F currentorder D currentset F define D defined D derived	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedurl D collected U componentsplitter F currentmetadata F currentorder D currentset F define D defined D derived F enhance	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedurl D collected U componentsplitter F currentmetadata F currentset F define D defined D derived F enhance D executers	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F registerfinalizer
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedurl D collected U componentsplitter F currentmetadata F currentset F define D defined D derived F enhance D executers F expandcurrent	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F registerfinalizer F registerinitializer
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedurl D collected U componentsplitter F currentmetadata F currentorder D currentset F define D defined D derived F enhance D executers F expandcurrent F ceport	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referred F registerfinalizer F registerpage
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedurl D collected U componentsplitter F currentmetadata F currentorder D currentset F define D defined D derived F enhance D executers F expandcurrent F export T files	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F registerfinalizer F registerpage F reset
F analyze F checkedfile F checkedfileorurl F checkedprogram F checkedurl D collected U componentsplitter F currentmetadata F currentorder D currentset F define D defined D derived F enhance D executers F expandcurrent F export T files	table	F load F loadpresets F mark S outermethod D pages U prefixsplitter D productdata T programs T data F define F get F realpageofpage U referencesplitter D referred F referredpage F registerfinalizer F registerpage F reset

F setandgetattribute		F	filter	
F setcomponent		F	filtercollected	
F setinternalreferend	ce	F	finalize	
F setlinkmethod		F	findinternal	
F setnextinternal		F	flush	
F setnextorder		F	get	
F setreferencerealpag	ge	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		sect	ions	table
F special operation	1	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			getnumber	
F define			internalreference	
F found			levelmap	
F get			levels	
F untex			matchingtilldepth	
D usedinternals			numberatdepth	
D usedviews			numbers	
F valid	4-61-		popblock	
registers	table		prefixedconverted	
F analyze			pushblock 	
D collected			register	
F compare			registered	
F define			reportstructure	
F enhance			save	
F extend		Т	sectionblockdata	

T bodypart		F	sort	
S bookmark		F	synonym	
F set			tobesaved	
F setblock		tags		table
F setchecker		_	elementtag	
F setentry		F	finishexport	
F setinitialblock		F	getid	
F setlevel		F	getmetadata	
F setnumber		F	handler	
F showstructure		F	initializeexport	
F structuredata		D	labels	
F title		F	last	
D tobesaved		F	lastinchain	
F typesetnumber		F	locatedtag	
F userdata		Т	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			setfigure	
F store			setfloat	
D tobesaved			setformulacontent	
synonyms	table		sethighlight	
F analyzed			setitem	
D collected			setitemgroup	
F compare			setlist	
F define			setnotation	
F filter			setnotationsymbol	
F finalize F flush			setproperty	
F isshown			setregister setsorting	
F isused			setsynonym	
F meaning			settablecell	
F prepare			settabulatecell	
F process			settagdelimitedsymbol	
F register			settagsubsentencesymbo	L
F registershown			setupexport	
F registerused			setuserproperties	
F resetshown			specifications	
F resetused			start	

F strip

T usewithcare T images

D taglist

# table (basic lua)

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

# tex (basic tex)

	4-1-1-		f
attribute	table	getmathcodes	function
badness	function	getmuglue	function
box	table	getmuskip 	function
catcode	table	getnest	function
conditionals	data table	getpagestate	function
constants	data table	getsfcode	function
count	table	getskip	function
cprint	function	gettoks	function
ctdcatcodes	number	getuccode	function
ctxcatcodes	number	glue	table
definefont	function	hashtokens	function
delcode	table	ifs	data table
dimen	table	inicatcodes	number
directives	data table	init_rand	function
enableprimitives	function	isattribute	function
error	function	isbox	function
extraprimitives	function	iscount	overloaded function
finish	function	isdefined	function
fontidentifier	function	isdimen	overloaded function
fontname	function	isglue	function
force_synctex_line	function	ismuglue	function
force_synctex_tag	function	ismuskip	overloaded function
forcehmode	function	isskip	overloaded function
fprint	function	istoken	function
get	function	istoks	function
get_synctex_line	function	lccode	table
get_synctex_mode	function	linebreak	function
get_synctex_tag	function	lists	table
getattribute	function	lua_math_random	function
getbox	function	lua_math_randomseed	function
getboxresourcedimensions	function	luacatcodes	number
getcatcode	function	mathcode	table
getcount	function	modes	data table
getdelcode	function	muglue	table
getdelcodes	function	muskip	table
getdimen	function	nest	table
getglue	function	nilcatcodes	number
getlccode	function	normal_rand	function
getlist	function	notcatcodes	number
getmath	function	number	function
getmathcode	function	primitives	function

