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 pdfscanner physics profiler publications regimes resolvers sandbox 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<sub>E</sub>Xt MkIV

## global (alias: \_G)

MP	table	error	function
LUAVERSION	number	experiments	table
MAJORVERSION	number	figures	table
MINORVERSION	number	file	table
_ cldo	function	floats	table
arg	table	font	table
assert	function	fontloader	table
attributes	table	fonts	table
backends	table	frozen	boolean
beginpage	function	functions	table
bit	table	gcinfo	function
bit32	table	getfenv	function
blobs	table	getmetatable	function
boolean	table	getpos	function
border_set	boolean	getreadfilename	function
buffers	table	getvpos	function
builders	table	global	table
caches	table	graphics	table
callback	table	gzip	table
callbacks	table	img	table
catcodes	table	inspect	function
characters	table	interactions	table
chemistry	table	interfaces	table
collectgarbage	function	io	table
commands	table	ipairs	function
containers	table	jit	table
context	function	job	table
converters	table	lang	table
coroutine	table	languages	table
ctx_doifelse	function	layouts	table
ctxrunner	table	lfs	table
debug	table	libraries	table
dimen	function	lmx	table
dir	table	load	function
directives	table	loadfile	function
document	table	loadstring -	function
documentdata	table	logs	table
dofile	function	lpdf	table
endpage	function	lpeg	table
environment	table	ltn12	table
epdf	table	lua	table

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luatex	table
lxml	table
math	table
mathematics	table
mbox	table
md5	table
metapost	table
mime	table
module	function
moduledata	table
modules	table
mp	table
mplib	table
newproxy	function
next	function
noads	table
node	table
nodes	table
number	table
optionalrequire	function
os	table
outputpagestree	function
package	table
pagebuilders	table
pairs	function
parametersets	table
pcall	function
pdf	table
pdfscanner	table
physics	table
print	function
profiler	table
protect	function
publications	table
rawequal	function
rawget	function
rawlen	function
rawset	function
regimes	table
require	function
resolvers	table
sandbox	table
scripts	table
select	function

set	table
setfenv	function
setinspector	function
setmetatable	function
socket	table
sorters	table
statistics	table
status	table
storage	table
streams	table
string	table
structures	table
swiglib	function
table	table
tex	table
texconfig	table
texio	table
thirddata	table
toboolean	function
token	table
tokens	table
tonumber	function
tostring	function
tracers	table
trackers	table
type	function
typesetters	table
unicode	table
unpack -	function
url	table
userdata	table
utf	table
utilities	table
vf	table
visualizers	table
xml	table
xpcall	function
zip	table
zlib	table

## attributes (context)

colorintents table	U none	
N attribute	F popset	
D data	F processcolorc	omponents
F enable	F pushset	
F handler	F register	
F register	D registered	
D registered	F registerspotc	olor
colors table	F rgb	
N attribute	F rgbtocmyk	
F cmyk	F rgbtogray	
F cmyktogray	F rgbtohsv	
F cmyktorgb	N selector	
F colorcomponents	F setlist	
B couple	F setmodel	
D data	D sets	
N default	F spec	
F defineintermediatecolor	F spot	
F definemultitonecolor	F spotcolorname	
F defineprocesscolor	F spotcolorpare	nt
F definesimplegray	F spotcolorvalu	e
F definespotcolor	B supported	
F definetransparency	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
F mpoptions	N attribute	

D data
F enable
F handler
F register
D registered

states tab

F disabletriggering

F enabletriggering

F finalize

F initialize

F process

F selective

F stacked

F stacker

system function
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\_reset

F resolve step

D scopes

F setfeatures

F start

F stop

B supported

D values

#### backends (context)

F getypos

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

F comment

- F destination
- F effect
- F graycolor
- F injectbitmap
- F insertmovie
- F insertsound
- F insertswf
- F insertu3d
- F knockout
- F negative
- F overprint
- F positive
- F reference
- i 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 T originals F hyphenate F kerning F ligaturing 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
contentstate	function
defaults	table
define	function
direct	boolean
force	boolean
getfirstreadablefile	function
${\tt getfirstreadablefile\_TEST\_ME\_FIRST}$	function
getreadablepaths	function
getwritablepath	function
hashed	function
is_writable	function
loadcontent	function
loaddata	function
more	string
relocate	boolean
savecontent	function
savedata	function
setfirstwritablefile	function
setluanames	function
tree	string
treehash	function
usedpaths	function

#### 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)

names data table
numbers data table
register function

## characters (context)

activeoffset	number	C D
activeoriset	function	S B
bidi	data table	S C
	function	S D
blockrange blocks	data table	SE
	table	S F
casemap	10.010	5 G
categories	data table	SH
category	function data table	SI
categorytags	data table	S J
collapsed combined	data table	S K
combined	function	S L
data	data table	S M
***	data table	S N
decomposed define	function	S 0
description	function	S P
•	data table	5 Q
descriptions directions	table	S R S S
enccodes	data table	5 5 S T
entities	data table	SU
fallbacks	data table	S V
filters	data table	S W
fromnumber	function	s w
fschars	data table	5 Y
fscodes	data table	SZ
getrange	function	S À
graphemes	data table	SÁ
hangul	data table	SÂ
initialize	function	SÃ
is character	data table	SÄ
is_command	data table	s Å
is letter	data table	S Æ
is mark	data table	S C
is punctuation	data table	SÈ
is_spacing	data table	SÉ
lcchars	data table	SÊ
lccode	function	SË
lccodes	data table	SÌ
lettered	function	SÍ
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linebreaks	table	mirrors	table
S ai		otfscripts	data table
S al		ranges	data table
S b2		registerentities	function
S ba		remap_hangul_syllabe	function
S bb		setcodes	function
S bk		shape	function
S cb		shaped	function
S cj		shash	table
S cl		S A	
S cm		S B	
S cp		S C	
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S h2		S G	
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## 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	applytofirstcharacter	function
Character	function	applytowords	function
Characters	function	assignbuffer	function
MPc	function	attachproperty	function
MPd	function	autofinishstructurelevels	function
MPh	function	autonextspace	function
MPll	function	autonextstructurelevel	function
MPlr	function	autosetups	function
MPls	function	autostarttext	function
MPn	function	autostoptext	function
MPp	function	averagecharwidth	function
MPpardata	function	bcolumn	function
MPplus	function	boolcase	function
MPpos	function	boxtostring	function
MPposset	function	btx_a_f	function
MPr	function	btx_a_i	function
MPrest	function	btx_a_j	function
MPrs	function	btx_a_s	function
MPul	function	btx_a_v	function
MPur	function	btxabbreviatedjournal	function
MPw	function	btxaddjournal	function
MPx	function	btxauthor	function
MPxy	function	btxauthorfield	function
MPxywhd	function	btxcollectlistentries	function
MPy	function	btxdetail	function
Romannumerals	function	btxdoif	function
abjadnodotnumerals	function	btxdoifelse	function
abjadnumerals	function	btxdoifelseuservariable	function
addbtxentry	function	btxdoifnot	function
addcounter	function	btxexpandedjournal	function
addlinklistelement	function	btxfetchlistentries	function
addreplacements	function	btxfield	function
addtojavascriptpreamble	function	btxfieldname	function
addtolist	function	btxfieldtype	function
allinputpaths	function	btxflush	function
alphabetic	function	btxflushlistentries	function
analysefloatmethod	function	btxflushpages	function
analyzeitemgroup	function	btxfoundname	function
analyzelist	function	btxfoundtype	function
analyzeregister	function	btxhandlecite	function
applytochars	function	btxhandlenocite	function

btxlistvariant	function	currentreferencedefault	function
btxloadjournallist	function	currentreferenceorder	function
btxpreparelistentries	function	currentregime	function
btxsavedataset	function	currentsectiontolist	function
btxsavejournallist	function	datasetvariable	function
btxsingularorplural	function	dayname	function
btxtoregister	function	deferredproperty	function
btxuservariable	function	defineattribute	function
buildtextaccent	function	definebreakpoint	function
character	function	definebreakpoints	function
characters	function	definecatcodetable	function
chardescription	function	definecharacterspacing	function
checkcharactersinfont	function	definechemical	function
checkcountersetup	function	defineconversion	function
checkedconversion	function	definecounter	function
checkedpagefloat	function	definedviewerlayer	function
checkinjector	function	definefallbackfamily	function
checktwopassdata	function	definefield	function
chemicalcomponent	function	definefieldset	function
chineseallnumerals	function	definefilefallback	function
chinesecapnumerals	function	definefilesynonym	function
chinesenumerals	function	definefont_one	function
cleanfontname	function	definefont_two	function
cleanupbox	function	definefontfamily	function
cleanuplayers	function	definefontfeature	function
clonefield	function	definefontsolution	function
collectfloat	function	definehyphenationfeatures	function
collecthelp	function	defineinsertion	function
colorcomponents	function	defineintermediatecolor	function
concatcommalist	function	definelabels	function
consultfloat	function	definelanguage	function
convertbtxdatasettoxml	function	definelinkedlist	function
converteddimen	function	definemarking	function
copyposition	function	definemetafont	function
cos	function	definemultitonecolor	function
cosd	function	definenote	function
countervalue	function	defineparallel	function
counttwopassdata	function	defineparbuilder	function
ctxfunction	function	defineprocesscolor	function
currentcomponent	function	defineprogram	function
currentdate	function	definereference	function
currentenvironment	function	defineregister	function
currentproduct	function	definesectionlevels	function
currentproject	function	defineselectfont	function

