attributes backends bibtex 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 for fontloader fonts functions global graphics gzip img interactions interfaces io job lamo languages layouts libraries lmx logs lpdf lpeg ltn12 luatex lxml math mathematics mbox md5 metapost mime moduledata modules mplib noads node nodes number os package pagebuilders parametersets pdfscanner physics profiler regimes resolvers scripts set socket sorters statistics status storage streams string structures table tex thirddata token tokens tracers trackers typesetters unicode url userdata utilities vf visualizers xml zip zlib

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

# global (alias: \_G)

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

md5	table	setmetatable	function
metapost	table	socket	table
mime	table	sorters	table
module	function	statistics	table
moduledata	table	status	table
modules	table	storage	table
mplib	table	streams	table
newline	function	string	table
next	function	stripmath	function
noads	table	structures	table
node	table	table	table
nodes	table	tex	table
number	table	texconfig	table
optionalrequire	function	texio	table
os	table	thirddata	table
outputpagestree	function	toboolean	function
package	table	token	table
pagebuilders	table	tokens	table
pairs	function	tonumber	function
parametersets	table	tostring	function
pcall	function	trace_characters	boolean
pdf	table	traceback	function
pdfscanner	table	tracers	table
physics	table	trackers	table
print	function	type	function
profiler	table	typesetters	table
protect	function	unicode	table
rawequal	function	unpack	function
rawget	function	url	table
rawlen	function	userdata	table
rawset	function	utf	table
regimes	table	utilities	table
report_characters	function	vf	table
require	function	visualizers	table
resolvers	table	xml	table
scripts	table	xmlconvert	function
select	function	xpcall	function
set	table	zip	table
setinspector	function	zlib	table

## attributes (context)

colorintents	table		F mpoptions	
N attribute			U none	
D data			F popset	
F enable			F pushset	
F handler			F register	
F register			D registered	
D registered			F registerspoto	color
colors	table		F rgb	
N attribute			F rgbtocmyk	
F cmyk			F rgbtogray	
F cmyktogray			F rgbtohsv	
F cmyktorgb			N selector	
F colorcomponent	CS		F setlist	
B couple			F setmodel	
D data			D sets	
N default			F spec	
F defineintermed	Hiatecolor		F spot	
F definemixcolor	-		F spotcolorname	2
F definemultiton	necolor		F spotcolorpare	ent
F defineprocesso	color		F spotcolorvalu	ie
F definesimplegr	ay		B supported	
F definespotcolo	or		F transparency	components
F definetranspar	rency		B triggering	
F enable			F usecolors	
F filter			F value	
F forcedmodel			D values	
F forcesupport			B weightgray	
F formatcolor		det	fine	function
F formatgray		ef1	fects	table
F gray			N attribute	
F graytohsv			D data	
F handler			F enable	
F hsvtogray			F handler	
F hsvtorgb			F register	
F iccprofile			D registered	
F isblack			D values	
N main			ndlers	table
S model		lis		data table
D models		nan		data table
F mpcolor		neg	gatives	table
F mpnamedcolor			N attribute	

D data D registered
F enable B supported
F handler B triggering
F register F value
D registered D values

numbers data table
ofnode function
private function
showcurrent function
states table

F disabletriggering
F enabletriggering

F finalize
F initialize
F process
F selective
F stacked
F stacker

#### transparencies table

N attribute
D data
F enable
F forcesupport
F handler
U none
F register

> N attribute D data F define F enable F forcesupport F handler B hasorder D listwise F register D registered F resolve begin F resolve end F resolve\_step D scopes F setfeatures F start F stop

B supported D values

#### backends (context)

F registerdocumentcloseaction

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

F positive

F reference F rgbcolor F spotcolor F startlayer F startstackedlayer

F stoplayer

F stopstackedlayer F transparency

F typesetfield T registrations

F cmykindexcolor F cmykspotcolor

F getspotcolorreference

F grayindexcolor F grayspotcolor F rgbindexcolor F rgbspotcolor F spotcolorname F transparency

T tables

D vfspecials

registrations table tables table

## bibtex (context)

F filterall

authorref authors	function table	F flush F nofregistered	
F concat		F process	
F inverted		F register	
F invertedshort		F registerplaced	
F normal		F reset	
F normalshort		F resolve	
F setsettings		load	function
F short		new	function
authoryearref	function	singularorplural	function
authoryearsref	function	statistics	table
convert	function	N nofbytes	
hacks	table	N nofdefinitions	
F add		N nofshortcuts	
F doifalreadyplace	d	toxml	function

## bit32 (basic lua)

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

## blobs (context)

append	function	new	function
dimensions	function	pack	function
dispose	function	write	function

## boolean (context)

tocontext function

tonumber function

#### buffers (context)

append function
assign function
collectcontent function
erase function
exists function
getcontent function

getlines function
parallel table

F define

F hassomecontent

F next
F place
F reset
F save

raw function

## builders (context)

kernel	table	F optimize
F hypher	nation	T registered
F kernin	ng	F reset
F ligatu	uring	F set
F mlist_	_to_hlist	F split
paragraph	<b>ıs</b> table	F start
T consti	ructors	F stop
N attr	ribute	F tag
F defi	.ne	<b>vspacing</b> table
F disa	ble	F analyze
F enab	ole	D categories
F hand	ller	F collapsevbox
T meth	nods	T data
F de	fault	D map
F on	eline	D skip
D name	es	D snapmethods
D numb	pers	F definesnapmethod
F set		B fixed
F star	t	F pagehandler
F stop		F setmap
F keepto	ogether	F setskip
F regist	tertogether	F snapbox
T solut:	ions	F tocategories
T spli	tters	F tocategory
F de	fine	F vboxhandler

## caches (context)

ask	boolean
base	string
collapsecontent	function
configfiles	function
contentstate	function
defaults	table
define	function
direct	boolean
force	boolean
getfirstreadablefile	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	function	
known	function	
list	data table	
рор	function	

push function
register function
report function

#### catcodes (context)

register function

## characters (context)

activeoffset	number	lccode	function
adobename	function	lccodes	data table
bidi	data table	lettered	function
blocks	data table	lower	function
casemap	table	makeactive	function
categories	data table	math	table
category	function	mathpairs	data table
categorytags	data table	otfscripts	data table
combined	data table	ranges	data table
contextname	function	registerentities	function
data	data table	remap_hangul_syllabe	function
decomposed	data table	remapentity	function
define	function	safechar	function
description	function	setcodes	function
descriptions	data table	shape	function
directions	table	shaped	function
enccodes	data table	shchars	data table
entities	data table	shcodes	data table
fallbacks	data table	specialchars	data table
filters	data table	specials	data table
fromnumber	function	subscripts	table
fschars	data table	superscripts	table
fscodes	data table	synonyms	data table
getrange	function	tex	table
graphemes	data table	D accentmapping	
hangul	data table	F defineaccents	
initialize	function	F toutf	
is_character	data table	tonumber	function
is_command	data table	ucchars	data table
is_letter	data table	uccode	function
is_mark	data table	uccodes	data table
is_spacing	data table	unicodechar	function
lcchars	data table	upper	function

#### chemistry (context)

component
define function
definitions data table
format string
instance string
molecule function

moleculeparser userdata
start function
stop function
structures number
undefine function

## commands (context)

Alphabetic	function	autofinishstructurelevels	function
Character	function	autonextspace	function
Characters	function	autonextspace	function
MPc	function	autosetups	function
MPd	function	autostarttext	function
MPh	function	autostoptext	function
MPll	function	bcolumn	function
MPlr	function	boolcase	function
MPls	function	character	function
MPn	function	characters	function
MPp	function	checkcharactersinfont	function
MPpardata	function	checkcountersetup	function
MPplus	function	checkedconversion	function
MPpos	function	checkedpagefloat	function
MPposset	function	checktwopassdata	function
MPr	function	chemicalcomponent	function
MPrest	function	chineseallnumerals	function
MPrs	function	chinesecapnumerals	function
MPul	function	chinesenumerals	function
MPur	function	cleanfontname	function
MPw	function	cleanuplayers	function
MPx	function	clonefield	function
MPxy	function	collectfloat	function
MPxywhd	function	collecthelp	function
MPy	function	colorcomponents	function
Romannumerals	function	concatcommalist	function
abjadnodotnumerals	function	consultfloat	function
abjadnumerals	function	copyfiletolog	function
addcounter	function	copyposition	function
addff	function	COS	function
addfs	function	cosd	function
addlinklistelement	function	countervalue	function
addtojavascriptpreamble	function	counttwopassdata	function
addtolist	function	currentcomponent	function
allinputpaths	function	currentdate	function
alphabetic	function	currentenvironment	function
analysefloatmethod	function	currentproduct	function
analyzelist	function	currentproject	function
applytochars	function	currentreferenceorder	function
applytowords	function	currentregime	function
assignbuffer	function	datasetvariable	function

