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

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

## global (alias: \_G)

LUATEXVERSION	number	floats	table
MP	table	font	table
_LUAVERSION	number	fontloader	table
_MAJORVERSION	number	fonts	table
_MINORVERSION	number	frozen	boolean
arg	table	functions	table
assert	function	gcinfo	function
attributes	table	getfenv	function
backends	table	getmetatable	function
bit	table	getpos	function
bit32	table	getvpos	function
blobs	table	global	table
boolean	table	graphics	table
buffers	table	gzip	table
builders	table	img	table
caches	table	inspect	function
callback	table	interactions	table
callbacks	table	interfaces	table
catcodes	table	io	table
characters	table	ipairs	function
chemistry	table	jit	table
collectgarbage	function	job	table
commands	table	lang	table
containers	table	languages	table
context	function	layouts	table
converters	table	lfs	table
coroutine	table	libraries	table
ctxrunner	table	lmx	table
debug	table	load	function
dimen	function	loadfile	function
dir	table	loadstring	function
directives	table	logs	table
document	table	lpdf	table
documentdata	table	lpeg	table
dofile	function	ltn12	table
environment	table	lua	table
epdf	table	luatex	table
error	function	lxml	table
experiments	table	math	table
figures	table	mathematics	table
file	table	mbox	table

md5 table table metapost mime table module function moduledata table modules table table am mplib table newproxy function next function noads table node table nodes table number table table objects optionalrequire function table package table table pagebuilders pairs function parametersets table pcall function pdf table table pdfscanner physics table print function profiler table **publications** table rawequal function function rawget rawlen function function rawset table regimes require function resolvers table sandbox table scripts table select function set table setfenv function function setinspector setmetatable function socket table

sorters

table

statistics table table status storage table table streams string table structures table swiglib function table table tex table texconfig table texio table thirddata table toboolean function tokens table function tonumber tostrina function tracers table trackers table function type typesetters table unicode table unpack function url table table userdata utf table utilities table νf table visualizers table xml table xpcall function zip table zlib table

## attributes (context)

colorintents table	[ montions	
	F mpoptions	
N attribute	U none	
D data	F popset	
F enable	F processcoloro	omponents
F handler	F pushset	
F register	F register	
D registered	D registered	
colors table	F registerspoto	olor
N attribute	F rgb	
F cmyk	F rgbtocmyk	
F cmyktogray	F rgbtogray	
F cmyktorgb	F rgbtohsv	
F colorcomponents	N selector	
B couple	F setlist	
D data	F setmodel	
N default	F setpagecolorm	odel
F defineintermediatecolor	D sets	
F definemultitonecolor	F spec	
F defineprocesscolor	F spot	
F definesimplegray	F spotcolorname	
F definespotcolor	F spotcolorpare	
F definetransparency	F spotcolorvalu	e
F enable	B supported	
F filter	F transparencyc	omponents
F forcedmodel	B triggering	
F forcesupport	F usecolors	
F formatcolor	F value	
F formatgray	D values	
F getpagecolormodel	B weightgray	
F gray	define	function
F graytohsv	effects	table
F handler	N attribute	
F hsvtogray	D data	
F hsvtorgb	F enable	
F iccprofile	F handler	
F isblack	F register	
N main	D registered	
S model	D values	
D models	handlers	table
F mpcolor	list	data table
F mpnamedcolor	names	data table

negatives table N attribute D data F enable F handler F register D registered F set numbers data table ofnode function private function public function restore function save function function showcurrent states table F disabletriggering F enabletriggering F finalize F initialize F process F selective F stacked F stacker function system transparencies table N attribute D data F enable F forcesupport F handler U none F register D registered B supported B triggering F value D values unsetvalue number viewerlayers table N attribute F cleanup

> D data F define

F definedlayoutcomponent F enable F forcesupport F handler B hasorder D listwise F register D registered F resolve\_begin F resolve end F resolve reset F resolve step D scopes F setfeatures F start F stop B supported D values

#### backends (context)

F getpos

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

F annotation

- F attachfile
- F changestackedlayer
- F cmykcolor
- F comment
- F destination
- F effect
- F graycolor
- F injectbitmap
- F insertmovie
- F insertsound
- F insertswf
- F insertu3d
- F knockout
- F negative
- F overprint
- F positive
- F reference
- 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
bnot
         function
bor
         function
         function
bswap
bxor
         function
lshift
         function
rol
         function
         function
ror
rshift
         function
        function
tobit
         function
tohex
```

#### bit32 (basic lua)

```
arshift function
band
        function
bnot
       function
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
tonodes	function
tovpack	function
write	function

## boolean (context)

tocontext function
tonumber function

### buffers (context)

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

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function
undent function

#### builders (context)

#### kernel table profiling table F hyphenation F add F kerning F distance F ligaturing F fixedprofile F mlist\_to\_hlist F aet T originals F list F hyphenate F pagehandler F kerning F profilebox F ligaturing F set paragraphs table vspacing table T constructors F analyze N attribute D categories F define F collapsevbox F disable T data F enable D map F handler D skip T methods D snapmethods F basic F definesnapmethod F default B fixed F hpack F pagehandler F oneline F resetprevdepth D names F setmap D numbers F setskip F set F snapbox F start F tocategories F stop F tocategory T expansion F vboxhandler 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

### caches (context)

ask	boolean
base	string
collapsecontent	function
configfiles	function
contentstate	function
defaults	table
define	function
direct	boolean
force	boolean
getfirstreadablefile	function
<pre>getfirstreadablefile_TEST_ME_FIRST</pre>	function
getreadablepaths	function
getwritablepath	function
hashed	function
is_writable	function
loadcontent	function
loaddata	function
more	string
relocate	boolean
savecontent	function
savedata	function
setfirstwritablefile	function
setluanames	function
tree	string
treehash	function
usedpaths	function

## callback (basic tex)

find function
list function

register overloaded function

### callbacks (context)

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

### catcodes (context)

names data table
numbers data table
register function

## characters (context)

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

S	Z٧

function lower math table mathpairs data table mirrors table otfscripts data table data table ranges function registerentities remap hangul syllabe function setactivecatcodes function setlettercatcodes function shape function function shaped shash data table shchars data table data table shcodes function showstring **specialchars** data table specials data table

T char

splits

subscripts
superscripts
synonyms
tex
table
table
table

table

D accentmapping

D commandmapping

 ${\sf F} \ {\sf defineaccents}$ 

F safechar F toutf

F toutfpattern

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

#### chemistry (context)

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

## containers (context)

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

### converters (context)

Α	function	lchexnumbers	function
A:es	function	leapyear	function
AK	function	lower	function
Alphabetic	function	max	function
Alphabetic:es	function	maxchrs	function
Character	function	minute	function
Characters	function	month	function
I	function	nicenumber	function
KA	function	nofdays	function
KR	function	number	function
R	function	numbers	function
RK	function	octnumber	function
Romannumerals	function	octstringtonumber	function
Sloviannumerals	function	ordinal	function
Spanishnumerals	function	r	function
Word	function	rawcharacter	function
Words	function	romannumerals	function
a	function	second	function
a:es	function	sequences	data table
abjadnodotnumerals	function	sloviannumerals	function
abjadnumerals	function	spanishnumerals	function
alphabetic	function	textime	function
alphabetic:es	function	toabjad	function
character	function	tochinese	function
characters	function	toroman	function
chineseallnumerals	function	uchexnumber	function
chinesecapnumerals	function	uchexnumbers	function
chinesenumerals	function	upper	function
chr	function	verbose	table
chrs	function	D data	
cn	function	F translate	
cn-a	function	weekday	function
cn-c	function	word	function
convert	function	words	function
decimals	function	year	function
define	function		
hexstringtonumber	function		
hour	function		
i	function		
isleapyear	function		
lchexnumber	function		

## coroutine (basic lua)

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

### ctxrunner (context)

load function
preparedfile function
prepfiles data table
resolve function

## debug (basic lua)

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

## dir (context)

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

#### directives (context)

data data table default function disable function done table enable function list function string name register function report function reset 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 setcommandline function setdefaultargument function setenvironments function setfilename function setfilenames function setmodes function setmodules function variables data table

#### environment (context)

function argument data table arguments data table basicengines currentrun number default texmfcnf strina definefilefallback function definefilesvnonvm function data table engineflags filename string files table filesvnonvms data table forcedruns number getargument function homedir strina initex boolean function *initializearguments* initializefilenames function inputfilebarename string inputfilename string inputfilesuffix string **jobfilename** string iobfilesuffix string kindofrun number 1 oadexamodes function loadluafile function luafile function luafilechunk function maxnofruns number data table originalarguments outputfilename string ownbin string ownmain string ownname string ownpath string boolean prerollrun data table rawarguments reconstructcommandline function relativepath function setargument function **splitarguments** function suffix string

texfile
texmfos
texos
texroot
truefilename
useluamodule
usemodules
validengines

function string string string function function function data table

#### epdf (extra tex)

Array function
Attribute function
AttributeOwner\_Type function
Attribute\_Type function
Dict function
Object function
PDFRectangle function
StructElement\_Type function

openMemStream
type function

#### experiments (context)

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

#### figures (context)

applvratio badname bases bitmapimage boxnumber cachepaths check checkers converters current defaultdepth defaultheight defaultsearch defaultwidth done dummy existers exists formats found get getrealpage auess hash identifiers identify images F boxes

F check
F checksize
F clone
F copy
F immediatewrite
F keys
F new

F copy
F immediatewr:
F keys
F new
F node
F ofindex
F package
F print
F scan
F serialize

function function data table function number data table function data table data table function number number hool ean number function function data table function data table data table function function function function data table function

table

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cable

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

F totable

F types

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

## file (basic lua)

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

## floats (context)

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

#### font (basic tex)

current function define function each function fonts table frozen function

getfont overloaded function

id function function max nextid function read tfm function read\_vf function

setfont overloaded function

#### fontloader (extra tex)

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

to\_table function
totable function

# fonts (context)

analyzers	table	F	checkenabled	
T features			clonevector	
N blwf			define	
N fin2			definitions	
N fin3			found	
N fina			prepare	
N half			process	
N init			registermain	
N isol			report	
N med2			reset	
N medi		Т	vectors	
N pref	со	ns	tructors	table
N pstf		F	addcoreunicodes	
N rphf		F	aftercopyingchara	cters
D initializers		F	applymanipulators	
D methods		F	assignmathparamet	ers
F setstate		В	autocleanup	
T states		F	beforecopyingchar	acters
N blwf		D	cache	
N fin2		В	cacheintex	
N fin3		F	calculatescale	
N fina		F	checkedfeatures	
N half		F	checkedfilename	
N init		F	checkvirtualids	
N isol		F	cleanuptable	
N mark		F	collectprocessors	
N med2		F	currentfonthasfea	ture
N medi		D	designsizes	
N pref		D	dontembed	
N pstf		F	enhanceparameters	
N rest		N	factor	
N rphf		F	finalize	
B useunicodemarks		F	getfeatureaction	
checkers	table		hashfeatures	
F getmissing			hashinstance	
F missing		Т	hashmethods	
F placeholder			Fnormal	
cid	table	_	F virtual	
F getmap			initializefeature	S
F loadfile	+-h1-	Т	keys	
collections	table		T character	

S depth	S space_stretch
S height	S spaceshrink
S italic	S spacestretch
S width	S x_height
T description	S units
T boundingbox	S vfactor
S depth	S xheight
S height	T properties
S width	S autoitalicamount
T parameters	T cidinfo
S ascender	S embedding
S descender	S encodingbytes
S designsize	S filename
T expansion	S finalized
S auto	S fontname
S shrink	S format
S step	S fullname
S stretch	S hasitalics
S extendfactor	S hasmath
S factor	S mathitalics
S hfactor	S mode
S mathsize	S name
T protrusion	S noglyphnames
S auto	S nostackmath
S quad	S psname
S scaledpoints	S textitalics
S scriptpercentage	S virtualized
S scriptscriptpercentage	D loadedfonts
S size	S namemode
S slantfactor	F newfeatures
S slantperpoint	F newhandler
T spacing	N noffontsloaded
S extra	N nofsharedfonts
S shrink	N nofsharedhashes
S stretch	N nofsharedvectors
S width	N privateoffset
T synonyms	F readanddefine
S em	F registerfeature
S ex	B resolvevirtualtoo
S extra_space	F scale
S extraspace	F scaled
S slant	F setfactor
S space	F setname
S space_shrink	B sharefonts