definesnapmethod	function	doiffieldelse	function
definespotcolor	function	doiffieldsetelse	function
definestructureblock	function	doiffiledefinedelse	function
definestructureset	function	doiffileexistelse	function
definetransparency	function	doiffirstcharelse	function
definetwopasslist	function	doifinputfileelse	function
defineviewerlayer	function	doifinsetelse	function
defrostrandomseed	function	doifleapyearelse	function
depthnumber	function	doiflisthasentry	function
digits	function	doiflisthasnumberelse	function
disableautofontscript	function	doiflisthaspageelse	function
disableparbuilder	function	doiflisthastitleelse	function
disableregime	function	doiflocfileelse	function
disablespellchecking	function	doifnot	function
discardfromlist	function	doifnotcounter	function
doanalyzeframedbox	function	doifnotecontent	function
doif	function	doifnoteonsamepageasprevious	function
doifblackelse	function	doifobjectreferencefoundelse	function
doifcommonelse	function	doifolderversionelse	function
doifcounter	function	doifoverlappingelse	function
doifdimenstringelse	function	doifparentfileelse	function
doifdrawingblackelse	function	doifpathexistelse	function
doifelse	function	doifposition	function
doifelsebuffer	function	doifpositionelse	function
doifelsecontinuewithfile	function	doifpositiononpage	function
doifelseconverter	function	doifpositionsonsamepageelse	function
doifelsecounter	function	doifpositionsonthispageelse	function
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doifelseintwopassdata	function	doprocesstypescriptfile	function
doifelsemarking	function	doreshapeframedbox	function
doifelsemessage	function	dostarttextfile	function
doifelsemultipar	function	dostoptextfile	function
doifelseparallel	function	ecolumn	function
doifelsepositionsused	function	elapsedtime	function
doifelserangeonpage	function	enableautofontscript	function
doifelsereference	function	enablecolor	function
doifelsesavedfloat	function	enablecolorintents	function
doifelsespaces	function	enablecrlf	function
doifelseutfmathabove	function	enablefontcolorschemes	function
doifelseutfmathaccent	function	enableparbuilder	function
doifelseutfmathbelow	function	enableregime	function
doifelseutfmathfiller	function	enablespellchecking	function
doifelsevisualizer	function	enabletransparency	function
doiffieldcategoryelse	function	enhancelinkedlist	function

enhancelist	function	fontcollectionreport	function
enhancereference	function	fontcollectionreset	function
enhanceregister	function	fontlookupgetkey	function
erasebuffer	function	fontlookupgetkeyofindex	function
expandcurrentreference	function	fontlookupinitialize	function
exportformdata	function	fontlookupnoffound	function
exportreferences	function	forceendjob	function
extendregister	function	forcequitjob	function
extensiblecode	function	format	function
feature	function	formatcolor	function
featureattribute	function	formatgray	function
featurelist	function	freezerandomseed	function
feedback	function	from	function
fetchallmarks	function	getbidimode	function
fetchmultipar	function	getbodyfontsizes	function
fetchmultishape	function	getbuffer	function
fetchonemark	function	getbufferctxlua	function
fetchposboxes	function	getbuffermkvi	function
fetchtwomarks	function	getcommandline	function
figurefilename	function	getctxfile	function
figurefilepath	function	getcurrentprefixspec	function
figurefiletype	function	getcurrentreferencemetadata	function
figurerequest	function	getcurrentsectionlevel	function
figurestatus	function	getdefaultfieldvalue	function
figureused	function	getelementtag	function
figurevariable	function	getfieldcategory	function
filterdefaultreference	function	getfirstcharacter	function
filterreference	function	getfirsttwopassdata	function
finalizebox	function	getfloatvariable	function
findtwopassdata	function	getfullsectionnumber	function
firstcountervalue	function	getinternallistreference	function
firstinset	function	getinternalreference	function
firstofrange	function	getlasttwopassdata	function
flushfloat	function	getmarking	function
flushmarked	function	getmessage	function
flushnotes	function	getmpextensions	function
flushpostponedblocks	function	getnotestate	function
flushpostponednotes	function	getplaceholderchar	function
fontchar	function	getprivatechar	function
fontcharbyindex	function	getprogram	function
fontcollectionclone	function	getrandomcounta	function
fontcollectiondefine	function	getrandomcountb	function
fontcollectionprepare	function	getrandomseed	function
fontcollectionregister	function	getreadfilename	function

getsectionnumberfunctionlinenumbersstagetwofunctgetstructuredatafunctionlistgroupindexfunctgetsubstringfunctionlistlabelfunctgettexbufferfunctionlistlocationfunctgettwopassdatafunctionlistprefixednumberfunct	ion
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geturl function listrealpage funct	ion
grabbuffer function listsize funct	ion
hboxtovbox function listtitle funct	ion
helpaction function listuserdata funct	ion
helpreference function loadbtxdefinitionfile funct	ion
hexstringtonumber function loadexamodes funct	ion
horizontalcode function loadfontgoodies funct	ion
hour function loadspellchecklist funct	ion
hyphenatedlist function loadtypescriptfile funct	ion
hyphenatedurl function loadvisualizer funct	ion
D characters <b>locatefilepath</b> funct	ion
N lefthyphenmin locfilename funct	ion
D mapping lower funct	ion
N righthyphenmin makeactive funct	ion
F setcharacters manipulated funct	ion
<pre>immediateproperty function markfonts funct</pre>	ion
incrementedcounter function markingnumber funct	ion
<pre>initializetexdirectives function markingtitle funct</pre>	ion
<pre>initializetextrackers function markinjector funct</pre>	ion
<pre>injectcurrentreference function markregionbox funct</pre>	ion
<pre>injectreference function math_frac funct</pre>	ion
inlinechemical function mathrenderset funct	ion
<pre>insertattachment function minute funct</pre>	ion
<pre>insertcomment function mixcleanup funct</pre>	ion
insertfield function mixfinalize funct	ion
<pre>insertionnumber function mixflushlist funct</pre>	ion
<pre>insertrenderingwindow function mixflushrest funct</pre>	
<pre>insertsoundclip function mixgetsplit funct</pre>	ion
<pre>installedlanguages function mixsetsplit funct</pre>	ion
<pre>installtexdirective function mixstate funct</pre>	
<pre>installtextracker function molecule funct</pre>	ion
languagenumberfunctionmonthfunct	ion
lastcountervalue function monthmnem funct	
lastofrange function monthname funct	
lchexnumberfunctionmpcolorfunct	
lchexnumbersfunctionmpoptionsfunct	
leapyear function mprunvar funct	
linenumbersstageone function namedstructureuservariable funct	ion

namedstructurevariable	function	F MetapostSnippetString
nbfs	function	F NC
nextcountervalue	function	F NR
nextparallel	function	F ParsedXmlSnippetCdata
nofdays	function	F ParsedXmlSnippetComment
nofstackedfloats	function	F ParsedXmlSnippetDoctype
notedeltapage	function	F ParsedXmlSnippetElement
notelistindex	function	${\sf F} \ {\sf ParsedXmlSnippetInstruction}$
notenumberpage	function	F ParsedXmlSnippetKey
noteprefixednumber	function	F ParsedXmlSnippetValue
notesymbolpage	function	F TexSnippet
notetitle	function	F TexSnippetBoundary
ntimes	function	F TexSnippetComment
number	function	F TexSnippetGroup
F C		F TexSnippetName
F EQ		F TexSnippetSpecial
F FL		F XmlSnippet
F HL		F XmlSnippetBoundary
F L		F XmlSnippetCdata
F LL		F XmlSnippetComment
F LuaSnippet		F XmlSnippetEntity
F LuaSnippetBoundary		F XmlSnippetEqual
F LuaSnippetComment		F XmlSnippetKey
F LuaSnippetName		F XmlSnippetName
F LuaSnippetNameBase		F XmlSnippetString
F LuaSnippetNameCore		Fflush
F LuaSnippetNameLibraries		Fflushdirect
F LuaSnippetQuote		Fflushlines
F LuaSnippetSpecial		Fa
F LuaSnippetString		F addaskedblankskip
F ML		F addpredefinedblankskip
F MPLIBsetCtext		F applyprocessor
F MPLIBsetNtext		F b
F MPcolor		F beginhbox
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
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F btxcitevariantparameter

F MetapostSnippetSpecial

F btxdirectlink F btxstartsubcite
F btxflushauthor F btxstopauthor
F btxhandlelistentry F btxstopcite
F btxhandlelistextentry F btxstopciteauthor

F btxlistparameter F c

F btxlistsetup F callfunctiononce

F btxstopsubcite

F char

F chardef

F colordefagc

F color

F btxlistvariantparameter
F btxpagesetup
F btxsetafter
F btxsetauthorindex
F btxsetauthorvariant

F btxlistauthorsetup

F btxsetauthorvariant F colordefagt
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F btxsetbacktrace F colordeffgt
F btxsetcategory F colordeffgt
F btxsetcitereference F colordeffft
F btxsetcombis F colordefflt
F btxsetconcat F colordeffgt

F btxsetcount F colordefrqt F btxsetdataset F colordefrlc F colordefrlt F btxsetfirst F btxsetfirstinternal F concat F btxsetfirstnames F constructes F btxsetfirstpage F constructcsonly F btxsetinitials F convertnumber F btxsetinternal F ctxreport

F btxsetjuniors F d

F btxsetlanguage F definefontsynonym

F btxsetlastinternal T delayed
F btxsetlastpage F digitsdigit
F btxsetlefttext F digitsfinalcomma
F btxsetlistreference F digitsfinalperiod
F btxsetnumber F digitshighspace

F btxsetoverflow F digitsintermediatecomma
F btxsetrighttext F digitsintermediateperiod

F btxsetsecond F digitsminus F btxsetsurnames F digitsnegative F digitsplus F btxsettag F btxsetthird F digitspositive F btxsetvons F digitspower F btxstartauthor F digitspowerminus F btxstartcite F digitspowerplus F btxstartciteauthor F digitsseparatorspace

previous 57 next

F digitssignspace F flushblankhandling F digitsspace F flushboxregister F digitszeropadding F flushnode F fntsetdefname F direct F doactivateinjector F fntsetnopsize F dodisplayverbatimbeginline F fntsetsomename F dodisplayverbatimemptyline F fntsetsomesize F dodisplavverbatiminitialize T formatted F dodisplayverbatimnewline F monohold F dodisplayverbatimstart F fprint F dodisplayverbatimstop T generics F dofastdefinetypeface S starttabulate F dofinishsomereference S stoptabulate F doflushparallel F getlogger F dofromfiledescription F getreferencestructureprefix F dofromfileliteral F getvalue F dofromurldescription F glyph F dofromurlliteral F gobbleoneargument F doinlineverbatimbeginline F goto F doinlineverbatimemptyline F hrule F doinlineverbatimnewline F input F doinlineverbatimstart T knownfunctions F doinlineverbatimstop F domarkinjector F lateluafunction F donestedtypingstart F letvaluerelax F donestedtypingstop F llap F loadfile F dosetfastregisterentry F dostarttext F loadfoundtypescriptfile F doverbatimspace F luasetup F dummyxcell F egroup F makelinenumber F emptyreference T metafun F enablemode F color F endhbox T delayed F endvbox F start F environment F stop F expandreferencearguments T nested F expandreferenceoperation F markingcommand F finalizeautostructurelevel F markingseparator F finishiob F newbox F firstofoneargument F newcount F firstoftwoarguments F newdimen F newindexer F fixedblankskip F flexibleblankskip F newmuskip