dayname	function	discardfromlist	function
defineattribute	function	doanalyzeframedbox	function
definebibtexsession	function	doif	function
definebreakpoint	function	doifblackelse	function
definebreakpoints	function	doifcommonelse	function
definecharacterspacing	function	doifcounter	function
definechemical	function	doifdimenstringelse	function
defineconversion	function	doifdrawingblackelse	function
definecounter	function	doifelse	function
definedviewerlayer	function	doifelsebuffer	function
definefield	function	doifelsecontinuewithfile	function
definefieldset	function	doifelsecounter	function
definefilefallback	function	doifelsecurrentfonthasfeature	function
definefilesynonym	function	doifelseintwopassdata	function
definefont_one	function	doifelsemarking	function
definefont_two	function	doifelsemessage	function
definefontfeature	function	doifelsemultipar	function
definefontsolution	function	doifelseparallel	function
defineinsertion	function	doifelsepositionsused	function
defineintermediatecolor	function	doifelserangeonpage	function
definelabels	function	doifelsereference	function
definelanguage	function	doifelsesavedfloat	function
definelinkedlist	function	doifelsespaces	function
definemarking	function	doifelseutfmathaccent	function
definemultitonecolor	function	doifelsevisualizer	function
definenote	function	doiffieldcategoryelse	function
defineparallel	function	doiffieldelse	function
defineparbuilder	function	doiffieldsetelse	function
defineprocesscolor	function	doiffiledefinedelse	function
defineprogram	function	doiffileexistelse	function
definereference	function	doiffirstcharelse	function
definesectionlevels	function	doifinputfileelse	function
definespotcolor	function	doifinsetelse	function
definestructureblock	function	doifleapyearelse	function
definestructureset	function	doiflisthasentry	function
definetransparency	function	doiflisthasnumberelse	function
definetwopasslist	function	doiflisthaspageelse	function
defineviewerlayer	function	doiflisthastitleelse	function
defrostrandomseed	function	doiflocfileelse	function
digits	function	doifnot	function
disableautofontscript	function	doifnotcounter	function
disableparbuilder	function	doifnotecontent	function
disableregime	function	doifnoteonsamepageasprevious	function
disablespellchecking	function	doifobjectreferencefoundelse	function

doifolderversionelse	function	figurestatus	function
doifoverlappingelse	function	figureused	function
doifparentfileelse	function	figurevariable	function
doifposition	function	filterdefaultreference	function
doifpositionelse	function	filterreference	function
doifpositiononpage	function	finalizebox	function
doifpositionsonsamepageelse	function	findtwopassdata	function
doifpositionsonthispageelse	function	firstcountervalue	function
doifurldefinedelse	function	firstinset	function
doprocesstypescriptfile	function	flushfloat	function
doreshapeframedbox	function	flushnotes	function
dostarttextfile	function	flushpostponedblocks	function
dostoptextfile	function	flushpostponednotes	function
ecolumn	function	fontchar	function
elapsedtime	function	fontcollectionclone	function
enableautofontscript	function	fontcollectiondefine	function
enablecolor	function	fontcollectionprepare	function
enablecolorintents	function	fontcollectionregister	function
enablefontcolorschemes	function	fontcollectionreport	function
enableparbuilder	function	fontcollectionreset	function
enableregime	function	fontlookupgetkey	function
enablespellchecking	function	fontlookupgetkeyofindex	function
enabletransparency	function	fontlookupinitialize	function
enhancelinkedlist	function	fontlookupnoffound	function
enhancelist	function	forceendjob	function
enhancereference	function	forcequitjob	function
erasebuffer	function	format	function
expandcurrentreference	function	formatcolor	function
exportformdata	function	formatgray	function
exportreferences	function	freezerandomseed	function
extensiblecode	function	from	function
featureattribute	function	getbuffer	function
featurelist	function	getbufferctxlua	function
feedback	function	getbuffermkvi	function
fetchallmarks	function	getcommandline	function
fetchmultipar	function	getctxfile	function
fetchmultishape	function	getcurrentprefixspec	function
fetchonemark	function	getcurrentreferencemetadata	function
fetchposboxes	function	getdefaultfieldvalue	function
fetchtwomarks	function	getfieldcategory	function
figurefilename	function	getfirstcharacter	function
figurefilepath	function	getfirsttwopassdata	function
figurefiletype	function	getfloatvariable	function
figurerequest	function	getinternalreference	function

getlasttwopassdata	function	installtextracker	function
getmarking	function	languagenumber	function
getmessage	function	lastcountervalue	function
getmpextensions	function	lchexnumber	function
getnotestate	function	lchexnumbers	function
getprivateattribute	function	leapyear	function
getprivatechar	function	linenumbersstageone	function
getprogram	function	linenumbersstagetwo	function
getrandomcounta	function	listlabel	function
getrandomcountb	function	listlocation	function
getrandomseed	function	listprefixednumber	function
getreadfilename	function	listprefixedpage	function
getsubstring	function	listrealpage	function
gettexbuffer	function	listsize	function
gettwopassdata	function	listtitle	function
gettwopassdatalist	function	listuserdata	function
geturl	function	loadexamodes	function
grabbuffer	function	loadfontgoodies	function
helpaction	function	loadspellchecklist	function
helpreference	function	loadtypescriptfile	function
hexstringtonumber	function	loadvisualizer	function
horizontalcode	function	locatefilepath	function
hour	function	locfilename	function
hyphenatedlist	function	logoptions	function
hyphenatedurl	function	markfonts	function
D characters		markregionbox	function
N lefthyphenmin		mathrenderset	function
D mapping		maxitemwidth	function
N righthyphenmin		minute	function
F setcharacters		mixcleanup	function
incrementedcounter	function	mixfinalize	function
initializetexdirectives	function	mixflushlist	function
initializetextrackers	function	mixflushrest	function
injectcurrentreference	function	mixgetsplit	function
injectreference	function	mixsetsplit	function
inlinechemical	function	mixstate	function
insertattachment	function	molecule	function
insertcomment	function	month	function
insertfield	function	monthmnem	function
insertionnumber	function	monthname -	function
insertrenderingwindow	function	mpcolor	function
insertsoundclip	function	mpoptions	function
installedlanguages	function	namedstructureuservariable	function
installtexdirective	function	namedstructurevariable	function

nbfs	function	processbuffer	function
nextcountervalue	function	processedfile	function
nextparallel	function	processedfiles	function
nofdays	function	processfile	function
nofitems	function	processfilemany	function
nofstackedfloats	function	processfilenone	function
notedeltapage	function	processfileonce	function
notelistindex	function	processlist	function
notenumberpage	function	pushfloat	function
noteprefixednumber	function	pushitaliccorrection	function
notesymbolpage	function	pushlist	function
notetitle	function	pushregime	function
ntimes	function	pushsectionblock	function
number	function	rawcharacter	function
numbers	function	rawcountervalue	function
objectnumber	function	rawdate	function
objectpage	function	referencepagestate	function
octnumber	function	referencerealpage	function
octstringtonumber	function	registerattachment	function
ordinal	function	registerbibtexentry	function
overloadbookmark	function	registerbibtexfile	function
pagestaterealpage	function	registerbookmark	function
parpos	function	registerbuttons	function
pdfrotation	function	registercolor	function
percentageof	function	registercolorintent	function
pgfxcolorspec	function	registeredviewerlayer	function
placeparallel	function	registerhelp	function
popfloat	function	registeritemgroup	function
popitaliccorrection	function	registerlinenumbering	function
poplist	function	registermaintextcolor	function
popregime	function	registernamespace	function
popsectionblock	function	registerpostponedblock	function
pos	function	registerrendering	function
posplus	function	registersoundclip	function
posstrut	function	registerstructureprocessor	function
postponenotes	function	registertransparency	function
poswhd	function	registerunit	function
posxy	function	relatemarking	function
prepareMPvariable	function	removemissingcharacters 	function
preparebibtexsession	function	renderingvar	function
preparedfile	function	replacemissingcharacters	function
presetsymbollist	function	replacepospxywhd	function
presettabulate	function	resavefloat	function
prevcountervalue	function	resetcounter	function

