MP attributes backends bit bit32 blobs boolean 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 immg interactions interfaces io jit job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 lua luatex lxml math mathematics mbox md5 metapost mime moduledata modules mp mplib noads mode nodes number os package pagebuilders parametersets pattern pdfscanner physics profiler publications regimes resolvers scripts set socket sorters statistics status storage streams string structures table thirddata token tokens tracers trackers typesetters unicode url userdata utilities vf visualizers xml zip zlib

ConT_EXt MkIV

global (alias: _G)

MP	table	environment	table
_LUAVERSION	number	epdf	table
MAJORVERSION	number	error	function
_MINORVERSION	number	experiments	table
cldo	function	figures	table
arg	table	file	table
assert	function	floats	table
attributes	table	font	table
backends	table	fontloader	table
beginpage	function	fonts	table
bit	table	format_n	function
bit32	table	frozen	boolean
blobs	table	functions	table
boolean	table	gcinfo	function
border_set	boolean	getfenv	function
buffers	table	getmetatable	function
builders	table	getreadfilename	function
caches	table	global	table
callback	table	graphics	table
callbacks	table	gzip	table
catcodes	table	img	table
characters	table	inspect	function
chemistry	table	interactions	table
collectgarbage	function	interfaces	table
commands	table	io	table
containers	table	ipairs	function
context	function	jit	table
context_applyprocessor	function	job	table
<pre>context_firstofoneargument</pre>	function	lang	table
converters	table	languages	table
coroutine	table	layouts	table
ctxrunner	table	lfs	table
debug	table	libraries	table
delta	number	lmx	table
dimen	function	lmxconvert	function
dir	table	lmxnew	function
directives	table	load	function
document	table	loadfile	function
documentdata	table	loadstring	function
dofile	function	logs	table
endpage	function	lp_fastpos_n	userdata

1			£
lp_fastpos_p	userdata	rawget	function
lpdf	table	rawlen	function
lpeg	table	rawset	function
ltn12	table	regimes	table
lua	table	report_characters	function
luatex	table	require	function
lxml	table	resolve_fences	function
marknocite	function	resolvers · .	table
math	table	scripts	table
mathematics	table	select	function
mbox	table	set	table
md5	table	setcharacteralign	function
metapost	table	setfenv	function
mime	table	setinspector	function
module	function	setmetatable	function
moduledata	table	socket	table
modules	table	sorters	table
mp	table	statistics	table
mplib	table	status	table
newline	function	storage	table
newproxy	function	streams	table
next	function	string	table
noads	table	stripmath	function
node	table	structures	table
nodes	table	swiglib	function
number	table	table	table
optionalrequire	function	tex	table
os	table	texconfig	table
outputpagestree	function	texio	table
package	table	thirddata	table
pagebuilders	table	toboolean	function
pairs	function	token	table
parametersets	table	tokens	table
pattern	table	tonumber	function
pcall	function	tostring	function
pdf	table	trace_characters	boolean
pdfborder	function	tracers	table
pdfscanner	table	trackers	table
physics	table	type	function
print	function	typesetters	table
profiler	table	unicode	table
protect	function	unpack	function
publications	table	url	table
rawequal	function	userdata	table

utf table utilities table νf table visualizers table xml table xmlconvert function xpcall function zip table zlib table

attributes (context)

colorintents	table	F mpoptions	
N attribute		U none	
D data		F popset	
F enable		F processcolorc	omponents
F handler		F pushset	
F register		F register	
D registered		D registered	
colors	table	F registerspotc	olor
N attribute		F rgb	
F cmyk		F rgbtocmyk	
F cmyktogray		F rgbtogray	
F cmyktorgb		F rgbtohsv	
F colorcomponer	nts	N selector	
B couple		F setlist	
D data		F setmodel	
N default		D sets	
F defineinterme	ediatecolor	F spec	
F definemixcolo	or	F spot	
F definemultito	onecolor	F spotcolorname	
F defineprocess	scolor	F spotcolorpare	nt
F definesimple	gray	F spotcolorvalu	е
F definespotcol	lor	B supported	
F definetranspa	arency	F transparencyc	omponents
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 data table numbers function ofnode private function public function showcurrent function states table F disabletriggering F enabletriggering F finalize F initialize F process F selective F stacked F stacker function system 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 hasmatrix

codeinjections table F insertrenderingwindow F synchronizecolormodel F mergereferences current strina F mergeviewerlavers defaults table F prerollreference T codeinjections F presetsymbol F aethpos F presetsymbollist F getmatrix F processrendering F getpos F registerdocumentcloseaction F registerdocumentopenaction F getypos F hasmatrix F registeredsymbol T nodeiniections F registerpagecloseaction T registrations F registerpageopenaction D tables F registersymbol install function F setfieldcalculationset nodeinjections table F setfigurealternative F restore F setfigurecolorspace F save F setfiguremask F transform F setformat nothina function F setformsmethod table pdf F setpagetransition T codeiniections F setupcanvas F addbookmarks F setupidentity F attachmentid F setxmpfile F clonefield F startlayer F definefield F stoplayer F definefieldset F supportedformats F defineviewerlayer F unicodetoactualtext F embedfile F useviewerlaver F enabletags F validfield F exportformdata F validfieldcategory F validfieldset F getdefaultfieldvalue F getfieldcategory S comment F getfieldset T nodeinjections F getformatoption F addtags F gethpos F annotation F attachfile F getmatrix F getoutputfilename F changestackedlayer F cmykcolor F getpos F comment F getpreviewfigure F destination F getypos

F effect

- F graycolor
- F injectbitmap
- F insertmovie
- F insertsound
- F insertswf
- F insertu3d
- F knockout
- F negative
- F overprint
- F positive
- F reference
- F rgbcolor
- F spotcolor
- F startlayer
- F startstackedlayer
- F stoplayer
- F stopstackedlayer
- F transparency
- F typesetfield
- T registrations
 - F cmykindexcolor
 - F cmykspotcolor
 - F getspotcolorreference
 - F grayindexcolor
 - F grayspotcolor
 - F rgbindexcolor
 - F rgbspotcolor
 - F spotcolorname
 - F transparency
- T tables
 - D vfspecials

registrations table
tables table

bit (context)

```
arshift function
band
        function
        function
bnot
        function
bor
        function
bswap
        function
bxor
        function
lshift
rol
        function
ror
        function
rshift
        function
tobit
        function
tohex
        function
```

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	S ai
adobename	function	S al
bidi	data table	S b2
blockrange	function	S ba
blocks	data table	S bb
casemap	table	S bk
categories	data table	S cb
category	function	S cj
categorytags	data table	S cl
checkedlower	function	S cm
collapsed	data table	S cp
combined	data table	S cr
contextname	function	S ex
data	data table	S gl
decomposed	data table	S h2
define	function	S h3
description	function	S hl
descriptions	data table	S hy
directions	table	S id
enccodes	data table	S in
entities	data table	S is
fallbacks	data table	S jl
filters	data table	S jt
fromnumber	function	S jv
fschars	data table	S lf
fscodes	data table	S nl
getrange	function	S ns
graphemes	data table	S nu
hangul initialize	data table function	S op
		S po
is_character	data table data table	S pr
is_command is letter	data table	S qu S ri
is_mark	data table	S ri
is punctuation	data table	S sg
is spacing	data table	S sp
lcchars	data table	S sy
lccode	function	S wj
lccodes	data table	S xx
lettered	function	S zw
linebreaks	table	lower

function

math table mathpairs data table mirrors table otfscripts data table data table ranges registerentities function remap_hangul_syllabe function function setcodes function shape function shaped shchars data table shcodes data table function showstring specialchars data table **specials** data table subscripts table superscripts table data table synonyms

table

D accentmapping

D commandmapping

F defineaccents

F safechar

F toutf

tex

F toutfpattern

textclasses table
tonumber function
ucchars data table
uccode function
uccodes data table
unicodechar function
upper 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)

Alphabetic	function	assignbuffer	function
Character	function	attachproperty	function
Characters	function	autofinishstructurelevels	function
MPc	function	autonextspace	function
MPd	function	autonextstructurelevel	function
MPh	function	autosetups	function
MPll	function	autostarttext	function
MPlr	function	autostoptext	function
MPls	function	averagecharwidth	function
MPn	function	bcolumn	function
MPp	function	boolcase	function
MPpardata	function	boxtostring	function
MPplus	function	btx_a_f	function
MPpos	function	btx_a_i	function
MPposset	function	btx_a_j	function
MPr	function	btx_a_s	function
MPrest	function	btx_a_v	function
MPrs	function	btxaddfield	function
MPul	function	btxauthor	function
MPur	function	btxauthorfield	function
MPw	function	btxcollectlistentries	function
MPx	function	btxdetail	function
MPxy	function	btxdoif	function
MPxywhd	function	btxdoifelse	function
MPy	function	btxdoifnot	function
Romannumerals	function	btxfetchlistentries	function
abjadnodotnumerals	function	btxfield	function
abjadnumerals	function	btxflush	function
addbtxentry	function	btxflushlistentries	function
addcounter	function	btxhandlecite	function
addlinklistelement	function	btxhandlenocite	function
addreplacements	function	btxlistvariant	function
addtojavascriptpreamble	function	btxsingularorplural	function
addtolist	function	buildtextaccent	function
allinputpaths	function	character	function
alphabetic	function	characters	function
analysefloatmethod	function	chardescription	function
analyzelist	function	checkcharactersinfont	function
applytochars	function	checkcountersetup	function
applytofirstcharacter	function	checkedconversion	function
applytowords	function	checkedpagefloat	function

