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 epdf experiments ffi figures file fio floats tom fonts functions global graphics gzip im interactions interfaces io job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 luatex lxml math mathematics md5 metapost mime moduledata modules mp mplib noads nodes number objects os package pagebuilders parametersets pdf pdfscanner physics publications regimes resolvers sandbox scripts set sio socket sorters statistics storage streams string structures table texconditionals texconfing texconstants texifs texisdefined texmodes texsystemmodes thirddata token 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	documentdata	table
INITEXMODE	boolean	dofile	function
LUAMAJORVERSION	number	done	boolean
LUAMINORVERSION	number	environment	table
LUATEXCOREVERSION	number	epdf	table
LUATEXENGINE	string	error	function
LUATEXFUNCTIONALITY	number	experiments	table
LUATEXVERSION	number	ffi	table
LUAVERSION	number	ffilib	function
MP	table	figures	table
_LUAVERSION	number	file	table
arg	table	fio	table
assert	function	floats	table
attributes	table	font	table
backends	table	fonts	table
bit32	table	frozen	boolean
blobs	table	functions	table
blockrequire	function	getmetatable	function
boolean	table	getpos	function
buffers	table	getvpos	function
builders	table	global	table
caches	table	<pre>grammar_parsed_text_one_nop</pre>	userdata
callback	table	<pre>grammar_parsed_text_one_yes</pre>	userdata
callbacks	table	<pre>grammar_parsed_text_two_nop</pre>	userdata
catcodes	table	<pre>grammar_parsed_text_two_yes</pre>	userdata
characters	table	grammar_unparsed_text_nop	userdata
checkimage	function	grammar_unparsed_text_yes	userdata
chemistry	table	graphics	table
collectgarbage	function	gregorian_to_jalali	function
commands	table	gzip	table
containers	table	img	table
context	function	inspect	function
converters	table	interactions	table
coroutine	table	interfaces	table
ctxrunner	table	io	table
debug	table	ipairs	function
dimen	function	jalali_to_gregorian	function
dir	table	job	table
dircodes	data table	lang	table
directives	table	languages	table
document	table	last	number

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

rawget

function typesetters

table

unicode	table	v	number
unpack	function	vf	table
url	table	visualizers	table
userdata	table	xml	table
utf	table	xpcall	function
utf8	table	zip	table
utilities	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	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 getbookmarks F boxresourcedimensions F getdefaultfieldvalue F getfieldcategory F registerboxresource F restoreboxresource F aetfieldset current strina F getformatoption defaults table F gethpos T codeiniections F getinfo F gethpos F getmatrix F getoutputfilename F getmatrix F getpos F getpos F aetypos F getpreviewfigure F hasmatrix F aetypos T nodeinjections F hasmatrix T registrations F insertrenderingwindow D tables F mergebookmarks included table F mergecomments B context F mergefields B date F mergereferences B id F mergeviewerlayers B metadata F prerollreference B pdf F presetsymbol install function F presetsymbollist nodeinjections table F processrendering F registerdocumentcloseaction F restore F save F registerdocumentopenaction F transform F registeredsymbol function nothing F registerpagecloseaction pdf table F registerpageopenaction T codeiniections F registersymbol F addbookmarks F setfieldcalculationset F analyzenormalsymbol F setfigurealternative F analyzesymbol F setfigurecolorspace F attachmentid F setfiguremask F clonefield F setformat F definefield F setformsmethod F definefieldset F setpagetransition F defineviewerlaver F setupcanvas F embedfile F setupidentity F enabletags F setxmpfile F exportformdata F startlaver

F startunicodetoactualtext

F startunicodetoactualtextdirect F negative F stoplayer F overprint F stopunicodetoactualtext F positive F reference F stopunicodetoactualtextdirect F supportedformats F rgbcolor F unicodetoactualtext F spotcolor F useviewerlaver F startlayer F validfield F startstackedlayer F validfieldcategory F stoplayer F validfieldset F stopstackedlayer S comment F transparency T nodeinjections F typesetfield F addtags T registrations F annotation F cmykindexcolor F attachfile F cmykspotcolor F changestackedlayer F getspotcolorreference F cmykcolor F grayindexcolor F comment F grayspotcolor F destination F rgbindexcolor F rgbspotcolor F effect F graycolor F spotcolorname F injectbitmap F transparency

F insertmovie T tables

F insertsound D vfspecials registrations F insertswf F insertu3d

tables table timestamp function F knockout

table

### bit32 (basic lua)

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

### blobs (context)

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

### boolean (context)

tocontext function
tonumber function

#### buffers (context)

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

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function
run function
undent function

### builders (context)

kernel	table	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

#### epdf (extra tex)

AttributeOwner\_Type function
Attribute\_Type function
Object\_Type function
StructElement\_Type function

open
openMemStream
type

overloaded function
function
function

#### experiments (context)

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

register function report function show function value function

#### figures (context)

F kevs

F new

applvratio function F node badname function F ofindex bases data table F package bitmapimage function F print boxnumber number F scan data table cachepaths F serialize check function F tonode checkers data table F totable converters data table F types current function F write defaultdepth number include function defaultheight number includers data table initialize defaultsearch hool ean function defaultwidth number loaded data table done function localpaths data table function data table dummv magics existers data table mergegoodies function exists function nofmissing number formats data table nofprocessed number found data table order data table data table function get paths data table aetinfo function patterns getpdfinfo function pop function getrealpage function preferguality hoolean data table function programs auess function hash function push identifiers data table registerpattern function identify function registerresource function registersuffix images table function resources data table F boxes scale function F check function F checksize set setlookups function F clone setmemstream function F copy setorder function F immediatewrite function F immediatewriteobject 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	readline	function
readcardinal2	function	recordfilename	function
readcardinal3	function	setposition	function
readcardinal4	function	skipposition	function
readfixed2	function		