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 par F startblankhandling F pdfliteral F startcolumns F popcatcodes F startcomponentindeed F poploager F startenvironmentindeed F printlines F startfontclass F processfilemany F starthboxregister F processfilenone F startproductindeed F processfileonce F startprojectindeed F protect F startreadingfile F startregisterentries T puretext F pushcatcodes F startregisterentry F pushlogger F startregisteroutput F registerentry F startregisterpages F registerfunction F startregistersection F startregisterseewords F registeronepage F starttabulate F registerpagerange F registerseeword F starttext F reservefunction F starttitle F rlap F startvboxregister F rotate F startxtitle F runfile F stopLuaSnippet F secondoftwoarguments F stopMetapostSnippet F setblankcategory F stopParsedXmlSnippet F setblankorder F stopTexSnippet F setblankpenalty F stopXmlSnippet F setconditional F stopblankhandling F setfalsevalue F stopcolumns F sethboxregister F stopcomponentindeed F setsomevalue F stopenvironmentindeed F settabulateentry F stopfontclass F stophboxregister F settabulatelastentry F settracing F stopproductindeed F stopprojectindeed F setupsystem F setupwithargument F stopreadingfile F setvalue

F setvboxregister

F stopregisterentries

F stopregisterentry

F stopregisteroutput F LuaSnippetNameCore F LuaSnippetNameLibraries F stopregisterpages F stopregistersection F LuaSnippetQuote F LuaSnippetSpecial F stopregisterseewords F stoptabulate F LuaSnippetString F stoptext F MetapostSnippetBoundary F stoptitle F MetapostSnippetComment F stopyboxregister 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 TexSnippetGroup F unitsN F TexSnippetName F unitsNspace F unitsNstart F TexSnippetSpecial F unitsNstop F XmlSnippetBoundary F units0 F XmlSnippetCdata F unitsP F XmlSnippetComment F XmlSnippetEntity F unitsPS F unitsPU F XmlSnippetEqual F unitsPUS F XmlSnippetKey F units0 F XmlSnippetName F unitsS F XmlSnippetString F unitsU F ctxreport F viafile F unitsUS F unprotect F vrule F unregisterfunction F xmlcdataafter F usemodule F xmlcdatabefore F utfchar F xmlcdataobeyedline T verbatim F xmlcdataobeyedspace F LuaSnippetBoundary F xmlprocessbuffer F xmlsetup F LuaSnippetComment numbers function F LuaSnippetName F C F LuaSnippetNameBase

F E0 F TexSnippetSpecial F XmlSnippet F FI F HL F XmlSnippetBoundary F L F XmlSnippetCdata F LL F XmlSnippetComment F LuaSnippet F XmlSnippetEntity F LuaSnippetBoundary F XmlSnippetEqual F LuaSnippetComment F XmlSnippetKev F LuaSnippetName F XmlSnippetName F XmlSnippetString F LuaSnippetNameBase F LuaSnippetNameCore F flush F flushdirect F LuaSnippetNameLibraries F LuaSnippetQuote F flushlines F LuaSnippetSpecial Fa F LuaSnippetString F addaskedblankskip F ML F addpredefinedblankskip F MPLIBsetCtext F applyprocessor F b F MPI TRsetNtext F beginhbox F MPcolor F MetapostSnippet F beginvbox F MetapostSnippetBoundary F bf F MetapostSnippetComment F baroup F blank F MetapostSnippetConstructor F bold F MetapostSnippetName F MetapostSnippetNameMetafun F btxchecklistcombi F MetapostSnippetNamePlain F btxchecklistentry F MetapostSnippetNamePrimitive F btxciteauthorsetup F MetapostSnippetQuote F btxcitesetup F MetapostSnippetSpecial F btxcitevariantparameter F MetapostSnippetString F btxdirectlink F NC F btxflushauthor F NR F btxhandlelistentry F ParsedXmlSnippetCdata F btxhandlelisttextentry F ParsedXmlSnippetComment F btxlistauthorsetup F ParsedXmlSnippetDoctype F btxlistparameter F ParsedXmlSnippetElement F btxlistsetup F ParsedXmlSnippetInstruction F btxlistvariantparameter F ParsedXmlSnippetKey F btxpagesetup F ParsedXmlSnippetValue F btxsetafter F TexSnippet F btxsetauthorindex F btxsetauthorvariant F TexSnippetBoundary F btxsetbacklink F TexSnippetComment F btxsetbacktrace F TexSnippetGroup F TexSnippetName F btxsetbefore

F btxsetcategory F colordeffat F btxsetcitereference F colordefflc F btxsetcombis F colordefflt F colordefrac F btxsetconcat F btxsetcount F colordefrqt F btxsetdataset F colordefrlc F btxsetfirst F colordefrlt F htxsetfirstinternal F concat F btxsetfirstnames F constructes F btxsetfirstpage F constructcsonly F btxsetinitials F convertnumber F btxsetinternal F ctxreport F btxsetjuniors F d F btxsetlanguage F definefontsynonym F btxsetlastinternal T delayed F btxsetlastpage F digitsdigit F btxsetlefttext F digitsfinalcomma F htxsetlistreference F digitsfinalperiod F btxsetnumber F digitshighspace F btxsetoverflow F digitsintermediatecomma F btxsetriahttext F digitsintermediateperiod F btxsetsecond F diaitsminus F btxsetsurnames F digitsnegative F digitsplus F btxsettag F btxsetthird F digitspositive F htxsetvons F digitspower F btxstartauthor F digitspowerminus F btxstartcite F digitspowerplus F btxstartciteauthor F digitsseparatorspace F btxstartsubcite F digitssignspace F btxstopauthor F digitsspace F btxstopcite F digitszeropadding F btxstopciteauthor F direct F btxstopsubcite F doactivateinjector Fc F dodisplayverbatimbeginline F callfunctiononce F dodisplayverbatimemptyline F char F dodisplayverbatiminitialize F chardef F dodisplayverbatimnewline F dodisplayverbatimstart F color F colordefage F dodisplayverbatimstop F colordefagt F dofastdefinetypeface F colordefalc F dofinishsomereference F colordefalt F doflushparallel

F dofromfiledescription

F colordeffqc

F dofromfileliteral F getvalue F dofromurldescription F glyph F dofromurlliteral F gobbleoneargument F doinlineverbatimbeginline F aoto F doinlineverbatimemptyline F hrule F doinlineverbatimnewline F input F doinlineverbatimstart T knownfunctions F doinlineverbatimston F 1 F domarkinjector F lateluafunction F donestedtypingstart F letvaluerelax F llap F donestedtypingstop F dosetfastregisterentry F loadfile F dostarttext F loadfoundtypescriptfile F doverbatimspace F luasetup F dummvxcell F egroup F makelinenumber F emptyreference T metafun F enablemode F color F endhbox T delayed F endvbox F start F environment F stop F expandreferencearguments T nested F expandreferenceoperation F markingcommand F markingseparator F finalizeautostructurelevel F finishiob F newbox F firstofoneargument F newcount F firstoftwoarguments F newdimen F fixedblankskip F newindexer F flexibleblankskip F newmuskip F flushblankhandling F newskip F flushboxregister F newtexthandler F flushnode F newtoks F fntsetdefname F newverbosehandler F nointerlineskip F fntsetnopsize F fntsetsomename F normalatop F fntsetsomesize F normalover F overstrike T formatted F monobold F par F fprint F pdfliteral T generics F popcatcodes S starttabulate F poplogger S stoptabulate F printlines F processfilemany F getlogger F getreferencestructureprefix F processfilenone

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F startproductindeed

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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 unitsNspace	F TexSnippetName	
F unitsNstart	F TexSnippetSpecial	
F unitsNstop	F XmlSnippetBoundary	
F unitsO	F XmlSnippetCdata	
F unitsP	F XmlSnippetComment	
F unitsPS	F XmlSnippetEntity	
F unitsPU	F XmlSnippetEqual	
F unitsPUS	F XmlSnippetKey	
F unitsQ	F XmlSnippetName	
F unitsS	F XmlSnippetString	
F unitsU	F ctxreport	
F unitsUS	F viafile	
F unprotect	F vrule	
F unregisterfunction	F xmlcdataafter	
F usemodule	F xmlcdatabefore	
F utfchar	F xmlcdataobeyedline	
T verbatim	F xmlcdataobeyedspace	
F LuaSnippetBoundary	F xmlprocessbuffer	
F LuaSnippetComment	F xmlsetup	
F LuaSnippetName	objectnumber	function
F LuaSnippetNameBase	objectpage	function
F LuaSnippetNameCore	octnumber	function
F LuaSnippetNameLibraries	octstringtonumber	function
F LuaSnippetQuote	oneorrange	function
F LuaSnippetSpecial	ordinal	function
F LuaSnippetString	overloadbookmark	function
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F MetapostSnippetComment	<pre>page_injections_flush_before</pre>	function
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F MetapostSnippetNameMetafun	parpos	function
F MetapostSnippetNamePlain	pdfrotation	function
F MetapostSnippetNamePrimitive	pdfstartmatrix	function
F MetapostSnippetQuote	pdfstartmirroring	function
F MetapostSnippetSpecial	pdfstartrotation	function
F MetapostSnippetString	pdfstartscaling	function

pdfstopmatrix	function	pushhyphenation	function
pdfstopmirroring	function	pushitaliccorrection	function
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popsectionblock	function	registerbookmark	function
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posplus	function	registerbtxlistvariant	function
posstrut	function	registerbuttons	function
posthyphenchar	function	registercatcodetable	function
postponenotes	function	registercolor	function
poswhd	function	registercolorintent	function
posxy	function	registeredviewerlayer	function
prefixedconverted	function	registerhelp	function
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prepareMPvariable	function	registerhyphenationpattern	function
preparedfile	function	registeritemgroup	function
presetsymbollist	function	registerlanguagefeatures	function
presettabulate	function	registerlinenumbering	function
prevcountervalue	function	registermaintextcolor	function
processbodyfontsizes	function	registernamespace	function
processbuffer	function	registerpostponedblock	function
processcolorcomponents	function	registerrendering	function
processedfile	function	registersection	function
processedfiles	function	registersoundclip	function
processfile	function	registerstructureprocessor	function
processfilemany	function	registersynonym	function
processfilenone	function	registertransparency	function
processfileonce	function	registerunit	function
processjob	function	registerusedsynonym	function
processlist	function	registeruserdata	function
processregister	function	relatemarking	function
processsplit	function	remapentity	function
processsynonyms	function	removemissingcharacters	function
purefontname	function	renderingvar	function
pushfloat	function	replacemissingcharacters	function

