attributes backends <a href="https://bitalographics.ncbe/backends-bitalographics.com/">https://bitalographics.com/</a> buffers builders caches callbacks catcodes characters chemistry commands containers context converters coroutine ctxrunner debug dir directives document documentdata environment epdf experiments figures file floats fontloader fonts functions global graphics gzip img interactions interfaces io job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 luatex lxml math mathematics mbox md5 metapost mime moduledata modules mplib noads node nodes number os package pagebuilders parametersets pdfscanner physics profiler publications regimes resolvers scripts set socket sorters statistics **status** storage streams string structures table config texio thirddata token tokens tracers trackers typesetters unicode url userdata utilities vf visualizers xml zip zlib

# ConTEXt MkIV

# global (alias: \_G)

LUAVERSION	number	floats	table
MAJORVERSION	number	font	table
MINORVERSION	number	fontloader	table
arg	table	fonts	table
assert	function	format n	function
attributes	table	frozen	boolean
backends	table	functions	table
beginpage	function	getmetatable	function
bit32	table	getreadfilename	function
blobs	table	global	table
boolean	table	graphics	table
buffers	table	gzip	table
builders	table	imq	table
caches	table	inspect	function
callback	table	interactions	table
callbacks	table	interfaces	table
catcodes	table	io	table
characters	table	ipairs	function
chemistry	table	job	table
collectgarbage	function	lang	table
commands	table	languages	table
containers	table	layouts	table
context	function	lfs	table
converters	table	libraries	table
coroutine	table	lmx	table
ctxrunner	table	lmxconvert	function
debug	table	lmxnew	function
delta	number	load	function
dimen	function	loadfile	function
dir	table	loadstring	function
directives	table	logs	table
document	table	lp_fastpos_n	userdata
documentdata	table	lp_fastpos_p	userdata
dofile	function	lpdf	table
endpage	function	lpeg	table
environment	table	ltn12	table
epdf	table	lua	table
error	function	luatex	table
experiments	table	lxml	table
figures	table	math	table
file	table	mathematics	table

table setmetatable mbox md5 table socket metapost table sorters table statistics mime module function status moduledata table storage modules table streams mplib table string newline function stripmath next function structures noads table swialib node table table nodes table tex number table texconfig optionalrequire function texio table thirddata function toboolean outputpagestree package table token pagebuilders table tokens pairs function tonumber parametersets table tostrina pattern userdata trace characters traceback pcall function pdf table tracers pdfscanner table trackers physics table tvpe print function typesetters table unicode profiler protect function unpack publications table url rawequal function userdata function utf rawget utilities function rawlen rawset function visualizers regimes table report characters function xml require function xmlconvert resolve fences function xpcall resolvers table zip zlib scripts table select function table set setcharacteralign function setinspector function

function

table

function

function

function

function

function

function

boolean

table

function

function

function

function

## attributes (context)

<pre>colorintents table</pre>	F mpoptions	
N attribute	U none	
D data	F popset	
F enable	F processcolor	components
F handler	F pushset	
F register	F register	
D registered	D registered	
colors table	F registerspot	color
N attribute	F rgb	
F cmyk	F rgbtocmyk	
F cmyktogray	F rgbtogray	
F cmyktorgb	F rgbtohsv	
F colorcomponents	N selector	
B couple	F setlist	
D data	F setmodel	
N default	D sets	
F defineintermediatecolor	F spec	
F definemixcolor	F spot	
F definemultitonecolor	F spotcolornam	e
F defineprocesscolor	F spotcolorpar	ent
F definesimplegray	F spotcolorval	ıe
F definespotcolor	B supported	
F definetransparency	F transparency	components
F enable	B triggering	
F filter	F usecolors	
F forcedmodel	F value	
F forcesupport	D values	
F formatcolor	B weightgray	
F formatgray	define	function
F gray	effects	table
F graytohsv	N attribute	
F handler	D data	
F hsvtogray	F enable	
F hsvtorgb	F handler	
F iccprofile	F register	
F isblack	D registered	
N main	D values	
S model	handlers	table
D models	list	data table
F mpcolor	names	data table
F mpnamedcolor	negatives	table

N attribute
D data
F enable
F handler
F register

D registered

numbers data table
ofnode function
private function
showcurrent function

**states** table

F disabletriggering
F enabletriggering

F finalize

F initialize F process

F selective

F stacked F stacker

#### transparencies table

N attribute

D data

F enable

F forcesupport

F handler

U none

F register

D registered

B supported

B triggering

F value

D values

unsetvalue number
viewerlayers table

N attribute

D data

F define

F enable

F forcesupport

F handler

B hasorder

D listwise

F register

D registered

F resolve\_begin

F resolve\_end

F resolve\_step

D scopes

F setfeatures

F start

F stop

B supported

D values

#### backends (context)

F registerdocumentcloseaction

codeinjections table F registerdocumentopenaction F synchronizecolormodel F registeredsymbol current strina F registerpagecloseaction table defaults F registerpageopenaction T codeinjections F registersymbol T nodeiniections F setfieldcalculationset T registrations F setfigurealternative D tables F setfigurecolorspace install function F setfiguremask nodeinjections table F setformat F setformsmethod F restore F save F setpagetransition F transform F setupcanvas function nothina F setupidentity pdf table F setxmpfile T codeinjections F startlayer F addbookmarks F stoplayer F attachmentid F supportedformats F clonefield F useviewerlaver F definefield F validfield E definefieldset F validfieldcategory F defineviewerlaver F validfieldset F embedfile S comment F enabletags T nodeinjections F exportformdata F addtags F finalizepage F attachfile F finishreference F changestackedlayer F getdefaultfieldvalue F cmykcolor F getfieldcategory F comment F getfieldset F destination F getformatoption F effect F getoutputfilename F graycolor F getpreviewfigure F injectbitmap F insertrenderingwindow F insertmovie F mergereferences F insertsound F insertswf F mergeviewerlayers F prerollreference F insertu3d F knockout F presetsymbol F presetsymbollist F negative F processrendering F overprint

F positive

- F reference
- F rgbcolor
- F spotcolor
- F startlayer
- F startstackedlayer
- F stoplayer
- F stopstackedlayer
- F transparency
- F typesetfield
- T registrations
  - F cmykindexcolor
  - F cmykspotcolor
  - F getspotcolorreference
  - F grayindexcolor
  - F grayspotcolor
  - F rgbindexcolor
  - F rgbspotcolor
  - F spotcolorname
  - F transparency
- T tables
- D vfspecials

registrations table
tables table

## bit32 (basic lua)

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

# blobs (context)

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

## boolean (context)

tocontext function
tonumber function

#### buffers (context)

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

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function

#### builders (context)

#### kernel table F hyphenation F kernina F ligaturing F mlist\_to\_hlist paragraphs table T constructors N attribute F define F disable F enable F handler T methods F basic F default F oneline D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether T solutions T splitters F define F optimize T registered F reset F set F split F start F stop F tag vspacing table F analyze D categories F collapsevbox

T data

D map D skip D snapmethods F definesnapmethod B fixed F pagehandler F resetprevdepth F setmap F setskip F snapbox F tocategories F tocategory F vboxhandler

#### caches (context)

ask boolean base string collapsecontent function configfiles function function contentstate defaults table define function direct boolean force boolean **getfirstreadablefile** function getfirstreadablefile\_TEST\_ME\_FIRST function getreadablepaths function getwritablepath function hashed function is writable function loadcontent function loaddata function strina more relocate boolean savecontent function function savedata setfirstwritablefile function setluanames function tree string treehash function function usedpaths

#### callback (basic tex)

find function
list function

register overloaded function

#### callbacks (context)

freeze
known function
list data table
pop function
push function
register function
report function

#### catcodes (context)

#### characters (context)

activeoffset	number
adobename	function
bidi	data table
blockrange	function
blocks	data table
casemap	table
categories	data table
category	function
categorytags	data table
combined	data table
contextname	function
data	data table
decomposed	data table
define	function
description	function
descriptions	data table
directions	table
enccodes	data table
entities	data table
fallbacks	data table
filters	data table
fromnumber	function
fschars	data table
fscodes	data table
getrange	function
graphemes	data table
hangul	data table
initialize	function
is_character	data table
is_command	data table
is_letter	data table
is_mark 	data table
is_spacing	data table
lcchars	data table
lccode	function
lccodes	data table
lettered	function
lower	function
math	table
mathpairs minnene	data table
mirrors	table

otfscripts	data table
ranges	data table
registerentities	function
remap_hangul_syllabe	function
safechar	function
setcodes	function
shape	function
shaped	function
shchars	data table
shcodes	data table
showstring	function
specialchars	data table
specials	data table
subscripts	table
superscripts	table
synonyms	data table
tex	table
<b>.</b>	

D accentmapping
F defineaccents

F toutf

textclasses
tonumber
ucchars
uccode
uccodes
unicodechar
upper

table
function
data table
function
data table
function
function

#### chemistry (context)

component function define function definitions data table format string instance string molecule function moleculeparser userdata start function stop function number structures undefine function

## commands (context)

Alababatic	function	accianhuffor	function
Alphabetic Character	function	assignbuffer autofinishstructurelevels	function
Characters	function	autonextspace	function
MPc	function	autonextspace	function
MPd	function	autosetups	function
MPh	function	autosetups autostarttext	function
MPll	function	autostartiext	function
MPlr	function	averagecharwidth	function
MPls	function	bcolumn	function
MPn	function	boolcase	function
MPp	function	boxtostring	function
MPpardata	function	btxauthor	function
MPplus	function	btxcitevariant	function
MPpos	function	btxcollectlistentries	function
MPposset	function	btxdestination	function
MPr	function	btxdetail	function
MPrest	function	btxdoif	function
MPrs	function	btxdoifelse	function
MPul	function	btxdoifelselistentryplaced	function
MPur	function	btxdoifnot	function
MPw	function	btxfetchlistentries	function
MPx	function	btxfield	function
MPxy	function	btxflush	function
MPxywhd	function	btxflushlistentries	function
MPy	function	btxhandlecite	function
Romannumerals	function	btxhandlenocite	function
abjadnodotnumerals	function	btxlistvariant	function
abjadnumerals	function	btxreference	function
addbtxentry	function	btxregisterlistentry	function
addcounter	function	btxresolvelistreference	function
addlinklistelement	function	btxsetlistmethod	function
addreplacements	function	btxsingularorplural	function
addtojavascriptpreamble	function	buildtextaccent	function
addtolist	function	character	function
allinputpaths	function	characters	function
alphabetic	function	chardescription	function
analysefloatmethod	function	checkcharactersinfont	function
analyzelist	function	checkcountersetup	function
applytochars	function	checkedconversion	function
applytofirstcharacter	function	checkedpagefloat	function
applytowords	function	checktwopassdata	function

chemicalcomponent	function	definefont two	function
chineseallnumerals	function	_ definefontfamily	function
chinesecapnumerals	function	definefontfeature	function
chinesenumerals	function	definefontsolution	function
cleanfontname	function	defineinsertion	function
cleanupbox	function	defineintermediatecolor	function
cleanuplayers	function	definelabels	function
clonefield	function	definelanguage	function
collectfloat	function	definelinkedlist	function
collecthelp	function	definemarking	function
colorcomponents	function	definemetafont	function
concatcommalist	function	definemultitonecolor	function
consultfloat	function	definenote	function
convertbtxdatasettoxml	function	defineparallel	function
copyposition	function	defineparbuilder	function
cos	function	defineprocesscolor	function
cosd	function	defineprogram	function
countervalue	function	definereference	function
counttwopassdata	function	definesectionlevels	function
currentcomponent	function	defineselectfont	function
currentdate	function	definespotcolor	function
currentenvironment	function	definestructureblock	function
currentproduct	function	definestructureset	function
currentproject	function	definetransparency	function
currentreferencedefault	function	definetwopasslist	function
currentreferenceorder	function	defineviewerlayer	function
currentregime	function	defrostrandomseed	function
currentsectiontolist	function	digits	function
datasetvariable	function	disableautofontscript	function
dayname	function	disableparbuilder	function
defineattribute	function	disableregime	function
definebreakpoint	function	disablespellchecking	function
definebreakpoints	function	discardfromlist	function
definecharacterspacing	function	doanalyzeframedbox	function
definechemical	function	doif	function
defineconversion	function	doifblackelse	function
definecounter	function	doifcommonelse	function
definedviewerlayer	function	doifcounter	function
definefallbackfamily	function	doifdimenstringelse	function
definefield	function	doifdrawingblackelse	function
definefieldset	function	doifelse	function
definefilefallback	function	doifelsebuffer	function
definefilesynonym	function	doifelsecontinuewithfile	function
definefont_one	function	doifelsecounter	function