### floats (context)

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

### font (basic tex)

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

## fonts (context)

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

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

F cff F getaxisscale F cff2 F getfactors F cffcheck F getscales F checkhash F gotodatatable F cmap F normalizedaxis T normalizedaxishash F colr F compact F readvariationdata F cpal F reportskippedtable F setvariabledata F ebdt F eblc F hhea F hmtx F ebsc F hvar F expand F extend F kern F fvar F loadfont F gdef F loadshapes F loca F getcomponents F getinfo F math F glyf F maxp F gpos F mvar F name T gposhandlers F chainedcontext F os/2 F context F pack F cursive F parsecharstrings F extension F post F marktobase F registerextender F marktoligature F rehash F marktomark F sbix F pair F stat F single T streamreader F qsub F close T qsubhandlers F getposition F alternate F getsize F chainedcontext F look F context F open F extension F read2dot14 F ligature F readbyte F multiple F readbytes F reversechainedcontextsingle F readbytetable F single F readcardinal F gvar F readcardinal1 F head F readcardinal2 T helpers F readcardinal2le F readcardinal3 F axistofactors F cleanname F readcardinal3le

5 1 11 14	5 16 1
F readcardinal4	F setfeatures
F readcardinal4le	T statistics
F readchar	D usedfeatures
F readfixed2	F storepdfdata
F readfixed4	T svg
F readinteger	F filterglyph
F readinteger1	F topdf
F readinteger2	D svgcache
F readinteger2le	B svgenabled
F readinteger3	T tables
F readinteger3le	D baselines
F readinteger4	D features
F readinteger4le	D featuretypes
F readsignedbyte	D languages
F readstring	D scripts
F readtag	N version
F setposition	T pfb
F size	F loadvector
F skip	T tfm
F skiplong	F addtounicode
F skipposition	D features
F skipshort	N maxnestingdepth
F writebyte	N maxnestingsize
F writecardinal2	F reencode
F writecardinal4	F setfeatures
F writestring	N version
F svg	T vf
N tableversion	T combinations
F unifymissing	F combine
F unpack	T combiner
F vhea	D commands
F vmtx	D helpers
F vorg	D math
F vvar	D predefined
F woff2otf	N version
F registerpalette	D whatever
F registerplugin	F hashfeatures
F reorderlookups	F hashinstance
T sbix	T hashmethods
F topdf	F normal
D sbixcache	F virtual
B sbixenabled	F initializefeatures
F scriptandlanguage	T keys
F setdynamics	T characters

T descriptions	S width	
T parameters	S embedding	
S ascender	S encodingbyt	es
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	;
S factor	S mode	
S hfactor	S name	
S mathsize	S noglyphname	es
S mode	S nostackmath	1
T protrusion	S psname	
S auto	S textitalics	;
S quad	S virtualized	I
S scaledpoints	D loadedfonts	
S scriptpercentage	S namemode	
S scriptscriptpercentage	N noffontsloaded	
S size	N nofsharedfonts	
S slantfactor	N nofsharedhashe	s
S slantperpoint	N nofsharedvecto	rs
T spacing	N privateoffset	
S extra	D privateslots	
S shrink	F readanddefine	
S stretch	F registerfeatur	e
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	
S effect	N version	
S factor	current	function
S hdelta	currentid	function
S hfactor	definers	table
S vfactor	F addlookup	

S wdelta

F analyze

F applypostproces F checkedmode F checkedscript F current S defaultlookup F define F getspecification F internal F loadfont		getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype	function table
F makespecificati	on	T substitution	
T methods		F opentype	
F install		goodies	table
D variants		D colorschemes	
F read		T data	
F register		T dejavu-math	
F registered		S author S comment	
F registersplit F resetnullfont		S copyright	
F resolve		B initialized	
T resolvers		T mathematics	
F file		T alternates	
F name		T dotless	
F spec		S comment	
definetypeface	function	S feature	
encodings	table	N value	
T agl		T kerns	
D ctxcodes		S name	
D extras		S version	
D names		T schola-math	
D synonyms		S author	
D unicodes		S comment	
D cache		S copyright	
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	2
enhanceid	function	N value	
expansions	data table	T kerns	
formats	data table	S name	
getalternate	function	S version	
getkern	function	D designsizes	
getmultiple	function	D filenames	

F getcomposition	-	E	checksteps	
T list	•		commands	
F load			descriptiontosl	0.
F prepare_feature			dimenfactor	ot .
F register			expandglyph	
F registerpostpro	cossor		extraprivates	
F report	JCE3301		fontpatternhass	170
T suffixes			getcoloredglyph	
handlers	table			5
hashes	table		getdigitwidth getinstancespec	
D characters	tabte			
D classes			getparameters getprivatecharo	rnodo
D csnames			getprivatecharo	Tilloue
D descriptions			getprivatenode	
D dynamics			getprivates	
D emwidths			hasprivate	
D exheights			indextoslot	
D extensibles			name	
D features			nametoslot	
D identifiers			prependcommands	
D italics			setdigitwidth	
D lastmathids			splitfontpatter	'n
D marks			tochar	
D modes			font	function
D originals			ators	table
D parameters		_	characters	
T processes			descriptions	
D properties			glyphs	
D quads		logg		table
D resources			add_placeholder	s
T setdynamics			category_to_pla	
T shapes			format	
D spaces		F	onetimemessage	
D spacings		F	register	
T streams			reportdefinedfo	nts
D unicodes		F	reportusedfeatu	res
D variants		mapp	ings	table
D xheights			addtounicode	
helpers	table	F	fromunicode16	
F addextraprivate	2	F	loadfile	
F addprivate		F	loadline	
F appendcommands		F	makenameparser	
F checkflags		D	overloads	
F checkmerge		F	reset	