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reportstructure	function	setbtxregister	function
resavefloat	function	setbtxspecification	function
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resetcounter	function	setcharactercasing	function
resetfontfeature	function	setcharactercleaning	function
resetfontsolution	function	setcharactercodes	function
resetinjector	function	setcharacterkerning	function
resetmarking	function	setcharacterspacing	function
resetmathattributes	function	setcharacterstripping	function
resetmathitalics	function	setclosedocumentaction	function
resetnullfont	function	setclosepageaction	function
resetparallel	function	setcolormodel	function
resetprevdepth	function	setcounter	function
resetreference	function	setdataset	function
resetstructureprocessor	function	setdigitsmanipulation	function
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restartcounter	function	setdocumentenvironments	function
restorecounter	function	setdocumentfilenames	function
restorecurrentattributes	function	setdocumentmodes	function
restorenote	function	setdocumentmodules	function
romannumerals	function	setelementuserproperties	function
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safechar	function	setfirstline	function
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savecurrentattributes	function	setfontsolution	function
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savedlistprefixednumber	function	setformsmethod	function
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savemargindata	function	setinjector	function
savenote	function	setinsertionlocation	function
saveobject	function	setinterfaceconstant	function
savepagedata	function	setinterfaceelement	function
saveparallel	function	setinterfacemessage	function
savestructureblock	function	setinterfacemessages	function
savetaggedtwopassdata	function	setinterfacevariable	function
savetwopassdata	function	setinternalreference	function
savevariable	function	setjobcomment	function
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selectstructureblock	function	setlanguagesynonym	function
setbreakpoints	function	setlayer	function
setbtxdataset	function	setmarking	function

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setmathalternate	function	settagtabulatecell	function
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setmathdirection	function	setupcanvas	function
setmathitalics	function	setupcharacterspacing	function
setmathstyle	function	setupexport	function
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setnextreferenceorder	function	setupfontprotrusion	function
setnotestate	function	setuphyphenation	function
setnotesymbolpage	function	setupidentity	function
setobject	function	setupinsertion	function
setopendocumentaction	function	setupitaliccorrection	function
setopenpageaction	function	setuplinenumbering	function
setowncounter	function	setvisual	function
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setpagetransition	function	showattributes	function
setparbuilder	function	showbtxdatasetauthors	function
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setrandomseed	function	showbtxdatasetfields	function
setrealign	function	showbtxfields	function
setrealspaces	function	showbtxtables	function
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setreferenceattribute	function	showchardata	function
setreferenceoperation	function	showcounter	function
setregistermethod	function	showdiscretionaries	function
setreplacements	function	showfontparameters	function
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setsectionentry	function	showhyphenationtrace	function
setsectionlevel	function	showinjector	function
setsectionnumber	function	showjustification	function
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settagcombination	function	sind	function
settagdescription	function	splitfilename	function
settagdescriptionsymbol	function	spotcolorname	function
settagfigure	function	spotcolorparent	function
settaghighlight	function	spotcolorvalue	function
settagitemgroup	function	startactualtext	function
settaglist	function	startchemical	function
settagproperty	function	startcolorset	function
settagregister	function	startcomponent	function
settagsorting	function	startenvironment	function
settagsynonym	function	startfontsolution	function

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

usexmlfile	function
usezipfile	function
utfchar	function
utfmathclass	function
utfmathcommand	function
utfmathcommandabove	function
utfmathcommandbelow	function
utfmathcommandfiller	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
write	function
writestatus	function
x_table_c	function
x_table_cleanup	function
x_table_construct	function
<b>x_table_create</b>	function
x_table_finish_row	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
read function
usecache boolean
write function

## converters (context)

A	function	month
AK	function	nofdays
Alphabetic	function	number
Character	function	numbers
Characters	function	octstringtonumber
Characters:es	function	ordinal
I	function	r
KA	function	rawcharacter
KR	function	romannumerals
R	function	second
RK	function	sequences
Romannumerals	function	sloviannumerals
Sloviannumerals	function	spanishnumerals
Spanishnumerals	function	textime
Word	function	toabjad
Words	function	tochinese
a	function	toroman
abjadnodotnumerals	function	upper
abjadnumerals	function	verbose
alphabetic	function	D data
character	function	F translate
characters	function	weekday
characters:es	function	word
chineseallnumerals	function	words
chinesecapnumerals	function	year
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	
lower	function	
maxchrs	function	
minute	function	

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

function function function function

# coroutine (basic lua)

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

## ctxrunner (context)

load function
prepfiles data table
resolve function

# debug (basic lua)

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

# dir (context)

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

texroot truefilename validengines string function data table

string

## epdf (extra tex)

Array function
Attribute function
AttributeOwner\_Type function
Attribute\_Type function
Dict function
Object function
PDFRectangle function
StructElement\_Type 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 badname bases bitmapimage boxnumber cachepaths check checkers converters current defaultdepth defaultheight defaultsearch defaultwidth done dummy existers exists formats found aet getrealpage quess hash identifiers identify images

F boxes F check F checksize F clone F copy F immediatewrite F keys F new F node F ofindex

F package F print F scan F serialize function function data table function number data table function data table data table function number number bool ean number function function data table function data table data table function function function function data table function

table

F write include includers initialize loaded localpaths magics mergegoodies nofprocessed order paths patterns pop preferguality programs push registerpattern registersuffix resources scale setlookups setorder setpaths suffixes used

F totable F types function data table function data table data table data table function number data table data table data table function boolean data table function function function registerresource function data table function function function function data table data table

# file (basic lua)

addsuffix	function
basename	function
checksum	function
collapsepath	function
сору	function
dirname	function
expandname	function
extname	function
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
${\tt checked page float}$	function
collect	function
consult	function
flush	function
getvariable	function
nofstacked	function
pop	function
push	function
resave	function
save	function
stacked	function

## font (basic tex)

current function define function each function fonts table frozen function getfont overloaded function id function max function nextid function read\_tfm function read\_vf function

setfont function

## fontloader (extra tex)

apply\_afmfile function
apply\_featurefile function
close function
fields function
fullinfo function

to\_table function
totable function

# fonts (context)

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

Γ parameters	T cidinfo	
S ascender	S embeddir	ng
S descender	S encoding	gbytes
S designsize	S filename	e
T expansion	S finalize	ed
S auto	S fontname	e
S shrink	S format	
S step	S fullname	9
S stretch	S hasitali	ics
S extendfactor	S hasmath	
S factor	S mathital	lics
S hfactor	S mode	
S mathsize	S name	
T protrusion	S noglyphr	names
S auto	S nostack	nath
S quad	S psname	
S scaledpoints	S textital	lics
S scriptpercentage	S virtuali	ized
S scriptscriptpercentage	D loadedfonts	
S size	S namemode	
S slantfactor	F newfeatures	
S slantperpoint	F newhandler	
T spacing	N noffontsloa	ded
S extra	N nofsharedfo	nts
S shrink	N nofsharedha	shes
S stretch	N nofsharedve	ctors
S width	N privateoffs	et
T synonyms	F readanddefi	ne
S em	F registerfea	ture
S ex	B resolvevirt	ualtoo
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 trytosharef	ont
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	
Γ properties	F applypostpr	ocessors
S autoitalicamount	F checkedmode	

F checkedscript N Fitacyrillic F current N Gcedilla S defaultlookup N Gdot F define N Gecyrillic F getspecification N Gheupturncyrillic F internal N Gjecyrillic N Hardsigncyrillic F loadfont F makespecification N IAcyrillic T methods N IUcyrillic F install N Icyrillic D variants N Idot F read N Iecvrillic F register N Iicyrillic F registered N Iishortcyrillic F registersplit N Iocyrillic F resetnullfont N Izhitsacyrillic F resolve N Jecyrillic T resolvers N Kacyrillic F file N Kcedilla F name N Khacyrillic F spec N Kiecvrillic definetypeface function N Lcedilla encodings table N Ljecyrillic T agl N Ncedilla D extras N Njecyrillic D names N Ocyrillic N Odblacute T synonyms N Acyrillic N Ohm N Becyrillic N Pecyrillic N Cdot N Rcedilla N Checyrillic N Shacyrillic N Decyrillic N Shchacyrillic N Djecyrillic N Softsigncyrillic N Dzecyrillic N Tcedilla N Dzhecyrillic N Tecyrillic N Ecyrillic N Tsecyrillic N Edot N Tshecyrillic N Efcyrillic N Ucyrillic N Elcyrillic N Udblacute N Emcyrillic N Ushortcyrillic N Encyrillic N Vecyrillic N Ercyrillic N Yatcyrillic N Ereversedcyrillic N Yericyrillic N Escyrillic N Yicyrillic

