attributes backends bit bit32 blobs boolean buffers builders caches callbacks catcodes characters chemistry commands containers context converters coroutine ctxrunner debug dir directives document documentdata environment epdf experiments figures file floats font fontloader fonts functions global graphics gzip img interactions interfaces io jit job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 lua luatex lxml math mathematics mbox md5 metapost mime moduledata modules mplib noads node nodes number os package pagebuilders parametersets pdfscanner physics profiler publications regimes resolvers scripts set socket sorters statistics storage streams **string** structures xconfig texio thirddata tok tokens tracers trackers typesetters unicode url userdata utilities vf visualizers xml zip zlib

ConT_EXt MkIV

global (alias: _G)

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document	table	loadfile	function
documentdata	table	loadstring	function
dofile	function	logs	table
endpage	function	lp_fastpos_n	userdata
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pagebuilders	table	token	table
pairs	function	tokens	table
parametersets	table	tonumber	function
pattern	userdata	tostring	function
pcall	function	trace_characters	boolean
pdf	table	tracers	table
pdfscanner	table	trackers	table
physics	table	type	function
print	function	typesetters	table
profiler	table	unicode	table
protect	function	unpack	function
publications	table	url	table
rawequal	function	userdata	table
rawget	function	utf	table
rawlen	function	utilities	table
rawset	function	vf	table
regimes	table	visualizers	table
report_characters	function	xml	table
require	function	xmlconvert	function
resolve_fences	function	xpcall	function
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zip table
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attributes (context)

colorintents	table	F mpoptions	
N attribute		U none	
D data		F popset	
F enable		F processcolorc	omponents
F handler		F pushset	
F register		F register	
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N attribute		F rgb	
F cmyk		F rgbtocmyk	
F cmyktogray		F rgbtogray	
F cmyktorgb		F rgbtohsv	
F colorcomponer	nts	N selector	
B couple		F setlist	
D data		F setmodel	
N default		D sets	
F defineinterme	ediatecolor	F spec	
F definemixcolo	or	F spot	
F definemultito	onecolor	F spotcolorname	
F defineprocess	scolor	F spotcolorpare	nt
F definesimple	gray	F spotcolorvalu	е
F definespotcol	lor	B supported	
F definetranspa	arency	F transparencyc	omponents
F enable		B triggering	
F filter		F usecolors	
F forcedmodel		F value	
F forcesupport		D values	
F formatcolor		B weightgray	
F formatgray		define	function
F gray		effects	table
F graytohsv		N attribute	
F handler		D data	
F hsvtogray		F enable	
F hsvtorgb		F handler	
F iccprofile		F register	
F isblack		D registered	
N main		D values	
S model		handlers	table
D models		list	data table
F mpcolor		names	data table
F mpnamedcolor		negatives	table

N attribute
D data
F enable
F handler
F register
D registered
nbers

states table

F disabletriggering

F enabletriggering
F finalize

F initialize

F process

F selective

F stacked

F stacker

transparencies table

N attribute

D data

F enable

F forcesupport

F handler

U none

F register

D registered

B supported

B triggering

F value

D values

unsetvalue number
viewerlayers table

N attribute

D data

F define

F enable

F forcesupport

F handler

B hasorder

D listwise

F register

D registered

F resolve_begin

F resolve_end

F resolve_step

D scopes

F setfeatures

F start

F stop

B supported

D values

backends (context)

F registerdocumentcloseaction

codeinjections table F registerdocumentopenaction F synchronizecolormodel F registeredsymbol current strina F registerpagecloseaction table defaults F registerpageopenaction T codeinjections F registersymbol T nodeiniections F setfieldcalculationset T registrations F setfigurealternative D tables F setfigurecolorspace install function F setfiguremask nodeinjections table F setformat F setformsmethod F restore F save F setpagetransition F transform F setupcanvas function nothina F setupidentity pdf table F setxmpfile T codeinjections F startlayer F addbookmarks F stoplaver 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

bit (context)

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

bit32 (basic lua)

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

blobs (context)

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

boolean (context)

tocontext function
tonumber function

buffers (context)

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

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function

builders (context)

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

T data

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

caches (context)

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

callback (basic tex)

find function
list function

register overloaded function

callbacks (context)

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

catcodes (context)

characters (context)

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

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

D accentmapping F defineaccents

F toutf

textclasses
tonumber
ucchars
uccode
uccodes
unicodechar
upper

table
function
data table
function
data table
function
function

chemistry (context)

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

commands (context)