F trytosharefont N Dzhecvrillic N version N Ecyrillic current function N Edot currentid function N Efcyrillic definers table N Elcyrillic F addlookup N Emcyrillic F analyze N Encyrillic F applypostprocessors N Ercvrillic F checkedmode N Ereversedcyrillic F checkedscript N Escyrillic F current N Fitacvrillic N Gcedilla S defaultlookup F define N Gdot F getspecification N Gecyrillic F internal N Gheupturncyrillic F loadfont N Gjecyrillic F makespecification N Hardsigncyrillic T methods N IAcyrillic F install N IUcyrillic D variants N Icyrillic F read N Idot F register N Iecvrillic F registered N Iicyrillic F registersplit N Iishortcyrillic F resetnullfont N Iocvrillic F resolve N Izhitsacyrillic T resolvers N Jecyrillic F file N Kacyrillic F name N Kcedilla F spec N Khacyrillic definetypeface function N Kjecyrillic encodinas table N Lcedilla T agl N Ljecyrillic N Ncedilla D ctxcodes N Njecyrillic D extras D names N Ocyrillic N Odblacute T synonyms N Acyrillic N Ohm N Becyrillic N Pecyrillic N Cdot N Rcedilla N Checyrillic N Shacyrillic N Decyrillic N Shchacyrillic N Djecyrillic N Softsigncyrillic

N Dzecyrillic

N Tcedilla

N	Tecyrillic	N	dalethatafpatahhebrew
N	Tsecyrillic	N	dalethatafsegol
N	Tshecyrillic	N	${\tt dalethatafsegolhebrew}$
N	Ucyrillic	N	dalethebrew
N	Udblacute	N	dalethiriq
N	Ushortcyrillic	N	dalethiriqhebrew
N	Vecyrillic	N	daletholam
N	Yatcyrillic	N	daletholamhebrew
N	Yericyrillic	N	daletpatah
N	Yicyrillic	N	daletpatahhebrew
N	Zdot	N	daletqamats
N	Zecyrillic	N	daletqamatshebrew
N	Zhecyrillic	N	daletqubuts
N	acutecmb	N	daletqubutshebrew
N	acyrillic	N	daletsegol
N	afii00208	N	daletsegolhebrew
N	afii08941	N	daletsheva
N	afii57694	N	daletshevahebrew
N	afii57695	N	dalettsere
N	afii57700	N	dammaarabic
N	afii57705	N	dammatanaltonearabic
N	afii57723	N	dargahebrew
N	alef	N	dbllowline
N	alefmaksurainitialarabic	N	decimalseparatorarabic
N	alefmaksuramedialarabic	N	dialytikatonos
N	approximatelyequal	N	dotbelowcmb
N	asteriskaltonearabic	N	doubleyodpatah
N	ayin	N	doubleyodpatahhebrew
N	bet	N	edot
N	betdagesh	N	eightarabic
N	blackdownpointingtriangle	N	eighthnotebeamed
N	blackleftpointingpointer	N	etnahtafoukhhebrew
N	blackrectangle	N	etnahtafoukhlefthebrew
N	blackrightpointingpointer	N	etnahtahebrew
N	blacksmilingface	N	fathaarabic
N	blacksquare	N	finalkaf
N	blackuppointingtriangle	N	finalkafdagesh
N	bulletinverse	N	finalkafhebrew
N	cdot	N	finalkafqamats
N	compass	N	finalkafqamatshebrew
N	dagesh	N	finalkafsheva
N	dalet	N	finalmem
N	daletdagesh	N	finalnun
N	dalethatafpatah	N	finalpe

N finaltsadi N hirial4 N fivearabic N hirig21 N forall N hiriq2d N hirighebrew N fourarabic N gcedilla N hirignarrowhebrew N gdot N hirigguarterhebrew N aimel N holam N holam19 N gimeldagesh N gravecmb N holam26 N haaltonearabic N holam32 N hamzaarabic N holamhebrew N hamzadammaarabic N holamnarrowhebrew N hamzadammatanarabic N holamquarterhebrew N hamzafathaarabic N ilde N hamzafathatanarabic N integralbottom N hamzalowarabic N integraltop N hamzalowkasraarabic N kaf N hamzalowkasratanarabic N kafdagesh N kashidaautoarabic N hatafpatah N hatafpatah16 N kashidaautonosidebearingarabic N hatafpatah23 N kcedilla N hatafpatah2f N lamed N hatafpatahhebrew N lameddagesh N hatafpatahnarrowhebrew N lamedhebrew N hatafpatahquarterhebrew N lamedholam N hatafqamats N lamedholamdagesh N lamedholamdageshhebrew N hatafgamats1b N hatafqamats28 N laminitialarabic N lammeemjeeminitialarabic N hatafqamats34 N hatafgamatshebrew N lcedilla N hatafgamatsnarrowhebrew N logicalnotreversed N hatafqamatsquarterhebrew N mahapakhhebrew N hatafsegol N mem N hatafsegol17 N memdagesh N hatafsegol24 N merkhahebrew N hatafsegol30 N merkhakefulahebrew N hatafsegolhebrew N middot N hatafsegolnarrowhebrew N munahhebrew N hatafsegolquarterhebrew N nbspace N he N ncedilla N hedagesh N newsheqelsign N hehfinalalttwoarabic N ninearabic

N noonhehinitialarabic

N nun

N het

N hiriq

N	nundagesh	N	qofqubutshebrew
N	odblacute	N	qofsegol
N	onearabic	N	qofsegolhebrew
N	overscore	N	qofsheva
N	patah	N	qofshevahebrew
N	patah11	N	qoftsere
N	patahld	N	qubuts
N	patah2a	N	qubuts18
N	patahhebrew	N	qubuts25
N	patahnarrowhebrew	N	qubuts31
N	patahquarterhebrew	N	qubutshebrew
N	pe	N	qubutsnarrowhebrew
N	pedagesh	N	qubutsquarterhebrew
N	qamats	N	quoteleftreversed
N	qamats10	N	rafe
N	qamatsla	N	rcedilla
N	qamats1c	N	reharabic
N	qamats27	N	resh
N	qamats29	N	reshhatafpatah
N	qamats33	N	reshhatafpatahhebrew
N	qamatsde	N	reshhatafsegol
N	qamatshebrew	N	reshhatafsegolhebrew
N	qamatsnarrowhebrew	N	reshhebrew
N	qamatsqatanhebrew	N	reshhiriq
N	qamatsqatannarrowhebrew	N	reshhiriqhebrew
N	qamatsqatanquarterhebrew	N	reshholam
N	qamatsqatanwidehebrew	N	reshholamhebrew
N	qamatsquarterhebrew	N	reshpatah
N	qof	N	reshpatahhebrew
N	qofdagesh	N	reshqamats
N	qofhatafpatah	N	reshqamatshebrew
N	qofhatafpatahhebrew	N	reshqubuts
N	qofhatafsegol	N	reshqubutshebrew
N	qofhatafsegolhebrew	N	reshsegol
N	qofhebrew	N	reshsegolhebrew
N	qofhiriq	N	reshsheva
N	qofhiriqhebrew	N	reshshevahebrew
N	qofholam		reshtsere
	qofholamhebrew		reviahebrew
	qofpatah		samekh
	qofpatahhebrew		samekhdagesh
	qofqamats		segol
	qofqamatshebrew	N	segol13
N	qofqubuts	N	segol1f

	segol2c	N tserequarte	erhebrew
	segolhebrew	N twoarabic	
	segolnarrowhebrew	N udblacute	
	segolquarterhebrew	N vav	
	sevenarabic	N vavdagesh	
	sfthyphen	N vavdagesh65	i
	shaddaarabic	N vavholam	
	sheqel	N yerahbenyor	ohebrew
	sheva	N yod	
	sheva115	N yoddagesh	
	sheva15	N zayin	
	sheva22	N zayindagesh	1
	sheva2e	N zdot	
	shevahebrew	N zeroarabic	
N	shevanarrowhebrew	D unicodes	
N	shevaquarterhebrew	D cache	
N	shin	F is_known	
N	shindagesh	D known	
N	shindageshshindot	F load	
N	shindageshsindot	F make_unicode_v	ector
N	shinshindot	D math	
N	shinsindot	N version	
	siluqhebrew	enhanceid	function
N	sixarabic	expansions	data table
N	tav	formats	data table
N	And the same of th	_	
	tavdages	getalternate	function
N	tavdagesh	getdiscexpansio	function <b>n</b> function
N	tavdagesh tcedilla	getdiscexpansio getkern	function n function function
N	tavdagesh	getdiscexpansio getkern getmultiple	function n function function function
N N	tavdagesh tcedilla	getdiscexpansion getkern getmultiple getsubstitution	function n function function function function
N N N	tavdagesh tcedilla tchehinitialarabic tet tetdagesh	getdiscexpansio getkern getmultiple	function n function function function
N N N N	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew	getdiscexpansion getkern getmultiple getsubstitution getters T alternate	function n function function function function
N N N N	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic	getdiscexpansion getkern getmultiple getsubstitution getters T alternate F opentype	function n function function function function
N N N N N	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic threearabic	getdiscexpansion getkern getmultiple getsubstitution getters T alternate F opentype T kern	function n function function function function
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N N N N N N N N N N N N N N N N N N N	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic threearabic tildecmb tipehahebrew tsadi tsadidagesh tsere	getdiscexpansion getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution	function n function function function function
N N N N N N N N N N N N N N N N N N N	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic threearabic tildecmb tipehahebrew tsadi tsadidagesh tsere tsere12	getdiscexpansion getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution F opentype	function n function function function function tunction table
	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic threearabic tildecmb tipehahebrew tsadi tsadidagesh tsere tsere12 tserele	getdiscexpansion getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution F opentype goodies	function n function function function function
	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic threearabic tildecmb tipehahebrew tsadi tsadidagesh tsere tsere12 tserele tsere2b	getdiscexpansion getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution F opentype goodies D colorschemes	function n function function function function tunction table
	tavdagesh tcedilla tchehinitialarabic tet tetdagesh tevirhebrew thousandsseparatorarabic threearabic tildecmb tipehahebrew tsadi tsadidagesh tsere tsere12 tserele tsere2b tserehebrew	getdiscexpansion getkern getmultiple getsubstitution getters  T alternate F opentype T kern F opentype F typel T multiple F opentype T substitution F opentype goodies D colorschemes D data	function n function function function function tunction table
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D filenames	F alternate
F getcompositions	F chainposition
T list	F chainsubstitution
F compositions	F kern
F designsizes	F ligature
F expansions	F multiple
F featureset	F pair
F filenames	F substitution
F files	F register
F mathematics	S stepkey
F protrusions	F dataset
F solutions	S defaultbasealternate
F treatments	S defaultnodealternate
F typefaces	D enhancers
F load	D features
F prepare_features	F getalternate
F register	F getgsub
F registerpostprocessor	F getkern
F report	F getmultiple
handlers table	F getsubstitution
T afm	T handlers
B addkerns	F devanagari_remove_joiners
B addligatures	F devanagari_reorder_matras
B addtexligatures	F devanagari_reorder_pre_base_reordering_consonants
B autoprefixed	F devanagari_reorder_reph
D cache	F gpos_context
D features	F gpos_contextchain
F getkern	F gpos_cursive
T helpdata	F gpos_mark2base
D bothkerned	F gpos_mark2ligature
D leftkerned	F gpos_mark2mark
D ligatures	F gpos_pair
D rightkerned	F gpos_single
D texligatures	F gsub_alternate
F load	F gsub_context
F setfeatures	F gsub_contextchain
B syncspace	F gsub_ligature
N version	F gsub_multiple
T otf	F gsub_reversecontextchain
F addfeature	F gsub_single
D cache	F trigger_space_kerns
F collectlookups	F load
T coverup	F packoutlines
T actions	T readers

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F addunicodetable	F readinteger	
D cache	F readinteger	
F cff	F readinteger	4
F checkhash	F readstring	
F cmap	F readtag	
F compact	F setposition	
F expand	F size	
F extend	F skip	
F gdef	F skiplong	
F getinfo	F skipshort	
F glyf	N tableversion	
F gpos	F unpack	
F gsub	N version	
F head	F scriptandlangu	age
F hhea	F setdynamics	
F hmtx	F setfeatures	
F kern	T statistics	
F loadfont	D usedfeatures	
F loadshapes	T tables	
F loca	D baselines	
F math	D features	
F maxp	D featuretypes	
F name	D languages	
F os/2	D scripts	
F pack	F unpackoutlines	
F post	N version	
F registerextender	T pfb	
F rehash	T tfm	
T streamreader	D features	
F close	N maxnestingdept	h
F getposition	N maxnestingsize	
F look	F setfeatures	
F open	N version	
F read2dot14	T vf	
F readbyte	T combinations	
F readbytes	F combine	
F readcardinal	T combiner	
F readcardinal1	D commands	
F readcardinal2	D helpers	
F readcardinal3	D math	
F readcardinal4	D predefined	
F readchar	N version	
F readfixed4	D whatever	
F readinteger	hashes	table