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

doifcounter	function	doifposition	function
doifdimenstringelse	function	doifpositionelse	function
doifdrawingblackelse	function	doifpositiononpage	function
doifelse	function	doifpositionsonsamepageelse	function
doifelsebuffer	function	doifpositionsonthispageelse	function
doifelsecontinuewithfile	function	doifurldefinedelse	function
doifelsecounter	function	doprocesstypescriptfile	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	enhanceregister	function
doiffieldsetelse	function	erasebuffer	function
doiffiledefinedelse	function	expandcurrentreference	function
doiffileexistelse	function	exportformdata	function
doiffirstcharelse	function	exportreferences	function
doifinputfileelse	function	extendregister	function
doifinsetelse	function	extensiblecode	function
doifleapyearelse	function	feature	function
doiflisthasentry	function	featureattribute	function
doiflisthasnumberelse	function	featurelist	function
doiflisthaspageelse	function	feedback	function
doiflisthastitleelse	function	fetchallmarks	function
doiflocfileelse	function	fetchmultipar	function
doifnot	function	fetchmultishape	function
doifnotcounter	function	fetchonemark	function
doifnotecontent	function	fetchposboxes	function
doifnoteonsamepageasprevious	function	fetchtwomarks	function
doifobjectreferencefoundelse	function	figurefilename	function
doifolderversionelse	function	figurefilepath	function
doifoverlappingelse	function	figurefiletype	function
doifparentfileelse	function	figurerequest	function

figurestatus	function	getfirstcharacter	function
figureused	function	getfirsttwopassdata	function
figurevariable	function	getfloatvariable	function
filterdefaultreference	function	getfullsectionnumber	function
filterreference	function	getinternallistreference	function
finalizebox	function	getinternalreference	function
findtwopassdata	function	getlasttwopassdata	function
firstcountervalue	function	getmarking	function
firstinrange	function	getmessage	function
firstinset	function	getmpextensions	function
flushfloat	function	getnotestate	function
flushmarked	function	getplaceholderchar	function
flushnotes	function	getprivatechar	function
flushpostponedblocks	function	getprogram	function
flushpostponednotes	function	getrandomcounta	function
fontchar	function	getrandomcountb	function
fontcollectionclone	function	getrandomseed	function
fontcollectiondefine	function	getreadfilename	function
fontcollectionprepare	function	getsectionnumber	function
fontcollectionregister	function	getstructuredata	function
fontcollectionreport	function	getsubstring	function
fontcollectionreset	function	gettexbuffer	function
fontlookupgetkey	function	gettwopassdata	function
fontlookupgetkeyofindex	function	gettwopassdatalist	function
fontlookupinitialize	function	geturl	function
fontlookupnoffound	function	grabbuffer	function
forceendjob	function	hboxtovbox	function
forcequitjob	function	helpaction	function
format	function	helpreference	function
formatcolor	function	hexstringtonumber	function
formatgray	function	horizontalcode	function
freezerandomseed	function	hour	function
from	function	hyphenatedlist	function
getbidimode	function	hyphenatedurl	function
getbuffer	function	D characters	
getbufferctxlua	function	N lefthyphenmin	
getbuffermkvi	function	D mapping	
getcommandline	function	N righthyphenmin	
getctxfile	function	F setcharacters	
getcurrentprefixspec	function	immediateproperty	function
getcurrentreferencemetadata	function	incrementedcounter	function
getcurrentsectionlevel	function	initializetexdirectives	function
getdefaultfieldvalue	function	initializetextrackers	function
getfieldcategory	function	injectcurrentreference	function

injectreference	function	maxitemwidth	function
inlinechemical	function	minute	function
insertattachment	function	mixcleanup	function
insertcomment	function	mixfinalize	function
insertfield	function	mixflushlist	function
insertionnumber	function	mixflushrest	function
insertrenderingwindow	function	mixgetsplit	function
insertsoundclip	function	mixsetsplit	function
installedlanguages	function	mixstate	function
installtexdirective	function	molecule	function
installtextracker	function	month	function
languagenumber	function	monthmnem	function
lastcountervalue	function	monthname	function
lchexnumber	function	mpcolor	function
lchexnumbers	function	mpoptions	function
leapyear	function	mprunvar	function
linenumbersstageone	function	namedstructureuservariable	function
linenumbersstagetwo	function	namedstructurevariable	function
listgroupindex	function	nbfs	function
listlabel	function	nextcountervalue	function
listlocation	function	nextparallel	function
listprefixednumber	function	nofdays	function
listprefixedpage	function	nofitems	function
listrealpage	function	nofstackedfloats	function
listsize	function	notedeltapage	function
listtitle	function	notelistindex	function
listuserdata	function	notenumberpage	function
loadbtxdefinitionfile	function	noteprefixednumber	function
loadexamodes	function	notesymbolpage	function
loadfontgoodies	function	notetitle	function
loadspellchecklist	function	ntimes	function
loadtypescriptfile	function	number	function
loadvisualizer	function	F C	
locatefilepath	function	F FL	
locfilename	function	F HL	
lower	function	F L	
makeactive	function	F LL	
manipulated	function	F LuaSnippet	
markfonts	function	F LuaSnippetBoundary	
markingnumber	function	F LuaSnippetComment	
markingtitle	function	F LuaSnippetName	
markregionbox	function	F LuaSnippetNameBase	
math_frac	function	F LuaSnippetNameCore	
mathrenderset	function	F LuaSnippetNameLibraries	

F LuaSnippetOuote F flushlines F LuaSnippetSpecial F a F LuaSnippetString F addaskedblankskip F addpredefinedblankskip F MI F MPLIBsetCtext F applyprocessor F MPLIBsetNtext F b F MPcolor F beainhbox F MetapostSnippet F beginvbox F MetapostSnippetBoundary F bf F MetapostSnippetComment F bgroup F MetapostSnippetConstructor F blank F MetapostSnippetName F bold F MetapostSnippetNameMetafun F btxchecklistcombi F MetapostSnippetNamePlain F btxchecklistentry F MetapostSnippetNamePrimitive F btxciteauthorsetup F MetapostSnippetQuote F btxcitesetup F MetapostSnippetSpecial F btxcitevariantparameter F btxdirectlink F MetapostSnippetString F btxhandlelistentry F NC F NR F btxlistauthorsetup F ParsedXmlSnippetCdata F btxlistparameter F ParsedXmlSnippetComment F btxlistsetup F ParsedXmlSnippetDoctype F btxlistvariantparameter F ParsedXmlSnippetElement F btxmissing F ParsedXmlSnippetInstruction F btxsetauthorindex F ParsedXmlSnippetKey F btxsetauthorvariant F btxsetbacklink F ParsedXmlSnippetValue F TexSnippet F btxsetbacktrace F TexSnippetBoundary F btxsetcategory F TexSnippetComment F btxsetcitereference F TexSnippetGroup F btxsetcombis F TexSnippetName F htxsetconcat F TexSnippetSpecial F btxsetcount F btxsetdataset F XmlSnippet F btxsetfirst F XmlSnippetBoundary F XmlSnippetCdata F btxsetfirstnames F XmlSnippetComment F btxsetinitials F XmlSnippetEntity F btxsetinternal F btxsetjuniors F XmlSnippetEqual F XmlSnippetKey F btxsetlanguage F XmlSnippetName F btxsetlistreference F XmlSnippetString F btxsetoverflow F flush F btxsetsecond F flushdirect F btxsetsurnames

F btxsettag F diaitsminus F btxsetvons F digitsnegative F btxstartauthor F digitsplus F digitspositive F btxstartcite F btxstartciteauthor F digitspower F btxstartsubcite F digitspowerminus F btxstopauthor F digitspowerplus F digitsseparatorspace F btxstopcite F btxstopciteauthor F digitssignspace F btxstopsubcite F digitsspace Fc F digitszeropadding F callfunctiononce F direct F char F dodisplayverbatimbeginline F chardef F dodisplayverbatimemptyline F color F dodisplayverbatiminitialize F colordefage F dodisplayverbatimnewline F colordefagt F dodisplayverbatimstart F colordefalc F dodisplayverbatimstop F colordefalt F dofastdefinetypeface F colordeffqc F dofinishsomereference F colordeffat F dofromfiledescription F colordefflc F dofromfileliteral F colordefflt F dofromurldescription F dofromurlliteral F colordefrqc F colordefrat F doinlineverbatimbeginline F colordefrlc F doinlineverbatimemptvline F colordefrlt F doinlineverbatimnewline F concat F doinlineverbatimstart F doinlineverbatimstop F constructcs F constructcsonly F donestedtypingstart F convertnumber F donestedtypingstop F ctxreport F dostarttext F d F doverbatimspace F darkblue F egroup F darkgreen F emptyreference F darkred F enablemode F definefontsynonym F endhbox T delayed F endybox F digitsdigit F environment F digitsfinalcomma F expandreferencearguments F digitsfinalperiod F expandreferenceoperation F digitshighspace F finalizeautostructurelevel F digitsintermediatecomma F finishjob