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

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

doifelsemarking function dostoptextfile function doifelsemarking function dostoptextfile function doifelsemassage function ecolumn function doifelsemassage function ecolumn function doifelsemarking function enableautofontscript function doifelseparallel function enableautofontscript function doifelsepositionsused function enablecolor function doifelserangeonpage function enablecolorintents function doifelserargeonpage function enablefontcolorschemes function doifelsespaces function enablespathider function doifelsespaces function enablespellchecking function doifelseutfmathabove function enablespellchecking function doifelseutfmathabove function enablespellchecking function doifelseutfmathabove function enablespellchecking function doifelseutfmathabove function enablespellchecking function doiffelseutfmathabove function enablespellchecking function doiffeldeutegoryelse function enhancelisked function doiffeldeutegoryelse function enhancereference function doiffiledeutegoryelse function enhancereference function doiffiledeuse function expandcurrentreference function doiffiledesinedelse function exportformdata function doiffiledesinedelse function exportformdata function doiffiledexielse function exportformdata function doiffinyntifileelse function feature function doiffinyntifileelse function feature function doifflusthasmabrelse function feature function doifflusthaspealse function feature function doifflusthaspealse function feature function doifflusthaspealse function fetchnultipar function doifflucfileelse function figurefilepath function doifflucfileelse function figurefilepath function doifflucfileelse function figurefilepath function doifflucfileelse function figurerequest function figurerequest function doifpositionelse function figurerealte function doifpositionsonabageagese function figurevariable function doi	doifelsecurrentfonthasfeature	function	doreshapeframedbox	function
doifelsemessage function elapsedtime function doifelsemultipar function elapsedtime function doifelseparallel function enableautofontscript function doifelsepositionsused function enablecolor function doifelserangeonpage function enablecoloritents function doifelserangeonpage function enablefontolorschemes function doifelsespaces function enableparbuilder function doifelsespaces function enablesparbuilder function doifelseutfmathabove function enablespellchecking function doifelseutfmathabove function enablespellchecking function doifelseutfmathabove function enablespaces function doifelseutfmathabove function enablerapsparency function doifelseutfmathabove function enablecrapsparency function doiffieldeutgraphy function enhancelist function doiffieldeutgraphy function enhancereference function doiffieldeseutgraphy function enhancereference function doiffieldeutgraphy function expandcurrentreference function doiffieldeutgraphy function expandcurrentreference function doiffilederinedelse function expandcurrentreference function doiffilsexistelse function expandcurrentreference function doiffinestelse function experterences function doiffinestelse function feature function doiffinestelse function feature function doiffinestelse function feature function doiffinespapearelse function featureattribute function doifflisthasnumberelse function featurelist function doifflisthasnumberelse function fetchmultipar function doifflot function fetchmultipar function doifflotcounter function fetchmultipar function doifflotcounter function fetchmultipar function doifflotcounter function figurefilename function doiffootcounter function figurefilename function doiffootcounter function figurefilename function doiffooterereprences function figurefilename function doiffooterereprences function figurerequest function doiffooterencefoundelse function figurerequest function doiffooterencefoundelse function figurerequest function doiffooterencefoundelse function figurerequest function doiffootencese function figurerequest function figur	doifelseintwopassdata	function	dostarttextfile	function
doifelsemultipar function doifelseparallel function enableautofontscript function doifelseparallel function enablecolor function doifelsepositionsused function enablecolor function doifelserangeonpage function enablecolorintents function doifelserangeonpage function enablecolorintents function doifelsespaces function enableparbuilder function doifelsespaces function enableregime function doifelseutfmathabove function enableregime function doifelseutfmathaccent function enableransparency function doifelseutfmathbelow function enableransparency function doifelseutfmathbelow function enhancelist function doiffieldestedise function enhancereference function doiffieldestedise function enhancereference function doiffieldestedise function expandcurrentreference function doiffieldestedise function expandcurrentreference function doiffilexistelse function exportformdata function doiffilexistelse function exportformdata function doiffilexistelse function exportformdata function doiffilexistelse function feature function doiffinsetelse function feature function doiffinsetelse function feature function doiffinsetelse function feature function doiffilexistasentry function feature function doiffilixhaspageelse function fetchmultipar function doifflothisthaspageelse function fetchmultipar function doifflothisthaspageelse function fetchnoemark function doifflotecontent function figurefilename function doiffoctounter function figurefilename function doiffoctererereconalese function figurefilename function doiffortererencefoundelse function figurerequest function doifforerencefoundelse function figurerestatus function doifforerencefoundelse function figureredeal function doifforerencefoundelse function figurerestatus function doifforerencefoundelse function figureredeal function doifforerencefoundelse functio	doifelsemarking	function	dostoptextfile	function
doifelseparallelfunctionenableautofontscriptfunctiondoifelsepositionsusedfunctionenablecolorfunctiondoifelserangeonpagefunctionenablecolorintentsfunctiondoifelsereferencefunctionenablefontcolorschemesfunctiondoifelsesavedfloatfunctionenableparbuilderfunctiondoifelsesusfmathabovefunctionenableregimefunctiondoifelseutfmathabovefunctionenabletransparencyfunctiondoifelseutfmathaccentfunctionenhancelinkedlistfunctiondoifelseutfmathbelowfunctionenhancelistfunctiondoiffeldesutfmathbelowfunctionenhancelistfunctiondoiffieldesvisualizerfunctionenhancereferencefunctiondoiffieldelsefunctionenhancereferencefunctiondoiffieldelsefunctionexpandcurrentreferencefunctiondoiffiledefinedelsefunctionexportformdatafunctiondoiffiledefinedelsefunctionexportformdatafunctiondoiffiledexistelsefunctionexportformdatafunctiondoiffiledexistelsefunctionexportformdatafunctiondoiffileexistelsefunctionfeaturefunctiondoiffileyrifleelsefunctionfeaturefunctiondoiflisthasnumberelsefunctionfeaturelistfunctiondoiflisthasnumberelsefunctionfetchultiparfunctiondoiflisthaspageelsefunctionfetchone	doifelsemessage	function	ecolumn	function