E tounicodo		D. evet ros	
F tounicode		D extras	
F tounicode16		F fallback	
F tounicodel6sequ	table	D fallbacks	
metapost	table	F features	
F boundingbox		F filefallback F fontdata	
F boxtomp			
F draw		F fontfallback	
F fill		F fontsynonym	
F maxbounds		F goodies	
F output		F mathfallback	
F paths		D methods	
F widthline		D presets	
F zeroline		F registerfallback	
mp 	table	F registerfiles	
D cache		F registerfontalternat	ive
B inline		F registerfontfamily	
N version		F textfallback	
names	data table	F typeface	
nulldata	data table	F typescript	
protrusions	data table	F userdata	_
readers	table	<b>specifiers</b> tab	le
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	<b>symbols</b> tab	le
select	table	T emoji	
D alternatives		F checked	
F bodyfont		F resolved	
D data		F uselibrary	
F default		<b>tables</b> tab	le
D defaults		D data	
F definefallbackf	amily	F savefont	
F definefontfamil	y	F saveoriginal	
F definefontfamil	ypreset	<b>tracers</b> tab	le

D data F trace

S filename **typefaces** table

### functions (context)

**dummy** function

## graphics (context)

#### backgrounds table

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

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

## img (basic tex)

boxes	function	ofindex	function
check	function	package	function
checksize	function	print	function
clone	function	scan	function
сору	function	serialize	function
immediatewrite	function	tonode	function
immediatewriteobject	function	totable	function
keys	function	types	function
new	function	write	function
node	function		

#### interactions (context)

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

#### interfaces (context)

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

F define

data table data table

data table data table data table

F list

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

showmessage

translations

variables

writestatus

usednamespaces

strings

syntax

tolist

storedscanners

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

function

data table

data table

data table

function

function

function

#### io (basic lua)

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

loadchunk function
loaddata function
loadlines function
noflines function

open overloaded function
output overloaded function

pathseparator string

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

# job (context)

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

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

D tobesaved

number

version

F whd

F x

F width

## lang (basic tex)

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

## languages (context)

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

T enablers F load B enables T methods F found N threshold

#### layouts (context)

status table
 F isleftpage

F leftorrightpageaction

#### lfs (extra lua)

lock dir

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

overloaded function

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

#### libraries (context)

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

extratex data table
functions data table
globals data table

#### lmx (context)

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

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

initialize	function
inject	function
lmxfile	function

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

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

## logs (context)

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

## lpdf (context)

action	function	docstring	function
adddocumentcolorspace	function	epdf	table
adddocumentextgstate	function	F contenttotext	
adddocumentpattern	function	F expand	
adddocumentshade	function	F expanded	
addtocatalog	function	F getpagecontent	
addtoinfo	function	F getstructure	
addtonames	function	F load	
addtopageattributes	function	F unload	
addtopageresources	function	escaped	function
addtopagesattributes	function	finalizedocument	function
addxmpinfo	function	finalizepage	function
annotationspecification	function	finishtransparencycode	function
array	function	flags	table
boolean	function	T annotations	
border	function	N AutoView	
checkedkey	function	N Hidden	
checkedvalue	function	N Invisible	
circularshade	function	N Locked	
cmykcode	function	N LockedContents	
collectedresources	function	N NoRotate	
color	function	N NoView	
colorspace	function	N NoZoom	
colorspaceconstants	data table	N Print	
colorspec	function	N Printable	
colorvalue	function	N ReadOnly	
colorvalues -	function	N ToggleNoView	
compresslevel	function	N auto	
constant	function	N hidden	
copyarray	function	N printable	
copyboolean 	function	T widgets	
copyconstant	function	N Comb	
copydictionary	function	N CommitOnSelChange	
copyfloat	function	N DoNotScroll	
copyinteger	function	N DoNotSpellCheck	
copynumber	function function	N Edit	
copystring	function	N FileSelect	
copyunicode delayedobject	function	N MultiLine	
destinationspecification	function	N NoExport	
·	function	N NoToggleToOff	
dictionary	TUILCETOIL	N Password	

N PopUp		null	function
N PushButton		number	function
N Radio		objectcompresslevel	function
N RadiosInUnison		pagereference	function
N ReadOnly		patternstream	function
N Required		pdfcolor	function
N RichText		pdftimestamp	function
N Sort		permitdetail	function
N file		protectresources	boolean
N fixed		rectangle	function
N nocheck		reference	function
N protected		registerannotation	function
N readonly		registerdestination	function
N required		registerdocumentfinalizer	function
N sorted		registerpagefinalizer	function
N unavailable		registerpattern	function
flushobject	function	reserveobject	function
flushstreamfileobject	function	rgbcode	function
flushstreamobject	function	rotationcm	function
formats	data table	setcompression	function
frompdfdoc	function	setdates	function
fromsixteen	function	settime	function
getcompression	function	settrailerid	function
gethpos	function	setversion	function
getmatrix	function	shareobject	function
getmetadata	function	shareobjectreference	function
getpos	function	spotcode	function
getversion	function	stream	function
getvpos	function	string	function
graycode	function	toeight	function
hasmatrix	function	topdfdoc	function
id	function	tosixteen	function
injectxmpinfo	function	transform	function
insertxmpinfo	function	transparency	function
layerreference	function	transparencycode	function
limited	function	transparencygroups	table
linearshade	function	B none	_
majorversion	function	transparencyvalue	function
minorversion	function	unicode	function
nametree	function	verbose	function