D characters		F descript	ions
D csnames		F glyphs	
D descriptions		loggers	table
D dynamics		F add_plac	eholders
D emwidths		D category	_to_placeholder
D exheights		F format	
D extensibles		F onetimem	essage
D features		F register	
D identifiers		F reportde	finedfonts
D italics		F reportus	edfeatures
D lastmathids		mappings	table
D marks		F addtouni	code
D modes		F fromunic	ode16
D originals		F loadfile	
D parameters		F loadline	
T processes		F makename	parser
D properties		D overload	S
D quads		F reset	
D resources		F tounicod	е
T setdynamics		F tounicod	e16
T shapes		F tounicod	e16sequence
D spaces		metapost	table
D spacings		F bounding	box
D unicodes		F boxtomp	
D variants		F draw	
D xheights		F fill	
helpers	table	F maxbound	S
F addprivate		F output	
F dimenfactor		F paths	
F expandglyph		F widthlin	e
F fontpatternhassi	ze	F zeroline	
F getdigitwidth		mp	table
F getparameters		D cache	
F getprivatenode		B inline	
F hasprivate		N version	
F indextoslot		names	data table
F name		nulldata	data table
F nametoslot		protrusions	data table
F setdigitwidth		readers	table
F splitfontpattern		F afm	
F tochar		F check_lu	a
infofont	function	F check_tf	m
iterators	table	F lua	
F characters		F ofm	

F opentype		tracers	table
F otf		treatments	table
F pfb		F applyfixes	tabte
·		D data	
D sequence F tfm		S filename	
F ttc		F ignoredfile	
F ttf reserveid	function	F report	
select	table	F trace <b>typefaces</b>	data table
T data	table	cyperaces	uata table
F define			
F definetypeface			
T fallbacks			
F filterinput			
T methods			
F default			
F features			
F file			
F goodies			
F name			
F selectfont			
F simplefonts			
F spec			
F style			
F registerfallback			
F searchfiles			
setdiscexpansion	function		
specifiers	table		
D contextmerged			
F contextnumber			
D contextnumbers			
D contextsetups			
F contexttostring			
F definecontext			
F mergecontext			
F presetcontext			
F registercontext			
F showcontext			
F splitcontext			
D synonyms			
D variants			
symbols	table		
F uselibrary			
tables	table		