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

#### texconfig (basic tex)

kpse\_init boolean
max in open number

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

### texio (basic tex)

### token (basic tex)

biggest_char	function	new	function
command_id	function	put_next	function
commands	function	scan_argument	function
create	function	scan_code	function
expand	function	scan_csname	function
get_active	function	scan_dimen	function
get_cmdname	function	scan_float	function
get_command	function	scan_glue	function
get_csname	function	scan_int	function
get_expandable	function	scan_keyword	function
get_id	function	scan_keyword_cs	function
get_index	function	scan_real	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_char	function
get_tok	function	set_lua	function
is_defined	function	set_macro	function
is_token	function	type	function

#### tokens (context)

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

defined	function	F lxmlid	
egroup	userdata	F number	
getters	table	F real	
F box		F scanclose	
F count		F scanopen	
F dimen		F skip	
F glue		F string	
F macro		F table	
F meaning		F token	
F skip		F tokens	
F token		F toks	
hbox	userdata	F word	
isdefined	function	<b>setters</b> table	
istoken	function	F box	
letter	function	F char	
letters	function	F count	
new	function	F dimen	
other	function	F glue	
pickup	function	F lua	
presets	table	F macro	
T 1 string	1	F skip	
T 2 string	rs.	<b>shortcuts</b> table	
T 3 string	ys.	T bits	
T 4 string	ys.	N active	
T 5 string	ys.	N alignment	
T 6 string	ys.	N begingroup	
T 7 string	ys.	N character	
T 8 string	ys.	N close	
printlist	£	N comment	
scanners	function	N Comment	
	table	N endgroup	
F argument	table		
	table	N endgroup	
F argument	table	N endgroup N endofline	
F argument F boolean	table	N endgroup N endofline N escape	
F argument F boolean F code	table	N endgroup N endofline N escape N ignore	
F argument F boolean F code F conditio	table	N endgroup N endofline N escape N ignore N invalid	
F argument F boolean F code F condition	table	N endgroup N endofline N escape N ignore N invalid N letter	
F argument F boolean F code F conditio F count F csname	table : onal	N endgroup N endofline N escape N ignore N invalid N letter N mathshift	
F argument F boolean F code F conditio F count F csname F dimen	table : onal	N endgroup N endofline N escape N ignore N invalid N letter N mathshift N open	
F argument F boolean F code F conditio F count F csname F dimen F dimensio	table : onal	N endgroup N endofline N escape N ignore N invalid N letter N mathshift N open N other	
F argument F boolean F code F condition F count F csname F dimen F dimension	table : onal	N endgroup N endofline N escape N ignore N invalid N letter N mathshift N open N other	
F argument F boolean F code F conditio F count F csname F dimen F dimensio F float F glue	table : onal	N endgroup N endofline N escape N ignore N invalid N letter N mathshift N open N other N parameter N space	
F argument F boolean F code F condition F count F csname F dimen F dimension F float F glue F integer	table : onal	N endgroup N endofline N escape N ignore N invalid N letter N mathshift N open N other N parameter N space N subscript	

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

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

#### tracers (context)

count function
cs function
dimen function
knownlist function
lists table

T context
T internals

T scratch

name function

primitive function
printerror function
printwarning function
showlines function
strings table

S undefined

toks function
type function

### trackers (context)

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

# typesetters (context)

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

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

## unicode (extra lua)

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		tout	f32string	function
F gsub		utf8	3	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>jrapheme</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		F	len	
F gmatch		F	length	
F gsub		F	lower	
F len		F	magic	
F lower		F	match	
F match		F	remapper	
F rep		F	rep	
F reverse		F	replacer	
F sub		F	reverse	
F upper		F	split	
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	hashed	function
barepath	function	hasscheme	function
construct	function	query	function
decode	function	split	function
encode	function	toquery	function
escape	function	unescape	function
filename	function	unescapeget	function