## 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)

checkformat function getstatistics function checktexts function gettext function cm function graphic function collapse boolean graphic_base_pass function initializer function installplugin function	ction ction ction ction ction ction
checktexts function gettext function cm function graphic function collapse boolean graphic_base_pass function initializer function installplugin function	ction ction ction
cm function graphic function collapse boolean graphic_base_pass function initializescriptrunner function installplugin function	tion tion
collapsebooleangraphic_base_passfunctioncolorinitializerfunctioninitializescriptrunnerfunctioncommentfunctioninstallpluginfunction	ction
colorinitializer function initializescriptrunner function installplugin function	
comment function installplugin func	tion
<b>convert</b> function <b>instance</b> func	
	ction
defaultformat string intermediate tab	.e
defaultinstance string T actions	
defaultmethod string F makempy	
directrun function lastlog str	.ng
escaped function load func	ction
<b>exectime</b> table <b>makempy</b> tab	.e
extensiondata data table N nofconverted	
filterclippath function F processgraphics	
<b>flush</b> function F registerfile	
<b>flushers</b> table <b>maketext</b> fund	ction
T pdf metafun tab	.e
F comment F interpolate	
F flushfigure F topath	
F startfigure <b>method</b> numb	er
F stopfigure mptopdf tab	.e
F textfigure F convertmpstopdf	
flushliteral function N nofconverted	
<b>flushnormalpath</b> function <b>n</b> number	er
<b>flushreset</b> function <b>nofscriptruns</b> func	ction
<b>fonts</b> table <b>nvformat</b> fund	ction
F define <b>optimize</b> boo	ean
T flusher parse fund	ction
F flushfigure pdfliterals fund	ction
F startfigure pluginactions fund	ction
F stopfigure popvariable fund	ction
N instances popvariables fund	ction
F process process fund	ction
format function processplugins func	ction
format_number function processspecial func	ction
<pre>format_string function properties tab</pre>	.e
formatnumber function pushvariable func	ction
	ction
getclippath function pushvariables func	

reducetogray	boolean	sxsy	function
reporterror	function	tex	table
reset	function	F get	
resetlastlog	function	F reset	
resetplugins	function	F set	
runscript	function	F setfrombuffer	
scripterror	function	texerrors	boolean
setextensions	function	texexp	function
setoutercolor	function	textextsdata	function
settext	function	theclippath	function
setvariable	function	tographic	function
showlog	boolean	totable	function
simple	function	unload	function
startgraphic	function	untagvariable	function
stopgraphic	function	variables	table
svformat	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	OuterMarginDistance	function
BaseLineSkip	function	OuterMarginWidth	function
BodyFontSize	function	OverlayDepth	function
BottomDistance	function	OverlayHeight	function
BottomHeight	function	OverlayLineWidth	function
BottomSpace	function	OverlayOffset	function
CurrentColumn	function	OverlayWidth	function
CurrentHeight	function	PageDepth	function
CurrentWidth	function	PageFraction	function
CutSpace	function	PageNumber	function
EmWidth	function	PageOffset	function
ExHeight	function	PaperBleed	function
FooterDistance	function	PaperHeight	function
FooterHeight	function	PaperWidth	function
HSize	function	PrintPaperHeight	function
HeaderDistance	function	PrintPaperWidth	function
HeaderHeight	function	RealPageNumber	function
InPageBody	function	RightEdgeDistance	function
InnerEdgeDistance	function	RightEdgeWidth	function
InnerEdgeWidth	function	RightMarginDistance	function
InnerMarginDistance	function	RightMarginWidth	function
InnerMarginWidth	function	SpineWidth	function
LastPageNumber	function	StrutDepth	function
LayoutColumnDistance	function	StrutHeight	function
LayoutColumnWidth	function	SubPageNumber	function
LayoutColumns	function	TextHeight	function
LeftEdgeDistance	function	TextWidth	function
LeftEdgeWidth	function	TopDistance	function
LeftMarginDistance	function	TopHeight	function
LeftMarginWidth	function	TopSkip	function
LineHeight	function	TopSpace	function
MakeupHeight	function	VSize	function
MakeupWidth	function	_f_	function
NOfColumns	function	_get_count_	function
NOfPages	function	_get_dimen_	function
NOfSubPages	function	_get_toks_	function
NamedColor	function	_set_count_	function
OnOddPage	function	_set_dimen_	function
OnRightPage	function	_set_toks_	function
OuterEdgeDistance	function	blob_add	function
OuterEdgeWidth	function	blob_dimensions	function

blob index	function	numeric	function
blob inject	function	pair	function
blob new	function	pairpoints	function
blob_raw_content	function	path	function
blob raw dimensions	function	pathpoints	function
blob_raw_reset	function	points	function
blob_raw_toutf	function	positionanchor	function
blob_raw_wipe	function	positionbox	function
blob_size	function	positioncurve	function
blob_width	function	positionpage	function
boolean	function	positionpath	function
dataset	function	positionpxy	function
datasets	table	positionregion	function
F load		positionwhd	function
defaultcolormodel	function	positionxy	function
dimension	function	prefix	function
disposehash	function	print	function
disposestore	function	processingmode	function
finish_saving_data	function	quadruple	function
format	function	quadruplepoints	function
formatted	function	quoted	function
fprint	function	report	function
fromstore	function	save_data	function
get	table	setcount	function
F boolean		setdimen	function
F number		settoks	function
F numeric		size	function
F string		start_saving_data	function
get_outline_text	function	stop_saving_data	function
getcount	function	systemmode	function
getdimen	function	tb_dimensions	function
gettoks	function	texstr	function
graphformat	function	texvar	function
inhash	function	tohash	function
integer	function	tostore	function
isarray	function	triplet	function
mode	function	tripletpoints	function
n	function	tt_dimensions	function
newhash	function	tt_initialize	function
newstore	function	vprint	function