# 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
renderings
              data table
soundclips data table
```

# interfaces (context)

addvalidkeys	function	F MPr
cachedsetups	data table	F MPrest
cachesetup	function	F MPrs
checkedspecification	function	F MPul
complete	data table	F MPur
constants	data table	F MPw
corenamespaces	data table	F MPx
definecommand	function	F MPxy
defined	function	F MPxywhd
doifelsemessage	function	F MPy
elements	data table	F Romannumerals
formats	data table	F abjadnodotnumerals
getcheckedparameters	function	F abjadnumerals
getmessage	function	F addcounter
hashedsetups	data table	F addfeature
implement	function	F addgrapheme
interfacedcommand	function	F addlinklistelement
interfaces	table	F addreplacements
invalidkey	function	F addtocolumnset
message	function	F addtojavascriptpreamble
namespaces	table	F addtolist
F define		F addvalidinterfacekeys
F list		F allinputpaths
registernamespace	function	F alphabetic
scanners	table	F analysefloatmethod
F Alphabetic		F analyzeitemgroup
F Character		F analyzelist
F Characters		F analyzeregister
F MPLIBconvertoutlinetex	t	F applytobox
F MPc		F applytofirstcharacter
F MPd		F assignbuffer
F MPh		F autofinishstructurelevels
F MPll		F autonextspace
F MPlr		F autonextstructurelevel
F MPls		F autosetups
F MPn		F autostarttext
F MPp		F autostoptext
F MPpardata		F averagecharwidth
F MPplus		F bitmapimage
F MPpos		F blockcolumnset
F MPposset		F boxtostring

F bposcolumn F btxremapauthor F bposcolumnregistered F btxsavedataset F btxabbreviatedjournal F btxsavejournallist F btxaddentry F btxsetdataset F btxaddjournal F btxsetentry F btxauthor F btxsetregister F btxauthorfield F btxsetspecification F btxauthortoregister F btxsingularorplural F btxcollectlistentries F btxtoregister F htycurrentfirstnames F btxusedataset F btxcurrentinitials F btxuservariable F btxcurrentiuniors F buildtextaccent F btxcurrentsurnames F character F btxcurrentvons F characters F btxdetail F chardescription F btxdirect F checkcolumnset F btxdoif F checkcountersetup F btxdoifelse F checkedconversion F btxdoifelsecombiinlist F checkedpagefloat F btxdoifelsesameasprevious F checkinjector F btxdoifelseuservariable F checkinterfacechain F btxdoifnot F checktwopassdata F btxexpandedjournal F chemicalcomponent F btxfetchlistentries F chinesenumerals F btxfield F cleanfontname F btxfieldname F cleanupbox F cleanuplayers F btxfieldtype F btxfirstofrange F clonefield F btxflush F collectfloat F btxflushlistcombi F collecthelp F btxflushlistentry F colorcomponents F htxflushmarked F columnsetcurrentcolumn F btxflushpages F columnsetgoto F btxfoundname F columnsetnoto F btxfoundtype F concatcommalist F btxhandlecite F consultfloat F btxhandlenocite F convertbtxdatasettoxml F btxlastofrange F converteddimen F btxlistvariant F convertmpstopdf F btxloaddefinitionfile F copyposition F btxloadjournallist F cos F btxloadreplacementfile F cosd F btxoneorrange F countervalue F btxpreparelistentries F counttwopassdata

F currentcomponent F definemultitonecolorglobal F currentdate F definenamespace F currentdesignsize F definenote F defineparallel F currentenvironment F currentposthyphenchar F defineparbuilder F currentprehyphenchar F defineprocesscolordummy F currentproduct F defineprocesscolorglobal F defineprocesscolorlocal F currentproject F currentreferenceorder F defineprogram F currentsectiontolist F definereference F datasetvariable F defineregister F davname F definerule F decimals F definesectionlevels F decrementcounter F defineselectfont F decrementedcounter F defineshift F decrementsubcounter F definesnapmethod F defineaccents F definespotcolorglobal F definestructureblock E defineattribute F definebreakpoint F definestructureset F definebreakpoints F definetransparency F definecharacterspacing F definetwopasslist F definechemical F definetypeface F definecolumnset F defineviewerlayer F defineconversion F depthnumber F definecounter F digits normal F definedlayoutcomponent F digits reverse F definefallbackfamily F disableautofontscript F definefield F disabledirectives F definefieldset F disableexperiments F definefilefallback F disablejobsave F definefilesynonym F disableparbuilder F definefont one F disableregime F definefont two F disablespellchecking F definefontfamily F disablestatetriggering F definefontfeature F disablestream F definefontsolution F disabletrackers F definehyphenationfeatures F discardfromlist F defineinsertion F doanalyzeframedbox F defineintermediatecolor F doifcommon F definelabels F doifcounter F definelanguage F doifelseblack F definelinkedlist F doifelsebuffer F definemarking F doifelsecharinfont F definemetafont F doifelsecommon

F doifelsecontinuewithfile F doifelseutfmathbelow F doifelseconverter F doifelseutfmathfiller F doifelsecounter F doifelsevisualizer F doifelsecurrentfonthasfeature F doiffieldsetelse F doifelsedrawingblack F doifinset F doifelsefieldcategory F doifnotcommon F doifelsefiledefined F doifnotcounter F doifelsefileexist F doifnotecontent F doifelsefirstchar F doifnoteonsamepageasprevious F doifelsefontpresent F doifnotinset F doifelseinelement F doifnotsame F doifelseinputfile F doifposition F doifelseinset F doifsame F doifelseintwopassdata F doprocesstypescriptfile F doifelseleapvear F doreshapeframedbox F doifelselisthasentry F dosaveposition F doifelselisthasnumber F dosavepositionplus F doifelselisthaspage F dosavepositionwhd F doifelselisthastitle F dosetposition F doifelselocfile F dosetpositionbox F doifelsemarking F dosetpositionplus F doifelsemessage F dosetpositionstrut F doifelseobject F dosetpositionwhd F doifelseobjectreference F dostarttextfile F doifelseolderversion F dostoptextfile F doifelseoverlapping F elapsedtime F enableasciimode F doifelseparallel F doifelseparentfile F enableautofences F doifelsepathexist F enableautofontscript F doifelseposition F enablebackgroundalign F doifelsepositiononpage F enablebackgroundboxes F doifelsepositionsonsamepage F enablecolor F doifelsepositionsonthispage F enablecolorintents F enablecrlf F doifelsepositionsused F enabledirectives F doifelserangeonpage F doifelsereference F enableexperiments F doifelserighttoleftinbox F enablefontcolorschemes F doifelsesame F enableinteraction F doifelsestackedfloats F enableparbuilder F doifelsesynonymshown F enableregime F doifelsesynonymused F enablerules F doifelseurldefined F enableshifts E doifelseutfmathabove F enablespellchecking F doifelseutfmathaccent F enablestatetriggering

F enablestream F filterdefaultreference F enabletrackers F filterreference F enabletransparency F finalizebox F enableutf F findtwopassdata F enhancelinkedlist F finishcolumnsetflush F enhancelist F finishexport F enhancereference F firstcountervalue F enhanceregister F firstinset F eposcolumn F firstsubcountervalue F eposcolumnregistered F flushcolumnsetareas F erasebuffer F flushcolumnsetcolumn F execute F flushcolumnsetrest F expandcurrentreference F flushfloat F exportformdata F flushlabeledfloat F exportreferences F flushnotes F extendregister F flushpageinjectionsafter F extensiblecode F flushpageinjectionsbefore F fakeword F flushpostponedblocks F featureattribute F flushpostponednotes F featurelist F flushstream F feedback F flushstreamcopy F fetchallmarks F fontchar F fetchmultipar F fontcharbyindex F fetchmultishape F fontcollectionclone F fetchonemark F fontcollectiondefine F fetchposboxes F fontcollectionprepare F fetchtwomarks F fontcollectionregister F figure check F fontcollectionreport F fontcollectionreset F figure done F figure dummy F fontlookupgetkey F figure\_identify F fontlookupgetkeyofindex F fontlookupinitialize F figure include F figure mergegoodies F fontlookupnoffound F figure pop F forceendjob F figure\_push F forcequitjob F figure reset F formatcolor F figure\_scale F formatgray F figurefilename F from F figurefilepath F frule F figurefiletype F aetbidimode F figurerequest F getbodyfontsizes F figuresetdimensions F getbuffer F figurestatus F getbufferctxlua F figureused F getbuffermkvi

F getcheckedinterfaceparameters F getvisual F getcurrentprefixspec F hboxtovbox F getcurrentreferencemetadata F helpaction F getdefaultfieldvalue F helpreference F getdocumentargument F hexstringtonumber F getdocumentfilename F horizontalcode F getelementtag F getfieldcategory F hyphenatedlist F getfile F hyphenatedurl F getfirstcharacter F immediatemessage F getfirsttwopassdata F incrementcounter F getfloatvariable F incrementedcounter F getfullstructurenumber F incrementsubcounter F getinternalcachedlistreference F initializeiob F getinternallistreference F initializemathdomain F getlasttwopassdata F initializemathitalics F getmarking F initializestream F initializetexdirectives F getmathdomain F getmathitalics F initializetextrackers F getmessage F injectcurrentreference F getmpextensions F injectcurrentreferencehtdp F getmprandomnumber F injectreference F getnaturaldimensions F inlinechemical F getnotestate F inputfilebarename F getobjectdimensions F inputfilename F getobjectreference F inputfilerealsuffix F inputfilesuffix F getobjectreferencepage F getprivatechar F insertattachment F insertcomment F getprogram F getrandomdimen F insertfield F getrandomfloat F insertionnumber F getrandomnumber F insertrenderingwindow F getrandomseed F installedlanguages F getreadfilename F installtexdirective F getsomefullstructurenumber F installtextracker F getsomestructurenumber F jobfilename F getspecificstructuretitle F jobfilesuffix F getstructurelevel F languagenumber F lastcountervalue F getstructurenumber F getsubstring F lastsubcountervalue F gettexbuffer F lchexnumber F gettwopassdata F lchexnumbers F gettwopassdatalist F leapyear

F linenumbersstageone

F geturl

F linenumbersstagetwo F markvisual fonts F listgroupindex F mathfraction F listlabel F mathrenderset F listlocation F message F listnamespaces F metapostescaped F listprefixednumber F metapostformatted F listprefixedpage F metapostgraphformat F listrealpage F minute F listsize F mixcleanup F listtitle F mixfinalize F mixflushlist F listuserdata F mixflushrest F loadexamodes F loadfontgoodies F mixgetsplit F loadluamodule F mixsetsplit F loadmapfile F mixstate F loadmapline F molecule F loadspellchecklist F month F monthmnem F loadtypescriptfile F loadvisualizer F monthname F locatefilepath F mpcolor F locfilename F mpflushliteral F lower F mpflushreset F lpdf\_adddocumentcolorspace F mpgettext F lpdf adddocumentextqstate F mpgraphic F lpdf adddocumentpattern F mpoptions F lpdf adddocumentshade F mprunset F lpdf\_addtocatalog F mpruntab F lpdf addtoinfo F mprunvar F lpdf addtonames F mpsetclippath F lpdf\_addtopageattributes F mpsetoutercolor F lpdf\_addtopageresources F mpsetsxsy F lpdf addtopagesattributes F mpsettext F lpdf collectedresources F mptexget F lpdf color F mptexreset F luascript F mptexset F luathread F mptexsetfrombuffer F lxmlid F namedstructureuservariable F namedstructurevariable F markcontent F markingnumber F naturalwd F markingtitle F nbfs F markinjector F nextcountervalue F markregionbox F nextparallel

F markregionboxcorrected
F markregionboxtagged

F nextsubcountervalue

F nofconversions

F nofdays F prefixedconverted F nofstackedfloats F preparecolumnsetflush F notedeltapage F presetsymbollist F noteinternal F presettabulate F notelistindex F prevcountervalue F noteprefixednumber F previoussubcountervalue F processbodyfontsizes F notetitle F processbuffer F ntimes Fnumber F processcolorcomponents Fnumhers F processedfile F octnumber F processedfiles F octstringtonumber F processfile F operatingsystem F processfilemany F ordinal F processfilenone F outputfilename F processfileonce F overloadbookmark F processiob F overloaderror F processlist F pagestaterealpage F processregister F processsplit F parpos F pdfrotation F processsynonyms F pdfstartmatrix F profilebox F pdfstartmirroring F purefontname F pdfstartrotation F pushfloat F pdfstartscaling F pushhyphenation F pdfstopmatrix F pushitaliccorrection F pdfstopmirroring F pushlist F pdfstoprotation F pushpath F pdfstopscaling F pushrandomseed F percentageof F pushreferenceprefix F pqfxcolorspec F pushregime F pickupbuffer F pushsectionblock F pickupmarkedcontent F pushstream F pickuppunctuation F putincolumnset F rawcharacter F placeparallel F rawcountervalue F popfloat F pophyphenation F rawdate F popitaliccorrection F rawsubcountervalue F poplist F referencepagedetail F referencepagestate F poppath F referencerealpage F poprandomseed F popreferenceprefix F registerattachment F popregime F registerbackendsymbol F popsectionblock F registerbodyfontsize F postponenotes F registerbookmark

F registerbuttons F resetmathattributes F registercolorintent F resetmathitalics F registercolumnsetarea F resetnullfont F registeredviewerlayer F resetparallel F registerfigurepattern F resetpath F registerfiguresuffix F resetprevdepth F registerhelp F resetreference F registerhyphenationexception F resetscrint F registerhyphenationpattern F resetshownsynonyms F registeritemgroup F resetstructureprocessor F registerlanguagefeatures F resetsubcounter F registerlinenumbering F resettimer F registermaintextcolor F resettrackers F registermpyfile F resetusedsynonyms F registernamedlua F restartcounter F registernamespace F restartsubcounter F registerobject F restorecounter F registerpostponedblock F restorecurrentattributes F registerreferencedobject F restorenote F registerrendering F restoreobject F registersection F reuserandomseed F registershownsynonym F revivefeature F registerstructureprocessor F romannumerals F registersynonym F rounded F registerunit F runbuffer F registerusedsynonym F runcontextiob F registeruserdata F safechar F relatemarking F savebuffer F renderingvar F savecounter F replacefeature F savecurrentattributes F replacepospxywhd F savedlistnumber F reportstructure F savedlistprefixednumber F resavefloat F savedlisttitle F resetcharacteralign F savefloat F resetcolumnset F savemargindata F resetcounter F savenote F reseteffect F savepagedata F resetfeature F savepageinjections F resetfontfeature F saveparallel F resetfontsolution F savespecificfloat F resetinjector F savestructureblock F resetitaliccorrection F savetaggedtwopassdata F resetmapfiles F savetwopassdata

F savevariable

F resetmarking

F sethyphenatedurlcharacters F second F selectstructureblock F sethyphenationfeatures F setactivecatcodes F sethyphenationmethod F setinitial F setbreakpoints F setcharacteralign F setinitialsectionblock F setcharactercasing F setinjector F setcharactercleaning F setinnerreferencemethod F setinsertionlocation F setcharacterkerning F setcharacterspacing F setinterfaceconstant F setinterfaceelement F setcharacterstripping F setclosedocumentaction F setinterfacemessage F setclosepageaction F setinterfacemessages F setcolormodel F setinterfacevariable F setcolumnsetarea F setinternalreference F setcolumnsetlines F setitaliccorrection F setcolumnsetproperties F setjavascriptpreamble F setcolumnsetstart F setjobcomment F setcounter F setlanguageexceptions F setdataset F setlanguagesynonym F setdestinationattribute F setlettercatcodes F setdigitsmanipulation F setmarking F setdirection F setmathalphabet F setdocumentargument F setmathalternate F setdocumentcommandline F setmathattribute F setdocumentctxfile F setmathdirection F setdocumentdefaultargument F setmathdomain F setmathitalics F setdocumentenvironments F setdocumentfilename F setmathstyle F setdocumentfilenames F setmpextensions F setdocumentmodes F setnegative F setdocumentmodules F setnextinternalreference F seteffect F setnextreferenceorder F setelementuserproperties E setnotestate F setfieldcalculationset F setopendocumentaction F setfigurelookuporder F setopenpageaction F setfigurepaths F setowncounter F setfirstline F setownsubcounter F setfontfeature F setpagecolormodel F setfontofid F setpagestate F setfontsolution F setpagestaterealpageno F setformat F setpagetransition F setformsmethod F setparbuilder F sethsizecolumnset F setprofile F sethsizecolumnspan F setrandomseed

F setrealign F setuplinenumbering F setrealspaces F setuserinterface F setvalidinterfacekevs F setreferencearguments F setvisual F setreferenceoperation F setregionbox F setvisualfont F setregionboxtagged F setvisuallayer F setreaistermethod F setvsizecolumnset F setreplacements F setxmofile F setscript F showassignerror F setsectionblock F showattributes F setsectionentry F showcounter F setstructureblockstate F showdebuginfo F setstructurelevel F showdirectives F setstructurenumber F showdiscretionaries F setsubcounter F showexperiments F settagaspect F showhyphenatedinlist F settagcombination F showhyphenationtrace F settagdelimitedsymbol F showinjector F settagfigure F showjustification F settaggedmetadata F showlogcategories F settaghighlight F showmessage F settagitem F showtrackers F settagitemgroup F sin F settaglist F sind F settagnotation F splitfilename F settagnotationsymbol F spotcolorname F settagproperty F spotcolorparent F settagproperty b F spotcolorvalue F settagproperty n F startactualtext F settagregister F startchemical F settagsorting F startcolorset F settagsubsentencesymbol F startcomponent F settagsynonym F startenvironment F settagtablecell F startfontsolution F settagtabulatecell F startparbuilder F setupbookmarks F startproduct F setupcanvas F startproject F setupcharacterspacing F startregime F startsectionlevel F setupexport F setupfontexpansion F startstream F setupfontprotrusion F starttag F setupidentity F starttag\_c F setupinsertion F starttag d F setupitaliccorrection F starttag u

F starttext F tagmfunctiontxt F startviewerlayer F tan F tand F step F stopactualtext F texdefinition one F stopchemical F texdefinition two F stopcolorset F textime F stopcomponent F thefirstcharacter F themaxboxwidth F stopenvironment F stopfontsolution F theremainingcharacters F stopparbuilder F tochar F stopproduct F transparencycomponents F stopproject F triggerpagebuilder F stopregime F truefilename F stopsectionlevel F type F stopstream F typebuffer F stoptag F typefile F stoptext F uchar Fuchexnumber F stopviewerlayer F uchexnumbers F storejavascriptcode F undefinechemical F storejavascriptpreamble F storenote F unicodechar F storeregister F unihex F strdp F unit\_normal F strhd F unit\_reverse F strht F unloadlanguage F upper F strip F structureautocatcodedget F useMPlibrary F structurecatcodedget F useanyfile F useanyfileonce F structuregivencatcodedget F structurenumber F usecldfile F usecldfileonce F structuretitle E structureuservariable F usecolors E structurevariable F usecomponent F strwd F useenvironment F subcountervalue F usefigurebase F subcountervalues F usefile F subsubcountervalues F usejavascriptpreamble F subtractfeature F usejavascriptscripts F synchronizemarking F useluafile F synchronizestream F useluafileonce F synonymmeaning F useluamodule F usemodules F synonymname F usepath F systemlog F tagmfunctionlab F useproduct

F useproject F x table reflow width F usesubpath F x table set construct F usesymbols F x\_table\_set\_reflow\_height F usetexfile F x table set reflow width F usetexfileonce F xmladdindex F useurl F xmlaftersetup F usexmlfile F xmlall F usexmlfileonce F xmlappendsetup F usezipfile F xmlapplyselectors F utfchar F xmlatt F xmlattdef F utfmathclass F xmlattribute F utfmathcommand F utfmathcommandabove F xmlattributedef F utfmathcommandbelow F xmlbadinclusions F utfmathcommandfiller F xmlbeforesetup F utfmathfiller F xmlchainatt F utfmathstretch F xmlchainattdef F xmlchecknamespace F vboxlisttohbox F xml command F verbose F vspacing F xmlconcat F vspacingcollapse F xmlconcatrange F vspacingcollapseonly F xmlcontext F vspacingdefine F xmlcount F vspacingsetamount F xmldelete F vspacingsnap F xmldirect F way F xmldirectives F xmldirectivesafter F weekday F weekdayname F xmldirectivesbefore F xmldisplayverbatim F writestatus F x table c F xmldoif F x\_table\_cleanup F xmldoifelse F x table construct F xmldoifelseempty F x table create F xmldoifelseselfempty F xmldoifelsetext F x\_table\_finish\_row F x\_table\_flush F xmldoifempty F x table init construct F xmldoifnot F x\_table\_init\_reflow\_height F xmldoifnotempty F x\_table\_init\_reflow\_height\_option F xmldoifnotselfempty F x\_table\_init\_reflow\_width F xmldoifnottext F x\_table\_init\_reflow\_width\_option F xmldoifselfemptv F xmldoiftext F x\_table\_next\_row F xmlelement F x\_table\_next\_row\_option F xmlfilter F x table r F x\_table\_reflow\_height F xmlfilterlist

F xmlfirst F xmlsetcommandtonone F xmlflush F xmlsetcommandtotext F xmlflushcontext F xmlsetentity F xmlflushlinewise F xmlsetinjectors F xmlflushpure F xmlsetsetup F xmlflushsetups F xmlsnippet F xmlflushspacewise F xmlstartraw F xmlflushtext F xmlstarttiming F xmlfunction F xmlstopraw F xmlgetindex F xmlstoptiming F xmlinclude F xmlstrip F xmlincludeoptions F xmlstripanvwhere F xmlinclusion F xmlstripnolines F xmlinclusions F xmlstripped F xmlindex F xmlstrippednolines F xmlinlineverbatim F xmltag F xmlinstalldirective F xmltexentity F xmllast F xmltext F xmllastatt F xmltobuffer F xmllastmatch F xmltobufferverbose F xmlload F xmltofile F xmlloadbuffer F xmltoparameters F xmlloaddata F xmlverbatim F xmlloaddirectives F xmlwithindex F xmlloadentities F vear setconstant function F xmlmain setcount function F xmlmatch setdimen function F xmlname setelement function F xmlnamespace setformat function F xmlnonspace function setmacro F xmlpath function F xmlpos setmessage F xmlprependsetup setmessages function settranslation function F xmlpure setuserinterface function F xmlraw setvalidkeys function F xmlrawtex F xmlrefatt setvariable function showmessage function F xmlregisterns storedscanners data table F xmlremapname strinas table F xmlremapnamespace F xmlremovesetup syntax data table tolist function F xmlresetinjectors

F xmlresetsetups
F xmlsave

translations

data table

variables writestatus data table function

#### io (basic lua)

ask function
bytes function
characters function
close function
exists function
fileseparator string
flush function

loadchunk function
loaddata function
loadlines function
noflines function

open overloaded function
output overloaded function

pathseparator string

read function 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
```

os string
status function
version string
version\_num number

# job (context)

comment	function	F	find	
datasets	table		first	
D collected			get	
F extend			getcollected	
F getdata			getdata	
F setdata			getfield	
D tobesaved			gettobesaved	
disablesave	function	F	inlist	
fileobjreferences	table	F	last	
D collected		F	list	
D tobesaved		F	save	
files	table	F	savetagged	
D collected		D	tobesaved	
F context		posi	tions	table
B forcerun		F	b_col	
F run		F	b_region	
D tobesaved		F	С	
initialize	function	D	collected	
load	function	F	column	
loadother	function	F	сору	
objects	table	F	depth	
D collected		F	e_col	
F get		F	e_region	
F number		F	enhance	
F page		F	extra	
F save		F	get	
F set		F	getreserved	
D tobesaved		F	hangafter	
pack	boolean	F	hangindent	
packversion	number	F	height	
pagestates	table	F	hsize	
D collected		F	leftskip	
F extend		F	lowerleft	
F realpage		F	lowerright	
F setstate		F	markregionbox	
D tobesaved		F		
passes	table		onsamepage	
F check			overlapping	
D collected		F		
F count		F	page	
F define		F	paragraph	