resetfontfeature	function	setdocumentenvironments	function
resetfontsolution	function	setdocumentfilenames	function
resetmarking	function	setdocumentmodes	function
resetmathitalics	function	setdocumentmodules	function
resetnullfont	function	setfigurelookuporder	function
resetparallel	function	setfontfeature	function
resetreference	function	setfontofid	function
resetstructureprocessor	function	setfontsolution	function
resettimer	function	setformat	function
restartcounter	function	setformsmethod	function
restorecounter	function	setinsertionlocation	function
restorecurrentattributes	function	setinterfaceconstant	function
restorenote	function	setinterfaceelement	function
romannumerals	function	setinterfacemessage	function
runbuffer	function	setinterfacemessages	function
safechar	function	setinterfacevariable	function
savebuffer	function	setinternalreference	function
savecounter	function	setlanguageexceptions	function
savecurrentattributes	function	setlanguagesynonym	function
savedlistnumber	function	setlayer	function
savedlistprefixednumber	function	setmarking	function
savedlisttitle	function	setmathalphabet	function
savefloat	function	setmathalternate	function
savenote	function	setmathattribute	function
saveobject	function	setmathitalics	function
saveparallel	function	setmathstyle	function
savestructureblock	function	setnextinternalreference	function
savetaggedtwopassdata	function	setnotestate	function
savetwopassdata	function	setnotesymbolpage	function
second	function	setobject	function
selectstructureblock	function	setopendocumentaction	function
setbreakpoints	function	setopenpageaction	function
setcharactercasing	function	setowncounter	function
setcharactercleaning	function	setpagestate	function
setcharacterkerning	function	setpagestaterealpageno	function
setcharacterspacing	function	setpagetransition	function
setcharacterstripping	function	setparbuilder	function
setclosedocumentaction	function	setpos	function
setclosepageaction	function	setrandomseed	function
setcolormodel	function	setrealign	function
setcounter	function	setreferencearguments	function
setdataset	function	setreferenceattribute	function
setdigitsmanipulation	function	setreferenceoperation	function
setdirection	function	setsectionblock	function

setstructureblockstate	function	startparbuilder	function
settagcombination	function	startproduct	function
settagdescription	function	startproject	function
settagdescriptionsymbol	function	startregime	function
settagfigure	function	startsectionlevel	function
settaghighlight	function	starttag	function
settagitemgroup	function	starttext	function
settagproperty	function	startviewerlayer	function
settagsorting	function	stopchemical	function
settagsynonym	function	stopcolorset	function
settagtablecell	function	stopcomponent	function
settagtabulatecell	function	stopenvironment	function
setupbookmarks	function	stopfontsolution	function
setupcanvas	function	stopparbuilder	function
setupcharacterspacing	function	stopproduct	function
setupexport	function	stopproject	function
setupfontexpansion	function	stopregime	function
setupfontprotrusion	function	stopsectionlevel	function
setupidentity	function	stoptag	function
setupinsertion	function	stoptext	function
setupitaliccorrection	function	stopviewerlayer	function
setuplinenumbering	function	storejavascriptcode	function
setvisual	function	storejavascriptpreamble	function
setxmpfile	function	storenote	function
showassignerror	function	structureautocatcodedget	function
showattributes	function	structurecatcodedget	function
showcallbacks	function	structuregivencatcodedget	function
showchardata	function	structurenumber	function
showcounter	function	structuretitle	function
showfontparameters	function	structureuservariable	function
showhyphenatedinlist	function	structurevariable	function
showjustification	function	subcountervalues	function
showmessage	function	subff	function
sin	function	subfs	function
sind	function	synchronizecolormodel	function
splitfilename	function	synchronizemarking	function
spotcolorname	function	taggedmathfunction	function
spotcolorparent	function	tan	function
spotcolorvalue	function	tand	function
startchemical	function	testcase	function
startcolorset	function	textime	function
startcomponent	function	transparencycomponents	function
startenvironment	function	triggereffect	function
startfontsolution	function	triggernegative	function

truefilename	function	utfchar	function
typebuffer	function	utfmathclass	function
typefile	function	utfmathcommand	function
typestring	function	utfmathfiller	function
uchexnumber	function	utfmathstretch	function
uchexnumbers	function	verbose	function
undefinechemical	function	visual	function
unicodechar	function	vspacing	function
unit	function	vspacingcollapse	function
unloadlanguage	function	vspacingdefine	function
useMPlibrary	function	vspacingsetamount	function
useanyfile	function	vspacingsnap	function
usecldfile	function	way	function
usecolors	function	weekday	function
usecomponent	function	weekdayname	function
useenvironment	function	widthofstring	function
usefile	function	writestatus	function
usejavascriptpreamble	function	x_table_cleanup	function
usejavascriptscripts	function	x_table_construct	function
uselibrary	function	x_table_create	function
useluafile	function	x_table_flush	function
useluamodule	function	x_table_init_construct	function
usemodules	function	x_table_init_reflow_height	function
usepath	function	x_table_init_reflow_width	function
useproduct	function	x_table_next_row	function
useproject	function	x_table_reflow_height	function
usesubpath	function	x_table_reflow_width	function
usesymbols	function	<b>x_table_set_construct</b>	function
usetexfile	function	x_table_set_reflow_height	function
useurl	function	x_table_set_reflow_width	function
usexmlfile	function	year	function

function

usezipfile

## containers (context)

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

#### converters (context)

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

## coroutine (basic lua)

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

#### ctxrunner (context)

load function
prepfiles data table

resolve function

# debug (basic lua)

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

## dir (context)

collectpattern	function	ls
current	function	makedirs
expandname	function	mkdirs
glob	function	рор
globfiles	function	push
globpattern	function	

function function function function

## directives (context)

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

#### document (context)

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

D environments

D modes

D modules

setargument function
setdefaultargument function
setfilename function
variables data table

T commandline

D environments

D modes
D modules

## environment (context)

	function	luafile	£
argument	function		function
arguments	data table	luafilechunk	function
basicengines	data table	originalarguments	data table
default_texmfcnf	string	outputfilename	string
engineflags	data table	ownbin	string
filename	string	ownmain	string
files	table	ownname	string
filesynonyms	data table	ownpath	string
getargument	function	rawarguments	data table
homedir	string	reconstructcommandline	function
initex	boolean	setargument	function
initializearguments	function	splitarguments	function
initializefilenames	function	suffix	string
inputfilebarename	string	texfile	function
inputfilename	string	texmfos	string
inputfilesuffix	string	texos	string
jobfilename	string	texroot	string
jobfilesuffix	string	truefilename	function
loadluafile	function	validengines	data table

#### epdf (extra tex)

ArrayfunctionPDFRectanglefunctionDictfunctionopenfunctionObjectfunctiontypefunction

# experiments (context)

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

# figures (context)

applyratio	function
bitmapimage	function
boxnumber	number
cachepaths	data table
check	function
checkers	data table
converters	data table
current	function
defaultdepth	number
defaultheight	number
defaultsearch	boolean
defaultwidth	number
done	function
dummy	function
existers	data table
exists	function
formats	data table
found	data table
get	function
guess	function
hash	function
identifiers	data table
identify	function
include	function

includers	data	table
initialize	function	
loaded	data	table
localpaths	data	table
magics	data	table
mergegoodies	func	tion
nofprocessed	number	
order	data	table
paths	data	table
patterns	data	table
pop	function	
preferquality	bool	ean
programs	data	table
push	function	
registerpattern	function	
registerresource	function	
registersuffix	func	tion
resources	data	table
scale	func	tion
setlookups	func	tion
setorder	func	tion
setpaths	func	tion
suffixes	data	table
used	data	table

# file (basic lua)

addsuffix	function
basename	function
checksum	function
collapsepath	function
сору	function
dirname	function
expandname	function
extname	function
<pre>is_qualified_path</pre>	function
is_readable	function
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
suffixonly	function
syncmtimes	function