F firstofoneargument

F digitsintermediateperiod

F firstoftwoarguments F newindexer F fixedblankskip F newmuskip F flexibleblankskip F newskip F flushblankhandling F newtexthandler F flushboxregister F newtoks F newverbosehandler F flushnode F fntsetdefname F nointerlineskip F fntsetnonsize F normalaton F normalover F fntsetsomename F fntsetsomesize F overstrike T formatted F par F fprint F pdfliteral T generics F popcatcodes S starttabulate F poplogger S stoptabulate F printlines F getlogger F processfilemany F getreferencestructureprefix F processfilenone F processfileonce F getvalue F protect F glyph F gobbleoneargument T puretext F aoto F pushcatcodes F hrule F pushlogger F registerentry F input T knownfunctions F registerfunction F 1 F registeronepage F lateluafunction F registerpagerange F letvaluerelax F registerseeword F llap F reservefunction F loadfile F rlap F loadfoundtypescriptfile F rotate F luasetup F runfile F m F secondoftwoarguments F makelinenumber F setblankcategory T metafun F setblankorder F color F setblankpenalty T delayed F setconditional F setfalsevalue F start F sethboxregister F stop T nested F setsomevalue F settabulateentry F markingcommand F markingseparator F settabulatelastentry

F newbox F settracing
F newcount F setupsystem
F newdimen F setupwithargument

F stopregisterentries F setvalue F setvboxregister F stopregisterentry F setxvalue F stopregisteroutput F space F stopregisterpages F sprint F stopregistersection F startLuaSnippet F stopregisterseewords F startMetapostSnippet F stoptabulate F startParsedXmlSnippet F stoptext F startTexSnippet F stoptitle F startXmlSnippet F stopyboxregister F startblankhandling F stopxtitle F startcolumns F storenode F startcomponentindeed F synonymentry F startenvironmentindeed F tabulaterow F startfontclass F tabulaterowbold F starthboxregister F tabulaterowtyp F startproductindeed F tabulaterowtype F startprojectindeed F template F startreadingfile T templates F startregisterentries F texsetup F startregisterentry F tobuffer F startregisteroutput F tocontext F tolines F startregisterpages F unitsC F startregistersection F startregisterseewords F unitsN F starttabulate F unitsNspace F starttext F unitsNstart F starttitle F unitsNstop F units0 F startvboxregister F startxtitle F unitsP F stopLuaSnippet F unitsPS F stopMetapostSnippet F unitsPII F stopParsedXmlSnippet F unitsPUS F units0 F stopTexSnippet F stopXmlSnippet F unitsS F stopblankhandling F unitsU F stopcolumns F unitsUS F stopcomponentindeed F unprotect F stopenvironmentindeed F unregisterfunction F stopfontclass F usemodule F stophboxregister F utfchar F stopproductindeed T verbatim F stopprojectindeed F LuaSnippetBoundary F stopreadingfile F LuaSnippetComment

F LuaSnippetName	numbers	function
F LuaSnippetNameBase	F C	
F LuaSnippetNameCore	F FL	
F LuaSnippetNameLibraries	F HL	
F LuaSnippetQuote	F L	
F LuaSnippetSpecial	F LL	
F LuaSnippetString	F LuaSnippet	
F MetapostSnippetBoundary	F LuaSnippetBoundary	
F MetapostSnippetComment	F LuaSnippetComment	
F MetapostSnippetConstructor	F LuaSnippetName	
F MetapostSnippetName	F LuaSnippetNameBase	
F MetapostSnippetNameMetafun	F LuaSnippetNameCore	
F MetapostSnippetNamePlain	F LuaSnippetNameLibraries	
F MetapostSnippetNamePrimitive	F LuaSnippetQuote	
F MetapostSnippetQuote	F LuaSnippetSpecial	
F MetapostSnippetSpecial	F LuaSnippetString	
F MetapostSnippetString	F ML	
F ParsedXmlSnippetCdata	F MPLIBsetCtext	
F ParsedXmlSnippetComment	F MPLIBsetNtext	
F ParsedXmlSnippetDoctype	F MPcolor	
F ParsedXmlSnippetElement	F MetapostSnippet	
F ParsedXmlSnippetInstruction	F MetapostSnippetBoundary	
F TexSnippetBoundary	F MetapostSnippetComment	
F TexSnippetComment	F MetapostSnippetConstructor	
F TexSnippetGroup	F MetapostSnippetName	
F TexSnippetName	F MetapostSnippetNameMetafun	
F TexSnippetSpecial	F MetapostSnippetNamePlain	
F XmlSnippetBoundary	F MetapostSnippetNamePrimitive	
F XmlSnippetCdata	F MetapostSnippetQuote	
F XmlSnippetComment	F MetapostSnippetSpecial	
F XmlSnippetEntity	F MetapostSnippetString	
F XmlSnippetEqual	F NC	
F XmlSnippetKey	F NR	
F XmlSnippetName	F ParsedXmlSnippetCdata	
F XmlSnippetString	F ParsedXmlSnippetComment	
F ctxreport	F ParsedXmlSnippetDoctype	
F viafile	F ParsedXmlSnippetElement	
F vrule	${\sf F} \ {\sf ParsedXmlSnippetInstruction}$	
F xmlcdataafter	F ParsedXmlSnippetKey	
F xmlcdatabefore	F ParsedXmlSnippetValue	
F xmlcdataobeyedline	F TexSnippet	
F xmlcdataobeyedspace	F TexSnippetBoundary	
F xmlprocessbuffer	F TexSnippetComment	
F xmlsetup	F TexSnippetGroup	

F TexSnippetName F btxsetconcat F TexSnippetSpecial F btxsetcount F XmlSnippet F btxsetdataset F btxsetfirst F XmlSnippetBoundary F XmlSnippetCdata F btxsetfirstnames F XmlSnippetComment F btxsetinitials F XmlSnippetEntity F btxsetinternal F btxsetiuniors F XmlSnippetEqual F XmlSnippetKey F btxsetlanguage F btxsetlistreference F XmlSnippetName F XmlSnippetString F btxsetoverflow F flush F btxsetsecond F __flushdirect F btxsetsurnames F flushlines F btxsettag F btxsetvons F addaskedblankskip F btxstartauthor F addpredefinedblankskip F btxstartcite F applyprocessor F btxstartciteauthor F b F btxstartsubcite F beginhbox F btxstopauthor F beginvbox F btxstopcite F bf F btxstopciteauthor F btxstopsubcite F bgroup F blank F hold F callfunctiononce F btxchecklistcombi F char F chardef F btxchecklistentry F btxciteauthorsetup F color F btxcitesetup F colordefage F btxcitevariantparameter F colordefagt F btxdirectlink F colordefalc F btxhandlelistentry F colordefalt F btxlistauthorsetup F colordeffgc F btxlistparameter F colordeffqt F colordefflc F btxlistsetup F btxlistvariantparameter F colordefflt F btxmissing F colordefrac F btxsetauthorindex F colordefrqt F btxsetauthorvariant F colordefrlc F btxsetbacklink F colordefrlt F btxsetbacktrace F concat F btxsetcategory F constructcs F btxsetcitereference F constructcsonly F btxsetcombis F convertnumber

F ctxreport F dostarttext E 4 F doverbatimspace F darkblue F egroup F darkgreen F emptyreference F darkred F enablemode F definefontsynonym F endhbox T delayed F endvbox F diaitsdiait F environment F digitsfinalcomma F expandreferencearguments F digitsfinalperiod F expandreferenceoperation F digitshighspace F finalizeautostructurelevel F finishiob F digitsintermediatecomma F digitsintermediateperiod F firstofoneargument F digitsminus F firstoftwoarguments F digitsnegative F fixedblankskip F digitsplus F flexibleblankskip F digitspositive F flushblankhandling F flushboxregister F digitspower F flushnode F digitspowerminus F digitspowerplus F fntsetdefname F digitsseparatorspace F fntsetnopsize F digitssignspace F fntsetsomename F fntsetsomesize F digitsspace F digitszeropadding T formatted F direct F fprint F dodisplayverbatimbeginline T generics F dodisplayverbatimemptyline S starttabulate F dodisplayverbatiminitialize S stoptabulate F dodisplayverbatimnewline F getlogger F dodisplayverbatimstart F getreferencestructureprefix F dodisplayverbatimstop F getvalue F dofastdefinetypeface F glyph F dofinishsomereference F gobbleoneargument F dofromfiledescription F goto F dofromfileliteral F hrule F dofromurldescription F input F dofromurlliteral T knownfunctions Fl F doinlineverbatimbeginline F doinlineverbatimemptyline F lateluafunction F doinlineverbatimnewline F letvaluerelax F doinlineverbatimstart F llap F doinlineverbatimstop F loadfile F loadfoundtypescriptfile F donestedtypingstart F donestedtypingstop F luasetup