doifelsepositionsused function enablecolor function doifelserangeonpage function enablecolorintents function doifelseraference function enablefontcolorschemes function doifelsesawedfloat function enableparbuilder function doifelsesawedfloat function enableparbuilder function doifelseutfmathabove function enablespellchecking function doifelseutfmathabcent function enablespellchecking function doifelseutfmathabelow function enhancelinkedlist function doifelsevisualizer function enhancelinkedlist function doiffieldelse function enhancereference function doiffieldelse function expandcurrentreference function doiffieldelse function expandcurrentreference function doiffieldeses function expandcurrentreference function doiffileexistelse function exportformdata function doiffileexistelse function exportformdata function doiffileexistelse function exportformata function doiffilespearelse function feature function doiffilespearelse function feature function doiffilespearelse function feature function doiffilespearelse function featurelist function doifflisthasnumberelse function fetchallmarks function doiflisthasnumberelse function fetchallmarks function doiflofilese function fetchmultipar function doiflofilese function fetchmultipar function doiflocfileelse function fetchnomark function doiflocfileelse function fetchnomark function doifnotcounter function fetchposboxes function doifnoteonsmepageaspervious function figurefilename function doifoverlappingelse function figurerequest function doifoverlappingelse function figurevariable function doifpositionon function figurevariable function doifpositionsonsmepageelse function figurevariable function doifpositionsonsmepageelse function filterreference function doifpositionsonsmepageelse function finalizebox function doifpositionsonsmepageelse function finalizebox function function function function function finalizebox function func	doifelsemultipar	function	elapsedtime	function
doifelserangeonpagefunctionenablecolorintentsfunctiondoifelsereferencefunctionenablefontcolorschemesfunctiondoifelsesavedfloatfunctionenablergepimefunctiondoifelsespacesfunctionenablergepimefunctiondoifelseutfmathabovefunctionenablespellcheckingfunctiondoifelseutfmathbelowfunctionenhancelinkedlistfunctiondoifelseutfmathbelowfunctionenhancelinkedlistfunctiondoiffieldesvisualizerfunctionenhancelistfunctiondoiffieldespoyelsefunctionenhancereferencefunctiondoiffieldesefunctionexpandcurrentreferencefunctiondoiffieldefinedelsefunctionexportformdatafunctiondoiffiledefinedelsefunctionexportreferencesfunctiondoiffiledefinedelsefunctionexportreferencesfunctiondoiffiledefinedelsefunctionfeaturefunctiondoiffiledefinedelsefunctionfeaturefunctiondoiffiledefinedelsefunctionfeaturefunctiondoiffiledefinedelsefunctionfeaturefunctiondoiffiledefinedelsefunctionfeaturefunctiondoiflisthasparelsefunctionfeatureattributefunctiondoiflisthaspangeelsefunctionfetchmultiparfunctiondoiflisthaspangeelsefunctionfetchmultiparfunctiondoiflotileelsefunctionfetchwomarksfunction	doifelseparallel	function	enableautofontscript	function
doifelsereference doifelsesavedfloat doifelsespaces function doifelsespaces function doifelsesutfmathabove function doifelseutfmathabove function doifelseutfmathabove function doifelseutfmathabove function doifelseutfmathabove function doifelseutfmathabove function doifelseutfmathabove function doifelsevisualizer function doifelsevisualizer function doiffieldcategoryelse function doiffieldese function doiffieldese function doiffieldese function doiffieldese function doiffilederinedelse function doiffileexistelse function doiffileexistelse function doiffileexistelse function doiffileexistelse function function feature function doifinsetelse function feature function featurealtribute function doiflisthasentry function feedback function feedback function foiflisthaspageelse function fetchmultipar function doifnotcounter function function figurefilename function doifnotecontent function figurefilename function foifoderversionelse function figurefilename function foifoderversionelse function figureriletype function foifopositiononpage function filterreference function figurevariable function foifpositionsonsamepageelse function filterreference function filterreference function filterreference function figurevariable function foifpositionsonsamepageelse function findtwopassdata function function findturevariable function findturevariable function findturevariable function filterreference function findturevariable function filterreference function filterreference function filterreference function foifpositionsonsamepageelse function filterreference function findturevariable function filterreference function findturevariable function filterreference function filtertefaultreference function filtertefaultreference function filterreference function filterreference function filtertefaultreference function filtertefaultreference function filterreference function filterreference function function filterreference function function filterreference function function filterreference function function function filterreference fun	doifelsepositionsused	function	enablecolor	function
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doifpositionelsefunctionfilterdefaultreferencefunctiondoifpositiononpagefunctionfilterreferencefunctiondoifpositionsonsamepageelsefunctionfinalizeboxfunctiondoifpositionsonthispageelsefunctionfindtwopassdatafunctiondoifurldefinedelsefunctionfirstcountervaluefunction	doifparentfileelse	function	figureused	
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doifpositionsonsamepageelsefunctionfinalizeboxfunctiondoifpositionsonthispageelsefunctionfindtwopassdatafunctiondoifurldefinedelsefunctionfirstcountervaluefunction	doifpositionelse	function	filterdefaultreference	function
doifpositionsonthispageelsefunctionfindtwopassdatafunctiondoifurldefinedelsefunctionfirstcountervaluefunction				
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				function
doprocesstypescriptfile function firstinset function				function
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flushfloat	function	getprogram	function
flushnotes	function	getrandomcounta	function
flushpostponedblocks	function	getrandomcountb	function
flushpostponednotes	function	getrandomseed	function
fontchar	function	getreadfilename	function
fontcollectionclone	function	getsubstring	function
fontcollectiondefine	function	gettexbuffer	function
fontcollectionprepare	function	gettwopassdata	function
fontcollectionregister	function	gettwopassdatalist	function
fontcollectionreport	function	geturl	function
fontcollectionreset	function	grabbuffer	function
fontlookupgetkey	function	hboxtovbox	function
fontlookupgetkeyofindex	function	helpaction	function
fontlookupinitialize	function	helpreference	function
fontlookupnoffound	function	hexstringtonumber	function
forceendjob	function	horizontalcode	function
forcequitjob	function	hour	function
format	function	hyphenatedlist	function
formatcolor	function	hyphenatedurl	function
formatgray	function	D characters	
freezerandomseed	function	N lefthyphenmin	
from	function	D mapping	
getbidimode	function	N righthyphenmin	
getbuffer	function	F setcharacters	
getbufferctxlua	function	incrementedcounter	function
getbuffermkvi	function	initializetexdirectives	function
getcommandline	function	initializetextrackers	function
getctxfile	function	injectcurrentreference	function
getcurrentprefixspec	function	injectreference	function
getcurrentreferencemetadata	function	inlinechemical	function
getdefaultfieldvalue	function	insertattachment	function
getfieldcategory	function	insertcomment	function
getfirstcharacter	function	insertfield	function
getfirsttwopassdata	function	insertionnumber	function
getfloatvariable	function	insertrenderingwindow	function
getinternalreference	function	insertsoundclip	function
getlasttwopassdata	function	installedlanguages	function
getmarking	function	installtexdirective	function
getmessage	function	installtextracker	function
getmpextensions	function	languagenumber	function
getnotestate	function	lastcountervalue	function
getplaceholderchar	function	lchexnumber	function
getprivateattribute	function	lchexnumbers	function
getprivatechar	function	leapyear	function