## utf8 (context)

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

## utilities (context)

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

F hashed	B modern-condensed
F new	B modern-light-condensed
F pack	T modern-light,latin-modern-light-designsize,latin-mod
F simplehashed	B latin-modern-light
F strip	B latin-modern-light-designsize
F unpack	B modern-light
N version	T modern-mono, modern-base-mono
<b>parsers</b> table	B modern-base-mono
F add_settings_to_array	B modern-mono
F arguments_to_table	T modern-variable, latin-modern-variable-designsize, lat
F array_to_string	B latin-modern-variable
F csvsplitter	B latin-modern-variable-designsize
F getparameters	B modern-variable
F groupedsplitat	T modernvariable, modern-variable
F hash_to_string	B modern-variable
T hashes	B modernvariable
T settings_to_set	T modernvariablelight,modern-variable-light
T min,max,fit,broad,auto	B modern-variable-light
B auto	B modernvariablelight
B broad	T serif,sans,mono
B fit	B mono
B max	B sans
B min	B serif
T modern,latin-modern	T text,hidden,paper,page,leftpage,rightpage
B latin-modern	B hidden
B modern	B leftpage
T modern,latin-modern,modern-variable,latin-mode	ern-variable,mo <b>ddepang</b> econdensed,latin-modern-condensed
B latin-modern	B paper
B latin-modern-condensed	B rightpage
B latin-modern-variable	B text
B modern	F iterator
B modern-condensed	F keq_to_hash
B modern-variable	F listitem
T modern, latin-modern-designsize, latin-modern	F make_settings_to_hash_pattern
B latin-modern	F mergehashes
B latin-modern-designsize	F options_to_array
B modern	F options_to_hash
T modern, modern-base	T patterns
B modern	U settings_to_array
B modern-base	U settings_to_hash_a
T modern-condensed, latin-modern-condensed-design	rsize,latin Unox <del>detrtingson_deen_sheatshm_da</del> dern-light-condensed,latin-modern-l:
B latin-modern-condensed	U settings_to_hash_c
B latin-modern-condensed-designsize	U settings_to_hash_d
B latin-modern-light-condensed	U unittotex
· · · · · · · · · · · · · · · · · · ·	

F process_str	ripped_settings	F replaceaction	
F rfc4180spli	··· <del>-</del>	F setkind	
F runtime		F tostring	
F settings_to	o_array	setters	table
F settings_to	o_array_obey_fences	F disable	
F settings_to	o_array_with_repeat	F enable	
F settings_to	o_hash	F initialize	
F settings_to	o_hash_colon_too	F list	
F settings_to	o_hash_strict	F new	
F settings_to	o_hash_tolerant	F register	
F settings_to	o_numbers	F report	
F settings_to	o_set	F reset	
F simple_hash	n_to_string	F show	
F splitmethod	d	stacker	table
F splitthousa	ands	F new	
F stepper		storage	table
F stripped_se	ettings_to_array	F allocate	
F unittotex		F checked	
F unittoxml		F mark	
randomizer	table	F marked	
F get		F setinitializer	
F getnumber		F sparse	
			table
F getseed		streams	Lubic
F getseed F popseed		<b>streams</b> F close	tabte
			tabte
F popseed F pushseed F reuseseed		F close F getposition F look	tubte
F popseed F pushseed F reuseseed F setseed		F close F getposition F look F open	tubte
F popseed F pushseed F reuseseed F setseed F setseedi		F close F getposition F look F open F read2dot14	table
F popseed F pushseed F reuseseed F setseed F setseedi report	function	F close F getposition F look F open F read2dot14 F read2dot4	cabic
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers	table	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte	cabic
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction	table	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes	cabic
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup	table	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytetable	casec
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile	table	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytetable F readcardinal	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction	table on o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytestable F readcardinal F readcardinal	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F disablegroup	table on o ion up	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal2 F readcardinal2LE	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2LE F readcardinal3	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup D functions	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytetable F readcardinal F readcardinal F readcardinal2 F readcardinal2LE F readcardinal3	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup D functions F localize	table on o tion up on	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytestable F readcardinal F readcardinal1 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal3 F readcardinal4	
F popseed F pushseed F reuseseed F setseed F setseedi report sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enablegroup D functions F localize F new	table on o o o o o o o o o o o o o o o o o o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinal4	
F popseed F pushseed F reuseseed F setseed F setseedi  report  sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enableaction F enablegroup D functions F localize F new F nodeprocess	table on o o o o o o o o o o o o o o o o o o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinaltable F readcardinaltable	
F popseed F pushseed F reuseseed F setseed F setseedi  report  sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enableaction F enablegroup D functions F localize F new F nodeprocess F prependaction	table  on  o  ion  up  on  o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinaltable F readchar F readfixed2	
F popseed F pushseed F reuseseed F setseed F setseedi  report  sequencers F appendaction F appendgroup F compile F disableaction F enableaction F enableaction F enablegroup D functions F localize F new F nodeprocess	table on o o o o o o o o o o o o o o o o o o	F close F getposition F look F open F read2dot14 F read2dot4 F readbyte F readbytes F readbytes F readcardinal F readcardinal1 F readcardinal2 F readcardinal2 F readcardinal3 F readcardinal3 F readcardinal4 F readcardinal4 F readcardinaltable F readcardinaltable	

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

T striplinepatterns

U collapse

F resolve

# vf (context)

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

## visualizers (context)

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

## xml (context)

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

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

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

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

#### zip (extra lua)

archivestableopenarchivefunctionclosefunctionopenfilefunctionclosearchivefunctionregisteredfilestableopenoverloaded functiontypefunction

#### zlib (extra lua)

adler32 function
compress function
compressobj function
crc32 function

decompress
decompressobj function
version function