F parindent F position Fr F region F replace F rightskip F set F setall F setdim F setregionbox D tobesaved F upperleft F upperright S used F width Fχ F xy Fу register function function save 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

number

version

# lang (basic tex)

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

# languages (context)

associate	function	F	
associated	data table	F registerpattern	
association	function	F setfeatures installed	function
counters	data table	labels	table
current	function	F define	table
data	data table		
decimals	data table	F split <b>lefthyphenmin</b>	function
define	function	loadable	function
	function	loadwords	function
expand	table		table
expanders frequencies	table	logger	table
•	table	F report <b>numbers</b>	data table
F averagecharwidth			function
F getdata getdata	function	postexhyphenchar posthyphenchar	function
	function		function
getnumber hyphenate	function	preexhyphenchar	function
hyphenators	table	prehyphenchar registered	data table
T dictionaries	cable	replacements	table
D featuresets		F add	tabte
F handler		F handler	
T methods		F set	
F expanded		righthyphenmin	function
B none		serializediscretionary	function
F original		setexceptions	function
F tex		setsynonym	function
F traditional		showdiscretionaries	function
B optimize		unload	function
F popmethod		urls	table
F pushmethod		D characters	
F setmethod		N lefthyphenmin	
F setup		D mapping	
F showhyphenationtrace		B packslashes	
T traditional		N righthyphenmin	
F definefeatures		F setcharacters	
F gettrace		version	number
F hyphenate		visualizediscretionaries	function
F injecthyphens		words	table
F installmethod		F check	
F lasttrace		T data	
F loadpatterns		F disable	
F registerexception		F enable	

- T enablers
- B enables
- F found
- F load
- T methods
- N threshold

### layouts (context)

#### **status** table

F isleftpage

F leftorrightpagection

#### lfs (extra lua)

attributes overloaded function chdir overloaded function

currentdir function

lock function

**mkdirs** function

unlock function

#### libraries (context)

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

#### lmx (context)

color function function convert convertfile function convertstring function einject function eprint function escape function finalized function finject function **fprint** function aet 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 make function function new overloaderror function popupfile function print function function pν function report function reset result function set function show function showdebuginfo function showerror function stripcss function
tv function
type function
urlescape function
variable function
variables table

S color-background-blue

S color-background-body

S color-background-green

S color-background-main

S color-background-purple
S color-background-yellow

S title-default

#### logs (context)

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

F banner

F export

F help

F info

F lines

F version

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

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

# lpdf (context)

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

string function timestamp function function toeight topdfdoc function function tosixteen transform function transparency function transparencycode function transparencygroups table

B none

transparencyvalue function
unicode function
verbose function

### lpeg (basic lua)

В	function	setmaxstack	function
C	function	split	function
Carg	function	splitat	function
Cb	function	splitter	function
Сс	function	stripper	function
Cf	function	times	function
Cg	function	tsplitat	function
Cmt	function	tsplitter	function
Ср	function	type	function
Cs	function	utfchartabletopattern	function
Ct	function	version	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		