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

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

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

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

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

x_table_flush	function
x_table_init_construct	function
x_table_init_reflow_height	function
x_table_init_reflow_width	function
x_table_next_row	function
x_table_r	function
x_table_reflow_height	function
x_table_reflow_width	function
x_table_set_construct	function
x_table_set_reflow_height	function
x_table_set_reflow_width	function
year	function

containers (context)

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

converters (context)

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

coroutine (basic lua)

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

ctxrunner (context)

load function
prepfiles data table
resolve function

debug (basic lua)

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

dir (context)

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

directives (context)

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

document (context)

arguments data table
files table
getargument function
getfilename function
options table

T commandline

D environments

D modes

D modules

T ctxfile

D environments

D modes

D modules

setargument function
setdefaultargument function
setfilename function
variables data table

environment (context)

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

texroot truefilename validengines string function data table

epdf (extra tex)

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

experiments (context)

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

figures (context)

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

registersuffix resources scale setlookups setorder setpaths suffixes

used

function

function

function

function

function

data table

data table

data table

file (basic lua)

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

floats (context)

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

font (basic tex)

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

max function nextid function read_tfm function read_vf function setfont function

fontloader (extra tex)

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

fonts (context)

analyzers	table	F report
T features		F reset
N blwf		T vectors
N fina		<pre>constructors table</pre>
N half		F aftercopyingcharacters
N init		F applymanipulators
N isol		F assignmathparameters
N medi		B autocleanup
N pref		F beforecopyingcharacters
N pstf		D cache
N rphf		F calculatescale
D initializers		F checkedfeatures
D methods		F checkedfilename
F setstate		F checkvirtualids
T states		F cleanuptable
N blwf		F collectprocessors
N fina		D designsizes
N half		D dontembed
N init		F enhanceparameters
N isol		N factor
N mark		F finalize
N medi		F getfeatureaction
N pref		F hashfeatures
N pstf		F hashinstance
N rest		T hashmethods
N rphf		F normal
B useunicodemar		F virtual
checkers	table	F initializefeatures
F getmissing		T keys
F missing	±=61 =	T character
cid	table	S depth
F getmap		S height
F loadfile collections	table	S italic
	table	S width
F checkenabled F clonevector		T description
F define		T boundingbox S depth
T definitions		S height
F prepare		S width
F process		T parameters
F process F registermain		S ascender
i registeriiidili		3 ascender

9	5 descender		S encodingbyt	es
9	5 designsize		S filename	
1	Γ expansion		S finalized	
	S auto		S fontname	
	S shrink		S format	
	S step		S fullname	
	S stretch		S hasitalics	
9	5 extendfactor		S hasmath	
9	5 factor		S mathitalics	
9	5 hfactor		S mode	
9	5 mathsize		S name	
1	Γ protrusion		S noglyphname	S
	S auto		S nostackmath	
9	5 quad		S psname	
9	5 scaledpoints		S textitalics	
9	5 scriptpercentage		S virtualized	
9	5 scriptscriptpercentage	D	loadedfonts	
9	5 size	S	namemode	
9	5 slantfactor	F	newfeatures	
9	5 slantperpoint	F	newhandler	
7	Γ spacing	N	noffontsloaded	
	S extra	N	nofsharedfonts	
	S shrink	N	nofsharedhashe	S
	S stretch	N	nofsharedvecto	rs
	S width	N	privateoffset	
٦	Γ synonyms	F	readanddefine	
	S em	F	registerfeatur	e
	S ex	В	resolvevirtual	too
	S extra_space	F	scale	
	S extraspace	F	scaled	
	S slant	F	setfactor	
	S space	F	setname	
	S space_shrink	В	sharefonts	
	S space_stretch	F	trytosharefont	
	S spaceshrink	N	version	
	S spacestretch	curr		function
	S x_height		entid	function
9	5 units	defi	ners	table
9	5 vfactor	F	addlookup	
	5 xheight		analyze	
	properties		applypostproce	ssors
	5 autoitalicamount		checkedmode	
7	Γ cidinfo	F	checkedscript	
9	5 embedding	F	current	

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

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

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

D synonyms D variants

symbols table

F uselibrary

tables table
tracers table
treatments table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

typefaces data table

functions (context)

dummy function

graphics (context)

backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

gzip (extra lua)

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

img (basic tex)

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

interactions (context)

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

interfaces (context)

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

F define F list

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

io (basic lua)

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

T paranoid

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

T paranoid

open overloaded function

output function
pathseparator string

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

jit (context)