N	Zdot	N	daletqamats
N	Zecyrillic	N	daletqamatshebrew
N	Zhecyrillic	N	daletqubuts
N	acutecmb	N	daletqubutshebrew
N	acyrillic	N	daletsegol
N	afii00208	N	daletsegolhebrew
N	afii08941	N	daletsheva
N	afii57694	N	daletshevahebrew
N	afii57695	N	dalettsere
N	afii57700	N	dammaarabic
N	afii57705	N	dammatanaltonearabic
N	afii57723	N	dargahebrew
N	alef	N	dbllowline
N	alefmaksurainitialarabic	N	decimalseparatorarabic
N	alefmaksuramedialarabic	N	dialytikatonos
N	approximatelyequal	N	dotbelowcmb
N	asteriskaltonearabic	N	doubleyodpatah
N	ayin	N	doubleyodpatahhebrew
N	bet	N	edot
N	betdagesh	N	eightarabic
N	blackdownpointingtriangle	N	eighthnotebeamed
N	blackleftpointingpointer	N	etnahtafoukhhebrew
N	blackrectangle	N	etnahtafoukhlefthebrew
N	blackrightpointingpointer	N	etnahtahebrew
N	blacksmilingface	N	fathaarabic
N	blacksquare	N	finalkaf
N	blackuppointingtriangle	N	finalkafdagesh
N	bulletinverse	N	finalkafhebrew
N	cdot	N	finalkafqamats
N	compass	N	finalkafqamatshebrew
N	dagesh	N	finalkafsheva
N	dalet	N	finalmem
Ν	daletdagesh	N	finalnun
N	dalethatafpatah	N	finalpe
Ν	dalethatafpatahhebrew	N	finaltsadi
N	dalethatafsegol	N	fivearabic
N	dalethatafsegolhebrew	N	forall
N	dalethebrew	N	fourarabic
N	dalethiriq	N	gcedilla
N	dalethiriqhebrew	N	gdot
N	daletholam	N	gimel
N	daletholamhebrew	N	gimeldagesh
N	daletpatah	N	gravecmb
N	daletpatahhebrew	N	haaltonearabic

N hamzaarahic N holamhebrew N hamzadammaarabic N holamnarrowhebrew N hamzadammatanarabic N holamquarterhebrew N hamzafathaarabic N ilde N hamzafathatanarabic N integralbottom N hamzalowarabic N integraltop N hamzalowkasraarabic N kaf N hamzalowkasratanarahic N kafdagesh N hatafpatah N kashidaautoarabic N hatafpatah16 N kashidaautonosidebearingarabic N hatafpatah23 N kcedilla N hatafpatah2f N lamed N hatafpatahhebrew N lameddagesh N hatafpatahnarrowhebrew N lamedhebrew N hatafpatahquarterhebrew N lamedholam N hatafgamats N lamedholamdagesh N hatafgamats1b N lamedholamdageshhebrew N hatafqamats28 N laminitialarabic N hatafqamats34 N lammeemjeeminitialarabic N hatafgamatshebrew N lcedilla N hatafqamatsnarrowhebrew N logicalnotreversed N hatafqamatsquarterhebrew N mahapakhhebrew N hatafsegol N mem N hatafsegol17 N memdagesh N hatafsegol24 N merkhahebrew N hatafsegol30 N merkhakefulahebrew N hatafsegolhebrew N middot N hatafsegolnarrowhebrew N munahhebrew N hatafsegolquarterhebrew N nbspace N he N ncedilla N hedagesh N newshegelsign N hehfinalalttwoarabic N ninearabic N het N noonhehinitialarabic N hiriq N nun N hirig14 N nundagesh N hiriq21 N odblacute N hiriq2d N onearabic N hirighebrew N overscore N hirignarrowhebrew N patah N hiriqquarterhebrew N patah11 N holam N patah1d N holam19 N patah2a N holam26 N patahhebrew N holam32 N patahnarrowhebrew

N.	and the same about the same		
	patahquarterhebrew		qubutshebrew
	pe		qubutsnarrowhebrew
	pedagesh .		qubutsquarterhebrew
	qamats		quoteleftreversed
	qamats10	•	rafe
	qamatsla		rcedilla
	qamats1c		reharabic
	qamats27		resh
N	qamats29		reshhatafpatah
N	qamats33	N	reshhatafpatahhebrew
N	qamatsde		reshhatafsegol
N	qamatshebrew	N	reshhatafsegolhebrew
N	qamatsnarrowhebrew	N	reshhebrew
N	qamatsqatanhebrew	N	reshhiriq
N	qamatsqatannarrowhebrew	N	reshhiriqhebrew
N	qamatsqatanquarterhebrew	N	reshholam
N	qamatsqatanwidehebrew	N	reshholamhebrew
N	qamatsquarterhebrew	N	reshpatah
N	qof	N	reshpatahhebrew
N	qofdagesh	N	reshqamats
N	qofhatafpatah	N	reshqamatshebrew
N	qofhatafpatahhebrew	N	reshqubuts
N	qofhatafsegol	N	reshqubutshebrew
N	qofhatafsegolhebrew	N	reshsegol
N	qofhebrew	N	reshsegolhebrew
N	qofhiriq	N	reshsheva
N	qofhiriqhebrew	N	reshshevahebrew
N	qofholam	N	reshtsere
N	qofholamhebrew	N	reviahebrew
N	qofpatah	N	samekh
N	qofpatahhebrew	N	samekhdagesh
N	qofqamats	N	segol
N	qofqamatshebrew	N	segol13
N	qofqubuts	N	segol1f
N	qofqubutshebrew	N	segol2c
N	qofsegol	N	segolhebrew
N	qofsegolhebrew	N	segolnarrowhebrew
N	qofsheva	N	segolquarterhebrew
N	qofshevahebrew	N	sevenarabic
N	qoftsere	N	sfthyphen
	qubuts		shaddaarabic
	qubuts18	N	sheqel
	qubuts25	N	sheva
	qubuts31	N	sheval15

	ahava 15	N ====d=		
	sheva15	N zayin		
	sheva22	N zayindag	esn	
	sheva2e	N zdot		
	shevahebrew	N zeroarab	10	
	shevanarrowhebrew	D unicodes		
	shevaquarterhebrew	D cache		
N	shin	F is_known		
	shindagesh	D known		
N	shindageshshindot	F load		
N	shindageshsindot	F make_unicod	e_vector	
N	shinshindot	D math		
N	shinsindot	N version		
N	siluqhebrew	expansions	data table	
N	sixarabic	formats	data table	
N	tav	goodies	table	
N	tavdages	D colorscheme	S	
N	tavdagesh	D data		
N	tcedilla	D designsizes		
N	tchehinitialarabic	D filenames		
N	tet	F getcompositions		
N	tetdagesh	T list		
N	tevirhebrew	F compositions		
N	thousandsseparatorarabic	F designsizes		
N	threearabic	F expansions		
N	tildecmb	F featureset		
N	tipehahebrew	F filenames		
N	tsadi	F files		
N	tsadidagesh	F mathematic	cs	
N	tsere	F protrusion	าร	
N	tsere12	F solutions		
N	tserele	F treatments	5	
N	tsere2b	F typefaces		
N	tserehebrew	F load		
N	tserenarrowhebrew	F prepare_features		
N	tserequarterhebrew	F register		
N	twoarabic	F registerpostprocessor		
N	udblacute	F report		
	vav	handlers	table	
N	vavdagesh	T afm		
	vavdagesh65	B addkerns		
	vavholam	B addligatu	res	
	yerahbenyomohebrew	B addtexliga		
	yod	B autoprefix		
	yoddagesh	D cache		
IV	youuugesii	D Cacile		

D features	F gsub_multiple
T helpdata	F gsub_reversecontextchain
D bothkerned	F gsub_single
D leftkerned	F load
D ligatures	F scriptandlanguage
D rightkerned	F setcontextchain
D texligatures	F setdynamics
F load	F setfeatures
F setfeatures	T statistics
B syncspace	D usedfeatures
N version	T tables
T otf	D baselines
F addfeature	D features
D cache	D languages
T chainhandlers	D scripts
F normal	N version
F verbose	T pfb
F collectlookups	T tfm
F dataset	D features
S defaultbasealternate	F setfeatures
S defaultnodealternate	T vf
D enhancers	T combinations
D features	F combine
F fileformat	T combiner
F getalternate	D commands
T glists	F find
T handlers	D helpers
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 modes

D originals	S pc
D parameters	S pd
T processes	S pe
D properties	S pf
D quads	S pi
D resources	S po
T setdynamics	S ps
D spaces	S sc
D spacings	S sk
D unicodes	S sm
D xheights	S so
helpers table	F format
F addprivate	F onetimemessage
F dimenfactor	F register
F expandglyph	F reportdefinedfonts
F fontpatternhassize	F reportusedfeatures
F getdigitwidth	<b>mappings</b> table
F getparameters	F addtounicode
F getprivatenode	F fromunicode16
F hasprivate	F loadfile
F indextoslot	F loadline
F name	F loadlumtable
F nametoslot	F makenameparser
F setdigitwidth	T overloads
F splitfontpattern	T IJ
F tochar	N mess
<pre>iterators table</pre>	S name
F characters	T unicode
F descriptions	T I_J
F glyphs	N mess
<b>loggers</b> table	S name
F add_placeholders	T unicode
T category_to_placeholder	T f_f
s II	N mess
S lm	S name
S lo	T unicode
S lt	T f_f_i
S lu	N mess
S mc	S name
S me	T unicode
S mn	T f_f_l
S nd	N mess
S nl	S name
S no	T unicode

T f_i	Тіј				
N mess	N mess				
S name	S name				
T unicode	T unicode				
T f_j	F reset				
S name	F tounicode				
T unicode	F tounicode16				
T f_k	F tounicode16 F tounicode16sequence				
S name	mp table				
T unicode	D cache				
T f_l	B inline				
N mess	N version				
S name	names data tabl				
T unicode	nulldata data tabl				
T ff	protrusions data tabl				
	readers table				
N mess	F afm				
S name					
T unicode	F check_lua				
T ffi 	F check_tfm				
N mess	F dfont				
S name	F lua				
T unicode	F opentype				
T ffl	F otf				
N mess	F pfb				
S name	D sequence				
T unicode	F tfm				
T fi	F ttc				
N mess	F ttf				
S name	<b>select</b> table				
T unicode	T data				
T fj	F definetypeface				
S name	T fallbacks				
T unicode	F filterinput				
T fk	T methods				
S name	F default				
T unicode	F features				
	F file				
T fl					
T fl N mess	F goodies				
N mess	F goodies				
S name	F goodies F name				
N mess S name T unicode	F goodies F name F selectfont				
N mess S name T unicode T i_j	F goodies F name F selectfont F simplefonts				