F m F secondoftwoarguments F makelinenumber F setblankcategory T metafun F setblankorder F setblankpenalty F color F setconditional T delayed F start F setfalsevalue F stop F sethboxregister F setsomevalue T nested F markingcommand F settabulateentry F markingseparator F settabulatelastentry F newbox F settracing F newcount F setupsystem F newdimen F setupwithargument F newindexer F setvalue F newmuskip F setvboxregister F newskip F setxvalue F newtexthandler F space F newtoks F sprint F newverbosehandler F startLuaSnippet F nointerlineskip F startMetapostSnippet F normalatop F startParsedXmlSnippet F normalover F startTexSnippet F overstrike F startXmlSnippet F startblankhandling F par F pdfliteral F startcolumns F popcatcodes F startcomponentindeed F startenvironmentindeed F poplogger F printlines F startfontclass F processfilemany F starthboxregister F processfilenone F startproductindeed F processfileonce F startprojectindeed F protect F startreadingfile T puretext F startregisterentries F pushcatcodes F startregisterentry F pushlogger F startregisteroutput F registerentry F startregisterpages F registerfunction F startregistersection F registeronepage F startregisterseewords F starttabulate F registerpagerange F registerseeword F starttext F reservefunction F starttitle F startyboxregister F rlap F startxtitle F rotate F runfile F stopLuaSnippet

F stopMetapostSnippet F unitsPII F stopParsedXmlSnippet F unitsPUS F stopTexSnippet F units0 F stopXmlSnippet F unitsS F stopblankhandling F unitsU F stopcolumns F unitsUS F stopcomponentindeed F unprotect F unregisterfunction F stopenvironmentindeed F stopfontclass F usemodule F stophboxregister Futfchar F stopproductindeed T verbatim F stopprojectindeed F LuaSnippetBoundary F stopreadingfile F LuaSnippetComment F stopregisterentries F LuaSnippetName F stopregisterentry F LuaSnippetNameBase F stopregisteroutput F LuaSnippetNameCore F stopregisterpages F LuaSnippetNameLibraries F stopregistersection F LuaSnippetQuote F stopregisterseewords F LuaSnippetSpecial F stoptabulate F LuaSnippetString F stoptext F MetapostSnippetBoundary F stoptitle F MetapostSnippetComment F stopvboxregister F MetapostSnippetConstructor F stopxtitle F MetapostSnippetName F storenode F MetapostSnippetNameMetafun F synonymentry F MetapostSnippetNamePlain F tabulaterow F MetapostSnippetNamePrimitive F tabulaterowbold F MetapostSnippetQuote F tabulaterowtyp F MetapostSnippetSpecial F tabulaterowtype F MetapostSnippetString F template F ParsedXmlSnippetCdata T templates F ParsedXmlSnippetComment F texsetup F ParsedXmlSnippetDoctype F tobuffer F ParsedXmlSnippetElement F tocontext F ParsedXmlSnippetInstruction F tolines F TexSnippetBoundary F unitsC F TexSnippetComment F unitsN F TexSnippetGroup F TexSnippetName F unitsNspace F unitsNstart F TexSnippetSpecial F unitsNstop F XmlSnippetBoundary F units0 F XmlSnippetCdata F unitsP F XmlSnippetComment F unitsPS F XmlSnippetEntity

F XmlSnippetEqual		posplus	function
F XmlSnippetKey		posstrut	function
F XmlSnippetName		postponenotes	function
F XmlSnippetString		poswhd	function
F ctxreport		posxy	function
F viafile		prefixedconverted	function
F vrule		prepareMPvariable	function
F xmlcdataafter		preparedfile	function
F xmlcdatabefore		presetsymbollist	function
F xmlcdataobeyedline		presettabulate	function
F xmlcdataobeyedspace		prevcountervalue	function
F xmlprocessbuffer		processbuffer	function
F xmlsetup		processcolorcomponents	function
objectnumber	function	processedfile	function
objectpage	function	processedfiles	function
octnumber	function	processfile	function
octstringtonumber	function	processfilemany	function
oneorrange	function	processfilenone	function
ordinal	function	processfileonce	function
overloadbookmark	function	processlist	function
<pre>page_injections_flush_after</pre>	function	processregister	function
<pre>page_injections_flush_before</pre>	function	processsplit	function
page_injections_save	function	processsynonyms	function
pagestaterealpage	function	purefontname	function
parpos	function	pushfloat	function
pdfrotation	function	pushitaliccorrection	function
pdfstartmatrix	function	pushlist	function
pdfstartmirroring	function	pushreferenceprefix	function
pdfstartrotation	function	pushregime	function
pdfstartscaling	function	pushsectionblock	function
pdfstopmatrix	function	rawcharacter	function
pdfstopmirroring	function	rawcountervalue	function
pdfstoprotation	function	rawdate	function
pdfstopscaling	function	referencepagestate	function
percentageof	function	referencerealpage	function
pgfxcolorspec	function	registerattachment	function
placeparallel	function	registerbookmark	function
popfloat	function	registerbuttons	function
popitaliccorrection	function	registercatcodetable	function
poplist	function	registercolor	function
popreferenceprefix	function	registercolorintent	function
popregime	function	registeredviewerlayer	function
popsectionblock	function	registerhelp	function
pos	function	registeritemgroup	function

registerlanguagefeatures	function	savecurrentattributes	function
registerlinenumbering	function	savedlistnumber	function
registermaintextcolor	function	savedlistprefixednumber	function
registernamespace	function	savedlisttitle	function
registerpostponedblock	function	savefloat	function
registerrendering	function	savemargindata	function
registersection	function	savenote	function
registersoundclip	function	saveobject	function
registerstructureprocessor	function	savepagedata	function
registersynonym	function	saveparallel	function
registertransparency	function	savestructureblock	function
registerunit	function	savetaggedtwopassdata	function
registerusedsynonym	function	savetwopassdata	function
registeruserdata	function	savevariable	function
relatemarking	function	second	function
remapentity	function	selectstructureblock	function
removemissingcharacters	function	setbreakpoints	function
renderingvar	function	setbtxdataset	function
replacemissingcharacters	function	setbtxentry	function
replacepospxywhd	function	setcharacteralign	function
reportstructure	function	setcharactercasing	function
resavefloat	function	setcharactercleaning	function
resetcharacteralign	function	setcharactercodes	function
resetcounter	function	setcharacterkerning	function
resetfontfeature	function	setcharacterspacing	function
resetfontsolution	function	setcharacterstripping	function
resetmarking	function	setclosedocumentaction	function
resetmathattributes	function	setclosepageaction	function
resetmathitalics	function	setcolormodel	function
resetnullfont	function	setcounter	function
resetparallel	function	setdataset	function
resetprevdepth	function	setdigitsmanipulation	function
resetreference	function	setdirection	function
resetstructureprocessor	function	setdocumentenvironments	function
resettimer	function	setdocumentfilenames	function
restartcounter	function	setdocumentmodes	function
restorecounter	function	setdocumentmodules	function
restorecurrentattributes	function	setfigurelookuporder	function
restorenote	function	setfirstline	function
romannumerals	function	setfontfeature	function
runbuffer	function	setfontofid	function
safechar	function	setfontsolution	function
savebuffer	function	setformat	function
savecounter	function	setformsmethod	function

setinitial	function	setstructureblockstate	function
setinsertionlocation	function	settagcombination	function
setinterfaceconstant	function	settagdescription	function
setinterfaceelement	function	settagdescriptionsymbol	function
setinterfacemessage	function	settagfigure	function
setinterfacemessages	function	settaghighlight	function
setinterfacevariable	function	settagitemgroup	function
setinternalreference	function	settagproperty	function
setjobcomment	function	settagsorting	function
setlanguageexceptions	function	settagsynonym	function
setlanguagesynonym	function	settagtablecell	function
setlayer	function	settagtabulatecell	function
setmarking	function	setupbookmarks	function
setmathalphabet	function	setupcanvas	function
setmathalternate	function	setupcharacterspacing	function
setmathattribute	function	setupexport	function
setmathdirection	function	setupfontexpansion	function
setmathitalics	function	setupfontprotrusion	function
setmathstyle	function	setupidentity	function
setnextinternalreference	function	setupinsertion	function
setnextreferenceorder	function	setupitaliccorrection	function
setnotestate	function	setuplinenumbering	function
setnotesymbolpage	function	setvisual	function
setobject	function	setxmpfile	function
setopendocumentaction	function	showassignerror	function
setopenpageaction	function	showattributes	function
setowncounter	function	showbtxdatasetcompleteness	function
setpagestate	function	showbtxdatasetfields	function
setpagestaterealpageno	function	showbtxfields	function
setpagetransition	function	showcallbacks	function
setparbuilder	function	showchardata	function
setpos	function	showcounter	function
setrandomseed	function	showfontparameters	function
setrealign	function	showhyphenatedinlist	function
setrealspaces	function	showjustification	function
setreferencearguments	function	showmessage	function
setreferenceattribute	function	sin	function
setreferenceoperation	function	sind	function
setregistermethod	function	splitfilename	function
setreplacements	function	spotcolorname	function
setsectionblock	function	spotcolorparent	function
setsectionentry	function	spotcolorvalue	function
setsectionlevel	function	startactualtext	function
setsectionnumber	function	startchemical	function