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

F start

os string
status function
util table

F funcbc

F funcinfo

F funck

F funcuvname

F ircalladdr

F traceexitstub

F traceinfo

F traceir

F tracek

F tracemc

F tracesnap

version string
version_num number

job (context)

_				
comment	function	-	ollected	
datasets	table	F getda		
D collected		-	getfield	
F extend		-	gettobesaved	
F getdata		F inlis	it	
F setdata		F last		
D tobesaved		F list		
disablesave	function	F save		
files	table	F savet		
D collected		D tobes		
F context		position		
B forcerun		F b_col		
F run		F b_reg	jion	
D tobesaved		Fc		
initialize	function	D colle	ected	
load	function	F colum	n	
loadother	function	F copy		
objects	table	F depth	ı	
D collected		F e_col		
F get		F e_reg	jion	
F number		F enhar	ice	
F page		F extra	ı	
F save		F get		
F set		F getre	eserved	
D tobesaved		F hanga	ıfter	
pack	boolean	F hangi	ndent	
packversion	number	F heigh	it	
pagestates	table	F hsize	<u> </u>	
D collected		F lefts	kip	
F extend		F lower	left	
F realpage		F lower	right	
F setstate		F mark	regionbox	
D tobesaved		Fn		
passes	table	F onsan	nepage	
F check		F over	apping	
D collected		Fp		
F count		F page		
F define		F parag	ıraph	
F find		F parin	ident	
F first		F posit	ion	
F get		Fr		

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

register function save function

table

structure D collected

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

variables table

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

version number

lang (basic tex)

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

languages (context)

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

F averagecharwidth

F getdata

getnumber function hyphenate function installed function labels table

> F define F split

lefthyphenmin function loadable function loadwords function table logger

F report

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

> F add F handler F set

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

> T data F disable F enable T enablers

B enables

F check

F found F load T methods N threshold

layouts (context)

status table

F isleftpage

F leftorrightpagection

lfs (extra lua)

attributes function
chdir function
currentdir function
dir function

isfile function lock function lock dir function mkdir function mkdirs function readlink function rmdir function function setmode function shortname symlinkattributes function touch function unlock function

libraries (context)

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

lmx (context)

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

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 report function reset function result function function set show function showdebuginfo function showerror function stripcss function tv function
type function
urlescape function
variable function
variables table

S color-background-blue

S color-background-body

S color-background-green

S color-background-main

S color-background-purple

S color-background-yellow

S title-default

logs (context)

application function categories function direct function disable function function enable exporters table extendbanner function flush function function help function messenger new function newline function function poptarget function pushtarget report function reportbanner function function reporter table reporters

> F banner F export

F help

F info

Flines

F version

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

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

lpdf (context)

injectxmpinfo

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

function

lpeg (basic lua)

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

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

ltn12 (extra lua)

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

F string

lua (basic tex)

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

lxml (context)

addindex	function	getid	function
all	function	getindex	function
applyfunction	function	id	function
att	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 function	F add	
get_id	+ unction	F compare	

F flush
F reset
F show

F sort

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

math (basic lua)

abs	function
acos	function
asin	function
atan	function
atan2	function
ceil	function
cos	function
cosd	function
cosh	function
deg	function
div	function
even	function
exp	function
floor	function
fmod	function
frexp	function
huge	number
initialseed	number
ldexp	function
log	function
log10	function
max	function
min	function
mod	function
modf	function
odd	function
pi	number
pow	function
rad	function
random	function
randomseed	function
round	function
setrandomseedi	function
sin	function
sind	function
sinh	function
sqrt	function
tan	function
tand	function
tanh	function

mathematics (context)

addfallbacks	function
alphabets	data table
big	function
boldmap	table
categories	table
D functions	
checkaccentbaseheight	function
checkprivateparameters	function
classes	data table
codes	data table
define	function
dimensions	function
extensiblecode	function
extensibles	data table
extrabase	number
extras	table
F add	
F copy	
fallbacks	table
F apply	
F install	
fallbackstyleattr	function
families	data table
gaps	table

function
function
table
function

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

renderset function
resetitalics function
scaleparameters function

 $^{{\}tt D} \ {\tt numbers}$

D sets

mbox (context)

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

md5 (extra lua)

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

metapost (context)

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

settext function
settextexts function
showlog boolean
svformat function
tex table

F get
F reset
F set

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

mime (extra lua)

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

mplib (extra tex)

fields function
finders table

F file

new function
pen_info function
preprocessed function
version function

noads (context)

handlers table F check F classes F collapse F families F italics F relocate F render F resize F showtree F tags F unscript F variants function process processors table T collapse F mlist_to_hlist T relocate T render T resize

T unscript

node (basic tex)

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

function
function

nodes (context)

accentcodes	data table	free spec	function
aligned	function	getattr	function
append	function	getattribute	function
astable	function	getbox	function
basepoints	function	getchar	function
builders	table	getfield	function
	table	getfont	function
F buildpage_filter		getid	function
F vpack_filter codes	data table	getleader	function
concat	function	getlist	function
copy	function	getnext	function
copy list	function	getprev	function
• • =	function	getskip	function
copy_spec count	function	getsubtype	function
current attr	function	gluecodes	data table
delete	function	glyphcodes	data table
destinations	table	glyphdir_is_equal	data table
N attribute	table	glyphdir_is_opposite	data table
T done		glyphdir_is_orthogonal	data table
F handler		gonuts	boolean
T stack		handlers	table
dimensionfields	data table	F accessibility	cabic
dimensions	function	F alignbackgrounds	
dir_is_pop	data table	F backgrounds	
dir negation	data table	F characters	
discodes	data table	F checkforleaks	
discretionarycodes	data table	F checkglyphs	
do ligature n	function	F cleanupbox	
end of math	function	F cleanuppage	
 fasthpack	function	F export	
fencecodes	data table	F finalize	
fields	function	F migrate	
fillcodes	data table	F protectglyphs	
first_character	function	F stripping	
first_glyph	function	F unprotectglyphs	
firstcharacter	function	has_attribute	function
firstcharinbox	function	has_field	function
firstglyph	function	has_glyph	function
flush_list	function	hpack	function
flush_node	function	idstostring	function
free	function	ignorablefields	data table