### ltn12 (extra lua)

```
BLOCKSIZE number
filter
             table
   F chain
   F cycle
             table
pump
   F all
   F step
             table
sink
   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
bytedata
bytedone

B page-cst
table
table

collectgarbage function delay function finalize function firstbytecode number flush function flushdelayed function get\_functions\_table function getbytecode function function getluaname lastbytecode number strina

mask string
messages data table
name table

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

### luatex (context)

cleanuptempfiles function
registerstartactions function
registerstopactions
registertempfile function
starttime number

# lxml (context)

	£	£1h	£
addindex	function	flush	function
all	function	flushlinewise	function
applyfunction	function	flushsetups	function
applyselectors	function	flushspacewise	function
att	function	<del>get_id</del> 	function
attribute	function	getid 	function
badinclusions	function	getindex 	function
chainattribute	function	id	function
checkindex	function	idsplitter	userdata
collected	function	include	function
command	function	inclusion	function
concat	function	inclusions	function
concatrange	function	index	function
content	function	inlineverbatim	function
context	function	installsetup	function
convert	function	last	function
count	function	lastatt	function
delete	function	lastmatch	function
direct	function	load	function
directives	table	loadbuffer	function
F after		loaddata	function
F before		loaded	table
F handle		main	function
F load		match	function
F setup		name	function
displayverbatim	function	namespace	function
doif	function	nonspace	function
doifelse	function	path	function
doifelseempty	function	pos	function
doifelsetext	function	position	function
doifempty	function	pure	function
doifnot	function	raw	function
doifnotempty	function	rawroot	function
doifnottext	function	rawtex	function
doiftext	function	refatt	function
element	function	register	function
elements	function	registerentity	function
entities	data table	removesetup	function
filter	function	resetcdata	function
filterlist	function	resetsetups	function
first	function	resolvedentity	function

function root function save serialize function setaction function setcdata function setcommandtonone function setcommandtotext function setsetup function snippet function sorters table

F add

F compare

F flush

F reset

F show

verbatim

withindex

xmltexhandler

F sort splitid function startraw function function startunescaped stopraw function stopunescaped function store function strip function stripped function function tag text function tobuffer function tofile function function toparameters toverbatim function

function

function

data table

## math (basic lua)

abs	function
acos	function
asin	function
atan	function
atan2	function
ceil	function
ceiling	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	renderings	table
alphabets	data table	D mappings	
alternatives	data table	D numbers	
big	function	D sets	
boldmap	data table	renderset	function
categories	table	resetattributes	function
D functions		resetitalics	function
charactersets	data table	scaleparameters	function
checkaccentbaseheight	function	setalternate	function
checkprivateparameters	function	setdomain	function
classes	data table	setitalics	function
codes	data table	sets	data table
define	function	styles	data table
dimensions	function	syncboth	function
domains	table	syncname	function
extensiblecode	function	syncstyle	function
extensibles	data table	toname	function
extrabase	number	tostyle	function
extras	table	tweakaftercopyingfont	function
F add		tweakbeforecopyingfont	function
F copy		tweaks	table
fallbacks	table	utfmathaccent	function
F apply		utfmathclass	function
F install		utfmathcommand	function
fallbackstyleattr	function	utfmathfiller	function
families	data table	utfmathstretch	function
gaps	data table		
getboth	function		
getdomain	function		
getitalics	function		
getstyle	function		
horizontalcode	function		
initializeparameters	function		
injectfallbacks	function		
makefont	function		
mapremap	data table		
overloaddimensions	function		
overloadparameters	function		
privatebase	number		
registerdomain	function		
remapalphabets	function		

#### mbox (context)

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

### md5 (extra lua)

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

# metapost (context)

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

setoutercolorfunctionsettextfunctionshowlogbooleansimplefunctionsvformatfunctiontextable

F get F reset F set

F setfrombuffer

texerrors boolean
textextsdata function
theclippath function
totable function
unload function
untagvariable function
variables table

#### mime (extra lua)

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

# mp (context)

BackSpace	function	OverlayDepth	function
BaseLineSkip	function	OverlayHeight	function
BodyFontSize	function	<b>OverlayLineWidth</b>	function
BottomDistance	function	<b>OverlayOffset</b>	function
BottomHeight	function	OverlayWidth	function
BottomSpace	function	PageDepth	function
CurrentColumn	function	PageFraction	function
CurrentHeight	function	PageNumber	function
CurrentWidth	function	PageOffset	function
CutSpace	function	PaperBleed	function
EmWidth	function	PaperHeight	function
ExHeight	function	PaperWidth	function
FooterDistance	function	PrintPaperHeight	function
FooterHeight	function	PrintPaperWidth	function
HSize	function	RealPageNumber	function
HeaderDistance	function	RightEdgeDistance	function
HeaderHeight	function	RightEdgeWidth	function
InPageBody	function	RightMarginDistance	function
InnerEdgeDistance	function	RightMarginWidth	function
InnerEdgeWidth	function	SpineWidth	function
InnerMarginDistance	function	StrutDepth	function
InnerMarginWidth	function	StrutHeight	function
LastPageNumber	function	TextHeight	function
LayoutColumnDistance	function	TextWidth	function
LayoutColumnWidth	function	TopDistance	function
LayoutColumns	function	TopHeight	function
LeftEdgeDistance	function	TopSkip	function
LeftEdgeWidth	function	TopSpace	function
LeftMarginDistance	function	VSize	function
LeftMarginWidth	function	_f_	function
LineHeight	function	boolean	function
MakeupHeight	function	dataset	function
MakeupWidth	function	datasets	table
NOfColumns	function	F load	
NOfPages	function	defaultcolormodel	function
OnOddPage	function	format	function
OnRightPage	function	formatted	function
OuterEdgeDistance	function	get	table
OuterEdgeWidth	function	F boolean	
OuterMarginDistance	function	F number	
OuterMarginWidth	function	F numeric	

#### F string

function
function

#### mplib (extra tex)

fields function
finder function
finders table

F file

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

new overloaded function

pen\_info function
preprocessed function
version function

#### noads (context)

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

processouter

function

#### node (basic tex)

function copy F is direct function copy list F is\_glyph count function F is\_node current attr function F kernina dimensions function F last node direct table F length F copy F ligaturing F copy list F new F protect glyph F count F current attr F protect glyphs F dimensions F protrusion skippable F do ligature n F remove F effective glue F set attribute F end\_of\_math F set properties mode F first glyph F setboth F flush\_list F setbox F flush\_node F setchar F flush\_properties\_table F setdisc F setfield F get attribute F setleader F get\_properties\_table F setlink F getboth F setlist F setnext F getbox F getchar F setprev F getdisc F setproperty F getfield F setsubtype F getfont F slide F tail F getid F getleader F todirect F aetlist F tonode F getnext F tostring F traverse F getprev F getproperty F traverse char F getsubtype F traverse id F has\_attribute F unprotect\_glyphs F has\_field F unset attribute F has glyph F usedlist F hpack F vpack F write F insert\_after do\_ligature\_n function F insert before effective glue function F is\_char

end_of_math	function
family_font	function
fields	function
first_glyph	function
flush_list	function
flush_node	function
flush_properties_table	function
free	function
get_attribute	function
get_properties_table	function
getboth	function
getchar	function
getdisc	function
getfield	function
getfont	function
getid	function
getleader	function
getlist	function
getnext	function
getprev	function
getproperty	function
getsubtype	function
has_attribute	function
has_field	function
has_glyph	function
hpack	function
id	function
insert_after	function
insert_before	function
is_char	function
is_glyph	function
is_node	function
kerning	function
last_node	function
length	function
ligaturing	function
mlist_to_hlist	function
new	function
next	function
prev	function
protect_glyph	function
protect_glyphs	function
<pre>protrusion_skippable</pre>	function
remove	function

set_attribute	function
set_properties_mode	function
setboth	function
setfield	function
setlink	function
setnext	function
setprev	function
setproperty	function
slide	function
subtype	function
subtypes	function
tail	function
tostring	function
traverse	function
traverse_char	function
traverse_id	function
type	function
types	function
unprotect_glyphs	function
unset_attribute	function
usedlist	function
vpack	function
whatsits	function
write	function

## nodes (context)

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

F copy		N scratchbox
F getligaindex		link
F handler		linked
F installnewkern		list
F keepcounts		listablefields
F reset		listcodes
F resetcounts		listtoutf
F setcursive		load
F setkern		locate
F setligaindex		margincodes
F setmark		marginkerncodes
F setpair		markers
F setspacekerns		F get
insert after	function	mathcodes
insert before	function	maxboxwidth
insert_list_after	function	mlist_to_hlist
installattributehandler	function	new
is_char	function	noadcodes
is_direct	function	nodecodes
is_display_math	function	nopts
is_glyph	function	nuts
is_mirrored	data table	F append
<del>-</del>	function	
is_node	function	F concat
is_nut is rotated	data table	F copy
ischar	function	F copy_list
isglyph	function	F copy_properties
kerncodes	data table	F copyvisual
kerning	function	F count
<del>-</del>	table	F current_attr
keys T whatsit	table	F delete
	function	F dimensions
last_node leadercodes	data table	F do_ligature_n
	function	F effective_glue
leftmarginwidth	function	F end_of_math
ligaturing lines	table	F first_glyph
	table	F firstcharacter
T boxed		F firstcharinbox
F register		F firstglyph
F setup		F flush_list
F stage_one		F flush_node
F stage_two		F free
D data		F fullhpack
F finalize		F getattr
F number		F getattribute

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

data table function function function data table data table function table

F fontkern F aetboth F getbox F glue F getchar F gluespec F getdisc F glyph F getfield F hlist F italickern F getfont F aetid F kern F getleader F latelua F lateluafunction F getlist F getnext F leftmarginkern F getprev F leftskip F getprop F lineskip F getskip F negatedglue F getsubtype F noad F pdfannotation F has\_attribute F has\_field F pdfdestination F has\_glyph F pdfdirect F pdfliteral F hpack F pdfrestore F insert after F insert before F pdfsave F insert list after F pdfsetmatrix F is\_char F penalty F is\_direct F register F is\_display\_math F rightmarginkern F is\_glyph F rightskip F is\_node F rule F is\_nut F shrink F ischar F special F isglyph F stretch F kerning F temp F textdir F last\_node F leftmarginwidth F usage F ligaturing T userids F link N margins.inline F linked N property F locate N splitters.one F mlist\_to\_hlist N splitters.two F nestedtracedslide F userlist F new F usernumber T pool F userrule F baselineskip F userstring F cleanup F usertokens F disc F vlist F emptyrule F zeroglue

F prepend	F traverse_id	
F protect_glyph	T typesetters	
F protect_glyphs	F tohbox	
F protrusion_skippable	F tohpack	
F rawprop	F tonodes	
F reference	F tovbox	
F remove	F tovpack	
F repackhlist	F unprotect_glyphs	
F replace	F unset_attribute	
F rightmarginwidth	F unsetattribute	
F set_attribute	F unsetattributes	
F setattr	F untracedslide	
F setattribute	F usedlist	
F setattributes	F vianodes	
F setboth	F vianuts	
F setbox	F vpack	
F setchar	F writable_spec	
F setdisc	F write	
F setfield	packlist	function
F setleader	pardir_is_equal	data table
F setlink	pardir_is_opposite	data table
F setlist	pardir_is_parallel	data table
F setnext	partextdir_is_equal	data table
F setprev	penaltycodes	data table
F setprop	plugindata	table
F setsubtype	F finalizer	
F setunsetattributes	F initializer	
F setvisual	S name	
F slide	T namespace	
F somepenalty	N attribute	
F somespace	D data	
F splitbox	F enable	
F tail	F handler	
F takebox	F register	
F takelist	D registered	
F theprop	D values	
F tonode	F processor	
F tonodes	points	function
F tonut	pool	table
F tosequence	F baselineskip	
F tostring	F cleanup	
F tracedslide	F glyph	
F traverse	F kern	
F traverse_char	F latelua	

F lateluafunction		rightmarginwidth	function
F lineskip		rulecodes	data table
F pdfdirect		rules	table
F pdfliteral		D data	
F pdfrestore		F define	
F pdfsave		F enable	
F pdfsetmatrix		F handler	
F register		T ruleactions	
F rule		F draw	
F special		F fill	
F usage		F mp	
F usernumber		F stroke	
prepend	function	F userrule	
print	function	save	function
processors	table	serialize	function
B enabled		serializebox	function
F hpack_filter		set_attribute	function
F post_linebreak_filter		setattributes	function
F pre_linebreak_filter		setbox	function
F tracer		setfield	function
processwords	function	setunsetattributes	function
properties	table	shifts	table
T actions		D data	
F delayed		F define	
F fdelayed		F enable	
F immediate		F handler	
F attach		show	function
T data		showboxes	function
F delayed		showcodes	function
protect_glyph	function	showlist	function
protect_glyphs	function	showsimplelist	function
protrusion_skippable	function	skipcodes	data table
pts	function	slide	function
radicalcodes	data table	snapshots	table
reference	function	F getparameters	
references	table	F getsamples	
N attribute		F resetsamples	
T done		F takesample	
F handler		somepenalty	function
T stack		somespace	function
remove	function	splitbox	function
repackhlist	function	stripdiscretionaries	function
replace	function	stripping	table

function T glyphs

report

F set		toutf	function
striprange	function	tracers	table
tail	function	T characters	
takebox	function	F collect	
tasks	table	F equal	
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 replaceaction		T nodes	
F restart		F rule	
F setaction		T nuts	
F showactions		F rule	
F table		F resetproperties	
textdir_is_equal	data table	F rule	
textdir_is_is	data table	F setlist	
textdir_is_opposite	data table	F setproperties	
textdir_is_parallel	data table	F start	
tobasepoints	function	T steppers	
tocentimeters	function	F check	
tociceros	function	F codes	
todidots	function	F features	
todimen	function	F font	
toinches	function	F glyphs	
tomillimeters	function	F message	
tonewciceros	function	F messages	
tonewdidots	function	F nofsteps	
tonode	function	F register	
tonodes	function	F reset	
tonut	function	F start	
topicas	function	F stop	
topoints	function	F stop	
toscaledpoints	function	T transparencies	
tosequence	function	F reset	
tostring	function	F set	
totable	function	F setlist	
totree	function	traverse	function

traverse\_char function traverse id function typesetters table F hbox F hpack F tohbox F tohpack F tonodes F toybox F tovpack F vpack unprotect\_glyphs function unset attribute function unsetattribute function unsetattributes function usedlist function vianodes function vianuts function visualizebox function visualizers table F box F handler F markfonts F setfont F setlayer F setvisual vpack function whatcodes data table whatsitcodes data table whatsitters table T getters T dimensions

T width T setters T dimensions T width

function writable spec write function

# number (context)

	function
basepoints	function
bit	function
bits	function
clearbit	function
dimenfactors	data table
formatted	function
hasbit	function
maxdimen	number
nopts	function
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
toset	function
valid	function

### objects (context)

data table
dimensions function
found function
n number
page function
reference function
register function
restore function

### os (basic lua)

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

type string
uname function
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)

#### columnsets table F add F block F check F currentcolumn F define F finishflush F flushareas F flushcolumn F flushrest F goto F noto F prepareflush F put F registerarea F reset F setarea F sethsize F sethspan F setlines F setproperties F setstart F setvsize injections table F flushafter F flushbefore F save mixedcolumns table F cleanup F finalize F getlist F getrest F getsplit F setsplit

### pdf (basic tex)

mapfile

mapline

maxobjnum

fontname	function	newcolorstack	function
fontobjnum	function	obj	function
fontsize	function	objtype	function
getcatalog	function	pageref	function
getcompresslevel	function	print	function
getdecimaldigits	function	refobj	function
getdestmargin	function	registerannot	overloaded function
gethpos	function	reserveobj	function
getignoreunknownimages	function	setcatalog	overloaded function
getinclusionerrorlevel	function	setcompresslevel	function
getinfo	function	setdecimaldigits	function
getlastannot	function	setdestmargin	function
getlastlink	function	setignoreunknownimages	function
getlastobj	function	setinclusionerrorlevel	function
getlinkmargin	function	setinfo	overloaded function
getmajorversion	function	setlinkmargin	function
getmatrix	function	setmajorversion	function
getminorversion	function	setminorversion	function
getnames	function	setnames	overloaded function
getobjcompresslevel	function	setobjcompresslevel	function
getorigin	function	setorigin	function
getpageattributes	function	setpageattributes	overloaded function
getpageresources	function	setpageresources	overloaded function
getpagesattributes	function	setpagesattributes	overloaded function
getpkresolution	function	setpkresolution	function
getpos	function	setsuppressoptionalinfo	function
getretval	function	setthreadmargin	function
getsuppressoptionalinfo	function	settrailer	overloaded function
getthreadmargin	function	settrailerid	function
gettrailer	function	setxformattributes	function
gettrailerid	function	setxformmargin	function
getversion	function	setxformresources	function
getvpos	function	xformname	function
getxformattributes	function		
getxformmargin	function		
getxformresources	function		
hasmatrix	function		
immediateobj	function		

function

function

function

# pdfscanner (context)

scan function

# physics (context)

#### units table

F registerunit

D tables

### profiler (extra lua)