startcolorset	function	synchronizemarking	function
startcomponent	function	synonymmeaning	function
startenvironment	function	synonymname	function
startfontsolution	function	taggedmathfunction	function
startparbuilder	function	tan	function
startproduct	function	tand	function
startproject	function	testcase	function
startregime	function	textime	function
startsectionlevel	function	thefirstcharacter	function
starttag	function	theremainingcharacters	function
starttext	function	thetexdefinition	function
startviewerlayer	function	transparencycomponents	function
stopactualtext	function	triggereffect	function
stopchemical	function	triggernegative	function
stopcolorset	function	truefilename	function
stopcomponent	function	typebuffer	function
stopenvironment	function	typefile	function
stopfontsolution	function	typestring	function
stopparbuilder	function	uchexnumber	function
stopproduct	function	uchexnumbers	function
stopproject	function	undefinechemical	function
stopregime	function	unicodechar	function
stopsectionlevel	function	unit	function
stoptag	function	unloadlanguage	function
stoptext	function	upper	function
stopviewerlayer	function	useMPlibrary	function
storejavascriptcode	function	useanyfile	function
storejavascriptpreamble	function	usebtxdataset	function
storenote	function	usecldfile	function
storeregister	function	usecolors	function
strdp	function	usecomponent	function
strhd	function	useenvironment	function
strht	function	usefile	function
strip	function	usejavascriptpreamble	function
structureautocatcodedget	function	usejavascriptscripts	function
structurecatcodedget	function	uselibrary	function
structuregivencatcodedget	function	useluafile	function
structurenumber	function	useluamodule	function
structuretitle	function	usemodules	function
structureuservariable	function	usepath	function
structurevariable	function	useproduct	function
strwd	function	useproject	function
subcountervalues	function	usesubpath	function
synchronizecolormodel	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
x_table_init_construct	function
x_table_init_reflow_height	function
x_table_init_reflow_width	function
x_table_next_row	function
x_table_r	function
x_table_reflow_height	function
x_table_reflow_width	function
x_table_set_construct	function
x_table_set_reflow_height	function
x_table_set_reflow_width	function
year	function

containers (context)

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

converters (context)

A	function
AK	function
Alphabetic	function
Character	function
Characters	function
I	function
KA	function
KR	function
R	function
RK	function
Romannumerals	function
Word	function
Words	function
a	function
abjadnodotnumerals	function
abjadnumerals	function
alphabetic	function
character	function
characters	function
chineseallnumerals	function
chinesecapnumerals	function
chinesenumerals	function
chr	function
chrs	function
cn	function
cn-a	function
cn-c	function
convert	function
define	function
hexstringtonumber	function
hour	function
i	function
isleapyear	function
leapyear	function
maxchrs	function
minute	function
month	function
nofdays	function
number	function
numbers	function
octstringtonumber	function

ordinal	function	
r	function	
rawcharacter	function	
romannumerals	function	
second	function	
sequences	data table	
textime	function	
toabjad	function	
tochinese	function	
toroman	function	
verbose	table	
D data		
F translate		
weekday	function	
word	function	
words	function	

year

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)

function
function

dir (context)

collectpattern	function
current	function
expandname	function
found	function
glob	function
globfiles	function
globpattern	function
ls	function
makedirs	function
mkdirs	function
рор	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 data table
files table
getargument function
getfilename function
options 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)

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

texroot truefilename validengines string 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 bases bitmapimage boxnumber cachepaths check checkers converters current defaultdepth defaultheight defaultsearch defaultwidth done dummy existers exists formats found get auess hash identifiers identify images

data table function number data table function data table data table function number number boolean number function function data table function data table data table function function function data table function table

function

F write 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 data table patterns function pop preferguality boolean programs data table push function registerpattern function function registerresource reaistersuffix function resources data table scale function setlookups function setorder function function setpaths suffixes data table used data table

F boxes F check

F checksize

F clone

F copy

F immediatewrite

F kevs

F new

F node

F ofindex

F package

F print

F scan

F serialize

F totable

F types

file (basic lua)

addsuffix	function
basename	function
checksum	function
collapsepath	function
сору	function
dirname	function
expandname	function
extname	function
is_qualified_path	function
is_readable	function
is_rootbased_path	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
checkedpagefloat	function
collect	function
consult	function
flush	function
getvariable	function
nofstacked	function
рор	function
push	function
resave	function
save	function
stacked	function

font (basic tex)

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

getfont overloaded 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 encodingb	ytes
S designsize	S filename	
T expansion	S finalized	
S auto	S fontname	
S shrink	S format	
S step	S fullname	
S stretch	S hasitalic	s
S extendfactor	S hasmath	
S factor	S mathitali	cs
S hfactor	S mode	
S mathsize	S name	
T protrusion	S noglyphna	mes
S auto	S nostackma	th
S quad	S psname	
S scaledpoints	S textitali	cs
S scriptpercentage	S virtualiz	ed
S scriptscriptpercentage	D loadedfonts	
S size	S namemode	
S slantfactor	F newfeatures	
S slantperpoint	F newhandler	
T spacing	N noffontsloade	ed
S extra	N nofsharedfon	is
S shrink	N nofsharedhash	nes
S stretch	N nofsharedvect	tors
S width	N privateoffse	t
T synonyms	F readanddefine	2
S em	F registerfeat	ıre
S ex	B resolvevirtua	altoo
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 trytosharefor	nt
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 applypostpro	cessors
S autoitalicamount	F checkedmode	
T cidinfo	F checkedscrip	t
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
goodies table	T chainhandlers
D colorschemes	F normal
D data	F verbose
D designsizes	F collectlookups
D filenames	F dataset
F getcompositions	S defaultbasealternate
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 fontpatternha	ssize
D scripts	F getdigitwidth	
N version	F getparameters	
T pfb	F getprivatenod	9
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	4-61
D helpers	loggers	table

F add_placeholde T category_to_pl S ll S lm S lo S lt S lu		nulldata protrusions readers F afm F check_lua F check_tfm F dfont	data table data table table
S mc S me S mn S nd S nl S no S pc		F lua F opentype F otf F pfb D sequence F tfm F ttc	
S pd S pe S pf S pi S po S ps S sc S sk S sm S so F format F onetimemessage F register F reportdefinedf		F ttf select T data F definetypeface T fallbacks F filterinput T methods F default F features F file F goodies F name F selectfont F simplefonts	table
F reportusedfeat mappings F addtounicode F fromunicode16 F loadfile F loadline F loadlumtable F makenameparser F reset F tounicode16 F tounicode16sec mp D cache B inline	table	F spec F style F registerfalls: F searchfiles Specifiers D contextmerged F contextnumber: D contextsetups F contexttostrin F definecontext F mergecontext F presetcontext	table s
N version names	data table	F showcontext F splitcontext	

D synonyms

D variants

symbols table

F uselibrary

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 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

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

jit (context)

arch string
attach function
flush function
off function
on function
opt table

F start

os string
status function
util table

F funcbc

F funcinfo

F funck

F funcuvname

F ircalladdr

F traceexitstub

F traceinfo

F traceir

F tracek

F tracemc

F tracesnap

version string
version_num number

job (context)

_				
comment	function	F getcollected		
datasets	table	F getdata		
D collected		-	getfield	
F extend		F gettobesaved		
F getdata		F inlist		
F setdata		F last		
D tobesaved		F list		
	function	F save		
files	table	F savetagged		
D collected		D tobesaved		
F context			able	
B forcerun		F b_col		
F run		F b_region		
D tobesaved		Fc		
initialize	function	D collected		
load	function	F column		
loadother	function	F copy		
objects	table	F depth		
D collected		F e_col		
F get		F e_region		
F number		F enhance		
F page		F extra		
F save		F get		
F set		F getreserved		
D tobesaved		F hangafter		
pack	boolean	F hangindent		
packversion		F height		
pagestates	table	F hsize		
D collected		F leftskip		
F extend		F lowerleft		
F realpage		F lowerright		
F setstate		F markregionbo	×	
D tobesaved		Fn		
passes	table	F onsamepage		
F check		F overlapping		
D collected		Fp		
F count		F page		
F define		F paragraph		
F find		F parindent		
F first		F position		
F get		Fr		

- 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
- ${\sf T} \ {\sf tobesaved}$
 - T branches
- S name
- S type

variables table

- D checksums
- D collected
- F getchecksum
- F makechecksum
- F restore
- 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 load T methods N threshold

F found

layouts (context)

status table

F isleftpage

F leftorrightpagection

lfs (extra lua)

attributes function chdir function currentdir function dir 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 function pν report function reset function result function function set show function showdebuginfo function showerror function stripcss function tv function
type function
urlescape function
variable function
variables table