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

data table function function data table data table function

table

table

F insert after F shrink F insert before F special F insert_list_after F stretch F temp F is direct F is display math F textdir F is node F usage F is_nut T userids F kerning N margins.inline F last node N splitters.one F leftmarginwidth N splitters.two F userlist F ligaturing F usernumber F link F linked F userstring F usertokens F locate F vlist F mlist to hlist F nestedtracedslide F zeroglue F new F prepend T pool F protect glyphs F protrusion skippable F baselineskip F cleanup F reference F disc F remove F fontkern F repackhlist F glue F replace F rightmarginwidth F gluespec F glyph F set attribute F hlist F setattr F kern F setattribute F setattributes F latelua F leftmarginkern F setbox F leftskip F setfield F lineskip F setunsetattributes F noad F slide F pdfannotation F somepenalty F pdfdestination F somespace F pdfdirect F tail F pdfliteral F tonode F pdfrestore F tonodes F pdfsave F tonut F pdfsetmatrix F tostring F penalty F tracedslide F register F traverse F rightmarginkern F traverse_id F rightskip T typesetters

F fast_hpack

F rule

F tohpack F pdfannotation F tohpackfast F pdfdestination	
F tonodes F pdfliteral	
F tovpack F pdfsetmatrix	
F tovpackfast F register	
F vpack F rule	
F unprotect_glyphs F special	
F unset_attribute F usage	
F unsetattribute T userids	
F unsetattributes N margins.inline	
F untracedslide N splitters.one	
F usedlist N splitters.two	
F vianodes prepend	function
F vianuts print	function
F vpack processors	table
F writable_spec B enabled	
F write F hpack_filter	
packlistfunctionF post_linebreak_filter	
<pre>pardir_is_equal data table</pre>	
<pre>pardir_is_opposite</pre>	
<pre>pardir_is_parallel data table processwords</pre>	function
<pre>partextdir_is_equal data table protect_glyphs</pre>	function
penaltycodes data table protrusion_skippable	function
<pre>plugindata table pts</pre>	function
programata table pro	Tunction
F finalizer reference	function
and the first of the control of the	
F finalizer reference	function
F finalizer reference F initializer references	function
F finalizer reference F initializer references S name N attribute	function
F finalizer reference F initializer references S name N attribute T namespace T done	function
F finalizer reference F initializer references S name N attribute T namespace T done N attribute F handler	function
F finalizer F initializer S name N attribute T namespace N attribute F handler D data reference references N attribute F handler T stack	function table function function
F finalizer F initializer F initializer S name N attribute T namespace N attribute F handler D data F enable reference references	function table function function function
F finalizer F initializer F initializer S name N attribute T namespace N attribute F handler D data F enable F handler F handler F handler F handler F handler F handler F remove F repackhlist	function table function function
F finalizer F initializer S name N attribute T namespace N attribute D data F enable F handler F handler F handler F handler F register F register	function table function function function
F finalizer F initializer S name N attribute T namespace N attribute D data F enable F handler F handler F handler F handler F packhlist F register D registered F reference ref	function table function function function
F finalizer F initializer S name N attribute T namespace N attribute T done N attribute D data F handler F enable F handler F handler F handler F register D registered D values reference reference reference	function table function function function function
F finalizer F initializer S name N attribute T namespace N attribute T done N attribute D data F handler F enable F handler F handler F handler F packhlist F register D registered D values F processor reference	function table function function function function
F finalizer F initializer F initializer S name N attribute T namespace N attribute F handler D data F enable F enable F handler F register F register D registered D values F processor F processor F function F done N attribute F reference F handler F remove remove repackhlist replace report rightmarginwidth rules points f unction D data	function table function function function function
F finalizer F initializer S name N attribute T namespace N attribute D data F enable F handler F handler F handler F register F register D registered D values F processor points f function pol table F fefine	function table function function function function table
F finalizer F initializer S name N attribute T namespace N attribute D data F enable F handler F handler F handler F baselineskip F finalizer reference references reference references	function table function function function function
F finalizer F initializer F initializer S name N attribute T namespace N attribute T namespace N attribute F handler D data F enable F handler F handler F register F register D registered D values F processor F processor points f unction F baselineskip F cleanup F handler F fenable F handler F product F fenable F define F handler F handler	function table function function function function table

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

visualizers table F rule T nuts F box F rule F handler F markfonts F resetproperties F rule F setfont F setlist F setlayer F setproperties F setvisual vpack function F start whatcodes data table T steppers whatsitcodes F check data table writable spec function F codes write function F features F font F glyphs F message F messages F nofsteps F register F reset F start F stop F stop T transparencies F reset F set F setlist function traverse function traverse_id table typesetters F hpack F tohpack F tohpackfast F tonodes F tovpack F tovpackfast F vpack unprotect glyphs function unset attribute function unsetattribute function unsetattributes function usedlist function vianodes function vianuts function visualizebox function

number (context)

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

os (basic lua)