doifelsecurrentfonthasfeature	function	doreshapeframedbox	function
doifelseintwopassdata	function	dostarttextfile	function
doifelsemarking	function	dostoptextfile	function
doifelsemessage	function	ecolumn	function
doifelsemultipar	function	elapsedtime	function
doifelseparallel	function	enableautofontscript	function
doifelsepositionsused	function	enablecolor	function
doifelserangeonpage	function	enablecolorintents	function
doifelsereference	function	enablefontcolorschemes	function
doifelsesavedfloat	function	enableparbuilder	function
doifelsespaces	function	enableregime	function
doifelseutfmathabove	function	enablespellchecking	function
doifelseutfmathaccent	function	enabletransparency	function
doifelseutfmathbelow	function	enhancelinkedlist	function
doifelsevisualizer	function	enhancelist	function
doiffieldcategoryelse	function	enhancereference	function
doiffieldelse	function	erasebuffer	function
doiffieldsetelse	function	expandcurrentreference	function
doiffiledefinedelse	function	exportformdata	function
doiffileexistelse	function	exportreferences	function
doiffirstcharelse	function	extensiblecode	function
doifinputfileelse	function	feature	function
doifinsetelse	function	featureattribute	function
doifleapyearelse	function	featurelist	function
doiflisthasentry	function	feedback	function
doiflisthasnumberelse	function	fetchallmarks	function
doiflisthaspageelse	function	fetchmultipar	function
doiflisthastitleelse	function	fetchmultishape	function
doiflocfileelse	function	fetchonemark	function
doifnot	function	fetchposboxes	function
doifnotcounter	function	fetchtwomarks	function
doifnotecontent	function	figurefilename	function
doifnoteonsamepageasprevious	function	figurefilepath	function
doifobjectreferencefoundelse	function	figurefiletype	function
doifolderversionelse	function	figurerequest	function
doifoverlappingelse	function	figurestatus	function
doifparentfileelse	function	figureused	function
doifposition	function	figurevariable	function
doifpositionelse	function	filterdefaultreference	function
doifpositiononpage	function	filterreference	function
doifpositionsonsamepageelse	function	finalizebox	function
doifpositionsonthispageelse	function	findtwopassdata	function
doifurldefinedelse	function	firstcountervalue	function
doprocesstypescriptfile	function	firstinset	function

flushfloat	function	getprogram	function
flushnotes	function	getrandomcounta	function
flushpostponedblocks	function	getrandomcountb	function
flushpostponednotes	function	getrandomseed	function
fontchar	function	getreadfilename	function
fontcollectionclone	function	getsubstring	function
fontcollectiondefine	function	gettexbuffer	function
fontcollectionprepare	function	gettwopassdata	function
fontcollectionregister	function	gettwopassdatalist	function
fontcollectionreport	function	geturl	function
fontcollectionreset	function	grabbuffer	function
fontlookupgetkey	function	hboxtovbox	function
fontlookupgetkeyofindex	function	helpaction	function
fontlookupinitialize	function	helpreference	function
fontlookupnoffound	function	hexstringtonumber	function
forceendjob	function	horizontalcode	function
forcequitjob	function	hour	function
format	function	hyphenatedlist	function
formatcolor	function	hyphenatedurl	function
formatgray	function	D characters	
freezerandomseed	function	N lefthyphenmin	
from	function	D mapping	
getbidimode	function	N righthyphenmin	
getbuffer	function	F setcharacters	
getbufferctxlua	function	incrementedcounter	function
getbuffermkvi	function	initializetexdirectives	function
getcommandline	function	initializetextrackers	function
getctxfile	function	injectcurrentreference	function
getcurrentprefixspec	function	injectreference	function
getcurrentreferencemetadata	function	inlinechemical	function
getdefaultfieldvalue	function	insertattachment	function
getfieldcategory	function	insertcomment	function
getfirstcharacter	function	insertfield	function
getfirsttwopassdata	function	insertionnumber	function
getfloatvariable	function	insertrenderingwindow	function
getinternalreference	function	insertsoundclip	function
getlasttwopassdata	function	installedlanguages	function
getmarking	function	installtexdirective	function
getmessage	function	installtextracker	function
getmpextensions	function	languagenumber	function
getnotestate	function	lastcountervalue	function
getplaceholderchar	function	lchexnumber	function
getprivateattribute	function	lchexnumbers	function
getprivatechar	function	leapyear	function

linenumbersstageone	function	nextcountervalue	function
linenumbersstagetwo	function	nextparallel	function
listgroupindex	function	nofdays	function
listlabel	function	nofitems	function
listlocation	function	nofstackedfloats	function
listprefixednumber	function	notedeltapage	function
listprefixedpage	function	notelistindex	function
listrealpage	function	notenumberpage	function
listsize	function	noteprefixednumber	function
listtitle	function	notesymbolpage	function
listuserdata	function	notetitle	function
loadbtxdefinitionfile	function	ntimes	function
loadexamodes	function	number	function
loadfontgoodies	function	numbers	function
loadspellchecklist	function	objectnumber	function
loadtypescriptfile	function	objectpage	function
loadvisualizer	function	octnumber	function
locatefilepath	function	octstringtonumber	function
locfilename	function	ordinal	function
lower	function	overloadbookmark	function
makeactive	function	<pre>page_injections_flush_after</pre>	function
markfonts	function	<pre>page_injections_flush_before</pre>	function
markregionbox	function	<pre>page_injections_save</pre>	function
math_frac	function	pagestaterealpage	function
mathrenderset	function	parpos	function
maxitemwidth	function	pdfrotation	function
minute	function	pdfstartmatrix	function
mixcleanup	function	pdfstartmirroring	function
mixfinalize	function	pdfstartrotation	function
mixflushlist	function	pdfstartscaling	function
mixflushrest	function	pdfstopmatrix	function
mixgetsplit	function	pdfstopmirroring	function
mixsetsplit	function	pdfstoprotation	function
mixstate	function	pdfstopscaling	function
molecule	function	percentageof	function
month	function	pgfxcolorspec	function
monthmnem	function	placeparallel	function
monthname	function	popfloat	function
mpcolor	function	popitaliccorrection	function
mpoptions	function	poplist	function
mprunvar	function	popreferenceprefix	function
namedstructureuservariable	function	popregime	function
namedstructurevariable	function	popsectionblock	function
nbfs	function	pos	function

posplus	function	registerrendering	function
posstrut	function	registersoundclip	function
postponenotes	function	registerstructureprocessor	function
poswhd	function	registertransparency	function
posxy	function	registerunit	function
prepareMPvariable	function	relatemarking	function
preparedfile	function	remapentity	function
presetsymbollist	function	removemissingcharacters	function
presettabulate	function	renderingvar	function
prevcountervalue	function	replacemissingcharacters	function
processbuffer	function	replacepospxywhd	function
processcolorcomponents	function	resavefloat	function
processedfile	function	resetcharacteralign	function
processedfiles	function	resetcounter	function
processfile	function	resetfontfeature	function
processfilemany	function	resetfontsolution	function
processfilenone	function	resetmarking	function
processfileonce	function	resetmathattributes	function
processlist	function	resetmathitalics	function
processsplit	function	resetnullfont	function
pushfloat	function	resetparallel	function
pushitaliccorrection	function	resetprevdepth	function
pushlist	function	resetreference	function
pushreferenceprefix	function	resetstructureprocessor	function
pushregime	function	resettimer	function
pushsectionblock	function	restartcounter	function
rawcharacter	function	restorecounter	function
rawcountervalue	function	restorecurrentattributes	function
rawdate	function	restorenote	function
referencepagestate	function	romannumerals	function
referencerealpage	function	runbuffer	function
registerattachment	function	safechar	function
registerbookmark	function	savebuffer	function
registerbuttons	function	savecounter	function
registercolor	function	savecurrentattributes	function
registercolorintent	function	savedlistnumber	function
registeredviewerlayer	function	savedlistprefixednumber	function
registerhelp	function	savedlisttitle	function
registeritemgroup	function	savefloat	function
registerlanguagefeatures	function	savenote	function
registerlinenumbering	function	saveobject	function
registermaintextcolor	function	saveparallel	function
registernamespace	function	savestructureblock	function
registerpostponedblock	function	savetaggedtwopassdata	function

savetwopassdata	function	setmathattribute	function
second	function	setmathdirection	function
selectstructureblock	function	setmathitalics	function
setbreakpoints	function	setmathstyle	function
setbtxdataset	function	setnextinternalreference	function
setbtxentry	function	setnotestate	function
setcharacteralign	function	setnotesymbolpage	function
setcharactercasing	function	setobject	function
setcharactercleaning	function	setopendocumentaction	function
setcharacterkerning	function	setopenpageaction	function
setcharacterspacing	function	setowncounter	function
setcharacterstripping	function	setpagestate	function
setclosedocumentaction	function	setpagestaterealpageno	function
setclosepageaction	function	setpagetransition	function
setcolormodel	function	setparbuilder	function
setcounter	function	setpos	function
setdataset	function	setrandomseed	function
setdigitsmanipulation	function	setrealign	function
setdirection	function	setreferencearguments	function
setdocumentenvironments	function	setreferenceattribute	function
setdocumentfilenames	function	setreferenceoperation	function
setdocumentmodes	function	setreplacements	function
setdocumentmodules	function	setsectionblock	function
setfigurelookuporder	function	setstructureblockstate	function
setfirstline	function	settagcombination	function
setfontfeature	function	settagdescription	function
setfontofid	function	settagdescriptionsymbol	function
setfontsolution	function	settagfigure	function
setformat	function	settaghighlight	function
setformsmethod	function	settagitemgroup	function
setinitial	function	settagproperty	function
setinsertionlocation	function	settagsorting	function
setinterfaceconstant	function	settagsynonym	function
setinterfaceelement	function	settagtablecell	function
setinterfacemessage	function	settagtabulatecell	function
setinterfacemessages	function	setupbookmarks	function
setinterfacevariable	function	setupcanvas	function
setinternalreference	function	setupcharacterspacing	function
setlanguageexceptions	function	setupexport	function
setlanguagesynonym	function	setupfontexpansion	function
setlayer	function	setupfontprotrusion	function
setmarking	function	setupidentity	function
setmathalphabet	function	setupinsertion	function
setmathalternate	function	setupitaliccorrection	function