S color-background-blue

S color-background-body

S color-background-green

S color-background-main

S color-background-purple

S color-background-yellow

S title-default

logs (context)

application function 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 function start page number status function function stop_page_number subdirect function subreport function system function function texerrormessage writer function

lpdf (context)

		_	_
action	function	gethpos	function
adddocumentcolorspace	function	getmatrix	function
adddocumentextgstate	function	getpos	function
adddocumentpattern	function	getvpos	function
adddocumentshade	function	graycode	function
addtocatalog	function	hasmatrix	function
addtoinfo	function	id	function
addtonames	function	injectxmpinfo	function
addtopageattributes	function	insertxmpinfo	function
addtopageresources	function	layerreference	function
addtopagesattributes	function	limited	function
addxmpinfo	function	linearshade	function
annotationspecification	function	nametree	function
array	function	null	function
boolean	function	number	function
border	function	pagedestinations	data table
checkedkey	function	pagereference	function
checkedvalue	function	pagereferences	data table
circularshade	function	pdfcolor	function
cmykcode	function	pdftimestamp	function
collectedresources	function	protectresources	boolean
color	function	rectangle	function
colorspace	function	reference	function
colorspaceconstants	data table	registerannotation	function
colorspec	function	registerdestination	function
colorvalue	function	registerdocumentfinalizer	function
colorvalues	function	registerpagefinalizer	function
constant	function	reserveobject	function
delayedobject	function	rgbcode	function
destinationspecification	function	rotationcm	function
dictionary	function	shareobject	function
epdf	table	shareobjectreference	function
F expand		spotcode	function
F load		stream	function
finalizedocument	function	string	function
finalizepage	function	timestamp	function
finishtransparencycode	function	toeight	function
flushobject	function	tosixteen	function
flushstreamfileobject	function	transform	function
flushstreamobject	function	transparency	function
formats	data table	transparencycode	function

transparencygroups table

B none

transparencyvalue function
unicode function
verbose function

lpeg (basic lua)

В	function
C	function
Carg	function
Cb	function
Cc	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
oneof	function
patterns	data table
pcode	function
print	function
ptree	function
replacer	function
secondofsplit	function

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

luatex (context)

cleanuptempfiles function
registerstartactions function
registerstopactions
registertempfile function
starttime number

lxml (context)

-444-4-4-4	function		£
addindex all	function	getid	function
	function	getindex	function
applyfunction	function	id	function
att	function	idsplitter	userdata
attribute	function	include	function
chainattribute	function	inclusion	function
checkindex	function	inclusions	function
collected	function	index	function
command	function	info	function
concat	function	inlineverbatim	function
concatrange	function	installsetup	function
content	function	last	function
context	function	load	function
convert	function	loadbuffer	function
count	function	loaddata	function
delete	function	loaded	table
direct	function	loadregistered	function
directives	table	main	function
F after		match	function
F before		name	function
F handle		namespace	function
F load		nonspace	function
F setup		pos	function
displayverbatim	function	position	function
doif	function	raw	function
doifelse	function	rawroot	function
doifelsetext	function	register	function
doifnot	function	registerentity	function
doifnottext	function	removesetup	function
doiftext	function	resetcdata	function
element	function	resetsetups	function
elements	function	resolvedentity	function
entities	data table	root	function
filter	function	save	function
filterlist	function	serialize	function
first	function	setaction	function
flush	function	setcdata	function
flushlinewise	function	setcommandtonone	function
flushsetups	function	setcommandtotext	function
flushspacewise	function	setsetup	function
get_id	function	snippet	function

F compare F flush F reset F show F sort splitid function startraw function function stopraw store function strip function stripped function tag function text function tofile function function toparameters toverbatim function verbatim function withindex function

xmltexhandler

sorters F add table

data table

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
exp	function
floor	function
fmod	function
frexp	function
huge	number
initialseed	number
ldexp	function
log	function
log10	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 alternatives data table bia function data table boldmap categories table D functions charactersets data table checkaccentbaseheight function checkprivateparameters function classes data table codes data table define function dimensions function extensiblecode function extensibles data table extrabase number table extras F add F copy

table

resetitalics scaleparameters setalternate setitalics sets stvles svncboth synchame syncstyle toname tostyle tweakaftercopyingfont tweakbeforecopyingfont tweaks utfmathaccent utfmathclass utfmathcommand utfmathfiller utfmathstretch

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

fallbacks

F apply
F install

fallbackstyleattr function **families** data table gaps data table function getboth function getstyle function initializeparameters injectfallbacks function function makefont data table mapremap **overloaddimensions** function **overloadparameters** function privatebase number function remapalphabets table renderings

D mappings
D numbers

D sets

renderset 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)

11	function		£
analyzeplugins checkformat	function	getstatistics gettext	function function
checktexts	function	_	function
	boolean	graphic graphic_base_pass	function
collapse colorinitializer	function		function
convert		initializescriptrunner	function
	function	instance	table
defaultformat	string	intermediate	table
defaultinstance defaultmethod	string	T actions	
deraultmethod directrun	string function	F makempy	
	function	lastlog	string function
edefsxsy		load	
escaped	function	makempy	table
exectime	table	N nofconverted	
extensiondata	data table	F processgraphics	
filterclippath	function	F registerfile	4-61-
finder	function	metafun	table
flush	function	F interpolate	
flushers	table	F topath	
T pdf		method	number
F comment		mptopdf	table
F flushfigure		F convertmpstopdf	
F startfigure		N nofconverted	
F stopfigure		n	number
F textfigure		nvformat	function
flushliteral	function	optimize	boolean
flushnormalpath	function	parse	function
flushreset	function	pdfliterals	function
fonts	table	pluginactions	function
F define		process	function
T flusher		processplugins	function
F flushfigure		processspecial	function
F startfigure		properties	table
F stopfigure		quickanddirty	function
N instances		reducetogray	boolean
F process		reporterror	function
format	function	reset	function
format_number	function	resetlastlog	function
format_string	function	resetplugins	function
formatnumber	function	runscript	function
getclippath	function	scripterror	function
getextensions	function	setextensions	function