#### floats (context)

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

#### font (basic tex)

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

#### fontloader (extra tex)

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

# fonts (context)

analyzers	table	B autocleanup
T features		F beforecopyingcharacters
N fina		D cache
N init		F calculatescale
N isol		F checkedfeatures
N medi		F checkedfilename
D initializers		F cleanuptable
D methods		F collectprocessors
F setstate		D designsizes
T states		D dontembed
N blwf		F enhanceparameters
N fina		N factor
N half		F finalize
N init		F getfeatureaction
N isol		F hashfeatures
N mark		F hashinstance
N medi		T hashmethods
N pref		F normal
N pstf		F virtual
N rest		F initializefeatures
N rphf		T keys
n i pini		1 Neys
B useunicodemar	ks	T character
·	ks table	•
B useunicodemar		T character
B useunicodemar		T character S depth
B useunicodemar checkers F missing	table	T character S depth S height
B useunicodemark checkers F missing cid	table	T character S depth S height S italic
B useunicodemark checkers F missing cid F getmap	table	T character S depth S height S italic S width
B useunicodemark checkers F missing cid F getmap F loadfile	table	T character S depth S height S italic S width T description
B useunicodemark checkers F missing cid F getmap F loadfile collections	table	T character S depth S height S italic S width T description T boundingbox
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector	table	T character S depth S height S italic S width T description T boundingbox S depth
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define	table	T character S depth S height S italic S width T description T boundingbox S depth S height
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions	table	T character S depth S height S italic S width T description T boundingbox S depth S height S width
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare	table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare F process F registermain F report	table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters S ascender S descender S designsize
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare F process F registermain F report F reset	table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters S ascender S descender S designsize T expansion
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare F process F registermain F report F reset T vectors	table table table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters S ascender S descender S designsize T expansion S auto
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare F process F registermain F report F reset T vectors constructors	table table table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters S ascender S descender S designsize T expansion S auto S shrink
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare F process F registermain F report F reset T vectors constructors F aftercopyingce	table table table table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters S ascender S descender S designsize T expansion S auto S shrink S step
B useunicodemark checkers F missing cid F getmap F loadfile collections F clonevector F define T definitions F prepare F process F registermain F report F reset T vectors constructors	table table table table	T character S depth S height S italic S width T description T boundingbox S depth S height S width T parameters S ascender S descender S designsize T expansion S auto S shrink

S factor	S mathital	ics
S hfactor	S mode	
S mathsize	S name	
T protrusion	S noglyphr	iames
S auto	S nostackm	nath
S quad	S psname	
S scaledpoints	S textital	ics
S scriptpercentage	S virtuali	zed
S scriptscriptpercentage	D loadedfonts	
S size	S namemode	
S slantfactor	F newfeatures	
S slantperpoint	F newhandler	
T spacing	N privateoffs	et
S extra	F readanddefi	ne
S shrink	F registerfea	ture
S stretch	B resolvevirt	ualtoo
S width	F scale	
T synonyms	F scaled	
S em	F setfactor	
S ex	F setname	
S extra_space	N version	
S extraspace	current	function
S slant	currentid	function
S space	definers	table
S space_shrink	F addlookup	
S space_stretch	F analyze	
S spaceshrink	F applypostpr	ocessors
S spacestretch	F checkedmode	
S x_height	F checkedscri	pt
S units	F current	
S vfactor	S defaultlook	up
S xheight	F define	
T properties	F getspecific	ation
S autoitalicamount	F loadfont	
T cidinfo	F makespecifi	cation
S embedding	T methods	
S encodingbytes	F install	
S filename	D variants	
S finalized	F read	
S fontname	F register	
S format	F registered	
S fullname	F registerspl	it
S hasitalics	F resetnullfo	nt
S hasmath	F resolve	

T resolvers		D cache
F file		D features
F name		T helpdata
F spec		D bothkerned
definetypeface	function	D leftkerned
encodings	table	D ligatures
T agl		D rightkerned
D cache		D texligatures
F is_known		Fload
D known		F setfeatures
F load		B syncspace
F make_unicode_v	vector	N version
D math		T otf
N version		F addfeature
expansions	data table	D cache
formats	data table	T chainhandlers
goodies	table	F normal
D colorschemes		F verbose
D data		F collectlookups
D designsizes		F dataset
D filenames		S defaultbasealternate
F getcomposition	าร	S defaultnodealternate
T list		D enhancers
F compositions	;	D features
F designsizes		F getalternate
F expansions		T glists
F featureset		T handlers
F filenames		F contextchain
F files		F devanagari_remove_joiners
F mathematics		F devanagari_reorder_matras
F protrusions		F devanagari_reorder_pre_base_reordering_consonants
F solutions		F devanagari_reorder_reph
F typefaces		F gpos_context
F load		F gpos_contextchain
F prepare_featu	res	F gpos_cursive
F register		F gpos_mark2base
F registerpostp	rocessor	F gpos_mark2ligature
F report handlers	table	F gpos_mark2mark
T afm	table	F gpos_pair F gpos single
B addkerns		F gsub alternate
B addligatures		F gsub_context
B addtexligatures		F gsub_context
B autoprefixed		F gsub_ligature
2 datopicitized	•	. 9300_1290101

F gsub_multiple	D properties	
F gsub_reversecontextchain	D quads	
F gsub_single	D resources	
F load	T setdynamics	
F scriptandlanguage	D xheights	
F setcontextchain	<b>helpers</b> table	
F setdynamics	F addprivate	
F setfeatures	F dimenfactor	
T statistics	F fontpatternhassize	
D usedfeatures	F getdigitwidth	
T tables	F getparameters	
D baselines	F getprivatenode	
D features	F hasprivate	
D languages	F nametoslot	
D scripts	F setdigitwidth	
N version	F splitfontpattern	
T pfb	<b>iterators</b> table	
T tfm	F characters	
D features	F descriptions	
F setfeatures	F glyphs	
T vf	<b>loggers</b> table	
T combinations	T category_to_placeholder	
F combine	S II	
T combiner	S lm	
D commands	S lo	
F find	S lt	
D helpers	S lu	
D math	S mc	
D predefined	S me	
D whatever	S mn	
hashes table	S nd	
D characters	S nl	
D csnames	S no	
D descriptions	S pc	
T dynamics D emwidths	S pd S pe	
D exheights	S pf	
D extensibles	S pi	
D identifiers	S po	
D italics	S ps	
D lastmathids	S sc	
D marks	S sk	
D parameters	S sm	
T processes	S 50	
i processes	3 30	

F format F otf F onetimemessage F pfb F register D sequence F reportdefinedfonts F tfm F reportusedfeatures F ttc mappings table F ttf specifiers table F addtounicode F fromunicode16 D contextmerged F loadfile F contextnumber F loadline D contextnumbers F loadlumtable D contextsetups F makenameparser F contexttostring F reset F mergecontext F tounicode16 F presetcontext F tounicodel6sequence F registercontext data table names F showcontext protrusions data table F splitcontext readers table D synonyms Fafm D variants symbols table F check\_lua F check\_tfm F uselibrary tables table F dfont tracers table F lua

F opentype

typefaces

data table

#### functions (context)

**dummy** function

#### graphics (context)

#### backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

#### gzip (extra lua)

close function
lines function

open function

# img (basic tex)

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

#### interactions (context)

D functions

D preambles

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

F register

#### interfaces (context)

addvalidkeys	function
cachedsetups	data table
cachesetup	function
complete	data table
constants	data table
corenamespaces	data table
definecommand	function
doifelsemessage	function
elements	data table
formats	data table
getcheckedparameters	function
getmessage	function
hashedsetups	data table
interfacedcommand	function
interfaces	table
invalidkey	function
is_command	function
namespaces	table

#### F define F list

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

# io (basic lua)

ask	function	o_limiters	table
bytes	function	T paranoid	
characters	function	open	overloaded function
close	function	output	function
exists	function	pathseparator	string
fileseparator	string	popen	overloaded function
flush	function	read	function
i_limiter	function	readall	function
<b>i_limiters</b>	table	readnumber	function
T paranoid		readstring	function
input	function	savedata	function
limiter	function	size	function
lines	function	stderr	userdata
loadchunk	function	stdin	userdata
loaddata	function	stdout	userdata
loadlines	function	tmpfile	function
noflines	function	type	function
o_limiter	function	write	function

# job (context)

comment	function	F getdata	
datasets	table	F getfield	
D collected		F gettobesa	/ed
F extend		F inlist	
F getdata		F last	
F setdata		F list	
D tobesaved		F save	
disablesave	function	F savetagged	t
files	table	D tobesaved	
D collected		positions	table
F context		F b_col	
B forcerun		F b_region	
F run		Fc	
D tobesaved		D collected	
initialize	function	F column	
load	function	F copy	
loadother	function	F depth	
objects	table	F e_col	
D collected		F e_region	
F get		F enhance	
F number		F extra	
F page		F get	
F save		F getreserve	ed
F set		F hangafter	
D tobesaved		F hanginden	t
pack	boolean	F height	
pagestates	table	F hsize	
D collected		F leftskip	
F extend		F lowerleft	
F realpage		F lowerrigh	t
F setstate		F markregio	nbox
D tobesaved		Fn	
passes	table	F onsamepage	9
F check		F overlappi	ng
D collected		Fр	
F count		F page	
F define		F paragraph	
F find		F parindent	
F first		F position	
F get		F r	
F getcollect	ed	F region	