setuplinenumbering	function	stoptext	function
setvisual	function	stopviewerlayer	function
setxmpfile	function	storejavascriptcode	function
showassignerror	function	storejavascriptpreamble	function
showattributes	function	storenote	function
showbtxdatasetcompleteness	function	strdp	function
showbtxdatasetfields	function	strhd	function
showcallbacks	function	strht	function
showchardata	function	structureautocatcodedget	function
showcounter	function	structurecatcodedget	function
showfontparameters	function	structuregivencatcodedget	function
showhyphenatedinlist	function	structurenumber	function
showjustification	function	structuretitle	function
showmessage	function	structureuservariable	function
sin	function	structurevariable	function
sind	function	strwd	function
splitfilename	function	subcountervalues	function
spotcolorname	function	synchronizecolormodel	function
spotcolorparent	function	synchronizemarking	function
spotcolorvalue	function	taggedmathfunction	function
startchemical	function	tan	function
startcolorset	function	tand	function
startcomponent	function	testcase	function
startenvironment	function	textime	function
startfontsolution	function	thefirstcharacter	function
startparbuilder	function	theremainingcharacters	function
startproduct	function	thetexdefinition	function
startproject	function	transparencycomponents	function
startregime	function	triggereffect	function
startsectionlevel	function	triggernegative	function
starttag	function	truefilename	function
starttext	function	typebuffer	function
startviewerlayer	function	typefile	function
stopchemical	function	typestring	function
stopcolorset	function	uchexnumber	function
stopcomponent	function	uchexnumbers	function
stopenvironment	function	undefinechemical	function
stopfontsolution	function	unicodechar	function
stopparbuilder	function	unit	function
stopproduct	function	unloadlanguage	function
stopproject	function	upper	function
stopregime	function	useMPlibrary	function
stopsectionlevel	function	useanyfile	function
stoptag	function	usebtxdataset	function

usecldfile	function
usecolors	function
usecomponent	function
useenvironment	function
usefile	function
usejavascriptpreamble	function
usejavascriptscripts	function
uselibrary	function
useluafile	function
useluamodule	function
usemodules	function
usepath	function
useproduct	function
useproject	function
usesubpath	function
usesymbols	function
usetexfile	function
useurl	function
usexmlfile	function
usezipfile	function
utfchar	function
utfmathclass	function
utfmathcommand	function
utfmathcommandabove	function
utfmathcommandbelow	function
utfmathfiller	function
utfmathstretch	function
vboxlisttohbox	function
verbose	function
visual	function
vspacing	function
vspacingcollapse	function
vspacingdefine	function
vspacingsetamount	function
vspacingsnap	function
way	function
weekday	function
weekdayname	function
writestatus	function
x_table_c	function
x_table_cleanup	function
x_table_construct	function
x_table_create	function
x_table_flush	function

function
function

## containers (context)

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

#### converters (context)

Alphabetic	function	verbose	table
Character	function	D data	
Characters	function	F translate	
Romannumerals	function	weekday	function
abjadnodotnumerals	function	year	function
abjadnumerals	function		
alphabetic	function		
character	function		
characters	function		
chineseallnumerals	function		
chinesecapnumerals	function		
chinesenumerals	function		
chr	function		
chrs	function		
convert	function		
define	function		
hexstringtonumber	function		
hour	function		
isleapyear	function		
lchexnumber	function		
lchexnumbers	function		
leapyear	function		
maxchrs	function		
minute	function		
month	function		
nofdays	function		
number	function		
numbers	function		
octnumber	function		
octstringtonumber	function		
ordinal	function		
rawcharacter	function		
romannumerals	function		
second	function		
sequences	data table		
textime	function		
toabjad	function		
tochinese	function		
toroman	function		
uchexnumber	function		
uchexnumbers	function		

# coroutine (basic lua)

```
create function
resume function
running function
status function
wrap function
yield function
```

#### ctxrunner (context)

load function
prepfiles data table
resolve function

# debug (basic lua)

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

# dir (context)

collectpattern	function
current	function
expandname	function
found	function
glob	function
globfiles	function
globpattern	function
ls	function
makedirs	function
mkdirs	function
pop	function
push	function

#### directives (context)

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

#### document (context)

arguments
files
files
getargument
getfilename
options
data table
table
function
function
table

T commandline

D environments

D modes
D modules

T ctxfile

D environments

D modes

D modules

setargument function
setdefaultargument function
setfilename function
variables data table

#### environment (context)

argument function arguments data table **basicengines** data table currentrun number default texmfcnf strina data table engineflags filename strina files table data table filesynonyms function getargument homedir string initex boolean **initializearguments** function initializefilenames function inputfilebarename string inputfilename string **inputfilesuffix** strina iobfilename string **jobfilesuffix** string kindofrun number loadluafile function luafile function luafilechunk function maxnofruns number originalarguments data table outputfilename strina ownbin string ownmain string ownname string ownpath string data table rawarguments reconstructcommandline function relativepath function setargument function **splitarguments** function suffix string texfile function texmfos string texos string texroot string

truefilename validengines

function data table

## epdf (extra tex)

Array function
Dict function
Object function
PDFRectangle function
open function
type function

## experiments (context)

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

## figures (context)

applyratio function bases data table function bitmapimage boxnumber number cachepaths data table check function checkers data table data table converters function current defaultdepth number defaultheight number defaultsearch boolean defaultwidth number function done dummy function existers data table exists function formats data table found data table function get auess function hash function identifiers data table function identify include function includers data table initialize function loaded data table localpaths data table magics data table mergegoodies function nofprocessed number order data table paths data table patterns data table function pop preferquality boolean programs data table push function registerpattern function registerresource function

registersuffix resources scale setlookups setorder setpaths suffixes

used

function data table function function function function data table data table

# file (basic lua)

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

# floats (context)

analysemethod	function
${\tt checked page float}$	function
collect	function
consult	function
flush	function
getvariable	function
nofstacked	function
pop	function
push	function
resave	function
save	function
stacked	function

## font (basic tex)

current function define function each function fonts table frozen function getfont overloaded function id function

max function nextid function read\_tfm function read\_vf function setfont function

# fontloader (extra tex)

apply_afmfile	function
apply_featurefile	function
close	function
fields	function
fullinfo	function
info	function
open	function
to_table	function
totable	function

# fonts (context)

analyzers	table	F report
T features		F reset
N blwf		T vectors
N fina		constructors table
N half		F aftercopyingcharacters
N init		F applymanipulators
N isol		F assignmathparameters
N medi		B autocleanup
N pref		F beforecopyingcharacters
N pstf		D cache
N rphf		F calculatescale
D initializers		F checkedfeatures
D methods		F checkedfilename
F setstate		F checkvirtualids
T states		F cleanuptable
N blwf		F collectprocessors
N fina		D designsizes
N half		D dontembed
N init		F enhanceparameters
N isol		N factor
N mark		F finalize
N medi		F getfeatureaction
N pref		F hashfeatures
N pstf		F hashinstance
N rest		T hashmethods
N rphf		F normal
B useunicodemar	ks	F virtual
checkers	table	F initializefeatures
F getmissing		T keys
F missing		T character
cid	table	S depth
F getmap		S height
F loadfile		S italic
collections	table	S width
F checkenabled		T description
F clonevector		T boundingbox
F define		S depth
T definitions		S height
F prepare		S width
F process		T parameters
F registermain		S ascender

S descender	S encodingby	tes
S designsize	S filename	
T expansion	S finalized	
S auto	S fontname	
S shrink	S format	
S step	S fullname	
S stretch	S hasitalics	
S extendfactor	S hasmath	
S factor	S mathitalic	S
S hfactor	S mode	
S mathsize	S name	
T protrusion	S noglyphnam	es
S auto	S nostackmat	h
S quad	S psname	
S scaledpoints	S textitalic	S
S scriptpercentage	S virtualize	d
S scriptscriptpercentage	D loadedfonts	
S size	S namemode	
S slantfactor	F newfeatures	
S slantperpoint	F newhandler	
T spacing	N noffontsloaded	i
S extra	N nofsharedfonts	5
S shrink	N nofsharedhashe	es
S stretch	N nofsharedvecto	ors
S width	N privateoffset	
T synonyms	F readanddefine	
S em	F registerfeatur	^e
S ex	B resolvevirtual	too
S extra_space	F scale	
S extraspace	F scaled	
S slant	F setfactor	
S space	F setname	
S space_shrink	B sharefonts	
S space_stretch	F trytosharefont	Ī
S spaceshrink	N version	
S spacestretch	current	function
S x_height	currentid	function
S units	definers	table
S vfactor	F addlookup	
S xheight	F analyze	
T properties	F applypostproce	essors
S autoitalicamount	F checkedmode	
T cidinfo	F checkedscript	
S embedding	F current	

S defaultlookup	F mathematics	
F define	F protrusions	
F getspecification	F solutions	
F internal	F treatments	
F loadfont	F typefaces	
F makespecification	F load	
T methods	F prepare_features	
F install	F register	
D variants	F registerpostprocessor	
F read	F report	
F register	<pre>handlers table</pre>	
F registered	T afm	
F registersplit	B addkerns	
F resetnullfont	B addligatures	
F resolve	B addtexligatures	
T resolvers	B autoprefixed	
F file	D cache	
F name	D features	
F spec	T helpdata	
definetypeface function	D bothkerned	
<pre>encodings table</pre>	D leftkerned	
T agl	D ligatures	
D cache	D rightkerned	
F is_known	D texligatures	
D known	F load	
F load	F setfeatures	
F make_unicode_vector	B syncspace	
D math	N version	
N version	T otf	
expansions data table	F addfeature	
formats data table	D cache	
<b>goodies</b> table	T chainhandlers	
D colorschemes	F normal	
D data	F verbose	
D designsizes	F collectlookups	
D filenames	F dataset	
F getcompositions S defaultbasealte		
T list	S defaultnodealternate	
F compositions	D enhancers	
F designsizes	D features	
F expansions	F fileformat	
F featureset	F getalternate	
F filenames	T glists	
F files	T handlers	

F contextchain	D math	
F devanagari_remove_joiners	D predefined	
F devanagari_reorder_matras	D whatever	
F devanagari_reorder_pre_base_reordering_consonants	hashes	table
F devanagari_reorder_reph	D characters	
F gpos_context	D csnames	
F gpos_contextchain	D descriptions	
F gpos_cursive	D dynamics	
F gpos_mark2base	D emwidths	
F gpos_mark2ligature	D exheights	
F gpos_mark2mark	D extensibles	
F gpos_pair	D features	
F gpos_single	D identifiers	
F gsub_alternate	D italics	
F gsub_context	D lastmathids	
F gsub_contextchain	D marks	
F gsub_ligature	D parameters	
F gsub_multiple	T processes	
F gsub_reversecontextchain	D properties	
F gsub_single	D quads	
F load	D resources	
F scriptandlanguage	T setdynamics	
F setcontextchain	D spaces	
F setdynamics	D spacings	
F setfeatures	D unicodes	
T statistics	D xheights	
D usedfeatures	helpers	table
T tables	F addprivate	
D baselines	F dimenfactor	
D features	F expandglyph	
D languages	F fontpatternhas	size
D scripts	F getdigitwidth	
N version	F getparameters	
T pfb	F getprivatenode	
T tfm	F hasprivate	
D features	F name	
F setfeatures	F nametoslot	
T vf	F setdigitwidth	
T combinations	F splitfontpatte	
F combine	iterators	table
T combiner	F characters	
D commands	F descriptions	
F find	F glyphs	
D helpers	loggers	table

F add_placeholde	ers	nulldata	data table
T category_to_p	laceholder	protrusions	data table
s II		readers	table
S lm		F afm	
S lo		F check_lua	
S lt		F check_tfm	
S lu		F dfont	
S mc		F lua	
S me		F opentype	
S mn		F otf	
S nd		F pfb	
S nl		D sequence	
S no		F tfm	
S pc		F ttc	
S pd		F ttf	
S pe		select	table
S pf		T data	
S pi		F definetypefac	е
S po		T fallbacks	
S ps		F filterinput	
S sc		T methods	
S sk		F default	
S sm		F features	
S so		F file	
F format		F goodies	
F onetimemessage	2	F name	
F register		F selectfont	
F reportdefined	fonts	F simplefonts	
F reportusedfeat	tures	F spec	
mappings	table	F style	
F addtounicode		F registerfallb	ack
F fromunicode16		F searchfiles	
F loadfile		specifiers	table
F loadline		D contextmerged	
F loadlumtable		F contextnumber	
F makenameparse	r	D contextnumber	5
F reset		D contextsetups	
F tounicode16		F contexttostri	ng
F tounicode16sed	quence	F definecontext	
mp	table	F mergecontext	
D cache		F presetcontext	
B inline		F registerconte	xt
N version		F showcontext	
names	data table	F splitcontext	