setoutercolorfunctionsettextfunctionshowlogbooleansvformatfunctiontextable

F get
F reset
F set

texerrors boolean
textextsdata function
theclippath function
totable function
unload function
untagvariable function
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
```

mp (context)

f	function
boolean	function
format	function
number	function
numeric	function
pair	function
print	function
quadruple	function
quoted	function
string	function
triplet	function

mplib (extra tex)

fields function finders table F file get_boolean function get number function get_numeric function get_string function 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)

сору	function	F protect_glyphs	
copy_list	function	F protrusion_skippable	
count	function	F remove	
current_attr	function	F set_attribute	
dimensions	function	F set_properties_mode	
direct	table	F setbox	
F copy		F setfield	
F copy_list		F setproperty	
F count		F slide	
F current_attr		F tail	
F dimensions		F todirect	
F do_ligature_n		F tonode	
F end_of_math		F tostring	
F first_glyph		F traverse	
F flush_list		F traverse_id	
F flush_node		F unprotect_glyphs	
F flush_properties_table		F unset_attribute	
F free		F usedlist	
F get_properties_table		F vpack	
F getbox		F write	
F getchar		do_ligature_n	function
F getfield		end_of_math	function
F getfont		family_font	function
F getid		fields	function
F getleader		first_character	function
F getlist		first_glyph	function
F getnext		flush_list	function
F getprev		flush_node	function
F getproperty		flush_properties_table	function
F getsubtype		free	function
F has_attribute		get_properties_table	function
F has_field		getchar	function
F has_glyph		getfield	function
F hpack		getfont	function
F insert_after		getid	function
F insert_before		getleader	function
F is_direct		getlist	function
F is_node		getnext	function
F last_node		getprev	function
F length		getproperty	function
F new		getsubtype	function

function
function

nodes (context)

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

injections	table	load
F getligaindex		locate
F handler		margincodes
F installnewkern		markers
F reset		F get
F setcursive		mathcodes
F setkern		maxboxwidth
F setligaindex		mlist_to_hlist
F setmark		new
F setpair		noadcodes
insert after	function	nodecodes
insert before	function	nopts
_ insert list after	function	nuts
installattributehandler	function	F append
is_direct	function	F concat
is_display_math	function	F copy
is_mirrored	data table	F copy_list
is_node	function	F count
is_nut	function	F current_attr
is_rotated	data table	F delete
kerncodes	data table	F dimensions
kerning	function	F do_ligature_n
keys	table	F end_of_math
T whatsit		F fasthpack
last_node	function	F first_glyph
leftmarginwidth	function	F firstcharacter
ligaturing	function	F firstcharinbox
lines	table	F firstglyph
T boxed		F flush_list
F register		F flush_node
F setup		F free
F stage_one		F getattr
F stage_two		F getattribute
F stage_zero		F getbox
D data		F getchar
F finalize		F getfield
F number		F getfont
N scratchbox		F getid
link	function	F getleader
linked	function	F getlist
list	function	F getnext
listablefields	data table	F getprev
listcodes	data table	F getprop
listtoutf	function	F getskip

function
function
data table
table

data table function function function data table data table function table F getsubtype F pdfsave F has attribute F pdfsetmatrix F has field F penalty F has glyph F register F hpack F rightmarginkern F insert after F rightskip F insert_before F rule F insert list after F shrink F is direct F special F is display math F stretch F is node F temp F textdir F is nut F kerning F usage F last node T userids F leftmarginwidth N margins.inline F ligaturing N property F link N splitters.one F linked N splitters.two F userlist F locate F usernumber F mlist to hlist F nestedtracedslide F userstring F new F usertokens T pool F vlist F baselineskip F zeroglue F cleanup F prepend F disc F protect_glyphs F fontkern F protrusion_skippable F glue F reference F gluespec F remove F glyph F repackhlist F hlist F replace F kern F rightmarginwidth F latelua F set attribute F lateluafunction F setattr F leftmarginkern F setattribute F leftskip F setattributes F lineskip F setbox F negatedglue F setfield F noad F setprop F pdfannotation F setunsetattributes F pdfdestination F slide F pdfdirect F somepenalty F pdfliteral F somespace F pdfrestore F tail

F takebox		D registered	
F tonode		D values	
F tonodes		F processor	
F tonut		points	function
F tostring		pool	table
F tracedslide		F baselineskip	
F traverse		F cleanup	
F traverse_id		F glyph	
T typesetters		F kern	
F fast_hpack		F latelua	
F hpack		F lateluafunction	
F tohpack		F lineskip	
F tohpackfast		F pdfdirect	
F tonodes		F pdfliteral	
F tovpack		F pdfrestore	
F tovpackfast		F pdfsave	
F vpack		F pdfsetmatrix	
F unprotect_glyphs		F register	
F unset_attribute		F rule	
F unsetattribute		F special	
F unsetattributes		F usage	
F untracedslide		T userids	
F usedlist		N margins.inline	
F vianodes		N property	
F vianuts		N splitters.one	
F vpack		N splitters.two	
F writable_spec		F usernumber	
F write		prepend	function
packlist	function	print	function
pardir_is_equal	data table	processors	table
pardir_is_opposite	data table	B enabled	
pardir_is_parallel	data table	F hpack_filter	
partextdir_is_equal	data table	F post_linebreak_filter	
penaltycodes	data table	F pre_linebreak_filter	
plugindata	table	F tracer	
F finalizer		processwords	function
F initializer		properties	table
S name		T actions	
T namespace		F delayed	
N attribute		F fdelayed	
D data		F immediate	
F enable		F attach	
F handler		T data	
F register		F delayed	

<pre>protect_glyphs function F resetsamples</pre>	
<pre>protrusion_skippable function F takesample</pre>	
<pre>pts function somepenalty</pre>	function
reference function somespace	function
references table stripping	table
N attribute T glyphs	
T done F set	
F handler striprange	function
T stack tail	function
remove function takebox	function
repackhlist function tasks	table
replace function F actions	
report function F appendaction	
rightmarginwidth function F disableaction	
rules table F disablegroup	
D data F enableaction	
F define F enablegroup	
F enable F freeze	
F handler F freezegroup	
save function F new	
serialize function F prependaction	
serializebox function F removeaction	
set_attribute function F restart	
setattr function F setaction	
setattribute function F showactions	
setattributes function F table	
setbox function textdir_is_equal	data table
setfield function textdir_is_is	data table
setunsetattributes function textdir_is_opposite	data table
shifts table textdir_is_parallel	data table
D data tobasepoints	function
F define tocentimeters	function
F enable tociceros	function
F handler todidots	function
show function todimen	function
showboxes function toinches	function
showcodes function tomillimeters	function
showlist function tonewciceros	function
<pre>showsimplelist function tonewdidots</pre>	function
skipcodes data table tonode	function
slide function tonodes	function
snapshots table tonut	function
F getparameters topicas	function
F getsamples topicas F getsamples	function

toscaledpoints	function	F stop	
tosequence	function	T transparencies	
tostring	function	F reset	
totable	function	F set	
totree	function	F setlist	
toutf	function	traverse	function
tracers	table	traverse_id	function
T characters	tabte	typesetters	table
F collect		F hpack	cubic
F equal		F tohpack	
F indices		F tohpackfast	
F start		F tonodes	
F string		F tovpack	
F unicodes		F tovpackfast	
T colors		F vpack	
F reset		unprotect_glyphs	function
F set		unset_attribute	function
F setlist		unsetattribute	function
F fontchar		unsetattributes	function
T frequencies		usedlist	function
F register		vianodes	function
T pool		vianuts	function
T nodes		visualizebox	function
F rule		visualizers	table
T nuts		F box	
F rule		F handler	
F resetproperties		F markfonts	
F rule		F setfont	
F setlist		F setlayer	
F setproperties		F setvisual	
F start		vpack	function
T steppers		whatcodes	data table
F check		whatsitcodes	data table
F codes		writable_spec	function
F features		write	function
F font			
F glyphs			
F message			
F messages			
F nofsteps			
F register			
F reset			
F start			
F stop			

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	${\tt overloaded}$	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	
setlocale	overloaded	function
sleep	function	
spawn	overloaded	function
time	function	
times	function	
timezone	function	
tmpdir	function	
tmpname	function	

function

string

today

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
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

pattern (context)

- 1 userdata
- 2 userdata
- 3 userdata

pdf (basic tex)

getcatalog function gethpos function aetinfo function function getmatrix function getnames getpageattributes function getpageresources function getpagesattributes function function getpos gettrailer function getvpos function hasmatrix function immediateobi function mapfile function mapline function maxobinum function obj function objtype function pageref function print function function refobj registerannot overloaded function reserveobj function overloaded function setcatalog setinfo overloaded function setnames overloaded function setpageattributes overloaded function overloaded function setpageresources setpagesattributes overloaded function

overloaded function

settrailer

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 nofregistered	
analyze	function	F register	
authors	table	T sorters	
F sorted		F author	
T sorters		F dataset	
F author		F reference	
F splitstring		F short	
citevariants	table	listvariants	table
F author		F bib	
F authornum		F default	
F authoryear		F num	
F authoryears		F page	
F category		F short	
F default		F yes	
F index		load	function
F key		loadbibdata	function
F num		loaders	table
F page		F bib	
F serial		F buffer	
F short		F endnote	
F tag		F lua	
F type		F refman	
F year		F xml	
collected	data table	markasupdated	function
concatstate	function	new	function
converttoxml	function	parenttag	function
datasets	table	refman_to_btx	function
endnotes_to_btx	function	resolvedname	function
enhance	function	search	function
finder	function	singularorplural	function
getindex	function	statistics	table
lists	table	N nofbytes	
F collectentries		N nofdatasets	
F fetchentries		N nofdefinitions	
F filterall		N nofshortcuts	
F flushentries		tracers	table
T methods		F addfield	
F dataset		T categories	
F force		T article	
F global		T optional	
F local		T required	

T book T optional T required T booklet T optional T required T inbook T optional 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 showdatasetcompletenessF showdatasetfieldsF showfields

regimes (context)

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

resolvers (context)

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

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

D setups		registerfile	function
D specification		registerfilehash	function
D variables		registerintrees	function
jobs	table	registermethod	function
F currentcomponent	tubte	registerzipfile	function
F currentenvironment		relations	data table
F currentproduct		renew	function
F currentproject		repath	function
		reset	function
F justacomponent D processors		resetextrapath	function
F productcomponent		resetresolve	function
F usefile		resolve	function
	function	savers	data table
joinpath load	function	savers	function
loadbinfile	function	scanfiles	function
loaders	data table		table
loaders		schemes	table
	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

function
function
function
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-v	vhen-done
S refer	rences	F default	:
S refer	rer	F http-ch	nunked
S remot	re-mta	F keep-op	oen
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	Г
S reser	t-reply-to	S ZONE	
S reser	t-sender	F message	2
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-leng	
	remote-recipient	F default	
S statu		F http-ch	
S subje	ect	F until-d	
S te		tcp	function
S to		tcp6	function
S trail		tp	table
	fer-encoding	N TIMEOUT	
S upgra		F connect	
S user-	agent	try udp	function function
S vary S via		udp6	function
S warni	ng	url	table
	retry-until	F absolut	
	nuthenticate	F build	.e
S x-mai		F build_p	nath
http	table	F escape	
N PORT		F parse	
N TIMEOU	Г	F parse_p	oath
S USERAGI	ENT	F unescap	
F open		·	
F request	t		
newtry	function		
protect	function		
select	function		
sink	function		

sorters (context)

```
basicsorter
                function
                table
comparers
   F basic
constants
                table
   S defaultdigits
   S defaultlanguage
   S defaultmethod
   N digitsmaximum
   N digitsoffset
   N ignoredoffset
   N replacementoffset
   T validmethods
    B ch
    B mc
    B mm
    Врс
    B pm
    B uc
    B zc
    B zm
definitions
                data table
firstofsplit function
setlanguage
                function
                function
sort
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 strip boolean tofmodules number toftables number

streams (context)