#### mplib (extra tex)

fields function
finder function
finders table

F file
F mpstemplate

get\_boolean function
get\_number function

get\_numeric function
get\_string function

**new** overloaded function

pen\_info function
preprocessed function
version function

## noads (context)

handlers	table	F render	
F align		F resize	
F alternates		F showtree	
F autofences		F tags	
F classes		F unscript	
F collapse		F variants	
F domains		process	function
F families		processneste	<b>d</b> function
F fixscripts		processors	table
F italics		F mlist_to_h	list
F kernpairs		T unscript	
F makeup		processouter	function
F relocate			

#### 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 getdir F protect\_glyph F getdirection F protect\_glyphs F getdisc F protrusion\_skippable F getfam F rangedimensions F getfield F remove F getfont F set\_attribute F getglue F set properties mode

F set\_synctex\_fields

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

length	function	subtype	function
ligaturing	function	subtypes	function
mlist_to_hlist	function	tail	function
new	function	tostring	function
next	function	traverse	function
prev	function	traverse_char	function
protect_glyph	function	traverse_id	function
protect_glyphs	function	type	function
protrusion_skippable	function	types	function
rangedimensions	function	unprotect_glyph	function
remove	function	unprotect_glyphs	function
set_attribute	function	unset_attribute	function
set_properties_mode	function	usedlist	function
setfield	function	uses_font	function
setglue	function	values	function
setproperty	function	vpack	function
setwhd	function	whatsits	function
slide	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		flush	function
F save		flush_list	function
builders	table	flush_node	function
F buildpage_filter		free	function
F vpack_filter		fullhpack	function
check_discretionaries	function	getattr	function
codes	data table	getattribute	function
concat	function	getbox	function
сору	function	getchar	function
copy_list	function	getdisc	function
copy_node	function	getfield	function
count	function	getfont	function
countall	function	getglue	function
current_attr	function	getid	function
delete	function	getleader	function
destinations	table	getlist	function
N attribute		getnext	function
T done		getprev	function
F handler		getsubtype	function
T stack		getwhd	function
dimensionfields	data table	gluecodes	data table
dimensions	function	gluevalues	data table
<pre>dir_is_pop dir negation</pre>	data table data table	glyphcodes glyphdir_is_equal	data table data table
dir_negation dircodes	data table	glyphdir is opposite	data table
directioncodes	data table	glyphdir is orthogonal	data table
directioncodes	data table	handlers	table
dirvalues	data table	F accessibility	Cance
uli values	uata table	r accessibility	

F alignbackgrounds		is_char	function
F backgrounds		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 finalize		is_zero_glue	function
F flatten		ischar	function
F flattenline		isglyph	function
F migrate		kerncodes	data table
F protectglyphs		kerning	function
F stripping		keys	table
F textbackgrounds		T whatsit	
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
insert_list_after	function	literalvalues	data table
installattributehandler	function	load	function

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

F fontkern F getsubtype F getsup F fraction F getsurround F glue F getwhd F gluespec F getwidth F glyph F hlist F has attribute F has\_field F italickern F has glyph F kern F latelua F hpack F insert after F lateluafunction F leader F insert before F insert list after F leftmarginkern F is\_char F leftskip F is direct F lineskip F mathchar F is\_display\_math F is\_glyph F mathtextchar F is\_node F negatedglue F noad F is nut F pdfannotation F is zero glue F ischar F pdfdestination F isglyph F pdfdirectliteral F kerning F pdfliteral F last\_node F pdforiginliteral F leftmarginwidth F pdfpageliteral F length F pdfrawliteral F ligaturing F pdfrestore F link F pdfsave F linked F pdfsetmatrix F locate F penalty F mlist\_to\_hlist F radical F nestedtracedslide F register F new F rightmarginkern T pool F rightskip F accent F rule F baselineskip F shrink F boundary F special F stretch F choice F subbox F cleanup F delim F submlist F delimiter F temp F direction F textdir F disc F usage

F emptyrule F userattributes
F fence T userids

N margins.inline F setfam N property F setfield N splitters.one F setfont N splitters.two F setglue F userlist F setheight F userlua F setkern F usernumber F setland F userrule F setlanguage F setleader F userstring F usertokens F setlink F vlist F setlist F wordboundary F setnext F prepend F setnucleus F protect glyph F setoffsets F protect\_glyphs F setpenalty F protrusion\_skippable F setprev F rangedimensions F setprop F setshift F rawprop F reference F setsplit F setsub F rehpack F remove F setsubtype F repackhlist F setsup F replace F setsurround F rightmarginwidth F setunsetattributes F setvisual T rules F userrule F setvisuals F set\_attribute F setwhd F set components F setwidth F set synctex fields F slide F setattr F somepenalty F setattribute F somespace F setattributelist F splitbox F setattributes F tail F setattrlist F take components F setboth F takeattr F setbox F takebox F takelist F setboxglue F setchar F theprop F setcomponents F tonode F setdepth F tonodes F setdir F tonut F setdirection F tosequence F setdisc F tostring

F tracedslide

F setdiscretionary

F traverse		F baselineskip	
F traverse_char		F cleanup	
F traverse_id		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	
packlist	function	B enabled	
pardir_is_equal	data table	F hpack_filter	
pardir_is_opposite	data table	F post_linebreak_filter	
pardir_is_parallel	data table	F pre_linebreak_filter	
partextdir_is_equal	data table	F tracer	
pdfliteralvalues	data table	processranges	function
penaltycodes	data table	processwords	function
plugindata	table	properties	table
F finalizer		T actions	
F initializer		F delayed	
S name		F fdelayed	
T namespace		F immediate	
N attribute		F attach	
D data		T data	
F enable		F delayed	
F handler		protect_glyph	function
F register		protect_glyphs	function
D registered		protrusion_skippable	function
D values		pts	function
F processor		radicalcodes	data table
points	function	rangedimensions	function
pool	table	reference	function