D synonyms D variants

symbols table

F uselibrary

tables table
tracers table
treatments table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

typefaces data table

# functions (context)

**dummy** function

## graphics (context)

#### backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

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

# img (basic tex)

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

### interactions (context)

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

### interfaces (context)

addvalidkeys function cachedsetups data table cachesetup function checkedspecification function complete data table constants data table corenamespaces data table definecommand function doifelsemessage function elements data table formats data table getcheckedparameters function function getmessage data table hashedsetups interfacedcommand function interfaces table invalidkev function function is command table namespaces

F define F list

registernamespace function setconstant function setelement function setformat function setmessage function function setmessages settranslation function function setuserinterface setvalidkeys function setvariable function function showmessage data table syntax tolist function translations data table variables data table

### io (basic lua)

ask function bytes function characters function close function exists function fileseparator string flush function i limiter function i limiters table

T paranoid

input function limiter function lines function loadchunk function loaddata function loadlines function noflines function function o limiter o limiters table

T paranoid

open overloaded function

output function
pathseparator string

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

# job (context)

commont	function	-	+11+-	a.
comment datasets	table		getcollecte	a
	table		getdata	
D collected			getfield	
F extend			gettobesaved	
F getdata			inlist	
F setdata			last	
D tobesaved	£		list	
disablesave	function		save	
files	table		savetagged	
D collected			tobesaved	4-61-
F context		-		table
B forcerun			b_col	
F run			b_region	
D tobesaved			С	
initialize	function		collected	
load	function		column	
loadother	function		сору	
objects	table		depth	
D collected			e_col	
F get			e_region	
F number		F	enhance	
F page		F	extra	
F save		F	get	
F set		F	getreserved	l
D tobesaved		F	hangafter	
pack	boolean	F	hangindent	
packversion	number	F	height	
pagestates	table	F	hsize	
D collected		F	leftskip	
F extend		F	lowerleft	
F realpage		F	lowerright	
F setstate		F	markregionb	ox
D tobesaved		F	n	
passes	table	F	onsamepage	
F check		F	overlapping	l
D collected		F	p	
F count		F	page	
F define		F	paragraph	
F find		F	parindent	
F first		F	position	
F get		F	r	

- F region
- F replace
- F rightskip
- F set
- F setall
- F setdim
- D tobesaved
- F upperleft
- F upperright
- F width
- Fχ
- F xy
- Fу

# register function save function

table

# structure D collected

- T components
- T tobesaved
  - T branches
- S name
- S type

#### variables table

- D checksums
- D collected
- F getchecksum
- F makechecksum
- F save
- F setchecksum
- D tobesaved

#### version number

# lang (basic tex)

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

### languages (context)

associate function associated data table association function counters data table function current data data table define function table frequencies

F averagecharwidth

F getdata

getnumber function
hyphenate function
installed function
labels table

F define F split

lefthyphenmin function loadable function loadwords function logger table

F report

numbers data table
posthyphenchar function
prehyphenchar function
registered data table
replacements table

F add F handler F set

righthyphenmin function setexceptions function setsynonym function unload function version number words table

T data
F disable
F enable
T enablers

B enables

F check

F found
F load
T methods
N threshold

## layouts (context)

#### **status** table

F isleftpage

F leftorrightpagection

### lfs (extra lua)

attributes function
chdir function
currentdir function
dir function

isfile function lock function lock dir function mkdir function mkdirs function readlink function rmdir function function setmode function shortname symlinkattributes function touch 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 function convertstring einject function eprint function escape function finalized function finject function fprint function get function getvariables function htmfile function html table Fa

F td

F th include

function inherited table

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

S color-background-three

S color-background-two

S title

initialize function inject function **lmxfile** function loadedfile function function new overloaderror function popupfile function print function pν function report function reset function result function function set show function showdebuginfo function showerror function stripcss function tν function function type 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 categories function direct function disable function function enable exporters table extendbanner function flush function function help function messenger new function newline function function poptarget function pushtarget report function reportbanner function function reporter table reporters

> F banner F export

F help

F info

Flines

F version

function reportline reportlines function setformats function setformatters function setlogfile function setmessenger function setprocessor function function setprogram settarget function settimedlog function settranslations function show function show close function show load function function show open simple function simpleline function

simplelines function start page number function status function function stop\_page\_number subdirect function subreport function system function function texerrormessage writer function

# lpdf (context)

injectxmpinfo

action	function	insertxmpinfo	function
adddocumentcolorspace	function	javascript	function
adddocumentextgstate	function	launch	function
adddocumentpattern	function	layerreference	function
adddocumentshade	function	limited	function
addtocatalog	function	linearshade	function
addtoinfo	function	link	function
addtonames	function	null	function
addtopageattributes	function	number	function
addtopageresources	function	pagedestination	function
addtopagesattributes	function	pagereference	function
addxmpinfo	function	pdfcolor	function
array	function	pdftimestamp	function
boolean	function	protectresources	boolean
checkedkey	function	reference	function
checkedvalue	function	registerannotation	function
circularshade	function	registerdocumentfinalizer	function
cmykcode	function	registerpagefinalizer	function
collectedresources	function	reserveannotation	function
color	function	reserveobject	function
colorspace	function	rgbcode	function
colorspaceconstants	data table	rotationcm	function
colorspec	function	shareobject	function
colorvalue	function	shareobjectreference	function
colorvalues	function	spotcode	function
constant	function	stream	function
delayedobject	function	string	function
dictionary	function	timestamp	function
epdf	table	toeight	function
F expand		tosixteen	function
F load		transparency	function
finalizedocument	function	transparencycode	function
finalizepage	function	transparencygroups	table
finishtransparencycode	function	B none	
flushobject	function	transparencyvalue	function
flushstreamfileobject	function	unicode	function
flushstreamobject	function	verbose	function
formats	data table		
graycode	function		
id	function		

function

## lpeg (basic lua)

В	function
C	function
Carg	function
Cb	function
Сс	function
Cf	function
Cg	function
Cmt	function
Ср	function
Cs	function
Ct	function
P	function
R	function
S	function
UP	function
UR	function
US	function
V	function
afterprefix	function
anywhere	function
append	function
balancer	function
beforesuffix	function
checkedsplit	function
counter	function
endstripper	function
finder	function
firstofsplit	function
frontstripper	function
instringchecker	function
is_lpeg	function
keeper	function
locale	function
match	function function
oneof	
patterns	data table
print	function
replacer	function function
secondofsplit setmaxstack	function
	function function
split	Tunction

splitat function splitter function stripper function times function tsplitat function tsplitter function type function utfchartabletopattern function version function

# ltn12 (extra lua)

```
BLOCKSIZE number
filter
             table
   F chain
   F cycle
pump
             table
   F all
   F step
sink
             table
   F chain
   F error
   F file
   F null
   F simplify
   F table
source
             table
   F cat
   F chain
   F empty
   F error
   F file
   F rewind
   F simplify
```

F string

### lua (basic tex)

bytecode table data table bytedata bytedone table collectgarbage function delay function function finalize firstbytecode number flush function flushdelayed function function getbytecode function getluaname number lastbytecode data table messages table name numbers data table registercode function registeredcodes function registerfinalizer function registername function setbytecode function function setluaname startupfile string version string

## luatex (context)

cleanuptempfiles function
registerstartactions function
registerstopactions
registertempfile function
starttime number

# lxml (context)

addindex	function	getid	function
all	function	getiu	function
applyfunction	function	id	function
appryrumerion	function	idsplitter	userdata
attribute	function	include	function
chainattribute	function	index	function
checkindex	function	info	function
collected	function	inlineverbatim	function
command	function	installsetup	function
concat	function	last	function
concatrange	function	load	function
content	function	loadbuffer	function
context	function	loaddata	function
convert	function	loaded	table
count	function	loadregistered	function
delete	function	main	function
direct	function	match	function
directives	table	name	function
F after		namespace	function
F before		nonspace	function
F handle		pos	function
F load		position	function
F setup		raw	function
displayverbatim	function	rawroot	function
doif	function	register	function
doifelse	function	registerentity	function
doifelsetext	function	removesetup	function
doifnot	function	resetcdata	function
doifnottext	function	resetsetups	function
doiftext	function	resolvedentity	function
element	function	root	function
elements	function	serialize	function
entities	data table	setaction	function
filter	function	setcdata	function
filterlist	function	setcommandtonone	function
first	function	setcommandtotext	function
flush	function	setsetup	function
flushlinewise	function	snippet	function
flushsetups	function	sorters	table
flushspacewise	function	F add	
<del>get_id</del>	function	F compare	

F flush
F reset
F show

F sort

splitid function startraw function stopraw function store function strip function stripped function tag function text function tofile function toparameters function toverbatim function verbatim function withindex function data table xmltexhandler

## math (basic lua)

abs	function
acos	function
asin	function
atan	function
atan2	function
ceil	function
cos	function
cosd	function
cosh	function
deg	function
div	function
even	function
ехр	function
floor	function
fmod	function
frexp	function
huge	number
initialseed	number
ldexp	function
log	function
max	function
min	function
mod	function
modf	function
odd	function
pi	number
pow	function
rad	function
random	function
randomseed	function
round	function
setrandomseedi	function
sin	function
sind	function
sinh	function
sqrt	function
tan	function
tand	function
tanh	function

### mathematics (context)

addfallbacks	function
alphabets	data table
big	function
boldmap	table
categories	table
D functions	
checkaccentbaseheight	function
checkprivateparameters	function
classes	data table
codes	data table
define	function
dimensions	function
extensiblecode	function
extensibles	data table
extrabase	number
extras	table
F add	
F copy	
fallbacks	table
F apply	
F install	
fallbackstyleattr	function
families	data table
gaps	table
getboth	function
getstyle	function
initializeparameters	function
injectfallbacks	function
makefont	function
mapremap	data table
overloaddimensions	function
overloadparameters	function
privatebase	number
remapalphabets	function
renderings	table

D mappings
D numbers
D sets

renderset

resetitalics scaleparameters

setalternate function setitalics function syncboth function function syncname function syncstyle function toname tostyle function tweakaftercopyingfont function tweakbeforecopyingfont function tweaks table utfmathclass function utfmathcommand function utfmathfiller function utfmathstretch function

function

function

function

### mbox (context)

```
parse function
parse_from function
parse_header function
parse_message function
split_headers function
split_mbox function
split_message function
```

## md5 (extra lua)

HEX function
crypt function
dec function
exor function
hex function
sum function
sumhexa function

## metapost (context)

analyzeplugins	function	gettext	function
checkformat	function	graphic	function
checktexts	function	graphic_base_pass	function
collapse	boolean	instance	function
colorinitializer	function	intermediate	table
convert	function		table
defaultformat	string	T actions	
defaultinstance	•	F makempy lastlog	c+rina
defaultmethod	string	llx	string number
directrun	string function	lly	number
edefsxsy	function	load	function
•	function	makempy	table
escaped exectime	table	.,	table
exectime	data table	N nofconverted	
filterclippath	function	F processgraphics	
finder	function	F registerfile metafun	table
flush	function		table
flushers	table	F interpolate	
	table	F topath method	number
T pdf			table
F comment		mptopdf	table
F flushfigure		F convertmpstopdf	
F startfigure		N nofconverted	boolean
F stopfigure		multipass -	number
F textfigure flushliteral	function	n nvformat	function
	function	optimize	boolean
flushnormalpath flushreset	function	•	function
fonts	table	parse	function
	table	pdfliterals	function
F define		pluginactions	function
T flusher		process	function
F flushfigure		processplugins	function
F startfigure		processspecial	function
F stopfigure		quickanddirty	boolean
N instances		reducetogray	
F process	function	reporterror	function function
format		reset	
format_number	function	resetlastlog	function
<pre>format_string formatnumber</pre>	function	resetplugins	function
	function	resettextexts	function
getclippath	function	setextensions	function
getextensions	function	setoutercolor	function

settext function
settextexts function
showlog boolean
svformat function
tex table