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

string (basic lua)

autodouble	function
autosingle	function
booleanstring	function
byte	function
bytepairs	function
bytes	function
char	function
characterpairs	function
characters	function
checkedsplit	function
collapsespaces	function
count	function
dump	function
escapedpattern	function
explode	function
find	function
format	function
formatter	function
formatters	function
fullstrip	function
gmatch	function
gsub	function
is_boolean	function
is_empty	function
itself	function
len	function
limit	function
longtostring	function
lower	function
match	function
nspaces	table
optionalquoted	function
quote	function
quoted	function
rep	function
reverse	function
split	function
splitlines	function
splitup	function
strip	function
sub	function

tformat function toboolean function tocontext function todimen function function tonodes function topattern totable function toutf function tracedchar function tracedchars table unquote function unquoted function upper function function utfcharacters 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	
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 uservalue	
D stored		marks	table
itemgroups	table	D data	
F maxwidth		F define	
F nofitems		F exists	
F register		F fetch	
lists	table	F fetchallmarks	
F addto		F fetched	
F analyze		F fetchonemark	
B autoreorder		F fetchtwomarks	
D cached		F get	
D collected		F number	
F discard		F relate	
F enhance		F reset	
T enhancers		F set	
F filter		F show	
F filtercollected		F synchronize	
F formulanumber		F title	
F groupindex		T tracers	
F hasnumberdata		F showtable	
F haspagedata		notes	table
F hastitledata		F checkpagechange	
F iscached		F define	
F label		F doifonsamepageasprevi	ous
F location		F get	
F number		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 process		F internalid	
D pushed		Flistindex	
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	
D tobesaved		F store	+-61-
F userdata		pages	table

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

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

D tobesaved

F finddata

table synonyms D taglist F analyzed T userdata 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

table (basic lua)

allkeys	function
append	function
are_equal	function
autokey	function
compact	function
concat	function
contains	function
сору	function
count	function
derive	function
deserialize	function
drop	function
fastcopy	function
fastserialize	function
filtered	function
flattened	function
foreach	function
foreachi	function
fromhash	function
getmetatablekey	function
getn	function
has_one_entry	function
identical	function
imerge	function
imerged	function
insert	function
is_empty	function
keys	function
load	function
loweredkeys	function
maxn	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
sortedhashonly	function
sortedindexonly	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	isdefined	data table
badness	function	isdimen	function
box	table	isskip	function
catcode	table	istoken	function
conditionals	data table	lccode	table
constants	data table	linebreak	function
count	table	lists	table
ctdcatcodes	number	lua math random	function
ctxcatcodes	number	lua_math_randomseed	function
definefont	function	luacatcodes	number
delcode	table	mathcode	table
dimen	table	modes	data table
directives	data table	nest	table
enableprimitives	function	nilcatcodes	number
error	function	normal rand	function
extraprimitives	function	notcatcodes	number
finish	function	number	function
fontidentifier	function	pdffontname	function
fontname	function	pdffontobjnum	function
fprint	function	pdffontsize	function
get	function	pdfpageref	function
getattribute	function	pdfxformname	function
getbox	function	primitives	function
getcatcode	function	print	function
getcount	function	printlist	function
getdelcode	function	prtcatcodes	number
getdimen	function	romannumeral	function
getlccode	function	round	function
getlist	function	run	function
getmath	function	scale	function
getmathcode	function	set	function
getnest	function	set_experimental_code	function
getsfcode	function	setattribute	function
getskip	function	setbox	function
gettoks	function	setcatcode	function
getuccode	function	setcount	function
hashtokens	function	setdelcode	function
ifs	data table	setdimen	function
inicatcodes	number	setlccode	function
init_rand	function	setlist	function
iscount	function	setmath	function

setmathcode function setnest function setsfcode function setskip function settoks function setuccode function sfcode table shipout function show context function skip table function sp sprint function systemmodes data table takebox function texcatcodes number table toks number **tpacatcodes** tpbcatcodes number tprint function data table trackers txtcatcodes number type function uccode table uniform rand function 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

kpse init boolean max in open number max print line number max_strings number nest_size number param_size number save size number shell escape string

texio (basic tex)

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
    F c
   F showtoken
   F test
   F trace
egroup
              table
hbox
              table
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 function enable list function string name 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		manipulators	table
digits	table	F apply	
T actions		F applyspecifica	tion
F handler		T methods	
F set		F Word	
directions	table	F Words	
F getfences		F lowercase	
F getglobal		F stripperiod	
F getmethod		F uppercase	
F handler		T patterns	
T handlers		U list	

```
U pair
    F splitspecification
margins
                    table
   F finalhandler
   F globalhandler
   F ha
    F localhandler
    F save
processors
                    table
    F apply
   F register
   F reset
   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
    F 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 t	able F	len
F byte		lower
F char		match
F dump		rep
F find		reverse
F format		sub
F gfind		upper
F gmatch	utf8	table
F gsub	F	byte
F len		char
F lower		characters
F match	F	chrlen
F rep	F	count
F reverse	F	dump
F sub	F	filetype
F upper	F	find
grapheme t	able 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	F	rep
F rep	F	replacer
F reverse	F	reverse
F sub	F	split
F upper		splitlines
latin1 t	able F	sub
F byte	F	subtituter
F char	F	tocodes
F dump	F	toeight
F find	F	toentities
F format		tostring
F gfind		totable
F gmatch		upper
F gsub	F	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	N version	
F disable		parsers	table
F enable		F add_settings_	to_array
F savestats		F arguments_to_table	
F showstats		F array_to_string	
F showtraceback		F csvsplitter	
formatters	table	F getparameters	
F formatcolumns		F hash_to_string	9
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_ha	sh
lua	table	T patterns	
B alwaysstripcode		U settings_to_array	
F compile		U settings_to_hash_a	
F loadedluacode		U settings_to_hash_b	
F loadstripped		U settings_to_hash_c	
N nofstrippedbytes		U unittotex	
N nofstrippedchunk	S	F process_strip	oed_settings
B stripcode		F rfc4180splitte	er
T strippedchunks		F runtime	
F strippedloadstri	ng	F settings_to_a	rray
T suffixes		F settings_to_a	rray_with_repeat
S lua		F settings_to_ha	ash
S luc		F settings_to_hash_strict	
S lui		F settings_to_ha	ash_tolerant
S luj		F settings_to_set	
S luv		F simple_hash_to_string	
S tma		F splitmethod	
S tmc		F splitthousand	5
S tua		F stepper	
S tuc		F stripped_sett:	ings_to_array
packers	table	F unittotex	
F hashed		F unittoxml	
F new		report	function
F pack		sequencers	table
F simplehashed		F appendaction	
F strip		F appendgroup	
F unpack		F compile	

F disableaction F disablegroup F enableaction F enablegroup D functions F localize F new F nodeprocessor F prependaction F prependgroup F removeaction F setkind F tostring setters table 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 T striplinepatterns U collapse U prune U prune and collapse

U prune and no empty

U retain
U retain and collapse
U retain and no empty
F striplines
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	function	
load	function	
makenested	function	
makepattern	function	
newgrammar	function	
newhandler	function	
parsedxml	function	
pattern	function	
register	function	
registerescapecommand	function	
registerescapeline	function	
registerescapepattern	function	
signal	string	
signalpattern	userdata	
<pre>specifications</pre>		
visualize	function	
visualizebuffer	function	
visualizefile	function	
visualizestring	function	
write	function	
writeargument	function	
writedefault	function	
writeemptyline	function	
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	delete_element	function
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	function	F find	
collect_tags	function	F lower	
collect_texts	function	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	inclusion	function
F	position	inclusions	function
F	reverse	index	function
F	stripped	inheritedconvert	function
F	tag	inject	function
F	tags	<pre>inject_element</pre>	function
F	text	<pre>inject_element_after</pre>	function
F	upper	<pre>inject_element_before</pre>	function
F	upperall	injectafter	function
T :	kml	injectbefore	function
F	all	insert	function
F	att	insert_element	function
F	attribute	<pre>insert_element_after</pre>	function
F	attributes	<pre>insert_element_before</pre>	function
F	cdata	insertafter	function
F	chainattribute	insertbefore	function
F	count	insertcomment	function
F	default	inspect	function
F	elements	is_valid	function
F	empty	kind	function
F	first	last	function
F	function	load	function
F	index	lpath	function
F	last	lpathcached	function
F	lowerall	lpathcalls	function
F	match	lshow	function
F	name	makestandalone	function
F	position	match	function
F	reverse	name	function

Т

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

F unknown_any_entity
F unknown_dec_entity
F unknown hex entity

function position privatecodes table privatetoken function process function process attributes **function** process elements **function** processattributes function profiled table function raw function registerentity registerns function remap name function function remap namespace function [] remap tag function remapname function remapnamespace function remaptag renamespace function function replace replace element function resolvens function root function function save selection function separate function serialize function setcdata function sethandlersfunction function setproperty function settings function specialhandler table

sprint

string

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

function function

table

withelements

wrap

xmlns

function

function

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