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		striprange	function
save	function	tail	function
serialize	function	takeattr	function
serializebox	function	takebox	function
set_attribute	function	tasks	table
setattr	function	F actions	
setattribute	function	F appendaction	
setattributes	function	F disableaction	
setboth	function	F disablegroup	
setbox	function	F enableaction	
setboxtonaturalwd	function	F enablegroup	
setfield -	function	F freeze	
setglue	function	F freezegroup	
setlink	function	F new	
setlist	function	F prependaction	
setnext	function	F removeaction	
setprev	function	F replaceaction	
setunsetattributes	function	F restart	
setwhd	function	F setaction	
shifts	table	F showactions	
D data		F table	

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_id	function
T characters		typesetters	table
F collect		F hbox	
F equal		F hpack	
F start		F tohbox	
F string		F tohpack	
F unicodes		F tonodes	
T colors		F tovbox	
F reset		F tovpack	
F set		F vpack	
F setlist		unprotect_glyph	function
F fontchar		unprotect_glyphs	function
T frequencies		unset_attribute	function
F register		unsetattribute	function
T pool		unsetattributes	function
T nodes		usedlist	function
F rule		usercodes	data table
T nuts		vianodes	function
F rule		vianuts	function

F resetproperties

visualizebox

function

visualizers	table
F attribute	
T attributes	
F box	
F handler	
F markfonts	

F setfont

F setlayer F setruledglyph F setvisual

vpack function
whatcodes data table
whatsitcodes data table
write function

## number (context)

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

# objects (context)

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

## os (basic lua)

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)

columnacta table	- u ·
columnsets 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 setarea	F setsplit

# pdf (basic tex)

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

setxformresources xformname

function 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	
S comment	getfield	function	
S copyright	getfuzzy	function	
T fields	getindex	function	
S name	inspectors	data table	
T types	journals	table	
S author	F abbreviated		
S editor	F add		
S keywords	F expanded		
S number	F load		
S page	F save		

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

tracers table F author
F showdatasetauthors F string
F showdatasetcompleteness usedatase
F showdatasetfields usedentric

F showhields
F showhashedauthors
F showtables
F showvariants

**typesetters** table

usedatasetfunctionusedentriesfunctionwriterstable

F author
F keyword
F pagenumber
F range

# regimes (context)

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

## resolvers (context)

allprefixes	function	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	function	joinpath	function
findbinfile	function	knownvariables	function
findctxfile	function	load	function
finders	data table	loadbinfile	function
findfile	function	loaders	data table
findfiles	function	loadlualib	function
findgivenfile	function	loadtexfile	function
findgivenfiles	function	loadtime	function

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

function

resolve

## sandbox (context)

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

#### scripts (context)

#### autofontfeature table

F disable

F enable

F handler

N inter\_char\_half\_shrink\_factor

N inter\_char\_half\_stretch\_factor

N inter\_char\_hangul\_penalty

N inter\_char\_quarter\_shrink\_factor

N inter\_char\_quarter\_stretch\_factor

N inter\_char\_shrink\_factor

N inter\_char\_stretch\_factor

N inter\_word\_stretch\_factor

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

## set (context)

contains function
create function
tolist function

tonumber function
totable function

# sio (context)

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

# socket (extra lua)

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

S 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	abte
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	1	function
F default		udp(	5	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 defaultlanguage		firstofsplit	function
S defaultmethod		packch	function
N digitsmaximum		packuc	function
N digitsoffset		replacementlist	function
N ignoredoffset		setlanguage	function
N replacementoffs	et	sort	function
T validmethods		splitters	table
B ch		F utf	
B mc		strip	function
B mm		tracers	data table
В рс		update	function

## statistics (context)

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

## status (basic tex)

list function setexitcode function

resetmessages function

# storage (context)

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

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

## streams (context)

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

# string (basic lua)

autodouble	function		4
		quote	function
autosingle	function	quoted	function
booleanstring	function	rep	function
byte	function	replacenewlines	function
bytepairs	function	reverse	function
bytes	function	split	function
bytetable	function	splitlines 	function
char	function	splitup	function
characterpairs	function	strip	function
characters	function	sub	function
checkedsplit	function	tformat	function
collapsespaces	function	toHEX	function
containsws	function	toboolean	function
count	function	tobytes	function
dump	function	tocontext	function
escapedpattern	function	todec	function
explode	function	todimen	function
find	function	tohex	function
format	function	tonodes	function
formatter	function	topattern	function
formatters	function	totable	function
fullstrip	function	toutf	function
gmatch	function	tracedchar	function
gsub	function	tracedchars	table
is_boolean	function	unpack	function
is_empty	function	unquote	function
itself	function	unquoted	function
len	function	upper	function
limit	function	utfcharacter	function
longtostring	function	utfcharacters	function
lower	function	utflength	function
match	function	utfpadd	function
nospaces	function	utfpadding	function
nspaces	table	utfvalue	function
optionalquoted	function	utfvalues	function
pack	function	valid	function
packsize	function		
-			