#### F searchfiles

#### specifiers table

D contextmerged

F contextnumber

D contextnumbers

D contextsetups

F contexttostring

F definecontext

F mergecontext

F presetcontext

F registercontext

F showcontext

F splitcontext

D synonyms

D variants

#### symbols

table

F uselibrary

tables

table

table tracers treatments table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

data table typefaces

# 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
   Finsert
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 data table elements 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 setuserinterface function 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

loadchunk function
loaddata function
loadlines function
noflines function

open overloaded function
output overloaded function

pathseparator string

function read readall function readnumber function readstring function function savedata 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	_		ad	
datasets	table		getcollected		
D collected	table		getdata		
F extend			getfield		
F getdata			gettobesaved inlist		
F setdata			last		
D tobesaved			list		
disablesave	function		save		
files	table		save		
D collected	table		tobesaved		
F context			itions	table	
B forcerun		-	b_col	table	
F run					
D tobesaved			b_region c		
initialize	function		collected		
load	function		column		
loadother	function		сору		
objects	table		depth		
D collected	cubic		e_col		
F get			e_region		
F number			enhance		
F page			extra		
F save			get		
F set			getreserved		
D tobesaved			hangafter	u	
pack	boolean		hangindent		
packversion			height		
pagestates	table		hsize		
D collected			leftskip		
F extend			lowerleft		
F realpage			lowerright		
F setstate			markregion	box	
D tobesaved			n		
passes	table		onsamepage		
F check			overlappin	a	
D collected			р		
F count			page		
F define			paragraph		
F find			parindent		
F first			position		
F get			r		
-					

```
F region
   F replace
   F rightskip
   F set
   F setall
   F setdim
   D tobesaved
   F upperleft
   F upperright
   S used
   F width
   Fx
   F xy
   Fу
register
                function
                function
save
                table
structure
   D collected
   T components
   T tobesaved
     T branches
     S name
     S type
                table
```

#### variables

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 data table counters current function data data table define function function expand table expanders table frequencies F averagecharwidth F getdata qetdata function function getnumber hyphenate function hyphenators table T dictionaries D featuresets F handler F popmethod F pushmethod F setmethod T traditional F definefeatures F gettrace F hyphenate F injecthyphens F installmethod F lasttrace F loadpatterns F registerexception F registerpattern installed function labels table F define

F split
lefthyphenmin

loadable

loadwords

logger F report numbers postexhyphenchar posthyphenchar preexhyphenchar prehyphenchar registered replacements

data table function function function function data table

F add F handler

righthyphenmin
serializediscretionary
setexceptions
setsynonym
unload
version
visualizediscretionaries
words

function function function function number function table

F check
T data
F disable
F enable
T enablers
B enables
F found
F load
T methods
N threshold

function

function

function table

## layouts (context)

#### **status** table

F isleftpage

F leftorrightpagection

### lfs (extra lua)

attributes overloaded function chdir overloaded function

currentdir function

lock function

mkdirs function

unlock function

### libraries (context)

```
basiclua data table
basictex data table
builtin data table
extralua data table
extratex data table
functions data table
globals data table
```

#### lmx (context)

color function convert function convertfile function convertstring function einject function eprint function escape function finalized function finject function fprint function get function getvariables function htmfile function html table Fa

F td

F th

include function
inherited table

S color-background-four

S color-background-one

S color-background-three

S color-background-two

S title

initialize function inject function **lmxfile** function loadedfile function make function new function overloaderror function popupfile function print function pν function report function function reset result function set function show function showdebuginfo function showerror function stripcss function
tv function
type function
urlescape function
variable function
variables table

S color-background-blue

S color-background-body

S color-background-green

S color-background-main

S color-background-purple

S color-background-yellow

S title-default

### logs (context)

application function 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

F lines

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 show open function simple function simpleline function

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

# lpdf (context)

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

function stream string function function timestamp toeight function topdfdoc function tosixteen function transform function transparency function 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 getluaname function 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)

addindex	function	flushsetups	function
all	function	flushspacewise	function
applyfunction	function	get id	function
att	function	getid	function
attribute	function	getindex	function
chainattribute	function	id	function
checkindex	function	idsplitter	userdata
collected	function	include	function
command	function	inclusion	function
concat	function	inclusions	function
concatrange	function	index	function
content	function	info	function
context	function	inlineverbatim	function
convert	function	installsetup	function
count	function	last	function
delete	function	load	function
direct	function	loadbuffer	function
directives	table	loaddata	function
F after		loaded	table
F before		loadregistered	function
F handle		main	function
F load		match	function
F setup		name	function
displayverbatim	function	namespace	function
doif	function	nonspace	function
doifelse	function	pos	function
doifelseempty	function	position	function
doifelsetext	function	raw	function
doifempty	function	rawroot	function
doifnot	function	register	function
doifnotempty	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

setcommandtotextfunctionsetsetupfunctionsnippetfunctionsorterstable

F add

F compare

F flush

F reset F show

F sort

splitid function startraw function function stopraw store function strip function stripped function function tag text function tofile function toparameters function toverbatim function verbatim function withindex function xmltexhandler 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 fallbacks table F apply F install

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

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)

analyzeplugins	function	gettext	function
checkformat	function	graphic	function
checktexts	function	graphic_base_pass	function
collapse	boolean	initializescriptrunner	function
collapse	function	instance	function
convert	function	intermediate	table
defaultformat			table
defaultinstance	string	T actions	
defaultmethod	string	F makempy	ctring
directrun	string function	lastlog load	string function
	function		table
edefsxsy escaped	function	makempy N nofconverted	table
escapeu exectime	table		
exectime	data table	F processgraphics	
filterclippath	function	F registerfile <b>metafun</b>	table
flush	function		table
flushers	table	F interpolate	
	table	F topath method	number
T pdf		mptopdf	table
F comment		• •	table
F flushfigure		F convertmpstopdf N nofconverted	
F startfigure		n norconverted	number
F stopfigure F textfigure		nvformat	function
flushliteral	function	optimize	boolean
flushnormalpath	function	parse	function
flushreset	function	pdfliterals	function
fonts	table	pluginactions	function
F define	table	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_number	function	resetplugins	function
format_string	function	runscript	function
getclippath	function	scripterror	function
getextensions	function	setextensions	function
getextensions	function	setextensions	function
getstatistics	Tunction	secoutercolor	Tunction

function settext showlog boolean svformat function table tex

F get F reset F set

boolean texerrors function textextsdata 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 dataset function datasets table F load format function get table F boolean F number F numeric F string function n numeric function pair function path function print function quadruple function quoted function size function

function

triplet

### mplib (extra tex)

fields function
finder function
finders table

F file

get\_boolean function
get\_number function
get\_numeric function
get\_string function

new overloaded function

pen\_info function
preprocessed function
version function

### noads (context)

#### handlers table F 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
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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	listcodes
F getligaindex		listtoutf
F handler		load
F installnewkern		locate
F keepcounts		margincodes
Freset		markers
F resetcounts		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

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

F getprop F pdfliteral F getskip F pdfrestore F getsubtype F pdfsave F pdfsetmatrix F has attribute 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 locate F userlist F mlist\_to\_hlist F usernumber F nestedtracedslide F userstring F usertokens F new 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 somepenalty

F pdfdirect

F somespace		F enable	
F tail		F handler	
F takebox		F register	
F tonode		D registered	
F tonodes		D values	
F tonut		F processor	
F tosequence		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 attach		snapshots	table
T data		• F getparameters	
F delayed		F getsamples	
protect_glyphs	function	F resetsamples	
protrusion_skippable	function	F takesample	
pts	function	somepenalty	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 replaceaction	
setattr	function	F restart	
setattribute	function	F setaction	
setattributes	function	F showactions	
setbox	function	F table	
setfield	function	textdir_is_equal	data table
setunsetattributes	function	textdir_is_is	data table
shifts	table	textdir_is_opposite	data table
D data		textdir_is_parallel	data table
F define		tobasepoints	function
F enable		tocentimeters	function
F handler		tociceros	function
show	function	todidots	function
showboxes	function	todimen	function
showcodes	function	toinches	function
showlist	function	tomillimeters	function
showsimplelist	function	tonewciceros	function
skipcodes	data table	tonewdidots	function
slide	function	tonode	function

tonodes	function	F reset	
tonut	function	F start	
topicas	function	F stop	
topoints	function	F stop	
toscaledpoints	function	T transparencies	
tosequence	function	F reset	
tostring	function	F set	
totable	function	F setlist	
totree	function	traverse	function
toutf	function	traverse_id	function
tracers	table	typesetters	table
T characters		F hpack	
F collect		F tohpack	
F equal		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

#### 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 strina **binsuffixes** table clock function converttime function date function difftime function data table env overloaded function exec execute overloaded function exit function fulltime function overloaded function aetenv gettimeofday function isleapyear function launch function libsuffix strina localtime function name string nofdays function function now strina platform overloaded function remove overloaded function rename resolvers table F bits resultof function runtime function selfdir string seteny overloaded function setlocale overloaded function function sleep spawn overloaded function function time times function timezone function

function function

function string

tmpdir

tmpname 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

#### 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 S journal analyze function S note anywhere function S number table casters S pages S subtitle F author F keyword S title F pagenumber S type citevariants table Surl Fauthor S volume F authornum S vear T optional F authoryear F authoryears T required F category T sets F default T author T doi F entry T isbn F index F kev T volume F num T virtual T book F page F serial S category F short T extra F tag T fields S address F type S author F year data table collected S day components table S doi S edition F author function concatstate S editor converttoxml function S file currentspecification table S isbn S month S author T categories S note T article S number S category S pages T extra S publisher T fields S series S author S subtitle S doi S title S editor S type S file S url S issn S volume