F get
F reset
F set

boolean texerrors function textextsdata theclippath function function totable unload function untagvariable function urx number number ury variables table

### mime (extra lua)

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

## mplib (extra tex)

fields function
finders table

F file

new function
pen\_info function
preprocessed function
version function

## noads (context)

### handlers table F check F classes F collapse F families F italics F relocate F render F resize F showtree F tags F unscript F variants function process processors table T collapse F mlist\_to\_hlist T relocate T render T resize

T unscript

## node (basic tex)

		for all an		
copy		function	F set_attribute	
copy_l		function	F setbox	
count		function	F setfield	
	<b>-</b>	function	F slide	
dimens		function	F tail	
direct		table	F todirect	
F co			F tonode	
	ppy_list		F tostring	
F co			F traverse	
	urrent_attr		F traverse_id	
	imensions		F unprotect_glyphs	
	o_ligature_n		F unset_attribute	
	nd_of_math		F usedlist	
	irst_glyph		F vpack	
	lush_list		F write	
	Lush_node		do_ligature_n	function
Ffr			end_of_math	function
F ge	etbox		family_font	function
-	etchar		fields	function
_	etfield		first_character	function
F ge	etfont		first_glyph	function
F ge			flush_list	function
F ge	etleader		flush_node	function
5	etlist		free	function
F ge	etnext		getchar	function
-	etprev		getfield	function
_	etsubtype		getfont	function
F ha	as_attribute		getid	function
	as_field		getleader	function
F ha	as_glyph		getlist	function
F hp			getnext	function
Fin	nsert_after		getprev	function
Fin	nsert_before		getsubtype	function
Fis	s_direct		has_attribute	function
Fis	s_node		has_field	function
Fla	ast_node		has_glyph	function
Fle	ength		hpack	function
F ne	ew		id	function
Fpr	rotect_glyphs		insert_after	function
Fpr	rotrusion_skippable		insert_before	function
Fre	emove		is_node	function

function
function

## nodes (context)

accentcodes	data table	getattribute	function
aligned	function	getbox	function
append	function	getchar	function
astable	function	getfield	function
basepoints	function	getfont	function
builders	table	aetid	function
F buildpage_filter	tabte	getleader	function
F vpack_filter		getlist	function
codes	data table	getnext	function
concat	function	getprev	function
сору	function	getskip	function
copy_list	function	getsubtype	function
count	function	gluecodes	data table
current attr	function	glyphcodes	data table
delete	function	glyphdir_is_equal	data table
destinations	table	glyphdir_is_opposite	data table
N attribute		glyphdir_is_orthogonal	data table
T done		gonuts	boolean
F handler		handlers	table
T stack		F accessibility	
dimensionfields	data table	F alignbackgrounds	
dimensions	function	F backgrounds	
dir_is_pop	data table	F characters	
dir_negation	data table	F checkforleaks	
disccodes	data table	F checkglyphs	
discretionarycodes	data table	F cleanupbox	
do_ligature_n	function	F cleanuppage	
end_of_math	function	F export	
fasthpack	function	F finalize	
fencecodes	data table	F migrate	
fields	function	F protectglyphs	
fillcodes	data table	F stripping	
first_character	function	F unprotectglyphs	
first_glyph	function	has_attribute	function
firstcharacter	function	has_field	function
firstcharinbox	function	has_glyph	function
firstglyph	function	hpack	function
flush_list	function	hpack idstostring	function function

F handler

function

getattr

mathcodes F installnewkern mlist to hlist F setcursive F setkern new noadcodes F setmark nodecodes F setpair insert after function nopts insert before function nuts insert list after function F append installattributehandler function F concat is direct function F copy is display math function F copy list is mirrored data table F count is node function F current attr is nut function F delete is rotated data table F dimensions kerncodes data table F do\_ligature\_n kernina function F end\_of\_math keys table F fasthpack T whatsit F first glyph last node function F firstcharacter leftmarginwidth function F firstcharinbox ligaturing function F firstalvph lines table F flush\_list T boxed F flush node F register F free F setup F getattr F getattribute F stage\_one F stage two F getbox F stage zero F getchar D data F getfield F finalize F getfont F number F getid N scratchbox F getleader link function F getlist linked function F getnext list function F getprev listablefields data table F getskip listcodes data table F getsubtype listtoutf function F has attribute load function F has field locate function F has\_glyph margincodes data table F hpack markers table F insert after F get F insert before

data table function function data table data table function table F insert list after F temp F is direct F textdir F usage F is\_display\_math F is node T userids F is nut N margins.inline F kerning N splitters.one F last\_node N splitters.two F leftmarginwidth Fuserlist F usernumber F ligaturing F link F userstring F linked F usertokens F vlist F locate F mlist\_to\_hlist F zeroglue F new F prepend T pool F protect\_glyphs F baselineskip F protrusion\_skippable F cleanup F reference F disc F remove F fontkern F repackhlist F glue F replace F gluespec F rightmarginwidth F glyph F set attribute F hlist F setattr F kern F setattribute F latelua F setattributes F leftmarginkern F setbox F leftskip F setfield F lineskip F setunsetattributes F noad F slide F pdfannotation F somepenalty F pdfdestination F somespace F pdfdirect F tail F pdfliteral F tonode F pdfrestore F tonodes F pdfsave F tonut F pdfsetmatrix F tostring F penalty F traverse F register F traverse\_id F rightmarginkern T typesetters F rightskip F fast hpack F rule F hpack F shrink F tohpack F special F tohpackfast F stretch F tonodes

F tovpack		F register	
F tovpackfast		F rule	
F vpack		F special	
F unprotect_glyphs		F usage	
F unset_attribute		T userids	
F unsetattribute		N margins.inline	
F unsetattributes		N splitters.one	
F usedlist		N splitters.two	
F vianodes		prepend	function
F vianuts		print	function
F vpack		processors	table
F writable_spec		B enabled	
F write		F hpack_filter	
packlist	function	F post_linebreak_filter	
pardir_is_equal	data table	F pre_linebreak_filter	
pardir_is_opposite	data table	F tracer	
pardir_is_parallel	data table	processwords	function
partextdir_is_equal	data table	protect_glyphs	function
penaltycodes	data table	protrusion_skippable	function
plugindata	table	pts	function
F finalizer		reference	function
F initializer		references	table
S name		N attribute	
T namespace		T done	
N attribute		F handler	
D data		T stack	
F enable		remove	function
F handler		repackhlist -	function
F register		replace	function
D registered		report	function
D values		rightmarginwidth	function
F processor		rules	table
points	function	D data	
pool	table	F define	
F baselineskip		F enable	
F cleanup		F handler	£
F glyph		save serialize	function function
F kern F latelua		serializebox	function
F lineskip		set attribute	function
·		setattr	function
F pdfannotation F pdfdestination		setattribute	function
F pdfliteral		setattributes	function
F pdfsetmatrix		setbox	function
r purseumatrix		SELDOY	Tunction

setfield setunsetattributes	function function	<pre>textdir_is_opposite textdir_is_parallel</pre>	data table data table
shifts	table	tobasepoints	function
D data	table	tocentimeters	function
F define		tociceros	function
F enable		todidots	function
F handler		todimen	function
show	function	toinches	function
showboxes	function	tomillimeters	function
showcodes	function	tonewciceros	function
showlist	function	tonewdidots	function
showsimplelist	function	tonode	function
skipcodes	data table	tonodes	function
slide	function	tonut	function
snapshots	table	topicas	function
F getparameters		topoints	function
F getsamples		toscaledpoints	function
F resetsamples		tosequence	function
F takesample		tostring	function
somepenalty	function	totable	function
somespace	function	totree	function
stripping	table	toutf	function
T glyphs		tracers	table
		T -b	
F set		T characters	
F set <b>striprange</b>	function	F collect	
	function function		
striprange		F collect	
striprange tail	function	F collect F equal	
striprange tail tasks	function	F collect F equal F indices	
<pre>striprange tail tasks     F actions</pre>	function	F collect F equal F indices F start	
<pre>striprange tail tasks     F actions     F appendaction</pre>	function	F collect F equal F indices F start F string	
<pre>striprange tail tasks     F actions     F appendaction     F disableaction</pre>	function	F collect F equal F indices F start F string F unicodes T colors F reset	
<pre>striprange tail tasks      F actions     F appendaction     F disableaction     F disablegroup</pre>	function	F collect F equal F indices F start F string F unicodes T colors	
<pre>striprange tail tasks     F actions     F appendaction     F disableaction     F disablegroup     F enablegroup     F enablegroup     F freeze</pre>	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist	
<pre>striprange tail tasks     F actions     F appendaction     F disableaction     F disablegroup     F enableaction     F enablegroup</pre>	function	F collect F equal F indices F start F string F unicodes T colors F reset F set	
<pre>striprange tail tasks     F actions     F appendaction     F disableaction     F disablegroup     F enablegroup     F enablegroup     F freeze</pre>	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist	
<pre>striprange tail tasks     F actions    F appendaction    F disableaction    F disablegroup    F enableaction    F enablegroup    F freeze    F freezegroup</pre>	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F set F setlist F fontchar T frequencies F register	
striprange tail tasks  F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist F fontchar T frequencies	
striprange tail tasks  F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new F prependaction	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F set I f setlist F fontchar T frequencies F register T pool T nodes	
striprange tail tasks  F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new F prependaction F removeaction F restart F setaction	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist F fontchar T frequencies F register T pool T nodes F rule	
tail tasks  F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new F prependaction F removeaction F restart F setaction F showactions	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist F fontchar T frequencies F register T pool T nodes F rule T nuts	
tail tasks  F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new F prependaction F removeaction F restart F setaction F showactions F table	function table	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist F fontchar T frequencies F register T pool T nodes F rule T nuts F rule	
tail tasks  F actions F appendaction F disableaction F disablegroup F enableaction F enablegroup F freeze F freezegroup F new F prependaction F removeaction F restart F setaction F showactions	function	F collect F equal F indices F start F string F unicodes T colors F reset F set F setlist F fontchar T frequencies F register T pool T nodes F rule T nuts	

F setlist F setproperties F start T steppers F check F codes F features F font F glyphs F message F messages F nofsteps F register F reset F start F stop F stop T transparencies F reset F set F setlist traverse function function traverse id table typesetters F hpack F tohpack F tohpackfast F tonodes F tovpack F tovpackfast F vpack unprotect\_glyphs function unset attribute function unsetattribute function unsetattributes function usedlist function

vianodes

vianuts

visualizebox

visualizers

F box
F handler
F markfonts
F setfont

F setlayer F setvisual

vpack function
whatcodes data table
whatsitcodes data table
writable\_spec function
write function

function

function

function

table

### number (context)

function basepoints function bit function bits function clearbit function dimenfactors data table formatted function hasbit function maxdimen number function nopts percent function points function pts function function setbit signed function sparseexponent function **splitdimen** function tobasepoints function tobitstring function tocentimeters function tociceros function todidots function todimen function toevenhex function toinches function **tomillimeters** function tonewciceros function tonewdidots function tonumberf function tonumberg function topicas function topoints function toscaled function toscaledpoints function function toset valid function