## structures (context)

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

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

F save		F	resetused	
T sectionblockdata		F	sort	
T bodypart		F	synonym	
S bookmark		D	tobesaved	
F set		tags	<b>;</b>	table
F setblock		F	elementtag	
F setchecker		F	finishexport	
F setentry		F	getid	
F setinitialblock		F	getmetadata	
F setlevel		F	handler	
F setnumber		F	initializeexport	
F structuredata		D	labels	
F title		F	last	
D tobesaved		F	lastinchain	
F typesetnumber		F	locatedtag	
F userdata		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		setcombination	
D collected			setconstruct	
F retrieve			setfigure	
F store			setfloat	
D tobesaved			sethighlight	
synonyms	table		setitem	
F analyzed			setitemgroup	
D collected			setlist	
F compare			setnotation	
F define			setnotationsymbol	
F filter F finalize			setproperty	
F flush			setregister	
F isshown			setsorting	
F isused			setsynonym settablecell	
F meaning			settabulatecell	
F prepare			settagdelimitedsymbol	
F process			settagsubsentencesymbo	1
F register			setupexport	
F registershown			setuserproperties	
F registersnown			specifications	
F registeruseu F resetshown			start	
I LESECSHUWII		г	Jul L	

F stop 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)

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

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

#### texconfig (basic tex)

kpse\_init boolean
max in open number

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

## texio (basic tex)

closeinput function setescape function write function write\_nl function

## token (basic tex)

function	scan_argument	function
function	scan_code	function
function	scan_csname	function
function	scan_dimen	function
function	scan_glue	function
function	scan_int	function
function	scan_keyword	function
function	scan_keyword_cs	function
function	scan_string	function
function	scan_token	function
function	scan_toks	function
function	scan_word	function
function	set_char	function
function	set_macro	function
function	type	function
function		
	function	function         scan_code           function         scan_csname           function         scan_dimen           function         scan_int           function         scan_keyword           function         scan_keyword_cs           function         scan_string           function         scan_token           function         scan_word           function         set_char           function         set_macro           function         type

## tokens (context)

astable	function	defined	function
bgroup	userdata	egroup	userdata
bits	table	getters	table
N active		F box	
N alignme	ent	F count	
N begingr	oup	F dimen	
N charact	er	F glue	
N close		F macro	
N comment	:	F meaning	
N endgrou	ıp	F skip	
N endofli	.ne	F token	
N escape		hbox	userdata
N ignore		istoken	function
N invalid	I	letter	function
N letter		letters	function
N mathshi	.ft	other	function
N open		pickup	function
N other		printlist	function
N paramet	er	scanners	table
N space		F argument	
N subscri	.pt	F boolean	
N superso	ript	F code	
N whitesp	ace	F conditio	nal
collectors	<b>s</b> table	F count	
T data		F csname	
F default	words	F dimen	
F dowithw	vords	F dimensio	n
F flush		F glue	
F install	-	F integer	
F registe	er	F keyword	
T registe	ered	F keywordc	S
F show		F list	
F test		F lxmlid	
compile	function	F number	
constant	function	F scanclos	е
converters	<b>s</b> table	F scanopen	
S toboole	ean	F skip	
S todimen	ı	F string	
S toglue		F token	
S tonumbe	er	F tokens	
S tostrin	ig	F toks	

F word		E scankov	word
scantable	function	F scankey	
setters	table	F scankey	
	table	F scanlis	
F box		T scanner	
F char		Fargume	
F count		F boolea	an
F dimen		F code	
F glue		F condi	tional
F macro		F count	
F skip	+shl s	F csname	9
shortcuts	table	F dimen	
T bits		F dimens	510N
N active		F glue	
N alignme		Fintege	
N begingr		F keywo	
N charact	er	F keywo	rdcs
N close		F list	
N comment		F lxmli	
N endgrou		F numbe	
N endofli	ne	F scanc	lose
N escape		F scanor	oen
N ignore		F skip	
N invalid		F string	9
N letter		F token	
N mathshi	ft	F tokens	5
N open		F toks	
N other		F word	
N paramet	er	F scannum	ber
N space		F scanope	n
N subscri	pt	F scanstr	ing
N supersc	ript	F scanwor	d
N whitesp	ace	F toboole	an
N close		F todimen	
F inspect		T tokens	
N open		F astab	le
F report		U bgroup	)
F scanboole	an	T collec	ctors
F scanclose		F defa	ultwords
F scancode		F dowi	thwords
F scancondi	tional	F flus	h
F scancsnam	ne	Finst	all
F scandimen		F regi	ster
F scandimen	sion	F show	ı
F scaninteg	er	F test	

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

F dimen F glue vtop

userdata

#### tracers (context)

count function
cs function
dimen function
knownlist function
lists table

T context
T internals
T scratch

name function

primitive function
printerror function
printwarning function
showlines function
strings table

S undefined

toks function
type function

## trackers (context)

data	data table	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	
	table		
F handler		F installhandler	
F set	+-h1-	F processmath	
breakpoints	table	F set	
F define		F setcolor	
F handler		F setmath	
D mapping		F tomode	
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	
F set		F set_reflow_w	idth

## unicode (extra lua)

ascii	table	F len	
F byte		Flower	
F char		F match	
F dump		F rep	
F find		F reverse	
F format		F sub	
F gfind		F upper	
F gmatch		toutf32string	function
F gsub		utf8	table
F len		F byte	
F lower		F char	
F match		F characters	
F rep		F chrlen	
F reverse		F count	
F sub		F dump	
F upper		F filetype	
grapheme	table	F find	
F byte		F format	
F char		F gfind	
F dump		F gmatch	
F find		F gsub	
F format		F is_valid	
F gfind		F len	
F gmatch		F length	
F gsub		F lower	
F len		F magic	
F lower		F match	
F match		F remapper	
F rep		F rep	
F reverse		F replacer	
F sub		F reverse	
F upper		F split	
latin1	table	F splitlines	
F byte		F sub	
F char		F subtituter	
F dump		F tocodes	
F find		F toeight	
F format		F toentities	
F gfind		F tostring	
F gmatch		F totable	
F gsub		F upper	