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

string

type

uname
uuid function
validdate function
weekday function
where function
which function

package (basic lua)

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

pagebuilders (context)

injections table F flushafter F flushbefore F save

mixedcolumns table

F cleanup F finalize F getlist F getrest

pdf (basic tex)

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

pdfscanner (context)

scan function

physics (context)

units table
 D tables

profiler (extra lua)

pause function
resume function
start function
stop function

publications (context)

F resolve

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

T required

T incollection
T optional

T required

i required

T inproceedings

T optional

T required

T manual

T optional

T required

T mastersthesis

T optional

T required

T misc

T optional

T required

 ${\sf T}\ {\sf phdthesis}$

T optional

T required

T proceedings

T optional

T required

T techreport

T optional

T required

T unpublished

T optional

T required

T citevariants

T fields

T listvariants

F showdatasetcompleteness

F showdatasetfields

regimes (context)

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

resolvers (context)

finders

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

table

autofontfeature

```
F disable
   F enable
   F handler
categorytonumber data table
colors
                    data table
decomposehangul
                    function
defaults
                    table
   N inter_char_half_shrink_factor
   N inter_char_half_stretch_factor
   N inter_char_hangul_penalty
   N inter_char_quarter_shrink_factor
   N inter char quarter stretch factor
   N inter char shrink factor
   N inter_char_stretch_factor
   N inter_word_stretch_factor
handlers
                    data table
hash
                    table
injectors
                    data table
installdataset
                    function
installmethod
                    function
numbertocategory data table
numbertodataset
                    data table
numbertohandler
                    data table
reset
                    function
set
                    function
splitters
                    data table
```

set (context)

contains function
create function
tolist function
tonumber function
totable function

socket (extra lua)

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

S recei	ved	sinkt	table
S recei	ved-from-mta	F close-	when-done
S refer	rences	F defaul	t
S refer	rer	F http-c	hunked
S remot	re-mta	F keep-c	pen
S reply	v-to	skip	function
S repor	ting-mta	sleep	function
S resen	rt-bcc	smtp	table
S resen	t-cc	S DOMAIN	I
S resen	t-date	N PORT	
S resen	t-from	S SERVER	1
S resen	rt-message-id	N TIMEOU	ΙΤ
S resen	t-reply-to	S ZONE	
S resen	rt-sender	F messag	e
S resen	t-to	F open	
S retry	r-after	F send	
S retur	n-path	source	function
S sende	er	sourcet	table
S serve	er	F by-ler	
S smtp-	remote-recipient	F defaul	t
S statu	is .	F http-c	
S subje	ect	F until-	
S te		tcp	function
S to		tcp6	function
S trail		tp	table
	fer-encoding	N TIMEOU	
S upgra		F connec	
S user-	agent	try	function
S vary		udp	function function
S via		udp6 url	table
S warni	retry-until	F absolu	
	nuthenticate	F build	ite
S x-mai		F build	nath
http	table	F escape	
N PORT		F parse	
N TIMEOUT	Ī	F parse_	path
S USERAGE		F unesca	
F open			
F request	t		
newtry	function		
protect	function		
select	function		

function

sink

sorters (context)

basicsorter function
comparers table

F basic

constants table

S defaultdigits

S defaultlanguage

S defaultmethod

N digitsmaximum

N digitsoffset

N ignoredoffset

N replacementoffset

definitions
firstofsplit
setlanguage
sort
splitters
data table
function
function
splitters
table

F utf

strip function
tracers data table
update function

statistics (context)

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

status (basic tex)

list function

storage (context)

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

streams (context)

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

string (basic lua)

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

toboolean	function
tocontext	function
todimen	function
tonodes	function
topattern	function
totable	function
toutf	function
tracedchar	function
tracedchars	table
unquote	function
unquoted	function
upper	function
utfcharacters	function
utfvalues	function
valid	function

structures (context)

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

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

F store

D tobesaved

pages	table	F inject
F analyze		F injectcurrentset
D collected		D internals
F is_odd		F load
N nofpages		F loadpresets
F number		F mark
F save		D pages
D tobesaved		U prefixsplitter
references	table	D productdata
F analyze		T programs
F checkedfile		T data
F checkedfileorurl		F define
F checkedprogram		F get
F checkedrealpage		F realpageofpage
F checkedurl		U referencesplitter
D collected		D referred
U componentsplitter		F referredpage
F currentmetadata		F registerfinalizer
F currentorder		F registerinitializer
D currentset		F registerpage
F define		F reportproblems
D defined		F reset
D derived		T resolvers
D delived		1 Tesucvers
F enableinteraction		F reference
F enableinteraction		F reference
F enableinteraction F enhance		F reference F section
F enableinteraction F enhance D executers		F reference F section D runners
F enableinteraction F enhance D executers F expandcurrent		F reference F section D runners F set
F enableinteraction F enhance D executers F expandcurrent F export		F reference F section D runners F set F setandgetattribute
F enableinteraction F enhance D executers F expandcurrent F export T files		F reference F section D runners F set F setandgetattribute F setcomponent
F enableinteraction F enhance D executers F expandcurrent F export T files T data		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters F from F get		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference T testrunners
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference T testrunners F inner
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference D handlers		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation F special operation
F enableinteraction F enhance D executers F expandcurrent F export T files T data F define F get F filter F filterdefault D filters F from F get F getcurrentmetadata F getcurrentprefixspec F getinnermethod F getinternalreference		F reference F section D runners F set F setandgetattribute F setcomponent F setinnermethod F setinternalreference F setnextinternal F setnextorder D specials F splitcomponent F splitprefix F splitreference T testrunners F inner F special F special operation