```
pause function
resume function
start function
stop function
```

## publications (context)

addtexentry	function	S author
analyze	function	T categories
anywhere	function	T article
authorcache	data table	S category
authorcollapsers	data table	T extra
authorhashers	table	T fields
F invertedshort		S author
F normal		S editor
F normalinverted		S journal
F normalshort		S keywords
F short		S number
authormap	data table	S pages
authortoregister	function	S title
casters	table	S volume
F author		S year
F keyword		T optional
F pagenumber		T required
F range		T sets
checkeddataset	function	T author
citevariants	table	T virtual
F author		T book
F authornum		S category
F authoryear		T extra
F authoryears		T fields
F category		S address
F default		S author
F entry		S edition
F index		S editor
F keywords		S keywords
F num		S number
F page		S publisher
F short		S subtitle
F tag		S title
F textnum		S volume
F year		S year
collected	data table	T optional
components	table	T required
F author		T sets
concatstate	function	T author
converttoxml	function	T editionset

T demo-a	T virtualfields	
S category	B authornum	
T extra	B authoryear	
T fields	B authoryears	
S author	B num	
S institution	B suffix	
S organization	datasets	table
S subtitle	detailed	table
S title	endnotes_to_btx	function
S year	enhancer	table
T optional	S arguments	
T required	T askip	
T sets	B dirty	
T author	T gskip	
T virtual	T kind	
T demo-b	T list	
S category	T system	
T extra	T order	
T fields	enhancers	table
S author	F details	
S institution	F order	
S organization	F suffixes	
S subtitle	finder	function
S title	firstofrange	function
S year	found	function
T optional	get	function
T required	getcasted	function
T sets	getdetail	function
T authors	getdirect	function
T virtual	getfaster	function
S comment	getfield	function
S copyright	getfuzzy	function
T fields	getindex	function
S name	inspectors	data table
T types	journals	table
S author	F abbreviated	
S editor	F add	
S keywords	F expanded	
S number	F load	
S page	F save	
S pages	lastofrange	function
S volume	lists	table
S version	F collectentries	
D virtual	F combiinlist	

F fetchentries		okay	function
F filterall		oneorrange	function
F flushcombi		parenttag	function
F flushentry		permitted	function
T methods		refman_to_btx	function
F dataset		resolvedname	function
F force		save	function
F global		search	function
F local		setcategory	function
F nofregistered		setspecification	function
F prepareentries		singularorplural	function
F register		sortedentries	function
F sameasprevious		sortmethods	table
T sorters		T authoryear	
F cite		T sequence	
F dataset		specifications	table
F default		T default	
F index		S author	
F list		S comment	
F reference		S copyright	
F short		S name	
F used		S version	
F uservariable		D virtual	
listvariants	table	splitauthor	function
<b>listvariants</b> F default	table	splitoneauthor	function function
	table		
F default	table	splitoneauthor	function
F default F index	table	splitoneauthor statistics	function
F default F index F num	table	splitoneauthor statistics N nofbytes	function
F default F index F num F page F short F tag		splitoneauthor statistics N nofbytes N nofdatasets N nofdefinitions N nofshortcuts	function table
F default F index F num F page F short F tag load	function	splitoneauthor statistics N nofbytes N nofdatasets N nofdefinitions	function
F default F index F num F page F short F tag load	function function	splitoneauthor statistics N nofbytes N nofdatasets N nofdefinitions N nofshortcuts	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile	function function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables	function table
F default F index F num F page F short F tag load	function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables D implicits	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile	function function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables D implicits D origins	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders	function function function	splitoneauthor statistics  N nofbytes  N nofdatasets  N nofdefinitions  N nofshortcuts tables  D implicits D origins D privates	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl	function function function	splitoneauthor statistics  N nofbytes  N nofdatasets  N nofdefinitions  N nofshortcuts  tables  D implicits  D origins  D privates  D sets	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl F bib	function function function	splitoneauthor statistics  N nofbytes  N nofdatasets  N nofdefinitions  N nofshortcuts  tables  D implicits  D origins  D privates  D sets  D specials	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl F bib F buffer	function function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables D implicits D origins D privates D sets D specials D types D virtuals tags	function table table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl F bib F buffer F endnote F lua F refman	function function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables D implicits D origins D privates D sets D specials D types D virtuals	function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl F bib F buffer F endnote F lua	function function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables D implicits D origins D privates D sets D specials D types D virtuals tags tracers F showdatasetauthors	function table table function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl F bib F buffer F endnote F lua F refman F registercleaner F xml	function function function table	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables  D implicits D origins D privates D sets D specials D types D virtuals tags tracers	function table table function table
F default F index F num F page F short F tag load loadbibdata loaddefinitionfile loaders F bbl F bib F buffer F endnote F lua F refman F registercleaner	function function function	splitoneauthor statistics  N nofbytes N nofdatasets N nofdefinitions N nofshortcuts tables D implicits D origins D privates D sets D specials D types D virtuals tags tracers F showdatasetauthors	function table table function table

- F showfields
- F showhashedauthors
- F showtables
- F showvariants

#### typesetters

table

F author

F string
usedataset
usedentries

function function

writers

table

- F author
- F keyword
- F pagenumber
- F range

### regimes (context)

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

## resolvers (context)

allprefixes	function	findtexfile	function
appendhash	function	findwildcardfile	function
automount	function	findwildcardfiles	function
automounted	table	formatofsuffix	function
booleanvariable	function	formatofyariable	function
cacheversion	string	formats	data table
checkedvariable	function	generators	data table
cleanedpathlist	function	get_from_content	function
cleanpath	function	getenv	function
cleanpathlist	function	getownpath	function
concatinators	data table	getreadfilename	function
confighanner	string	hashers	data table
criticalvars	data table	homedir	string
dangerous	data table	inputstack	table
datastate	function	installinputfilehandler	function
defaultsuffixes	table	installinputlinehandler	function
dowithfilesandreport	function	instance	table
dowithfilesintree	function	D data	table
dowithpath	function	B diskcache	
dowithvariable	function	D environment	
env	function		
executers	table	D expansions	
expandbraces	function	D fakepaths D files	
expandedpathfromlist	function		
expandedpathlist	function	B force_suffixes D found	
expandedpathlistfromvariable	function	D foundintrees	
•	function		
expandpath expandpathfromvariable	function	D hashed D hashes	
expansion	function		
extendtexmfvariable	function	D lists B loaderror	
filtered_from_content	function	D order	
find file	function		
find files	function	D pathlists	
findbinfile	function	T pathstack	
findctxfile	function	B remember	
finders	data table	B renewcache	
findfile		B renewtree	
findfiles	function	B savelists	
	function	D setups	
findgivenfile	function	D specification	
findgivenfiles	function	D variables	£
findpath	function	jobpath	function

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

updatescript	function
uselibrary	function
usertypes	data table
usezipfile	function
validatedpath	function
variable	function
variableofformat	function
variableofformatorsuffix	function
wildcardpattern	function

## sandbox (context)

binaryhandler	function
disablerunners	function
enable	function
filehandlerone	function
filehandlertwo	function
finalizer	function
initializer	function
iohandler	function
logcalls	function
logfiles	function
original	function
overload	function
possiblepath	function
redefine	function
register	function
registerbinary	function
registerroot	function
registerrunner	function
report	function
run	function
runhandler	function
setfilenamelogger	function
setlogger	function
setreporter	function
settrace	function
validfilename	function

### scripts (context)

#### autofontfeature table 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 table hash injectors data table installdataset function installmethod function numbertocategory data table numbertodataset data table numbertohandler data table function reset function set **splitters** data table

### set (context)

contains function
create function
tolist function
tonumber function
totable function

### socket (extra lua)

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

S recei	ved	sinkt	table
S recei	.ved-from-mta	F close-	when-done
S refer	rences	F default	
S refer	er	F http-cl	nunked
S remot	e-mta	F keep-o <sub>l</sub>	oen
S reply	r-to	skip	function
S repor	ting-mta	sleep	function
S reser	t-bcc	smtp	table
S reser	rt-cc	S DOMAIN	
S reser	t-date	N PORT	
S reser	t-from	S SERVER	
S reser	t-message-id	N TIMEOU	Г
S reser	t-reply-to	S ZONE	
S reser	t-sender	F message	٤
S reser	it-to	F open	
S retry	-after	F send	
S retur	n-path	source	function
S sende	er	sourcet	table
S serve	er	F by-leng	<b>j</b> th
S smtp-	remote-recipient	F defaul	:
S statu	IS	F http-cl	nunked
S subje	ect	F until-	closed
S te		tcp	function
S to		tcp6	function
S trail	er	tp	table
S trans	fer-encoding	N TIMEOU	
S upgra	de	F connect	
S user-	agent	try	function
S vary		udp	function
S via		udp6 -	function
S warni	-	url	table
	retry-until	F absolu	:e
	uthenticate	F build	
S x-mai		F build_	oath
http	table	F escape	
N PORT	-	F parse	
N TIMEOU		F parse_i	
S USERAGI	EN I	F unesca <sub>l</sub>	е
F open			
F request	function		
protect	function		
select	function		
setett	TUTICLION		

function

sink

### sorters (context)