F replace		structu	ıre	table
F rightskip		D col	lected	
F set		T com	ponents	
F setall		T tob	esaved	
F setdim		T b	ranches	
D tobesaved		S na	ame	
F upperleft		S ty	уре	
F upperright		variabl	.es	table
F width		D che	cksums	
Fx		D col	lected	
F xy		F sav	е	
Fy		D tob	esaved	
register	function	version	1	string
save	function			

# lang (basic tex)

clean	function
clear_hyphenation	function
clear_patterns	function
exceptions	function
hyphenate	function
hyphenation	function
id	function

new	function
patterns	function
postexhyphenchar	function
posthyphenchar	function
preexhyphenchar	function
prehyphenchar	function

#### languages (context)

associate function associated data table association function counters data table function current data data table define function getnumber function function hyphenate function installed labels table

> F define F split

lefthyphenmin function loadable function loadwords function logger table

F report

data table numbers

posthyphenchar function prehyphenchar registered righthyphenmin function setexceptions setsynonym unload version words

function data table function function function number table

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

#### layouts (context)

status table
 F isleftpage

F leftorrightpagection

# lfs (extra lua)

attributes	function	mkdir	function
chdir	function	readlink	function
currentdir	function	rmdir	function
dir	function	setmode	function
isdir	overloaded function	shortname	function
isfile	function	symlinkattributes	function
lock	function	touch	function
lock_dir	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
escape	function
finalized	function
finject	function
fprint	function
get	function
getvariables	function
htmfile	function
html	table
_	

F a F td F th

include function
inherited table

S color-background-four

S color-background-one

S color-background-three

S color-background-two

S title

initialize function
inject function
lmxfile function
loadedfile function

function new overloaderror function popupfile function print function pν function function report reset function function result function set function show showdebuginfo function showerror function stripcss function function tν 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	setmessenger
categories	function	setprogram
direct	function	settarget
disable	function	settranslations
enable	function	show
extendbanner	function	show_close
flush	function	show_load
help	function	show_open
messenger	function	simple
new	function	simpleline
newline	function	simplelines
poptarget	function	start_page_number
pushtarget	function	status
report	function	stop_page_number
report_job_stat	function	subdirect
reportbanner	function	subreport
reporter	function	system
reportline	function	texerrormessage
reportlines	function	writer
setformats	function	

function function

# lpdf (context)

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

# lpeg (basic lua)

В	function	finder	function
C	function	firstofsplit	function
Carg	function	frontstripper	function
Cb	function	instringchecker	function
Сс	function	is_lpeg	function
Cf	function	keeper	function
Cg	function	locale	function
Cmt	function	match	function
Ср	function	oneof	function
Cs	function	patterns	data table
Ct	function	print	function
P	function	replacer	function
R	function	secondofsplit	function
S	function	setmaxstack	function
UP	function	split	function
UR	function	splitat	function
US	function	splitter	function
V	function	stripper	function
anywhere	function	times	function
append	function	tsplitat	function
balancer	function	tsplitter	function
checkedsplit	function	type	function
counter	function	utfchartabletopatter	<b>n</b> function
endstripper	function	version	function

#### ltn12 (extra lua)

F null

BLOCKSIZE	number	F	simplify
filter	table	F	table
F chain		sour	ce
F cycle		F	cat
pump	table	F	chain
F all		F	empty
F step		F	error
sink	table	F	file
F chain		F	rewind
F error		F	simplify
F file		F	string

table

# lua (basic tex)

bytecode	table
bytedata	data table
bytedone	table
collectgarbage	function
delay	function
finalize	function
firstbytecode	number
flush	function
flushdelayed	function
getbytecode	function
getluaname	function
lastbytecode	number

messages	data table
name	table
numbers	data table
registercode	function
registeredcodes	function
registerfinalizer	function
registername	function
setbytecode	function
setluaname	function
startupfile	string
version	string

#### luatex (context)

cleanuptempfiles function
registerstartactions function
registerstopactions
registertempfile function

showjobstat showtexstat starttime function function number

# lxml (context)

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

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

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	makefont	function
alphabets	data table	mapremap	data table
big	function	overloadparameters	function
boldmap	table	privatebase	number
categories	table	remapalphabets	function
D functions		renderings	table
checkaccentbaseheight	function	D mappings	
checkprivateparameters	function	D numbers	
classes	data table	D sets	
codes	data table	renderset	function
define	function	resetitalics	function
dimensions	function	scaleparameters	function
extensiblecode	function	setalternate	function
extensibles	data table	setitalics	function
extrabase	number	syncboth	function
extras	table	syncname	function
F add		syncstyle	function
F copy		toname	function
fallbacks	table	tostyle	function
F apply		tweakaftercopyingfont	function
F install		tweakbeforecopyingfont	function
fallbackstyleattr	function	tweaks	table
families	data table	F fixbadprime	
gaps	table	utfmathclass	function
getboth	function	utfmathcommand	function
getstyle	function	utfmathfiller	function
initializeparameters	function	utfmathstretch	function

## mbox (context)

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

# md5 (extra lua)

function	exor	function
function	hex	function
function	sum	function
function	sumhexa	function
	function	function hex function sum

# metapost (context)

B needed

analyzonluging	function	125+109	ctring
analyzeplugins checkformat	function	lastlog load	string function
checktexts	function		table
collapse	boolean	makempy	table
collapse	function	N nofconverted	
		F processgraphics	4-61-
convert	function	metafun	table
defaultformat	string	F interpolate	
defaultinstance	string	F topath	
defaultmethod	string	method	number
directrun	function	mptopdf	table
edefsxsy	function	F convertmpstopdf	
escaped	function	N nofconverted	
exectime	table	multipass	boolean
extensiondata	data table	n	number
filterclippath	function	optimize	boolean
finder	function	parse	function
flush	function	pdfliterals	function
flushers	table	pluginactions	function
T pdf		process	function
F comment		processplugins	function
F flushfigure		reducetogray	boolean
F startfigure		reporterror	function
F stopfigure		reset	function
F textfigure		resetlastlog	function
flushliteral	function	resetplugins	function
flushnormalpath	function	resettextexts	function
flushreset	function	setextensions	function
format	function	setoutercolor	function
formatnumber	function	settext	function
getclippath	function	showlog	boolean
getextensions	function	tex	table
gettext	function	F get	
graphic	function	F reset	
graphic_base_pass	function	F set	
<pre>graphic_extra_pass</pre>	function	texerrors	boolean
instance	function	textextsdata	function
intermediate	table	theclippath	function
T actions		totable	function
F makempy		unload	function

## mime (extra lua)

b64	function	qp	function
decode	function	qpwrp	function
decodet	table	stuff	function
F base64	ı	unb64	function
F quoted	d-printable	unqp	function
dot	function	wrap	function
encode	function	wrapt	table
encodet	table	F base6	4
F base64	1	F defau	lt
F quoted	d-printable	F quote	d-printable
eol	function	F text	
normalize	e function	wrp	function

#### mplib (extra tex)

fields function
finders table

F file

new function

pen\_info function
preprocessed function
version function

#### noads (context)

handlers	table
F check	
F collapse	
F families	
F italics	
F relocate	
F render	
F resize	
F tags	

F unscript

F variants

process function

processors table

T collapse

F mlist\_to\_hlist

T relocate

T render

T resize

T unscript

## node (basic tex)

сору	function	ligaturing	function
copy_list	function	mlist_to_hlist	function
count	function	new	function
current_attr	function	next	function
dimensions	function	prev	function
do_ligature_n	function	protect_glyphs	function
family_font	function	<pre>protrusion_skippable</pre>	function
fields	function	remove	function
first_character	function	set_attribute	function
first_glyph	function	slide	function
flush_list	function	subtype	function
free	function	tail	function
has_attribute	function	traverse	function
has_field	function	traverse_id	function
hpack	function	type	function
id	function	types	function
insert_after	function	unprotect_glyphs	function
insert_before	function	unset_attribute	function
is_node	function	usedlist	function
kerning	function	vpack	function
last_node	function	whatsits	function
length	function	write	function