S year	S note
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T required	S organization
T sets	S pages
T author	S publisher
T doi	S series
T edition	S subtitle
T virtual	S title
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S author	S series
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S url	detailed	table
S year	endnotes_to_btx	function
T optional	enhancer	table
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S doi	F details	
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S subtitle	found	function
S title	get	function
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F add		resolvedname	function
F expanded		save	function
F load		search	function
F save		setcategory	function
lists	table	setspecification	function
F collectentries	cabec	singularorplural	function
F fetchentries		sortmethods	table
F filterall		T authoryear	10010
F flushentries		T sequence	
T methods		specifications	table
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#### table tables D implicits D origins D privates D specials D types D virtuals table tracers F showdatasetauthors F showdatasetcompleteness F showdatasetfields F showfields F showtables typesetters table F author F string

usedentries

function writers table

F author F keyword F pagenumber

#### regimes (context)

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

## resolvers (context)

allprefixes	function	findtexfile	function
appendhash	function	findwildcardfile	function
automount	function	findwildcardfiles	function
automounted	table	formatofsuffix	function
booleanvariable	function	formatofvariable	function
cacheversion	string	formats	data table
checkedvariable	function	generators	data table
cleanedpathlist	function	get_from_content	function
cleanpath	function	getenv	function
cleanpathlist	function	getownpath	function
concatinators	data table	getreadfilename	function
configbanner	string	hashers	data table
criticalvars	data table	homedir	string
dangerous	data table	inputstack	table
datastate	function	installinputfilehandler	function
defaultsuffixes	table	installinputlinehandler	function
dowithfilesandreport	function	instance	table
dowithfilesintree	function	D data	
dowithpath	function	B diskcache	
dowithvariable	function	D environment	
env	function	D expansions	
executers	table	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	D pathlists	
find_files	function	T pathstack	
findbinfile	function	B remember	
findctxfile	function	B renewcache	
finders	data table	B renewtree	
findfile	function	B savelists	
findfiles	function	D setups	
findgivenfile	function	D specification	
findgivenfiles	function	D variables	£
findpath	function	jobpath	function

jobs	table	registerfilehash	function
F currentcomponent	tabte	registerintrees	function
F currentenvironment		registermethod	function
F currentproduct		registerzipfile	function
F currentproject		relations	data table
F justacomponent		renew	function
D processors		repath	function
F productcomponent		reset	function
F usefile		resetextrapath	function
joinpath	function	resetresolve	function
load	function	resolve	function
loadbinfile	function	savers	data table
loaders	data table	scandata	function
loadlualib	function	scanfiles	function
loadtexfile	function	schemes	table
loadtime	function	T cleaners	10010
locateformat	function	F md5	
locators	data table	F none	
luacnfname	string	F strip	
luacnfspec	string	F cleanname	
luacnfstate	string	F fetchstring	
macros	table	F fetchtable	
F convertfile		F install	
F decodecomment		setdynamic	function
F enablecomment		setenv	function
F encodecomment		setinstance	function
F preprocessed		showpath	function
F processmk		simplescanfiles	function
F processmkvi		splitconfigurationpath	function
F version		splitexpansions	function
maxreadlevel	number	splitmethod	function
methodhandler	function	splitpath	function
newinstance	function	stackpath	function
openbinfile	function	suffixes	data table
openers	data table	suffixmap	data table
openfile	function	suffixofformat	function
opentexfile	function	texdatablob	function
ownpath	string	toppath	function
poppath	function	unexpandedpath	function
prefixes	data table	unexpandedpathlist	function
prependhash	function	unresolve	function
pushpath	function	updaterelations	function
registerextrapath	function	updatescript	function
registerfile	function	usertypes	data table

usezipfile	function
validatedpath	function
variable	function
variableofformat	function
variableofformatorsuffix	function
wildcardpattern	function

## sandbox (context)

binaryhandler	function
disablerunners	function
enable	function
filehandlerone	function
filehandlertwo	function
finalizer	function
initializer	function
iohandler	function
logcalls	function
logfiles	function
original	function
overload	function
possiblepath	function
redefine	function
register	function
registerbinary	function
registerroot	function
registerrunner	function
report	function
run	function
runhandler	function
setfilenamelogger	function
setlogger	function
setreporter	function
settrace	function
validfilename	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
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numbertohandler
                    data table
reset
                    function
set
                    function
splitters
                    data table
```

### set (context)

contains function
create function
tolist function
tonumber function
totable function

#### socket (extra lua)

**BLOCKSIZE** number S connection DEBUG boolean S content-description SETSIZE number S content-disposition bind function S content-encoding choose function S content-id function connect S content-language connect4 function S content-length connect6 function S content-location dns table S content-md5 F getaddrinfo S content-range F gethostname S content-transfer-encoding F getnameinfo S content-type F tohostname S date F toip S diagnostic-code ftp table S dsn-gateway S PASSWORD S etag N PORT S expect N TIMEOUT S expires S USER S final-log-id F command S final-recipient F get S from S host F open S if-match F put gettime function S if-modified-since headers table S if-none-match S if-range T canonic S accept S if-unmodified-since S accept-charset S in-reply-to S accept-encoding S keywords S accept-language S last-attempt-date S last-modified S accept-ranges S action S location S age S max-forwards S allow S message-id S alternate-recipient S mime-version S original-envelope-id S arrival-date S authorization S original-recipient S bcc S pragma S cache-control S proxy-authenticate S cc S proxy-authorization S comments S range

S recei	ved	sinkt	table
S recei	.ved-from-mta	F close-	when-done
S refer	rences	F defaul	t
S refer	rer	F http-chunked	
S remot	re-mta	F keep-o	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 TIMEOU	Γ
S reser	t-reply-to	S ZONE	
S reser	t-sender	F message	e
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-len	
	remote-recipient	F default	
S statu		F http-chunked	
S subje	ect	F until-closed	
S te		tcp	function
S to		tcp6	function
S trail		tp	table
	fer-encoding	N TIMEOU	
S upgra		F connec	
S user-	agent	try	function
S vary		udp	function function
S via		udp6 url	table
S warni	retry-until	F absolu	
	nuthenticate		Le
S x-mai		F build F build_path	
http	table	F escape	Jacii
N PORT		F parse	
N TIMEOU	Г		nath
S USERAGI		F parse_path F unescape	
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
toHEX	function
toboolean	function
tobytes	function
tocontext	function
todec	function
todimen	function
tohex	function
tonodes	function
topattern	function
totable	function
toutf	function
tracedchar	function
tracedchars	table
unquote	function
unquoted	function
upper	function
utfcharacters	function
utfvalues	function
valid	function

### structures (context)

atlocation	function	F previous		
blocks	table	F raw		
D collected		F record		
F define		F reset		
F print		F restart		
F save		F restore		
F select		F save		
F setstate		F set		
D states		F setlevel		
D tobesaved		F setoffset		
bookmarks	table	F setown		
T extras		F setstate		
F get		F setvalue		
F mergesections		T specials		
F register		F userpage		
F reset		F subs		
F tosections		D tobesaved		
F finalize		F value		
F flatten		currentsectionnumber	function	
F installhandler		descriptions	table	
F merge		documents	table	
F merge S method		documents D data	table	
-			table	
S method		D data	table	
S method F overload		D data F initialize	table	
S method F overload F place		D data F initialize F preset	table	
S method F overload F place F register	table	D data F initialize F preset F reset		
S method F overload F place F register F setup	table	D data F initialize F preset F reset floats	table	
S method F overload F place F register F setup Counters	table	D data F initialize F preset F reset floats formulas	table	
S method F overload F place F register F setup  counters F add	table	D data F initialize F preset F reset floats formulas F current	table	
S method F overload F place F register F setup Counters F add F analyze	table	D data F initialize F preset F reset  floats formulas F current F simplify	table	
S method F overload F place F register F setup Counters F add F analyze F check	table	D data F initialize F preset F reset  floats formulas F current F simplify F store	table table	
S method F overload F place F register F setup Counters F add F analyze F check D collected	table	D data F initialize F preset F reset floats formulas F current F simplify F store helpers	table table	
S method F overload F place F register F setup Counters F add F analyze F check D collected F compact	table	D data F initialize F preset F reset floats formulas F current F simplify F store helpers F analyze	table table	
S method F overload F place F register F setup  Counters F add F analyze F check D collected F compact F converted	table	D data F initialize F preset F reset floats formulas F current F simplify F store helpers F analyze F formulanumber	table table	
S method F overload F place F register F setup Counters F add F analyze F check D collected F compact F converted F currentvalue	table	D data F initialize F preset F reset  floats formulas F current F simplify F store helpers F analyze F formulanumber F merged	table table	
S method F overload F place F register F setup Counters F add F analyze F check D collected F compact F converted F currentvalue D data	table	D data F initialize F preset F reset  floats formulas F current F simplify F store  helpers F analyze F formulanumber F merged F page	table table	
S method F overload F place F register F setup  Counters F add F analyze F check D collected F compact F converted F currentvalue D data F define	table	D data F initialize F preset F reset  floats formulas F current F simplify F store helpers F analyze F formulanumber F merged F page F prefix	table table	
S method F overload F place F register F setup  Counters F add F analyze F check D collected F compact F converted F currentvalue D data F define F first	table	D data F initialize F preset F reset  floats formulas F current F simplify F store helpers F analyze F formulanumber F merged F page F prefix F prefixlastpage	table table	
S method F overload F place F register F setup  Counters F add F analyze F check D collected F compact F converted F currentvalue D data F define F first F get	table	D data F initialize F preset F reset  floats formulas F current F simplify F store helpers F analyze F formulanumber F merged F page F prefix F prefixlastpage F prefixpage	table table	

inserts	table	T result		
D data		D sectionblocks		
F define		F sectionnumber		
F getdata		F size		
F getlocation		F title		
F getname		D tobesaved		
F getnumber		F userdata		
F setlocation		F uservalue		
F setup		marks tal	ole	
D stored		D data		
itemgroups	table	F define		
lists	table	F exists		
F addto		F fetch		
F analyze		F fetchallmarks		
B autoreorder		F fetched		
D cached		F fetchonemark		
D collected		F fetchtwomarks		
F discard		F get		
F enhance		F number		
T enhancers		F relate		
F filter		F reset		
F formulanumber		F set		
F getresult		F show		
F groupindex		F synchronize		
F hasnumberdata		F title		
F haspagedata		T tracers		
F hastitledata		F showtable		
F iscached		<b>notes</b> tal	ole	
D kinds		F checkpagechange		
F label		F define		
F location		F doifonsamepageasprevious		
D names		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		F listindex		
F pushnesting		F ordered		
F realpage		F postpone		
F reordered		F resetpostponed		

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

F splitreference	F userdata	
F synchronizepage	sections	table
T testrunners	F autodepth	
Finner	F cct	
F special	D collected	
F special operation	F current	
F special operation with arguments	F currentblock	
T testspecials	F currentid	
F deltapage	F currentlevel	
Fi	F currentsectionindex	
F internal	F depthnumber	
F page	F finddata	
F realpage	F findnumber	
F section	F fullnumber	
F userpage	F getcurrentlevel	
D tobereferred	F getlevel	
D tobesaved	F getnumber	
T urls	F internalreference	
T data	D levelmap	
F define	D levels	
F get	F load	
D usedinternals	F matchingtilldepth	
D usedviews	F numberatdepth	
F valid	F numbers	
F whatfrom	F popblock	
<b>registers</b> table	F prefixedconverted	
F analyze	F pushblock	
D collected	F register	
F compare	D registered	
F define	F reportstructure	
F enhance	F save	
F extend	T sectionblockdata	
F filter	T bodypart	
F filtercollected	S bookmark	
F finalize	F set	
F flush	F setblock	
F get	F setchecker	
F prepare	F setentry	
F process	F setlevel	
F setmethod	F setnumber	
F sort	F structuredata	
F store	F title	
D tobesaved	D tobesaved	
F unique	F typesetnumber	

F userdata F setdescriptionsymbol B verbose F setfigure sets table F sethighlight F define F setitemgroup F get F setlist F setproperty F getall D setlist F setregister specials table F setsorting D collected F setsynonym F retrieve F settablecell F store F settabulatecell D tobesaved F setuserproperties table synonyms D specifications F analyzed F start D collected F stop F compare D taglist 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 F getid F handler D labels F last F lastinchain F locatedtag T patterns U splitter D properties F registermetadata F restart F setaspect F setattributehash F setcombination

F setdescription

#### table (basic lua)

allkeys	function	sequenced	function
append	function	serialize	function
are_equal	function	setmetatablecall	function
autokey	function	setmetatableindex	function
compact	function	setmetatablekey	function
concat	function	setmetatablenewindex	function
contains	function	sort	function
сору	function	sorted	function
count	function	sortedhash	function
derive	function	sortedhashkeys	function
deserialize	function	sortedhashonly	function
drop	function	sortedindexonly	function
fastcopy	function	sortedkeys	function
fastserialize	function	sortedpairs	function
filtered	function	sparse	function
flattened	function	strip	function
foreach	function	sub	function
foreachi	function	swapped	function
fromhash	function	tocontext	function
getmetatablekey	function	tocsv	function
getn	function	tofile	function
has_one_entry	function	tohandle	function
identical	function	tohash	function
imerge	function	toxml	function
imerged	function	twowaymapper	function
insert	function	unique	function
is_empty	function	unnest	function
keys	function	unpack	function
load	function	values	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		

# 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		function
ctxcatcodes	number	lua_math_random 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
•	function		function
error	function	normal_rand notcatcodes	number
extraprimitives finish		number	
fontidentifier	function function		function function
fontname	function	pdffontname	function
	function	pdffontobjnum	function
fprint		pdffontsize	
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 toks table 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)

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
              table
hbox
letter
              function
              function
letters
other
              function
```