## os (basic lua)

•	•	
getenv	function	
setenv	function	
binsuffix	string	
binsuffixes	table	
clock	function	
converttime	function	
date	function	
difftime	function	
env	data table	
exec	overloaded	function
execute	overloaded	function
exit	function	
fulltime	function	
getenv	overloaded	function
gettimeofday	function	
isleapyear	function	
launch	function	
libsuffix	string	
localtime	function	
name	string	
nofdays	function	
now	function	
platform	string	
remove	function	
rename	function	
resolvers	table	
F bits		
resultof	function	
runtime	function	
selfdir	string	
setenv	overloaded	function
setlocale	overloaded	function
sleep	function	
spawn	overloaded	function
time	function	
times	function	
timezone	function	
tmpdir	function	
tmpname	function	
today	function	
_		

string

type

uname
uuid function
validdate function
weekday function
where function
which function

# package (basic lua)

config	string
cpath	string
extralibpath	function
extralibpaths	function
extraluapath	function
extraluapaths	function
helpers	table
libpaths	function
loaded	table
loaders	table
loadlib	function
luapaths	function
path	string
preload	table
searchers	table
searchpath	function
seeall	function

## pagebuilders (context)

### injections table

- F flushafter
- F flushbefore
- F save

#### mixedcolumns table

- F cleanup
- F finalize
- F getlist
- F getrest
- F getsplit
- F setsplit

## pdf (basic tex)

immediateobj	function
mapfile	function
mapline	function
maxobjnum	function
obj	function
objtype	function
pageattributes	string
pageref	function
pageresources	string
pagesattributes	string
pdfmapfile	function
pdfmapline	function
print	function
refobj	function
registerannot	function
reserveobj	function

## pdfscanner (context)

scan function

## physics (context)

units table
 D tables

## profiler (extra lua)

pause function
resume function
start function
stop function

# publications (context)

addtexentry	function	F setmethod	
analyze	function	T sorters	
authors	table	F author	
F concat		F dataset	
F inverted		F default	
F invertedshort		F short	
F normal		listvariants	table
F normalshort		F default	
F preparedsort		F num	
F setsettings		F short	
F short		load	function
F sorted		loadbibdata	function
F splitstring		loaders	table
citeconcat	function	F bib	
citevariants	table	F endnote	
F author		F lua	
F authornum		F refman	
F authoryear		F xml	
F authoryears		markasupdated	function
F default		new	function
F num		refman_to_btx	function
F page		singularorplural	function
F serial		statistics	table
F short		N nofbytes	
collected	data table	N nofdatasets	
converttoxml	function	N nofdefinitions	
datasets	table	N nofshortcuts	
endnotes_to_btx	function	tracers	table
enhance	function	T categories	
getindex	function	T article	
listconcat	function	T optional	
lists	table	T required	
F collectentries		T book	
F doifalreadyplaced	I	T optional	
F fetchentries		T required	
F filterall		T booklet	
F flushentries		T optional	
F nofregistered		T required	
F register		T inbook	
F registerplaced		T optional	
F resolve		T required	

T incollection

T optional

T required

T inproceedings

T optional

T required

T manual

T optional

T required

T mastersthesis

T optional

T required

T misc

T optional

T required

T phdthesis

T optional

T required

T proceedings

T optional

T required

T techreport

T optional

T required

T unpublished

T optional

T required

T citevariants

T fields

T listvariants

F showdatasetcompleteness

F showdatasetfields

### regimes (context)

```
cleanup function
disable function
enable function
pop function
process function
push function
toregime function
translate function
```

### resolvers (context)

**finders** 

allprefixes	function	findfile	
appendhash	function	findfiles	
automount	function	findgivenfile	
automounted	table	findgivenfiles	
booleanvariable	function	findpath	
cacheversion	string	findtexfile	
checkedvariable	function	findwildcardfile	
cleanpath	function	findwildcardfiles	
cleanpathlist	function	formatofsuffix	
concatinators	data table	formatofvariable	
configbanner	string	formats	
criticalvars	data table	generators	
dangerous	data table	getenv	
datastate	function	getownpath	
defaultsuffixes	table	getreadfilename	
dowithfilesandreport	function	hashers	
dowithfilesintree	function	homedir	
dowithpath	function	inputstack	
dowithvariable	function	installinputfilehandler	
env	function	installinputlinehandler	
executers	table	instance	
<b>executers</b> F check	table		
	table	instance	
F check	table	instance D data	
F check F exec	table	<pre>instance    D data    B diskcache</pre>	
F check F exec F execute	table	<pre>instance    D data    B diskcache    D environment</pre>	
F check F exec F execute F finalize	table	<pre>instance    D data    B diskcache    D environment    D expansions</pre>	
F check F exec F execute F finalize F popen	table	<pre>instance    D data    B diskcache    D environment    D expansions    D fakepaths</pre>	
F check F exec F execute F finalize F popen F register	function	<pre>instance    D data    B diskcache    D environment    D expansions    D fakepaths    D files</pre>	
F check F exec F execute F finalize F popen F register F spawn		<pre>instance    D data    B diskcache    D environment    D expansions    D fakepaths    D files    B force_suffixes</pre>	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist	function	<pre>instance    D data    B diskcache    D environment    D expansions    D fakepaths    D files    B force_suffixes    D found</pre>	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist	function function	instance D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath	function function function	instance D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable	function function function function	instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath	function function function function function	instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath expandpath	function function function function function function	instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlist expandpath expandpath expandpathfromvariable expandpathfromvariable expansion	function function function function function function function	instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror D order	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath expandpath expandpathfromvariable expansion extendtexmfvariable find_file find_files	function function function function function function function function function function	instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror D order B remember	
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath expandpath expandpathfromvariable expansion extendtexmfvariable find_file	function function function function function function function function	instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror D order B remember B renewcache	

function data table data table function function function data table string table function function table

D specification

data table

D variables		registerintrees	function
jobs	table	registermethod	function
F currentcomponent		registerzipfile	function
F currentenvironment		relations	data table
F currentproduct		renew	function
F currentproject		repath	function
F justacomponent		reset	function
D processors		resetextrapath	function
F productcomponent		resetresolve	function
F usefile		resolve	function
joinpath	function	savers	data table
load	function	scandata	function
loadbinfile	function	scanfiles	function
loaders	data table	schemes	table
loadlualib	function	T cleaners	
loadtexfile	function	F md5	
loadtime	function	F none	
locateformat	function	F strip	
locators	data table	F cleanname	
luacnfname	string	F fetchstring	
luacnfspec	string	F fetchtable	
luacnfstate	string	F install	
macros	table	setenv	function
F convertfile		setinstance	function
F decodecomment		showpath	function
F enablecomment		simplescanfiles	function
F encodecomment		splitconfigurationpath	function
F preprocessed		splitexpansions	function
F processmk		splitmethod	function
F processmkvi		splitpath	function
F version		suffixes	data table
maxreadlevel	number	suffixmap	data table
methodhandler	function	suffixofformat	function
newinstance	function	texdatablob	function
openbinfile	function	toppath	function
openers	data table	unexpandedpath	function
openfile	function	unexpandedpathlist	function
opentexfile	function	unresolve	function
ownpath	string	updaterelations	function
prefixes	data table	updatescript	function
prependhash	function	usezipfile	function
registerextrapath	function	validatedpath	function
registerfile		•	
registerrite	function	variable	function

variableofformatorsuffix function wildcardpattern

function

### scripts (context)

table

autofontfeature

#### F disable F enable F handler categorytonumber data table colors data table decomposehangul function defaults table 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 hash table injectors data table installdataset function installmethod function numbertocategory data table numbertodataset data table numbertohandler data table reset function set function splitters data table

## set (context)

contains function
create function
tolist function
tonumber function
totable function

### socket (extra lua)

**BLOCKSIZE** number S connection DEBUG boolean S content-description SETSIZE number S content-disposition bind function S content-encoding choose function S content-id function connect 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 date F toip S diagnostic-code ftp table S dsn-gateway S PASSWORD S etag N PORT S expect N TIMEOUT S expires S USER S final-log-id F command S final-recipient F get S from S host F open S if-match F put gettime function S if-modified-since headers table S if-none-match S if-range T canonic S accept S if-unmodified-since S accept-charset S in-reply-to S accept-encoding S keywords S accept-language S last-attempt-date S last-modified S accept-ranges S action S location S age S max-forwards S allow S message-id S alternate-recipient S mime-version S original-envelope-id S arrival-date S authorization S original-recipient S bcc S pragma S cache-control S proxy-authenticate S cc S proxy-authorization S comments S range

S recei	ved	sinkt	table
S recei	.ved-from-mta	F close-when-done	
S refer	rences	F default	
S refer	rer	F http-chunked	
S remot	re-mta	F keep-open	
S reply	v-to	skip	function
S repor	ting-mta	sleep	function
S reser	rt-bcc	smtp	table
S reser	rt-cc	S DOMAIN	
S reser	t-date	N PORT	
S reser	t-from	S SERVER	
S reser	t-message-id	N TIMEOUT	
S reser	t-reply-to	S ZONE	
S reser	t-sender	F message	
S reser	t-to	F open	
S retry	r-after	F send	
S retur	n-path	source	function
S sende		sourcet	table
S serve		F by-length	
	remote-recipient	F default	
S statu		F http-chunked	
S subje	ect	F until-closed	
S te		tcp	function
S to		tcp6	function
S trail		tp	table
	fer-encoding	N TIMEOUT	
S upgra		F connec	
S user-	agent	try	function
S vary		udp	function function
S via		udp6 url	table
S warni	retry-until		
	nuthenticate	F absolute F build	
S x-mai		F build_path	
http	table	F build_path F escape	
N PORT		F parse	
N TIMEOU	Г	F parse_path	
S USERAGI		F unescape	
F open			
F request	t		
newtry	function		
protect	function		
select	function		
sink	function		

### sorters (context)

comparers table

F basic

constants table

S defaultdigits

S defaultlanguage

S defaultmethod

N digitsmaximum

N digitsoffset

N ignoredoffset

N replacementoffset

definitions data table

firstofsplit function

setlanguage

function

sort

function

splitters

table

F utf

strip

function

tracers data table update function

## statistics (context)

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

## status (basic tex)

list function

#### storage (context)

allocate function data table mark function marked function number max min number **nofmodules** number noftables number register function shared data table boolean strip tofmodules number toftables number

#### streams (context)

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

# string (basic lua)

autadauh] a	function	5 0 5 0 5 0 5 0 5 0 5
autodouble	function function	F %f %f %f %f %f cm
autosingle		F %l,
booleanstring	function function	F %p
byte		F %q,
bytepairs	function	F %s
bytes	function	F %s %s
char	function	F %s %s %s
characterpairs		F %s %s %s %t
characters	function	F %s %s %s %s
checkedsplit	function	F %s Tc %s w %s Tr
	function	F %s mul
count	function	F %s%s%s
dump	function	F %s,
escapedpattern	function	F %s%s
explode	function	F %s->%s->%s
find	function	F %s->%s->%s->%s->%s->%s
format	function	F %s:%s
formatter	function	F %s:%s:%s
formatters	function	F %s=%q
F {%t},		F %s={
F %t (%t)		F %w%l,
F %tcycle		F %w%q,
F %-10s: %s		F %W%S,
F %-15s :		F %w[%l]=%l,
F %-15s : %s		F %w[%l]=%q,
F %-15s >		F %w[%l]=%s,
F %-15s >		F %w[%l]={
F %-15s > %s		F %w[%l]={%, t },
F %-15s > %s		F %w[%l]={},
F %-15s > %s >		F %w[%q]=%l,
F %-15s > %s >		F %w[%q]=%q,
F %-15s > %s > %		F %w[%q]=%s,
F %-15s > %s > %		F %w[%q]={
	%.3f k %.3f %.3f %.3f K	F %w[%q]={%, t },
	rg %.3f %.3f %.3f RG	F %w[%q]={},
F %.3f g %.3f G		F %w[%s]=%l,
F %0.1fpt		F %w[%s]=%q,
F %0.8f %0.8f %0	0.81 %0.81	F %w[%s]=%s,
F %U		F %w[%s]={
F %U (%s)		F %w[%s]={%, t },
F %a loaded		F %w[%s]={},