## nodes (context)

after	function	E cleanunnage	
aligned	function	F cleanuppage F export	
astable	function	F finalize	
before	function	F migrate	
builders	table	, and the second	
F buildpage filter	table	F protectglyphs F stripping	
F vpack_filter		F unprotectglyphs	
codes	data table	has attribute	function
concat	function	idstostring	function
count	function	ignorablefields	data table
delete	function	injections	table
destinations	table	F handler	cabic
N attribute		F installnewkern	
T done		F setcursive	
F handler		F setkern	
T stack		F setmark	
dimensionfields	data table	F setpair	
dir is pop	data table	installattributehandler	function
dir negation	data table	is display math	function
disccodes	data table	is_mirrored	data table
discretionarycodes	data table	is_rotated	data table
endofmath	function	kerncodes	data table
fasthpack	function	leftmarginwidth	function
fields	function	lines	table
fillcodes	data table	T boxed	
firstcharacter	function	F register	
firstcharinbox	function	F setup	
firstglyph	function	F stage_one	
getattribute	function	F stage_two	
gluecodes	data table	F stage_zero	
glyphcodes	data table	D data	
glyphdir_is_equal	data table	F finalize	
glyphdir_is_opposite	data table	F number	
glyphdir_is_orthogonal	data table	N scratchbox	
handlers	table	link	function
F accessibility		list	function
F alignbackgrounds		listablefields	data table
F backgrounds		listcodes	data table
F characters		listtoutf	function
F checkforleaks		load	function
F checkglyphs		locate	function

margincodes	data table	F usage	
markers	table	T userids	
F get		N margins.inline	
mathcodes	data table	N splitters.one	
noadcodes	data table	N splitters.two	
nodecodes	data table	F userlist	
packlist	function	F usernumber	
pardir_is_equal	data table	F userstring	
pardir_is_opposite	data table	F usertokens	
pardir_is_parallel	data table	F vlist	
partextdir_is_equal	data table	F zeroglue	
penaltycodes	data table	print	function
pool	table	processors	table
F baselineskip		B enabled	
F cleanup		F hpack_filter	
F disc		F post_linebreak_filter	
F fontkern		F pre_linebreak_filter	
F glue		F tracer	
F gluespec		processwords	function
F glyph		reference	function
F hlist		references	table
F kern		N attribute	
F latelua		T done	
F leftmarginkern		F handler	
F leftskip		T stack	
F lineskip		remove	function
F noad		repackhlist	function
F pdfannotation		replace	function
F pdfdestination		report	function
F pdfdirect		rightmarginwidth	function
F pdfliteral		rules	table
F pdfrestore		D data	
F pdfsave		F define	
F pdfsetmatrix		F enable	
F penalty		F handler	
F register		save	function
F rightmarginkern		serialize	function
F rightskip		serializebox	function
F rule		setattribute	function
F shrink		setattributes	function
F special		setunsetattributes	function
F stretch		shifts	table
F temp		D data	
F textdir		F define	

F enable		F collect	
F handler		F equal	
show	function	F indices	
showboxes	function	F start	
showcodes	function	F string	
showlist	function	F unicodes	
showsimplelist	function	T colors	
skipcodes	data table	F reset	
snapshots	table	F set	
F getparameters		F setlist	
F getsamples		F fontchar	
F resetsamples		T frequencies	
F takesample		F register	
somepenalty	function	F start	
somespace	function	T steppers	
stripping	table	F check	
T glyphs		F codes	
F set		F features	
striprange	function	F glyphs	
tasks	table	F message	
F actions		F messages	
F appendaction		F nofsteps	
F disableaction		F register	
F disablegroup		F reset	
F enableaction		F start	
F enablegroup		F stop	
F freeze		F stop	
F freezegroup		T transparencies	
F new		F reset	
F prependaction		F set	
F removeaction		F setlist	
F restart		unsetattribute	function
F showactions		unsetattributes	function
F table		visualizebox	function
textdir_is_equal	data table	visualizers	table
textdir_is_is	data table	F box	
textdir_is_opposite	data table	F handler	
textdir_is_parallel	data table	F markfonts	
tonodes	function	F setfont	
tosequence	function	F setlayer	
totable	function	F setvisual	
toutf	function	whatcodes	data table
tracers	table	whatsitcodes	data table
T characters		writable_spec	function

# number (context)

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

## os (basic lua)

function	remove	function
function	rename	function
string	resolvers	table
table	resultof	function
function	runtime	function
function	selfdir	string
function	setenv	overloaded function
function	setlocale	overloaded function
data table	sleep	function
overloaded function	spawn	overloaded function
overloaded function	time	function
function	times	function
function	timezone	function
overloaded function	tmpdir	function
function	tmpname	function
function	today	function
string	type	string
function	uname	function
string	uuid	function
function	where	function
string	which	function
	function string table function function function function data table overloaded function overloaded function function function string function string function	function rename string resolvers table resultof function runtime function selfdir function setenv function setlocale data table sleep overloaded function spawn overloaded function time function times function timezone overloaded function timezone string type function uname string unid function where

# package (basic lua)

clibpaths	function
config	string
cpath	string
extraclibpath	function
extralibpath	function
libpaths	function
loaded	table

loaders	table
loadlib	function
path	string
preload	table
searchers	table
searchpath	function
seeall	function

#### pagebuilders (context)

#### mixedcolumns table

F cleanup

F finalize

F getlist

F getrest

F getsplit

F setsplit

# pdf (basic tex)

immediateobj	function
mapfile	function
mapline	function
maxobjnum	function
obj	function
objtype	function
pageattributes	string
pageref	function

pageresources	string
pagesattributes	string
pdfmapfile	function
pdfmapline	function
print	function
refobj	function
registerannot	function
reserveobj	function

# pdfscanner (context)

scan function

# physics (context)

units table

D tables

#### profiler (extra lua)

# regimes (context)

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

#### resolvers (context)

**finders** 

33 6'		61 1613
allprefixes	function	findfile
appendhash	function	findfiles
automount	function	findgivenfile
automounted	table	findgivenfiles
booleanvariable	function	findpath
cacheversion	string	findtexfile
checkedvariable	function	findwildcardfile
cleanpath	function	findwildcardfiles
cleanpathlist	function	formatofsuffix
concatinators	data table	formatofvariable
configbanner	string	formats
criticalvars	data table	generators
dangerous	data table	getenv
datastate	function	getownpath
defaultsuffixes	table	getreadfilename
dowithfilesandreport	function	hashers
dowithfilesintree	function	homedir
dowithpath	function	inputstack
dowithvariable	function	installinputfilehandler
env	function	installinputlinehandler
		•
executers	table	instance
<b>executers</b> F check	table	
	table	instance
F check	table	instance D data
F check F exec	table	<pre>instance    D data    B diskcache</pre>
F check F exec F execute	table	<pre>instance   D data   B diskcache   D environment</pre>
F check F exec F execute F finalize	table	<pre>instance   D data   B diskcache   D environment   D expansions</pre>
F check F exec F execute F finalize F popen	table	<pre>instance   D data   B diskcache   D environment   D expansions   D fakepaths</pre>
F check F exec F execute F finalize F popen F register	table function	<pre>instance   D data   B diskcache   D environment   D expansions   D fakepaths   D files</pre>
F check F exec F execute F finalize F popen F register F spawn		instance D data B diskcache D environment D expansions D fakepaths D files B force_suffixes
F check F exec F execute F finalize F popen F register F spawn expandbraces	function	<pre>instance   D data   B diskcache   D environment   D expansions   D fakepaths   D files   B force_suffixes   D found</pre>
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist	function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist	function function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlist	function function function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath	function function function function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlistfromvariable expandpath expandpath	function function function function function function	Instance  D data  B diskcache  D environment  D expansions  D fakepaths  D files  B force_suffixes  D found  D foundintrees  D hashed  D hashes  D lists  B loaderror
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlist expandedpathlistfromvariable expandpath expandpathfromvariable expansion	function function function function function function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror D order
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlist expandedpathlistfromvariable expandpath expandpath expandpathfromvariable expansion extendtexmfvariable	function function function function function function function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror D order B remember
F check F exec F execute F finalize F popen F register F spawn expandbraces expandedpathfromlist expandedpathlist expandedpathlist expandpath expandpath expandpath expandpath expandpathfromvariable expansion extendtexmfvariable find_file	function function function function function function function function	Instance  D data B diskcache D environment D expansions D fakepaths D files B force_suffixes D found D foundintrees D hashed D hashes D lists B loaderror D order B remember B renewcache

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

D specification

data table

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

variableofformatorsuffix function wildcardpattern

function

#### scripts (context)

#### autofontfeature table

F disable

F enable

F handler

categorytonumber data table
colors data table
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

handlers data table hash table installdataset function installmethod function numbertocategory data table numbertodataset data table function preprocess function reset set function