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

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 sk	kiplong
F disable			kipposition
F enable			kipshort
F savestats		F wr	ritebyte
F showstats			ritecardinal2
F showtraceback			ritecardinal4
files	table		ritestring
F close		format	
F getposition			ormatcolumns
F getsize		F li	ist
F look		F st	tripzeros
F open		garbag	<b>gecollector</b> table
F read2dot14		F ch	neck
F readbyte		N cr	riterium
F readbytes			nabled
F readbytetable		lua	table
F readcardinal		B al	lwaysstripcode
F readcardinal1		F ch	neckmemory
F readcardinal2		F co	ompile
F readcardinal2le		Flo	padedluacode
F readcardinal3		F lo	padstring
F readcardinal3le		Flo	padstripped
F readcardinal4		N no	ofstrippedbytes
F readcardinal4le		N no	ofstrippedchunks
F readchar		F re	egisterfinalizer
F readfixed2		B st	tripcode
F readfixed4		T st	trippedchunks
F readinteger		F st	trippedloadstring
F readinteger1		T su	uffixes
F readinteger2		S	lua
F readinteger2le		S	luc
F readinteger3		S	lui
F readinteger3le		S	luj
F readinteger4		S	luv
F readinteger4le		S	tma
F readsignedbyte		S	tmc
F readstring		S	tua
F readtag		S	tuc
F setposition		packer	r <b>s</b> table
F size		F ha	ashed
F skip		F ne	èW

F pack	T modern-light,latin-modern-light-designsize,latin-mod
F simplehashed	B latin-modern-light
F strip	B latin-modern-light-designsize
F unpack	B modern-light
N version	T modern-mono, modern-base-mono
<b>parsers</b> table	B modern-base-mono
F add_settings_to_array	B modern-mono
F arguments_to_table	T modern-variable,latin-modern-variable-designsize,la
F array_to_string	B latin-modern-variable
F csvsplitter	B latin-modern-variable-designsize
F getparameters	B modern-variable
F groupedsplitat	T modernvariable,modern-variable
F hash_to_string	B modern-variable
T hashes	B modernvariable
T settings_to_set	T modernvariablelight,modern-variable-light
T min,max,fit,broad,auto	B modern-variable-light
B auto	B modernvariablelight
B broad	T serif,sans,mono
B fit	B mono
B max	B sans
B min	B serif
T modern,latin-modern	T text,hidden,paper,page,leftpage,rightpage
B latin-modern	B hidden
B modern	B leftpage
T modern,latin-modern,modern-variable,latin-moder	rn-variable,mddepangecondensed,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-designs	size, latin Umosobetrbinggsn_dbæn_sbæds/hm_dodern-light-condensed, latin-modern-li
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
B modern-condensed	F process_stripped_settings
B modern-light-condensed	F rfc4180splitter

F runtime		F tostring	
F settings_to_arr	ay	setters	table
F settings_to_arr		F disable	
F settings_to_arr	ay_with_repeat	F enable	
F settings_to_has	h	F initialize	
F settings_to_has	h_colon_too	F list	
F settings_to_has	h_strict	F new	
F settings_to_has	h_tolerant	F register	
F settings_to_num	bers	F report	
F settings_to_set		F reset	
F simple_hash_to_	string	F show	
F splitmethod		stacker	table
F splitthousands		F new	
F stepper		storage	table
F stripped_settin	gs_to_array	F allocate	
F unittotex		F checked	
F unittoxml		F mark	
randomizer	table	F marked	
F get		F setinitiali:	zer
F getnumber		F sparse	
F getseed		streams	table
F popseed		F close	
F pushseed		F getposition	
F reuseseed		F look	
F setseed		F open	
F setseedi		F read2dot14	
report	function	F read2dot4	
sequencers	table	F readbyte	
F appendaction		F readbytes	
F appendgroup		F readbytetab	Le
F compile		F readcardina	L
F disableaction		F readcardina	11
F disablegroup		F readcardina	L2
F enableaction		F readcardina	L2LE
F enablegroup		F readcardina	L3
D functions		F readcardina	l3le
F localize		F readcardina	L4
F new		F readchar	
F nodeprocessor		F readfixed2	
F prependaction		F readfixed4	
F prependgroup		F readinteger	
F removeaction		F readinteger	l
F replaceaction		F readinteger	2
F setkind		F readinteger	2le

F readinteger3 U prune and no empty F readinteger3le U retain F readinteger4 U retain and collapse F readinteger4le U retain and no empty F readsignedbyte F striplines F readstring F striplong F setposition F tabtospace F size T tracers tables table F skip F skipbytes F accesstable F definedtable F skiplong F definetable F skipshort strings table F encapsulate F collapsecrlf F insertaftervalue F insertbeforevalue T formatters F add F migratetable F new F removevalue F newcollector F replacevalue F newrepeater templates F load F nice T striplinepatterns F replace

U collapse

U prune and collapse

U prune

## vf (context)

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

## visualizers (context)

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

# xml (context)

addentitiesdoctype	function	F padding	
addspecialcode	function	F stylevalue	
after	function	F todimension	
all	function	defaulthandlers	table
applylpath	function	D file	tabte
applyselector	function	D parsedxml	
assign	function	D string	
attribute	function	D tex	
badinclusions	function	D texline	
before	function	D texpace	
body	function	D verbose	
builtinentities	table	defaultprotocol	string
B amp	tubto	delete	function
B apos		<del>delete_element</del>	<del>function</del>
B gt		despecialized	function
B lt		each	function
B quot		each element	function
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
collect_elements	<del>function</del>	F boolean	
collect_tags	function	F child	
collect_texts	function	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		inject_element	function
F xml		<u>inject_element_after</u>	function
T xml		<u>inject_element_before</u>	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

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

strip	function	toxml	function
strip_whitespace	<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 function
decompressobj function
version function