table table

vbox

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		<b>firstlines</b> t	able
T methods		T actions	
T numbers		F default	
F set		F line	
F setreplacemen	t	F word	
cases	table	F handler	
T actions		F set	
F handler		<b>initials</b> t	able
F register		T actions	
F set		F default	
characteralign	table	F handler	
F handler		F set	
F resetcharacte	ralign	<b>injectors</b> t	able
F setcharactera	lign	F check	
characters	table	T list	
F handler		F mark	
F replacenbsp		F reset	
F replacenbspace	es	F set	
checkers	table	F show	
F handler		<b>italics</b> t	able
F reset		F forcevariant	
F set		F handler	
cleaners	table	F reset	
F handler		F set	
F set		<b>kerns</b> t	able
digits	table	D factors	
T actions		F handler	
F handler		F keepligature	
F set		B keeptogether	
directions	table	D mapping	
F getfences		F set	
F getglobal		<b>manipulators</b> t	able
F getmethod		F apply	
F handler		F applyspecificati	on
T handlers		T methods	

F Word F Words F abbreviatedjournal F expandedjournal F lowercase F stripperiod F uppercase T patterns U list U pair F splitspecification margins table F finalhandler F globalhandler F localhandler F save marksuspects function processors table F apply F register F reset F split F startapply F stopapply F stripped F tostring function showsuspects table spacings F define F handler D mapping T numbers T frenchpunctuation T characters S name N number F reset

F set
F setup
wrappers

F handler **xtables** 

F cleanup

table

table

F construct
F create
F finish\_row
F flush
F initialize\_construct
F initialize\_reflow\_height
F initialize\_reflow\_width
F next\_row
F reflow\_height
F reflow\_height
F set\_construct
F set\_reflow\_height

F set\_reflow\_width

## unicode (extra lua)

ascii	table	F	len
F byte			lower
F char			match
F dump			rep
F find			reverse
F forma	t	F	sub
F gfind		F	upper
F gmato	h	utf8	table
F gsub		F	byte
F len		F	char
F lower		F	characters
F match		F	chrlen
F rep		F	count
F rever	se	F	dump
F sub		F	filetype
F upper		F	find
grapheme	table	F	format
F byte		F	gfind
F char		F	gmatch
F dump		F	gsub
F find		F	is_valid
F forma	t	F	len
F gfind		F	length
F gmatc	h		lower
F gsub			magic
F len			match
F lower			remapper
F match			rep
F rep			replacer
F rever	se		reverse
F sub			split
F upper <b>latin1</b>	table		splitlines sub
F byte	table		subtituter
F char			tocodes
F dump			toeight
F find			toentities
F forma	+		tostring
F gfind			totable
F gmato			upper
F gsub			ustring
3,		·	3

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

# url (context)

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

# utilities (context)

debugger	table	N version	1
F disable		parsers	table
F enable		F add_set	tings_to_array
F savestats		F argumen	nts_to_table
F showstats		F array_t	co_string
F showtraceback		F csvspli	itter
formatters	table	F getpara	ameters
F formatcolumns		F grouped	isplitat
F list		F hash_to	o_string
F stripzeros		F iterato	or
garbagecollector	table	F keq_to_	hash
F check		F listite	em
N criterium		F make_se	ettings_to_hash_pattern
B enabled		F mergeha	ashes
lua	table	F options	_to_hash
B alwaysstripcode		T pattern	ns
F compile		U settings_to_array	
F loadedluacode		U setti	ngs_to_hash_a
F loadstripped		U settings_to_hash_b	
N nofstrippedbytes		U settings_to_hash_c	
N nofstrippedchunk	s	U unitt	otex
B stripcode		F process	s_stripped_settings
T strippedchunks		F rfc4180	)splitter
F strippedloadstri	ng	F runtime	
T suffixes		F setting	gs_to_array
S lua		F setting	s_to_array_with_repeat
S luc		F setting	gs_to_hash
S lui		F setting	gs_to_hash_strict
S luj		F setting	gs_to_hash_tolerant
S luv		F setting	js_to_set
S tma		F simple_	_hash_to_string
S tmc		F splitme	ethod
S tua		F splitth	nousands
S tuc		F steppe	-
packers	table	F strippe	ed_settings_to_array
F hashed		F unitto	
F new		F unitto	
F pack		report	function
F simplehashed		sequencer	
F strip		F appenda	
F unpack		F appendo	group

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 replaceaction F setkind F tostring table setters F disable F enable F initialize F list F new F register F report F reset F show stacker table F new storage table F allocate F checked F mark F marked F setinitializer F sparse strings table F collapsecrlf T formatters F add F new F newrepeater F nice 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 F replacevalue 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	funct	tion	
register	funct	tion	
registerescapecommand	funct	tion	
registerescapeline	funct	tion	
registerescapepattern	function		
signal	string		
signalpattern	userdata		
specifications	data	table	
visualize	funct	tion	
visualizebuffer	function		
visualizefile	function		
visualizestring	function		
write	function		
writeargument	function		
writedefault	funct	tion	
writeemptyline	funct	tion	
writenewline	funct	tion	
writespace	function		

## xml (context)

addontitiondontuno	function		
addentitiesdoctype after	function function	D tex	
all	function	D texline	
	function	D texspace	
applylpath	function	D verbose	string
assign attribute		defaultprotocol	string
before	function	delete	function
	function	<del>delete_element</del>	function
body builtinentities	function	each	function
	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 idstring	
collect_texts	<del>function</del>	F lower	
collected	function	F name	
collecttexts	function	F number	
content	function	F oneof	
convert	function	F print	
сору	function	F quit	
count	function	F tag	
cprint	function	F text	
CSS	table	F undefined	
F colorspecification		F upper	
F dimension		fillin	function
F fontspecification		filter	function
F padding		finalizers	table
defaulthandlers	table	F paragraphs	
D file		T tex	
D parsedxml		F all	
D string		F attribute	

F	chainattribute	F reverse	
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>	<del>function</del>
F	text	<pre>inject_element_after</pre>	function
F	upper	<pre>inject_element_before</pre>	function
F	upperall	injectafter	function
T x	ml	injectbefore	function
F	all	insert	function
F	att	insert_element	function
F	attribute	<pre>insert_element_after</pre>	<del>function</del>
F	attributes	<pre>insert_element_before</pre>	function
F	cdata	insertafter	function
F	chainattribute	insertbefore	function
F	count	insertcdata	function
F	default	insertcomment	function
F	elements	inspect	function
F	empty	is_valid	function
F	first	kind	function
F	function	last	function
F	index	load	function
F	last	lpath	function
F	lowerall	lpathcached	function
F	match	lpathcalls	function
F	name	lshow	function
F	position	makestandalone	function

Т

match	function
name	function
newhandlers	function
nodesettostring	function
originalload	function
package	function
parent	function
parsedentitylpeg	userdata
pihandlers	table
placeholders	table
F unknown_any_entity	

F unknown\_any\_entity
F unknown\_dec\_entity
F unknown\_hex\_entity

position function privatecodes table privatetoken function function process process attributes function. process elements function processattributes function profiled table function raw registerentity function registerns function remap name function function remap\_namespace **function** remap tag function remapname remapnamespace function function remaptag renamespace function function replace replace element function resolvens function function root function save selection function separate function serialize function setcdata function setcomment function sethandlersfunction function setproperty function

settings

specialhandler table sprint function string function function strip strip whitespace **function** stripelement function stripleadingspaces function function table text function textonly function texttocdata function tocdata function toelement function tostrina function totable function toxml function tprint function traverse function unescaped function unprivatized function withelement function withelements function function wrap

table

function

xmlns

### zip (extra lua)

archivestableclosefunctionclosearchivefunction

openarchive function
openfile function
registeredfiles table
type function

#### zlib (extra lua)

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