#### 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 connect function S content-language connect4 function S content-length function connect6 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 received	protect	function
S received-from-mta	select	function
S references	sink	function
S referer	sinkt	table
S remote-mta	F close-	when-done
S reply-to	F defaul	t
S reporting-mta	F http-cl	nunked
S resent-bcc	F keep-op	oen
S resent-cc	skip	function
S resent-date	sleep	function
S resent-from	smtp	table
S resent-message-id	S DOMAIN	
S resent-reply-to	N PORT	
S resent-sender	S SERVER	
S resent-to	N TIMEOU	Г
S retry-after	S ZONE	
S return-path	F message	2
S sender	F open	
S server	F send	
S smtp-remote-recipient	source	function
S status	sourcet	table
S subject	F by-leng	gth
S te	F defaul	t
S to	F http-cl	nunked
S trailer	F until-	closed
S transfer-encoding	tcp	function
S upgrade	tcp6	function
S user-agent	tp	table
S vary	N TIMEOU	Г
S via	F connect	
S warning	try	function
S will-retry-until	udp	function
S www-authenticate	udp6	function
S x-mailer	url	table
http table	F absolu	te
N PORT	F build	
N TIMEOUT	F build_p	oath
S USERAGENT	F escape	
F open	F parse	
Frequest	F parse_p	
<b>newtry</b> function	F unescap	oe

#### sorters (context)

comparers table

F basic

constants table

S defaultdigits

S defaultlanguage

S defaultmethod

N digitsmaximum

N digitsoffset

N ignoredoffset

N replacementoffset

definitions data table
firstofsplit function
setlanguage function

sort function
splitters table

F utf

strip function
tracers data table
update function

## statistics (context)

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

## status (basic tex)

list function

#### storage (context)

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

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

## streams (context)

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

#### string (basic lua)

```
booleanstring
                  function
                                                           F /%s [ %t ]
byte
                   function
                                                           F << %t >>
bvtepairs
                   function
                                                           F MpSh%s
                   function
bvtes
                                                           F [ %t ]
char
                   function
                                                           F plib .b col(%q)
characterpairs function
                                                           F plib .b region(%q)
characters
                   function
                                                           F plib .e col()
checkedsplit
                   function
                                                           F _plib_.e_region(%s)
collapsespaces function
                                                           F plib .enhance(%q)
count
                   function
                                                           F h:%s
dump
                   function
                                                           F c:%s:%s:%s:%s
escapedpattern function
                                                           F chem_%s%s(%s,%s,"\chemicaltext{%s}");
explode
                   function
                                                           F chem_%s%s(%s,%s,%s,%s,%s);
find
                   function
                                                           F chem_%s(%s,%s,"");
format
                   function
                                                           F chem %s(%s,%s,%s);
formatter
                   function
                                                           F chem c%s(%s,%s,"");
formatters
                   table
                                                           F chem set(%s);
   F %--t--cvcle
                                                           F chem start component;
   F %-15s :
                                                           F %-15s : %s
                                                           F chem_stop_component;
   F %-15s >
                                                           F chem stop structure;
   F %-15s >
                                                           F dup %s mul exch dup %s mul exch %s mul
                                                           F dup %s mul exch dup %s mul exch dup %s mul exch %s mul
   F %-15s > %s
   F %-15s > %s
                                                           Fe:%s
   F %-15s > %s >
                                                           F if unknown context chem : input mp-chem.mpiv ; fi ;
   F %-15s > %s >
                                                           F mfun_tt_w[%i] := %f ; mfun_tt_h[%i] := %f ; mfun_tt_d[%i]
   F %-15s > %s > %s
                                                           F multilocs[%s] := %s ; multikind[%s] := "%s" ; multipars
   F %-15s > %s > %s
                                                           F multiregs[%s] := (%--t--cycle) shifted - %s;
   F %.3f %.3f %.3f %.3f k %.3f %.3f %.3f K
                                                           F p:%s
   F %.3f %.3f %.3f rg %.3f %.3f %.3f RG
                                                           F p:%s:%s:%s:%s
   F %.3f a %.3f G
                                                           F path multiregs[], multipars[], multibox; string multik
   F %p
                                                           F path posboxes[], posregions[]; numeric pospages[]; nu
   F %s %s %s %t
                                                           F pospages[%s] := %s ; posboxes[%s] := (%p,%p)--(%p,%p)--
   F %s mul
                                                           F q %f %f %f %f %f cm
                                                           F r:%s:%s:%s
   F %s->%s->%s
   F %s->%s->%s->%s->%s
                                                           F region:%s
   F %s:%s
                                                           F s:%s
   F %s:%s:%s
                                                           F setbounds currentpicture to multibox;
                                                           F w:%s
   F (%p,%p)
                                                                          function
                                                       gmatch
   F /%s %s
                                                                          function
   F /%s << %t >>
                                                       gsub
```

is_boolean	function	strip	function
is_empty	function	sub	function
itself	function	tformat	function
len	function	toboolean	function
limit	function	tocontext	function
longtostring	function	todimen	function
lower	function	topattern	function
makeformatter	function	totable	function
match	function	toutf	function
quote	function	unquote	function
quoted	function	unquoted	function
rep	function	upper	function
reverse	function	utfcharacters	function
split	function	utfvalues	function
splitlines	function	valid	function
splitup	function		

## structures (context)

	f		
atlocation	function table	F setlevel	
blocks	tabte	F setoffset	
D collected		F setown	
F define		F setstate	
F print		F setvalue	
F save		T specials	
F select		F userpage	
F setstate		F subs	
D states		D tobesaved	
D tobesaved	+	F value	function
bookmarks	table	currentsectionnumber	
F finalize		descriptions	table
F flatten		documents	table
S method		D data	
F overload		F initialize	
F place		F preset	
F register		F reset	4-61-
F setup		floats	table
counters	table	formulas	table
F add		F current	
F analyze		F simplify	
F check		F store	
D collected		helpers	table
F compact		F analyze	
F converted		F formulanumber	
F currentvalue		F merged	
D data		F page	
F define		F prefix	
F first		F prefixlastpage	
F get		F prefixpage	
Flast		F simplify	
F next		F title	
F prev		F touserdata	
F previous		inserts	table
F raw		D data	
F record		F define	
F reset		F getdata	
F restart		F getlocation	
F restore		F getname	
F save		F getnumber	
F set		F setlocation	

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

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

F realpage		F getnumber	
F section		F internalreference	
F userpage		D levelmap	
D tobereferred		D levels	
D tobesaved		F load	
T urls		F matchingtilldepth	
T data		F numberatdepth	
F define		F numbers	
F get		F popblock	
F valid		F prefixedconverted	
F whatfrom		F pushblock	
registers	table	F register	
F analyze		D registered	
F analyzed		F reportstructure	
D collected		F save	
F compare		F set	
F define		F setblock	
F enhance		F setchecker	
F extend		F setlevel	
F filter		F setnumber	
F filtercollected		F somelevel	
F finalize		F structuredata	
F flush		F title	
F prepare		D tobesaved	
F process		F typesetnumber	
F sort		F userdata	
F store		B verbose	
D tobesaved			table
F unique		F define	
F userdata		F get	
sections	table	F getall	
F autodepth		D setlist	1 .
Fcct		••••	table
D collected		D collected	
F current		F retrieve	
F currentblock		F store	
F currentid		D tobesaved	table
F currentlevel		, ,	.abte
F depthnumber F finddata		F analyzed D collected	
F finddata F findnumber			
F fullnumber		F compare F define	
F getcurrentlevel		F filter	
F getlevel		F finalize	

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

D taglist

T userdata

T metadata

D properties

## table (basic lua)

allkeys	function	prepend	function
append	function	print	function
are_equal	function	remove	function
autokey	function	reverse	function
compact	function	reversed	function
concat	function	save	function
contains	function	sequenced	function
сору	function	serialize	function
count	function	setmetatablecall	function
derive	function	setmetatableindex	function
deserialize	function	setmetatablekey	function
drop	function	setmetatablenewindex	function
fastcopy	function	sort	function
fastserialize	function	sorted	function
flattened	function	sortedhash	function
fromhash	function	sortedhashkeys	function
getmetatablekey	function	sortedkeys	function
has_one_entry	function	sortedpairs	function
identical	function	strip	function
imerge	function	sub	function
imerged	function	swapped	function
insert	function	tocontext	function
is_empty	function	tofile	function
keys	function	tohandle	function
load	function	tohash	function
loweredkeys	function	toxml	function
merge	function	unique	function
merged	function	unnest	function
mirrored	function	unpack	function
pack	function		