F %w{	F concat
F %w{%, t },	F format
F %w{},	T lpeg
F %w},	F B
F (%p,%p)	F C
F /%s %s	F Carg
F /%s << %t >>	F Cb
F /%s [ %t ]	F Cc
F /%s cs /%s CS %s SCN %s scn	F Cf
F /Tr%s gs	F Cg
F 1 0 0 0 1 %f %f cm	F Cmt
F << %t >>	F Cp
F << /Type /Annot %s /Rect [%0.3f %0.3f %0.3f %0.3f] >>	F Cs
F M-H-%H	F Ct
F M-N-%H	F P
F MpSh%s	F R
F Tr%s	F S
F U+%04X:%s	F UP
F [ %t ]	F UR
F [%q]=	F US
F [%q]=%l,	F V
F [%q]=%q,	F afterprefix
F [%q]=%s,	F anywhere
F [%q]={	F append
F [%s]=	F balancer
F [%s]=%l,	F beforesuffix
F [%s]=%q,	F checkedsplit
F [%s]=%s,	F counter
F [%s][%s]	F endstripper
F \Umathchardef\%s "%X "%X	F finder
F \convertnumber{%s}{%s}	F firstofsplit
F \ugdef\%s{\Udelimiter "%X "%X }	F frontstripper
F \ugdef\%s{\Udelimiter 0 "%X "%X }	F instringchecker
F \ugdef\%s{\Udelimiterover "%X "%X }	F is_lpeg
<pre>F \ugdef\%s{\Udelimiterunder "%X "%X }</pre>	F keeper
<pre>F \ugdef\%s{\Umathaccent 0 "%X "%X }</pre>	F locale
F \ugdef\%s{\Umathbotaccent 0 "%X "%X }	F match
<pre>F \ugdef\%s{\Uradical "%X "%X }</pre>	F oneof
F \ugdef\%s{\Uroot "%X "%X }	D patterns
F _bpnf_(%s,%s,%s,'%s')	F print
T _environment_	F replacer
F autodouble	F secondofsplit
F autosingle	F setmaxstack
F basepoints	F split

```
F splitat
                                                           F chem %s%s(%s,%s,"\chemicaltext{%s}");
                                                           F chem %s%s(%s,%s,%s,%s,%s);
   F splitter
                                                           F chem_%s(%s,%s,"");
   F stripper
   F times
                                                           F chem %s(%s,%s,%s);
   F tsplitat
                                                           F chem c%s(%s,%s,"");
   F tsplitter
                                                           F chem set(%s);
                                                           F type
   F utfchartabletopattern
                                                           F chem symbol("\chemicalsymbol[equilibrium]{%s}{%s}");
   F version
                                                           F chem symbol("\chemicalsymbol[gives]{%s}{%s}");
 F lpegmatch
                                                           F chem symbol("\chemicalsymbol[mesomeric]{%s}{%s}");
                                                           F chem symbol("\chemicaltext{%s}");
 U luaescape
 T nspaces
                                                           F chem trace boundingbox := %l;
 F points
                                                           F d:%s:%s:%s
                                                           F dup %s mul exch dup %s mul exch %s mul
 F sequenced
                                                           F dup %s mul exch dup %s mul exch dup %s mul exch %s mul
 F signed
 F sparseexponent
 U texescape
                                                           F flushing realpage %s, userpage %s
 F tonumber
                                                           F jobname %a, input %a, result %a
 F tostring
                                                           F lang-frq-%s.lua
 F tracedchar
                                                           F language %a is active
                                                           F mfun_tt_w[%i] := %f ; mfun_tt_h[%i] := %f ; mfun_tt_d[%i]
 F type
 F utfbyte
                                                           F multilocs[%s] := %s ; multikind[%s] := "%s" ; multipars
 F utfchar
                                                           F multiregs[%s] := (%--t--cycle) shifted - %s;
 U xmlescape
                                                           F p:%s
T extensions
                                                           F p:%s:%s:%s:%s
 S chruni
                                                           F p=%1.3f
 S font: features
                                                           F p=%s
 S font:name
                                                           F path multiregs[], multipars[], multibox; string multik
 S lua
                                                           F path posboxes[], posregions[]; numeric pospages[]; nu
 S tex
                                                           F pdf: q 1 0 %f 1 0 0 cm
 S unichr
                                                           F pospages[%s] := %s ; posboxes[%s] := (%p,%p)--(%p,%p)--
 S xml
                                                           F processed mkvi file %a, delta %s
                                                           F q %f %f %f %f %f cm
F plib .b col(%q)
F _plib_.b_region(%q)
                                                           F r:%s:%s:%s
F _plib_.e_col()
                                                           F r=%1.3f%sq=%1.3f%sb=%1.3f
F _plib_.e_region(%s)
                                                           F region:%s
F _plib_.enhance(%q)
                                                           F return {
S _preamble_
                                                           F return {%t}
S _type_
                                                           F s:%s
F a=%1.3f%st=%1.3f
                                                           F s=%1.3f
F b:%s
                                                           F setbounds currentpicture to multibox;
F buffer.%s
                                                           F unknown reference %a
F c:%s:%s:%s:%s
                                                           F using file %a
F c=%1.3f%sm=%1.3f%sy=%1.3f%sk=%1.3f
                                                           F visualizers.%s
```

F w:%s F { F }

function gmatch qsub function is boolean function is\_empty function itself function 1en function limit function longtostring function lower function match function nspaces table quote function quoted function function rep reverse function split function **splitlines** function splitup function strip function sub function tformat function toboolean function tocontext function todimen function tonodes function topattern function totable function toutf function tracedchar function tracedchars table unquote function unquoted function function upper utfcharacters function utfvalues function valid function

## structures (context)

atlocation	function	F setlevel	
blocks	table	F setoffset	
D collected		F setown	
F define		F setstate	
F print		F setvalue	
F save		T specials	
F select		F userpage	
F setstate		F subs	
D states		D tobesaved	
D tobesaved		F value	
bookmarks	table	currentsectionnumber	function
F finalize		descriptions	table
F flatten		documents	table
S method		D data	
F overload		F initialize	
F place		F preset	
F register		F reset	
F setup		floats	table
counters	table	formulas	table
F add		F current	
F analyze		F simplify	
F check		F store	
D collected		helpers	table
F compact		F analyze	
F converted		F formulanumber	
F currentvalue		F merged	
D data		F page	
F define		F prefix	
F first		F prefixlastpage	
F get		F prefixpage	
F last		F simplify	
F next		F title	
F prev		F touserdata	
F previous		inserts	table
F raw		D data	
F record		F define	
F reset		F getdata	
F restart		F getlocation	
F restore		F getname	
F save		F getnumber	
F set		F setlocation	

F setup F userdata D stored F uservalue itemaroups table marks table F maxwidth D data F nofitems F define F exists F register lists table F fetch F addto F fetchallmarks F fetched F analyze B autoreorder F fetchonemark F fetchtwomarks D cached D collected F aet F discard F number F enhance F relate T enhancers F reset F filter F set F filtercollected F show F formulanumber F synchronize F groupindex F title F hasnumberdata T tracers F haspagedata F showtable table F hastitledata notes D internals F checkpagechange F iscached F define F label F doifonsamepageasprevious F location F get Fnumber F getdeltapage D ordered F getn F page F getnumberpage F popnesting F getstate F prefix F getsymbolpage F prefixednumber F hascontent F prefixedpage F internal F internalid F process F listindex D pushed F pushnesting F ordered F realpage F postpone F reordered F resetpostponed T result F restore D sectionblocks F save F sectionnumber F setstate F size F setsymbolpage F title D states

F store

D tobesaved

pages	table	F injectcurrentset
F analyze		D internals
D collected		F load
F is_odd		F loadpresets
F number		F mark
F save		D pages
D tobesaved		U prefixsplitter
references	table	D productdata
F analyze		T programs
F checkedfile		T data
F checkedfileorurl		F define
F checkedprogram		F get
F checkedrealpage		F realpageofpage
F checkedurl		U referencesplitter
D collected		D referred
U componentsplitter		F referredpage
F currentmetadata		F registerfinalizer
F currentorder		F registerinitializer
D currentset		F registerpage
F define		F reportproblems
D defined		F reset
D derived		T resolvers
F enableinteraction		F reference
F enhance		F section
D executers		D runners
F expandcurrent		F set
F export		F setandgetattribute
T files		F setcomponent
T data		F setinnermethod
F define		F setinternalreference
F get		F setnextinternal
F filter		
		F setnextorder
F filterdefault		D specials
F filterdefault D filters		D specials F splitcomponent
F filterdefault D filters F from		D specials F splitcomponent F splitprefix
F filterdefault D filters F from F get		D specials F splitcomponent
F filterdefault D filters F from F get F getcurrentmetadata		D specials F splitcomponent F splitprefix F splitreference T testrunners
F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec		D specials F splitcomponent F splitprefix F splitreference T testrunners F inner
F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod		D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special
F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference		D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation
F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference D handlers		D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation F special operation with arguments
F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference D handlers F identify		D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation F special operation with arguments T testspecials
F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference D handlers		D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation F special operation with arguments

F internal		F getcurrentlevel	
F page		F getlevel	
F realpage		F getnumber	
F section		F internalreference	
F userpage		D levelmap	
D tobereferred		D levels	
D tobesaved		F load	
T urls		F matchingtilldepth	
T data		F numberatdepth	
F define		F numbers	
F get		F popblock	
F valid		F prefixedconverted	
F whatfrom		F pushblock	
registers	table	F register	
F analyze		D registered	
F analyzed		F reportstructure	
D collected		F save	
F compare		T sectionblockdata	
F define		T bodypart	
F enhance		S bookmark	
F extend		F set	
F filter		F setblock	
F filtercollected		F setchecker	
F finalize		F setlevel	
F flush		F setnumber	
F prepare		F somelevel	
F process		F structuredata	
F sort		F title	
F store		D tobesaved	
D tobesaved		F typesetnumber	
F unique		F userdata	
F userdata		B verbose	
sections	table	sets	table
F autodepth		F define	
F cct		F get	
D collected		F getall	
F current		D setlist	
F currentblock		specials	table
F currentid		D collected	
F currentlevel		F retrieve	
F depthnumber		F store	
F finddata		D tobesaved	
F findnumber		synonyms	table

F analyzed

F fullnumber

D collected F compare F define F filter F finalize F flush F meaning F prepare F process F register F registerused F sort F synonym D tobesaved table tags T data F detailedtag F getid F handler D labels F last F lastinchain T metadata D properties F registerdata F registermetadata F restart F setattributehash F setcombination F setdescription F setdescriptionsymbol F setfigure F sethighlight F setitemgroup F setproperty F setsorting F setsynonym F settablecell F settabulatecell F start