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

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

T userdata

table (basic lua)

function
function

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

tex (basic tex)

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

sfcode table shipout function skip table sp function sprint function systemmodes data table texcatcodes number toks table tpacatcodes number tpbcatcodes number tprint function data table trackers txtcatcodes number type function 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 function init kpse_init boolean max in open number max_print_line number max_strings number nest_size number param_size number save size number shell escape string stack size number

texio (basic tex)

write function
write_nl function

token (basic tex)

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

tokens (context)

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

table

vtop

tracers (context)

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

T context
T internals
T scratch

name function
primitive function
printerror function
showlines function
strings table

S undefined

toks function
type function

trackers (context)

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

typesetters (context)

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

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

F tostring
spacings

spacings table

F define

F handler

D mapping

T numbers

T frenchpunctuation

T characters

S name

N number

F reset

F set

F setup

xtables table

F cleanup

F construct

F create

F flush

F initialize_construct

 ${\tt F} \ {\tt initialize_reflow_height}$

F initialize_reflow_width

F next_row

F reflow_height

F reflow_width

F set_construct

F set_reflow_height

F set_reflow_width

unicode (extra lua)

ascii	table	F	len
F byte			lower
F char			match
F dump			rep
F find		F	reverse
F form	at		sub
F gfin	d	F	upper
F gmate	ch	utf8	table
F gsub		F	byte
F len		F	char
F lowe	r	F	characters
F matcl	h	F	chrlen
F rep		F	count
F reve	rse	F	dump
F sub		F	filetype
F uppe	r	F	find
grapheme	e table	F	format
F byte		F	gfind
F char		F	gmatch
F dump		F	gsub
F find		F	is_valid
F form	at	F	len
F gfin	d	F	length
F gmat	ch	F	lower
F gsub		F	magic
F len			match
F lowe			remapper
F matcl	h		rep
F rep			replacer
F reve	rse		reverse
F sub			split
F uppe			splitlines
latin1	table		sub
F byte			subtituter
F char			tocodes
F dump F find			toeight toentities
F form			
F forma			tostring totable
F gmat			upper
F gsub			ustring
1 9300		ľ	us er illig

- F utf16_to_utf8
- F utf16_to_utf8_be
- F utf16_to_utf8_le
- F utf32_to_utf8
- F utf32_to_utf8_be
- F utf32_to_utf8_le
- F utf8_to_utf16
- F utf8_to_utf16_be
- F utf8_to_utf16_le
- F utf8_to_utf8
- F values
- F xstring

url (context)

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

utilities (context)

debugger	table	N version	
F disable		parsers	table
F enable		F add_settings_	to_array
F savestats		F arguments_to_	table
F showstats		F array_to_stri	ng
F showtraceback		F csvsplitter	
formatters	table	F getparameters	
F formatcolumns		F hash_to_strin	g
F list		F iterator	
F stripzeros		F keq_to_hash	
garbagecollector	table	F listitem	
F check		F make_settings	_to_hash_pattern
N criterium		F manipulated	
B enabled		U manipulation	
lua	table	T manipulators	
B alwaysstripcode		F lowercase	
F compile		F stripperiod	
F loadedluacode		F uppercase	
F loadstripped		F mergehashes	
N nofstrippedbytes	;	F options_to_ha	sh
N nofstrippedchunk	KS.	T patterns	
B stripcode		U settings_to_	_array
T strippedchunks		U settings_to_	_hash_a
F strippedloadstri	.ng	U settings_to_	_hash_b
T suffixes		U settings_to_	_hash_c
S lua		U unittotex	
S luc		F process_strip	ped_settings
S lui		F rfc4180splitt	er
S luj		F runtime	
S luv		F settings_to_a	rray
S tma		F settings_to_a	rray_with_repeat
S tmc		F settings_to_h	ash
S tua		F settings_to_h	ash_strict
S tuc		F settings_to_h	ash_tolerant
packers	table	F settings_to_s	et
F hashed		F simple_hash_t	_
F new		F splitthousand	S
F pack		F stepper	
F simplehashed		F stripped_sett	ings_to_array
F strip		F unittotex	
F unpack		F unittoxml	

report	function		F	striplong	
sequencers	table			tabtospace	
F appendaction			Т	tracers	
F appendgroup		tak	bΊ	.es	table
F compile			F	accesstable	
F disableaction			F	definedtable	
F disablegroup			F	definetable	
F enableaction			F	encapsulate	
F enablegroup			F	insertaftervalue	
D functions			F	insertbeforevalue	
F localize			F	migratetable	
F new			F	removevalue	
F nodeprocessor		ten	np	lates	table
F prependaction			F	load	
F prependgroup			F	replace	
F removeaction			F	replacer	
F setkind			F	resolve	
F tostring					
setters	table				
F disable					
F enable					
F initialize					
F list					
F new					
F register					
F report					
F reset					
F show					
stacker	table				
F new					
storage	table				
F allocate					
F checked					
F mark					
F marked					
F setinitializer					
F sparse	+2610				
strings	table				
F collapsecrlf					
T formatters					
F add					
F new					
F newrepeater					

F nice

vf (context)

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

visualizers (context)

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

xml (context)

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

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

Т

originalload function package function parent function userdata parsedentitylpeg pihandlers table placeholders table F unknown_any_entity F unknown dec entity F unknown hex entity position function

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

function

function

function

function function

function

function

function

function

function

table

separate

serialize

setproperty settings

specialhandler

strip whitespace

sethandlersfunction

setcdata

sprint

string

strip

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

table

wrap

xmlns

zip (extra lua)

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

zlib (extra lua)

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