# tex (basic tex)

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

function setuccode sfcode table shipout function skip table sp function sprint function systemmodes data table texcatcodes number toks table tpacatcodes number

tpbcatcodes number tprint function trackers data table txtcatcodes number function type uccode table uniformdeviate function uprint function vrbcatcodes number write function

# texconfig (basic tex)

error_line	number
expand_depth	number
formatname	string
half_error_line	number
hash_extra	number
init	function
kpse_init	boolean
max in open	number

max_print_line	number
max_strings	number
nest_size	number
param_size	number
save_size	number
shell_escape	string
stack_size	number

## texio (basic tex)

write function

write\_nl function

## token (basic tex)

command_id	function
command_name	function
create	function
csname_id	function
csname_name	function
expand	function

get_next	function
<pre>is_activechar</pre>	function
is_expandable	function
is_protected	function
lookup	function

#### tokens (context)

bgroup table
collectors table

T data

F defaultwords

F dowithwords

F flush

F handle

F install

F register
T registered

T remapper

F convert

T data

F store

F show

T show\_methods

Fa

F b F c

F showtoken

F test

F trace

egroup table

hbox table
letter function

**letters** function

other function

**vbox** table

vtop table

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

# typesetters (context)

alignments	table		set	+-61.0
F handler		kern	_	table
F set breakpoints	table		factors handler	
N attribute	table		keepligatu	
F define				
F derine F handler			keeptogethe	=1
			mapping set	
D mapping T methods		marg		table
T numbers			finalhandle	
F set			globalhand	
F setreplace	ment		ha	cei
cases	table		localhandle	ar
T actions	tabte		save	-1
F handler			agraphs	table
F register			attribute	cabic
F set			droppers	
characters	table		F freeze	
F handler			F set	
checkers	table	F	handler	
F handler			set	
F reset			essors	table
F set		-	apply	
cleaners	table		register	
F handler			reset	
F set		F	split	
digits	table		startapply	
T actions			stopapply	
N attribute		F	stripped	
F handler		F	tostring	
F set		spac	ings	table
directions	table	N	attribute	
F handler		F	define	
F process		F	handler	
F set		D	mapping	
fast_hpack	function	Т	numbers	
hpack	function		T frenchpun	ctuation
italics	table		T charact	ers
F forcevaria	nt		S name	
F handler			N number	
F reset		F	reset	

F set F setup

tonodes function
vpack function
xtables table

F cleanup
F construct
F create

F flush

F initialize\_construct
F initialize\_reflow\_height
F initialize\_reflow\_width

F next\_row
F reflow\_height
F reflow\_width
F set\_construct
F set\_reflow\_height
F set\_reflow\_width

## unicode (extra lua)

asci	i	table F	len
F	byte	F	lower
F	char	F	match
F	dump	F	rep
F	find	F	reverse
F	format	F	sub
F	gfind	F	upper
F	gmatch	utf8	table
F	gsub	F	byte
F	len	F	char
F	lower	F	characters
F	match	F	count
F	rep	F	dump
F	reverse	F	filetype
F	sub	F	find
F	upper	F	format
grap	heme	table F	gfind
F	byte	F	gmatch
F	char	F	gsub
F	dump	F	is_valid
F	find	F	len
F	format	F	length
F	gfind	F	lower
F	gmatch	F	magic
F	gsub	F	match
F	len	F	remapper
F	lower	F	rep
F	match	F	replacer
F	rep	F	reverse
F	reverse	F	split
F	sub	F	splitlines
F	upper	F	sub
lati	n1	table F	subtituter
F	byte	F	tocodes
F	char	F	toentities
F	dump	F	tostring
F	find	F	totable
F	format	F	upper
	gfind	F	ustring
F	gmatch	F	utf16_to_utf8
F	gsub	F	utf16_to_utf8_be

F utf16\_to\_utf8\_le
F utf32\_to\_utf8
F utf32\_to\_utf8\_be
F utf32\_to\_utf8\_le

F utf8\_to\_utf16
F utf8\_to\_utf8
F values
F xstring

## url (context)

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

## utilities (context)

dohuggor	table	-			
debugger F disable	table		add_settings_to_a		
			arguments_to_tab	Le	
F enable			F array_to_string		
F savestats			csvsplitter		
F showstats	table		getparameters		
formatters	table		hash_to_string		
F formatcolumns			iterator		
F list			keq_to_hash		
F stripzeros	4-11-		listitem		
garbagecollector	table		make_settings_to	_hash_pattern	
F check		ı	patterns		
N criterium			U keq_to_hash_c		
B enabled	4-11-		U settings_to_arr		
lua	table		U settings_to_has		
B alwaysstripcode			U settings_to_has	_	
F compile			U settings_to_has	h_c	
F loadedluacode			U unittotex		
N nofstrippedbytes			rfc4180splitter		
N nofstrippedchunk	5		settings_to_array		
B stripcode			settings_to_array	_with_repeat	
T strippedchunks			settings_to_hash		
F strippedloadstri	ng		settings_to_hash	-	
T suffixes			settings_to_hash	_tolerant	
S lua			settings_to_set		
S luc			simple_hash_to_s	tring	
S lui			splitthousands		
S luj			stepper		
S luv		F	unittotex		
S tma			unittoxml	_	
S tmc		repo	ort	function	
S tua		sequ	iencers	table	
S tuc		F	appendaction		
packers	table	F	appendgroup		
F hashed		F	compile		
F new		F	disableaction		
F pack		F	disablegroup		
F simplehashed		F	enableaction		
F strip			enablegroup		
F unpack		D	functions		
N version		F	localize		
parsers	table	F	new		

F setinitializer F nodeprocessor F prependaction F sparse strings table F prependgroup F collapsecrlf F removeaction F setkind F newrepeater F tostring F nice table setters F striplong F disable F tabtospace F enable tables table F initialize F accesstable F list F definedtable F definetable F new F register F encapsulate F insertaftervalue F reset F insertbeforevalue F show stacker table F migratetable F new F removevalue storage table templates table F allocate

F checked

F mark

F marked

## vf (context)

char	function
down	function
fontid	function
image	function
node	function
non	function

рор	function
push	function
•	
right	function
rule	function
special	function

## visualizers (context)

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

## xml (context)

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

F bibtexshor	:	F position	
F chainattri	oute	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		index	function
F position		inheritedconvert	function
F reverse		inject	function
F stripped		<pre>inject_element</pre>	function
F tag		<pre>inject_element_after</pre>	function
F tags		<pre>inject_element_before</pre>	function
F text		injectafter	function
F upper		injectbefore	function
F upperall		insert	function
T xml		insert_element	function
F all		<pre>insert_element_after</pre>	<del>function</del>
F att		<pre>insert_element_before</pre>	function
F attribute		insertafter	function
F attributes		insertbefore	function
F cdata		insertcomment	function
F chainattri	oute	inspect	function
F count		is_valid	function
F default		kind	function
F elements		last	function
F empty		load	function
F first		lpath	function
F function		lpathcached	function
F index		lpathcalls	function
F last		lshow	function
F lowerall		makestandalone	function
F match		match	function
F name		name	function

newhandlers	function	root	function
nodesettostring	function	save	function
originalload	function	selection	function
package	function	separate	function
parent	function	serialize	function
parsedentitylpeg	userdata	setcdata	function
pihandlers	table	sethandlersfunction	function
placeholders	table	setproperty	function
F unknown_any_entity		settings	function
F unknown_dec_entity		specialhandler	table
F unknown_hex_entity		sprint	function
position	function	string	function
privatecodes	table	strip	function
privatetoken	function	strip_whitespace	<b>function</b>
process	function	stripelement	function
<pre>process_attributes</pre>	<del>function</del>	stripleadingspaces	function
<pre>process_elements</pre>	<del>function</del>	table	function
processattributes	function	text	function
profiled	table	textonly	function
raw	function	texttocdata	function
registerentity	function	tocdata	function
registerns	function	toelement	function
remap_name	<del>function</del>	tostring	function
remap_namespace	<del>function</del>	toxml	function
remap_tag	<del>function</del>	tprint	function
remapname	function	traverse	function
remapnamespace	function	unescaped	function
remaptag	function	unprivatized	function
renamespace	function	withelement	function
replace	function	withelements	function
replace_element	function	wrap	function
resolvens	function	xmlns	table

# zip (extra lua)

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

#### zlib (extra lua)

adler32 function
compress function
compressobj function
crc32 function

decompress function
decompressobj function
version function