F stop
D taglist
T userdata

## table (basic lua)

allkeys	function
append	function
are_equal	function
autokey	function
compact	function
concat	function
contains	function
copy	function
count	function
derive	function
deserialize	function
drop	function
fastcopy	function
fastserialize	function
flattened	function
fromhash	function
getmetatablekey	function
has_one_entry	function
identical	function
imerge	function
imerged	function
insert	function
is_empty	function
keys	function
load	function
loweredkeys	function
merge	function
merged	function
mirrored	function
pack	function
prepend	function
print	function
remove	function
reverse	function
reversed	function
save	function
sequenced	function
serialize	function
setmetatablecall	function
setmetatableindex	function
setmetatablekey	function

setmetatablenewindex	function
sort	function
sorted	function
sortedhash	function
sortedhashkeys	function
sortedkeys	function
sortedpairs	function
strip	function
sub	function
swapped	function
tocontext	function
tocsv	function
tofile	function
tohandle	function
tohash	function
toxml	function
twowaymapper	function
unique	function
unnest	function
unpack	function
values	function

# tex (basic tex)

attribute	table	istoken	function
badness	function	lccode	table
box	table	linebreak	function
catcode	table	lists	table
conditionals	data table	luacatcodes	number
constants	data table	mathcode	table
count	table	modes	data table
ctxcatcodes	number	nest	table
definefont	function	nilcatcodes	number
delcode	table	notcatcodes	number
dimen	table	number	function
directives	data table	pdffontname	function
enableprimitives	function	pdffontobjnum	function
error	function	pdffontsize	function
extraprimitives	function	pdfpageref	function
finish	function	pdfxformname	function
fontidentifier	function	primitives	function
fontname	function	print	function
fprint	function	printlist	function
get	function	prtcatcodes	number
getattribute	function	romannumeral	function
getbox	function	round	function
getcatcode	function	run	function
getcount	function	scale	function
getdelcode	function	set	function
getdimen	function	setattribute	function
getlccode	function	setbox	function
getlist	function	setcatcode	function
getmath	function	setcount	function
getmathcode	function	setdelcode	function
getnest	function	setdimen	function
getsfcode	function	setlccode	function
getskip	function	setlist	function
gettoks	function	setmath	function
getuccode	function	setmathcode	function
hashtokens	function	setnest	function
ifs	data table	setsfcode	function
inicatcodes	number	setskip	function
iscount	function	settoks	function
isdimen	function	setuccode	function
isskip	function	sfcode	table

shipout function skip table sp function sprint function systemmodes data table texcatcodes number toks table tpacatcodes number tpbcatcodes number tprint function trackers data table txtcatcodes number function type table uccode uniformdeviate function uprint function vrbcatcodes number write function

#### texconfig (basic tex)

error\_line number expand\_depth number formatname string half\_error\_line number hash extra number function init 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 stack size number

## texio (basic tex)

write function
write\_nl function

## token (basic tex)

command_id	function
command_name	function
create	function
csname_id	function
csname_name	function
expand	function
get_next	function
is_activechar	function
is_expandable	function
is_protected	function
lookup	function

#### tokens (context)

```
bgroup
              table
collectors table
   T data
   F defaultwords
   F dowithwords
   F flush
   F handle
   F install
   F register
   T registered
   T remapper
     F convert
    T data
     F store
   F show
   T show_methods
    Fa
    F b
    Fc
   F showtoken
   F test
   F trace
egroup
              table
              table
hbox
letter
              function
              function
letters
other
              function
vbox
              table
```

table

vtop

#### tracers (context)

```
count function
cs function
dimen function
knownlist function
lists table
```

T context
T internals
T scratch

name function
primitive function
printerror function
showlines function
strings table

S undefined

toks function
type function

# trackers (context)

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

# typesetters (context)

alignments	table	F installhandler	
F handler		F processmath	
F set		F set	
breakpoints	table	F setcolor	
F define		F setmath	
F handler		F tomode	
D mapping		firstlines	table
T methods		T actions	
T numbers		F default	
F set		F line	
F setreplacement		F word	
cases	table	F handler	
T actions		F set	
F handler		initials	table
F register		T actions	
F set		F default	
characteralign	table	F handler	
F handler		F set	
F resetcharacter	align	italics	table
F setcharacteral	ign	F forcevariant	
characters	table	F handler	
F handler		F reset	
F replacenbsp		F set	
F replacenbspace	s	kerns	table
checkers	table	D factors	
F handler		F handler	
F reset		F keepligature	
F set		B keeptogether	
cleaners	table	D mapping	
F handler		F set	
F set		margins	table
digits	table	F finalhandler	
T actions		F globalhandler	
F handler		F ha	
F set		F localhandler	
directions	table	F save	
F getfences		processors	table
F getglobal		F apply	
F getmethod		F register	
F handler		F reset	
T handlers		F split	

```
F startapply
F stopapply
F stripped
```

F tostring

#### spacings table

F define

F handler

D mapping

T numbers

T frenchpunctuation

T characters

S name

N number

F reset

F set

F setup

#### xtables table

F cleanup

F construct

F create

F flush

F initialize\_construct

 ${\tt F} \ {\tt initialize\_reflow\_height}$ 

F initialize\_reflow\_width

F next\_row

F reflow\_height

F reflow\_width

F set\_construct

F set\_reflow\_height

F set\_reflow\_width

## unicode (extra lua)

ascii	table	F	len
F byte			lower
F char			match
F dump			rep
F find		F	reverse
F format			sub
F gfind		F	upper
F gmatch		utf8	table
F gsub		F	byte
F len		F	char
F lower		F	characters
F match		F	chrlen
F rep		F	count
F reverse		F	dump
F sub		F	filetype
F upper		F	find
grapheme	table	F	format
F byte		F	gfind
F char		F	gmatch
F dump		F	gsub
F find		F	is_valid
F format		F	len
F gfind		F	length
F gmatch		F	lower
F gsub		F	magic
F len		F	match
F lower		F	remapper
F match			rep
F rep			replacer
F reverse	2		reverse
F sub			split
F upper			splitlines
latin1	table		sub
F byte			subtituter
F char			tocodes
F dump			toeight
F find			toentities
F format			tostring
F gfind			totable
F gmatch			upper
F gsub		٢	ustring

- F utf16\_to\_utf8
- F utf16\_to\_utf8\_be
- F utf16\_to\_utf8\_le
- F utf32\_to\_utf8
- F utf32\_to\_utf8\_be
- F utf32\_to\_utf8\_le
- F utf8\_to\_utf16
- F utf8\_to\_utf16\_be
- F utf8\_to\_utf16\_le
- F utf8\_to\_utf8
- F values
- F xstring

# url (context)

addscheme	function
barepath	function
construct	function
escape	function
filename	function
hashed	function
hasscheme	function
query	function
split	function
toquery	function
unescapeget	function

## utilities (context)

debugger	table	pars	sers	table
F disable		F	add_settings_to_a	array
F enable		F	arguments_to_tab	le
F savestats		F	array_to_string	
F showstats		F	csvsplitter	
formatters	table	F	getparameters	
F formatcolumns		F	hash_to_string	
F list		F	iterator	
F stripzeros		F	keq_to_hash	
garbagecollector	table	F	listitem	
F check		F	make_settings_to	_hash_pattern
N criterium		F	mergehashes	
B enabled		F	options_to_hash	
lua	table	Т	patterns	
B alwaysstripcode			U settings_to_arm	ay
F compile			U settings_to_has	sh_a
F loadedluacode			sh_b	
F loadstripped			U settings_to_has	sh_c
N nofstrippedbytes			U unittotex	
N nofstrippedchunks	5	F	process_stripped	_settings
B stripcode		F	rfc4180splitter	
T strippedchunks		F	runtime	
F strippedloadstrin	ng	F	settings_to_arra	y
T suffixes		F	settings_to_arra	y_with_repeat
S lua		F settings_to_hash		
S luc		F settings_to_hash_strict		
S lui		F settings_to_hash_tolerant		
S luj		F	settings_to_set	
S luv		F	simple_hash_to_s	tring
S tma		F	splitthousands	
S tmc		F	stepper	
S tua		F	stripped_setting	s_to_array
S tuc		F	unittotex	
packers	table	F	unittoxml	
F hashed		repo	ort	function
F new		sequ	iencers	table
F pack		F	appendaction	
F simplehashed		F	appendgroup	
F strip		F	compile	
F unpack		F	disableaction	
N version		F	disablegroup	

F enableaction F enablegroup D functions F localize F new F nodeprocessor F prependaction F prependgroup F removeaction F setkind F tostring table setters F disable F enable F initialize F list F new F register F report F reset F show stacker table F new storage table F allocate F checked F mark F marked F setinitializer F sparse strings table F collapsecrlf T formatters F add F new F newrepeater F nice F striplong F tabtospace T tracers tables table F accesstable

F definedtable F definetable

F encapsulate
F insertaftervalue
F insertbeforevalue
F migratetable
F removevalue

#### templates

table

F load
F replace
F replacer
F resolve

#### vf (context)

```
char
        function
down
        function
fontid
        function
        function
image
        function
node
        function
nop
        function
pop
push
        function
right
        function
rule
        function
special function
```

## visualizers (context)

escapepatterns	data	table	
getvisualizer	etvisualizer function		
load	function		
makenested	funct	ion	
makepattern	function		
newgrammar	function		
newhandler	function		
parsedxml	function		
pattern	function		
register	function		
registerescapecommand	function		
registerescapeline	function		
registerescapepattern	function		
signal	string		
signalpattern	userdata		
specifications	data	table	
visualize	funct	ion	
visualizebuffer	function		
<b>visualizefile</b> f		ion	
visualizestring	function		
write	function		
writeargument	funct	ion	
writedefault	funct	ion	
writeemptyline	funct	ion	
writenewline	function		
writespace	function		

## xml (context)

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

F	command	F table	
F	concat	F tag	
F	concatrange	F tags	
F	context	F text	
F	count	F texts	
F	ctxtext	F upperall	
F	default	first	function
F	first	found	function
F	function	functions	table
F	index	getbuffer	function
F	last	gethandlers	function
F	lettered	gethandlersfunction	function
F	lower	helpers	table
F	lowerall	F recursetext	
F	match	include	function
F	name	index	function
F	position	inheritedconvert	function
F	reverse	inject	function
F	stripped	<pre>inject_element</pre>	function
F	tag	<pre>inject_element_after</pre>	<b>function</b>
F	tags	<pre>inject_element_before</pre>	function
F	text	injectafter	function
F	upper	injectbefore	function
F	upperall	insert	function
T >	kml	insert_element	function
F	all	<pre>insert_element_after</pre>	function
F	att	<pre>insert_element_before</pre>	<del>function</del>
F	attribute	insertafter	function
F	attributes	insertbefore	function
F	cdata	insertcomment	function
F	chainattribute	inspect	function
F	count	is_valid	function
F	default	kind	function
F	elements	last	function
F	empty	load	function
F	first	lpath	function
F	function	lpathcached	function
F	index	lpathcalls	function
F	last	lshow	function
F	lowerall	makestandalone	function
F	match	match	function
F	name	name	function
F	position	newhandlers	function
F	reverse	nodesettostring	function

Т

originalload function
package function
parent function
parsedentitylpeg userdata
pihandlers table
placeholders table

F unknown\_any\_entity
F unknown\_dec\_entity
F unknown hex entity

position function privatecodes table privatetoken function function process process attributes function [ ] process elements function processattributes function profiled table raw function registerentity function registerns function remap name **function function** remap\_namespace function remap tag function remapname function remapnamespace function remaptag function renamespace replace function replace element function resolvens function function root function save selection function separate function

function

function

function function

function

function

function

function

**function** 

table

serialize

setproperty settings

specialhandler

strip whitespace

sethandlersfunction

setcdata

sprint

string

strip

stripelement function stripleadingspaces function table function function text textonly function texttocdata function tocdata function toelement function tostrina function toxml function function tprint function traverse function unescaped unprivatized function withelement function withelements function function wrap

table

xmlns

#### zip (extra lua)

archives table
close function
closearchive function
open function
openarchive function
openfile function
registeredfiles table
type function

#### zlib (extra lua)

adler32 function
compress function
crc32 function
decompress function
decompressobj function
version function