```
basicsorter
                function
                table
comparers
   F basic
                table
constants
   S defaultdigits
   S defaultlanguage
   S defaultmethod
   N digitsmaximum
   N digitsoffset
   N ignoredoffset
   N replacementoffset
   T validmethods
    B ch
    B mc
    B mm
    Врс
    B pm
    B uc
    B zc
    B zm
definitions
                data table
firstofsplit function
packch
                function
                function
packuc
setlanguage
                function
sort
                function
splitters
                table
   F utf
                function
strip
tracers
                data table
update
                function
```

## statistics (context)

function
function
function
function
function
boolean
function
number
function
function

## status (basic tex)

list function
resetmessages function

### storage (context)

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

## streams (context)

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

# string (basic lua)

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

sub	function
tformat	function
toHEX	function
toboolean	function
tobytes	function
tocontext	function
todec	function
todimen	function
tohex	function
tonodes	function
topattern	function
totable	function
toutf	function
tracedchar	function
tracedchars	table
unquote	function
unquoted	function
upper	function
utfcharacters	function
utfvalues	function
valid	function

## structures (context)

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

F define		F savedlistprefixednu	mber
F getdata		F savedlisttitle	
F getlocation		D sectionblocks	
F getname		F sectionnumber	
F getnumber		F size	
F setlocation		F title	
F setup		D tobesaved	
D stored		F userdata	
itemgroups	table	F uservalue	
lists	table	marks	table
F addto		D data	
F analyze		F define	
B autoreorder		F exists	
D cached		F fetch	
D collected		F fetchallmarks	
F discard		F fetched	
F enhance		F fetchonemark	
T enhancers		F fetchtwomarks	
F filter		F get	
F formulanumber		F number	
F getresult		F relate	
F groupindex		F reset	
F hasnumberdata		F set	
F haspagedata		F show	
F hastitledata		F synchronize	
F iscached	F title		
D kinds	T tracers		
F label		F showtable	
F location		notes	table
D names		F checkpagechange	
F number		F define	
D ordered	F doifonsamepageasprevious		
F page		F get	
F popnesting		F getdeltapage	
F prefix		F getinternal	
F prefixednumber		F getn	
F prefixedpage		F getstate	
F process		F hascontent	
D pushed	F internal		
F pushnesting		F internalid	
F realpage	F listindex		
F reordered			
		F ordered	
T result		F ordered F postpone	

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

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

F setnumber F last F structuredata F lastinchain F title F locatedtag D tobesaved T patterns F typesetnumber U splitter F userdata D properties B verbose F registermetadata table sets F restart F define F setaspect F get F setattributehash F setcombination F getall D setlist F setfigure specials table F sethighlight D collected F setitem F retrieve F setitemgroup F store F setlist D tobesaved F setnotation synonyms table F setnotationsymbol F analyzed F setproperty D collected F setregister F compare F setsorting F define F setsynonym F filter F settablecell F finalize F settabulatecell F flush F settagdelimitedsymbol F isshown F settagsubsentencesymbol F isused F setupexport F setuserproperties F meaning D specifications F prepare F process F start F register F stop F registershown F strip F registerused D taglist F resetshown T usewithcare F resetused T images F sort F synonym D tobesaved table tags F elementtag F finishexport F getid F handler

D labels

### table (basic lua)

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

function function

# tex (basic tex)

attribute	table	hashtokens	function
badness	function	ifs	data table
hox	table	inicatcodes	number
catcode	table	init rand	function
conditionals	data table	isattribute	function
constants	data table	ishox	function
count	table	iscount	overloaded function
cprint	function	isdefined	function
ctdcatcodes	number	isdimen	overloaded function
ctxcatcodes	number	ismuskip	overloaded function
definefont	function	isskip	overloaded function
delcode	table	istoken	function
dimen	table	istoks	function
directives	data table	lccode	table
enableprimitives	function	linebreak	function
error	function	lists	table
extraprimitives	function	lua_math_random	function
finish	function	lua_math_randomseed	function
fontidentifier	function	luacatcodes	number
fontname	function	mathcode	table
fprint	function	modes	data table
get	function	muskip	table
getattribute	function	nest	table
getbox	function	nilcatcodes	number
getboxresourcedimensions	function	normal_rand	function
getcatcode	function	notcatcodes	number
getcount	function	number	function
getdelcode	function	primitives	function
getdelcodes	function	print	function
getdimen	function	prtcatcodes	number
getlccode	function	resetparagraph	function
getlist	function	romannumeral	function
getmath	function	round	function
getmathcode	function	run .	function
getmathcodes	function	saveboxresource	function
getmuskip 	function	scale	function
getnest	function	scantoks	function
getsfcode	function	set	function
getskip	function	setattribute	function
gettoks	function function	setbox	function function
getuccode	TUNCTION	setcatcode	TUNCTION

function setcount function setdelcode setdimen function setlccode function setlist function setmath function setmathcode function setmuskip function setnest function setsfcode function setskip function settoks function setuccode function sfcode table function shipout show context function table skip sp function **splitbox** function sprint function systemmodes data table takebox function texcatcodes number table toks tpacatcodes number tpbcatcodes number function tprint data table trackers triggerbuildpage function txtcatcodes number function type table uccode uniform rand function uniformdeviate function uprint function useboxresource function vrbcatcodes number write function

### texconfig (basic tex)

error\_line number expand depth number formatname string half\_error\_line number hash\_extra number init

overloaded function

kpse init boolean max\_in\_open number max\_print\_line number max\_strings number nest\_size number param\_size number save size number shell escape string

stack\_size overloaded number

## texio (basic tex)

setescape function
write function
write\_nl function

## tokens (context)

astable	function	defined	function
bgroup	userdata	egroup	userdata
bits	table	getters	table
N active		F box	
N alignmen	t	F count	
N begingro	nb	F dimen	
N characte	r	F token	
N close		hbox	userdata
N comment		istoken	function
N endgroup		letter	function
N endofline	e	letters	function
N escape		other	function
N ignore		pickup	function
N invalid		printlist	function
N letter		scanners	table
N mathshif	t	F boolean	
N open		F code	
N other		F conditio	nal
N paramete	r	F count	
N space		F csname	
N subscrip	t	F dimen	
N supersor:	ipt	F dimensio	n
N whitespa	ce	F glue	
collectors	table	F integer	
T data		F keyword	
F defaultwo	ords	F list	
F dowithwo	rds	F lxmlid	
F flush		F number	
F install		F scanclos	е
F register		F scanopen	
T register	ed	F skip	
F show		F string	
F test		F token	
compile	function	F tokens	
constant	function	F toks	
converters	table	F word	
S toboolea	n	scantable	function
S todimen		setters	table
S toglue		F box	
S tonumber		F count	
S tostring		F dimen	

F dimension F macro shortcuts table F glue T bits F integer N active F keyword N alignment F list F lxmlid N begingroup N character F number N close F scanclose N comment F scanopen N endgroup F skip N endofline F string F token N escape N ignore F tokens N invalid F toks N letter F word N mathshift F scannumber N open F scanopen N other F scanstring F scanword N parameter F toboolean N space N subscript F todimen N superscript T tokens N whitespace F astable N close U bgroup F inspect T collectors F defaultwords N open F dowithwords F report F flush F scanboolean F scanclose F install F scancode F register F scanconditional F show F scancsname F test F scandimen F compile F scandimension F constant F scaninteger T converters F scankeyword S toboolean F scanlist S todimen S toglue T scanners F boolean S tonumber F code S tostrina F conditional F defined F count U egroup F csname T getters F dimen F box

F count	vbox	userdata
F dimen	vtop	userdata
F token		
U hbox		
F istoken		
F letter		
F letters		
F other		
F pickup		
F printlist		
F scantable		
T setters		
F box		
F count		
F dimen		
F macro		
T shortcuts		
N close		
F inspect		
N open		
F report		
F scanboolean		
F scanclose		
F scancode		
F scanconditional		
F scancsname		
F scandimen		
F scandimension		
F scaninteger		
F scankeyword		
F scanlist		
F scannumber		
F scanopen		
F scanstring		
F scanword		
F toboolean		
F todimen		
F tonumber		
F tostring		
U vbox		
U vtop		
F tonumber		

F tostring

#### tracers (context)

count function
cs function
dimen function
knownlist function
lists table

T context
T internals
T scratch

name function
primitive function
printerror function
printwarning 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
reset	function
savehash	function
show	function
value	function

# typesetters (context)

alignments	table	T handlers	
F handler		F installhandler	
F set		F processmath	
breakpoints	table	F set	
F define		F setcolor	
F handler		F setmath	
D mapping		F tomode	
T methods		firstlines	table
T numbers		T actions	
F set		F default	
F setreplacement		Fline	
cases	table	F word	
T actions		F handler	
F handler		F set	
F register		initials	table
F set		T actions	
characteralign	table	F default	
F handler		F addanchortolin	e
F resetcharacter	align	F addtoline	
F setcharacteral	ign	F calculatedelta	
characters	table	F checkline	
F handler		F handler	
T methods		F moveinline	
F replacenbsp		F normalize	
F replacenbspace	s	F set	
checkers	table	injectors	table
F handler		F check	
F reset		T list	
F set		F mark	
cleaners	table	F reset	
F handler		F set	
F set		F show	
digits	table	italics	table
T actions		F forcevariant	
F handler		F handler	
F set		F reset	
directions	table	F set	
F getfences		kerns	table
F getglobal		D factors	
F getmethod		F handler	
F handler		F keepligature	

spacings B keeptogether D mapping F define F set F handler manipulators table D mapping F apply T numbers F applyspecification T frenchpunctuation T methods T characters F Word S name F Words N number F abbreviatedjournal F reset F set F expandedjournal F lowercase F setup F stripperiod wrappers F handler F uppercase xtables T patterns U list F cleanup U pair F construct F splitspecification F create margins table F finish row F finalhandler F flush F globalhandler F initialize construct F ha F initialize\_reflow\_height F localhandler F initialize\_reflow\_width F save F next\_row function marksuspects F reflow height paragraphs table F reflow\_width F addanchortoline F set\_construct F addtoline F set reflow height F calculatedelta F set reflow width F checkline F handler F moveinline F normalize F set table processors F apply F register F reset F split F startapply F stopapply F stripped F tostring

showsuspects

function

table

table

table

## unicode (extra lua)

ascii			len
F b	-		lower
Fc		F	match
Fd	•		rep
Ff			reverse
	ormat		sub
-	find		upper
Fg	match	utf8	table
Fg			byte
Fl	en	F	char
	ower		characters
Fm	atch	F	chrlen
Fr	ер	F	count
Fr	everse	F	dump
Fs	ub	F	filetype
	pper	F	find
graph	<b>eme</b> table	F	format
F b	yte	F	gfind
Fc	har	F	gmatch
F d	ump	F	gsub
Ff	ind	F	is_valid
Ff	ormat	F	len
Fg	find	F	length
Fg	match	F	lower
Fg	sub	F	magic
Fl	en	F	match
Fl	ower	F	remapper
Fm	atch	F	rep
Fr	ер	F	replacer
Fr	everse	F	reverse
Fs	ub	F	split
Fu	pper	F	splitlines
latin	<b>1</b> table	F	sub
F b	yte	F	subtituter
Fc	har	F	tocodes
Fd	ump	F	toeight
Ff	ind	F	toentities
Ff	ormat	F	tostring
Fg	find	F	totable
Fg	match	F	upper
Fg	sub	F	ustring

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

# url (context)

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

# utilities (context)

dohuggor	table	D alunyaat ninaada
debugger	table	B alwaysstripcode
F disable F enable		F compile
F savestats		F loadedluacode
		F loadstripped
F showstats		N nofstrippedbytes
F showtraceback files	table	N nofstrippedchunks
	table	B stripcode
F close		T strippedchunks
F getposition		F strippedloadstring
F look		T suffixes
F open		S lua
F read2dot14		S luc
F readbyte		S lui
F readbytes		S luj
F readcardinal		S luv
F readcardinal1		S tma
F readcardinal2		S tmc
F readcardinal3		S tua
F readcardinal4		S tuc
F readchar		packers table
F readfixed4		F hashed
F readinteger		F new
F readinteger1		F pack
F readinteger2		F simplehashed
F readinteger4		F strip
F readstring		F unpack
F readtag		N version
F setposition		parsers table
F size		F add_settings_to_array
F skip		F arguments_to_table
F skiplong		F array_to_string
F skipshort		F csvsplitter
formatters	table	F getparameters
F formatcolumns		F groupedsplitat
F list		F hash_to_string
F stripzeros		T hashes
garbagecollector	table	T settings_to_set
F check		T max,fit,broad,auto
N criterium		B auto
B enabled		B broad
lua	table	B fit

B max		F enableaction	
T text,hidden,	paper,page,leftpage,rightpage	F enablegroup	
B hidden		D functions	
B leftpage		F localize	
B page		F new	
B paper		F nodeprocessor	
B rightpage		F prependaction	
B text		F prependgroup	
F iterator		F removeaction	
F keq_to_hash		F replaceaction	
F listitem		F setkind	
F make_settings_t	o_hash_pattern	F tostring	
F mergehashes		setters	table
F options_to_arra	у	F disable	
F options_to_hash		F enable	
T patterns		F initialize	
U settings_to_a	rray	F list	
U settings_to_ha	ash_a	F new	
U settings_to_ha	ash_b	F register	
U settings_to_ha	ash_c	F report	
U unittotex		F reset	
F process_strippe	d_settings	F show	
r	_		
F rfc4180splitter		stacker	table
		<b>stacker</b> F new	table
F rfc4180splitter			table table
F rfc4180splitter F runtime	ay	F new	
F rfc4180splitter F runtime F settings_to_arr	ay ay_with_repeat	F new storage	
F rfc4180splitter F runtime F settings_to_arr F settings_to_arr	ay ay_with_repeat h	F new <b>storage</b> F allocate	
F rfc4180splitter F runtime F settings_to_arr F settings_to_arr F settings_to_has	ay ay_with_repeat h h_strict	F new  Storage  F allocate  F checked	
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has	ay ay_with_repeat h h_strict h_tolerant	F new  storage  F allocate  F checked  F mark	
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has	ay ay_with_repeat h h_strict h_tolerant	F new  storage  F allocate  F checked  F mark  F marked	
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_set	ay ay_with_repeat h h_strict h_tolerant	F new  Storage  F allocate  F checked  F mark  F marked  F setinitializer	
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_	ay ay_with_repeat h h_strict h_tolerant	F new  Storage  F allocate  F checked  F mark  F marked  F setinitializer  F sparse	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod	ay ay_with_repeat h h_strict h_tolerant	F new  storage  F allocate  F checked  F mark  F marked  F setinitializer  F sparse  streams	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands	ay ay_with_repeat h h_strict h_tolerant string	F new  storage  F allocate F checked F mark F marked F setinitializer F sparse  streams F close	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper	ay ay_with_repeat h h_strict h_tolerant string	F new  storage  F allocate  F checked  F mark  F marked  F setinitializer  F sparse  streams  F close  F getposition	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex F unittoxml	ay  ay_with_repeat  h h_strict h_tolerant  string  gs_to_array	F new  storage  F allocate  F checked  F mark  F marked  F setinitializer  F sparse  streams  F close  F getposition  F look	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex	ay  ay_with_repeat h h_strict h_tolerant string  gs_to_array  function	F new  storage  F allocate  F checked  F mark  F marked  F setinitializer  F sparse  streams  F close  F getposition  F look  F open	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex F unittoxml  report sequencers	ay  ay_with_repeat  h h_strict h_tolerant  string  gs_to_array	F new  storage  F allocate F checked F mark F marked F setinitializer F sparse  streams F close F getposition F look F open F read2dot14 F readbyte F readbytes	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex F unittoxml  report  sequencers F appendaction	ay  ay_with_repeat h h_strict h_tolerant string  gs_to_array  function	F new  storage  F allocate  F checked  F mark  F marked  F setinitializer  F sparse  streams  F close  F getposition  F look  F open  F read2dot14  F readbyte  F readbytes  F readcardinal	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex F unittoxml  report  sequencers F appendaction F appendgroup	ay  ay_with_repeat h h_strict h_tolerant string  gs_to_array  function	F new  storage  F allocate F checked F mark F marked F setinitializer F sparse  streams F close F getposition F look F open F read2dot14 F readbyte F readcardinal F readcardinal	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex F unittoxml report sequencers F appendaction F appendgroup F compile	ay  ay_with_repeat h h_strict h_tolerant string  gs_to_array  function	F new  storage  F allocate F checked F mark F marked F setinitializer F sparse  streams F close F getposition F look F open F read2dot14 F readbyte F readbytes F readcardinal F readcardinal2	table
F rfc4180splitter F runtime F settings_to_arr F settings_to_has F settings_to_has F settings_to_has F settings_to_has F settings_to_set F simple_hash_to_ F splitmethod F splitthousands F stepper F stripped_settin F unittotex F unittoxml  report  sequencers F appendaction F appendgroup	ay  ay_with_repeat h h_strict h_tolerant string  gs_to_array  function	F new  storage  F allocate F checked F mark F marked F setinitializer F sparse  streams F close F getposition F look F open F read2dot14 F readbyte F readcardinal F readcardinal	table

F readchar F replace F readfixed4 F replacer F readinteger F resolve F readinteger1 F readinteger2 F readinteger4 F readstring F setposition F size F skip F skipbytes F skiplong F skipshort strings table F collapsecrlf T formatters F add F new F newrepeater F nice T striplinepatterns U collapse U prune U prune and collapse U prune and no empty U retain U retain and collapse U retain and no empty F striplines F striplong F tabtospace T tracers tables table F accesstable F definedtable F definetable F encapsulate F insertaftervalue F insertbeforevalue F migratetable F removevalue F replacevalue templates table

F load

#### vf (context)

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

## visualizers (context)

escapepatterns	data table	
getspecification	function	
getvisualizer	function	
load	function	
makenested	function	
makepattern	function	
newgrammar	function	
newhandler	function	
parsedxml	function	
pattern	function	
register	function	
registerescapecommand	function	
registerescapeline	function	
registerescapepattern	function	
signal	string	
signalpattern	userdata	
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 parsedxml	
addspecialcode	function	D string	
after	function	D tex	
all	function	D texline	
applylpath	function	D texspace	
assign	function	D verbose	
attribute	function	defaultprotocol	string
badinclusions	function	delete	function
before	function	<del>delete_element</del>	function
body	function	each	function
builtinentities	table	<del>each_element</del>	<del>function</del>
B amp		elements	function
B apos		elementtocdata	function
B gt		empty	function
B lt		entities	data table
B quot		erase	function
cdata	function	errorhandler	function
cdatatotext	function	escaped	function
checkbom	function	expressions	table
checkerror	function	F boolean	
checknamespace	function	F child	
checkns	function	F contains	
cleansed	function	F count	
collect	function	F error	
collect_elements	<del>function</del>	F find	
collect_tags	function	F idstring	
collect_texts	<del>function</del>	F lower	
collected	function	F name	
collecttexts	function	F number	
content	function	F oneof	
convert	function	F print	
сору	function	F quit	
count	function	F tag	
cprint	function	F text	
css	table	F undefined	
F colorspecification		F upper	
F dimension		fillin	function
F fontspecification		filter	function
F padding		finalizers	table
defaulthandlers	table	F paragraphs	
D file		T tex	

_	all	F match	
	attribute	F name	
	chainattribute		
		F position F reverse	
	chainpath	F table	
	concat	F tag	
	concatrange	F tags	
	context	F text	
	count	F texts	
-		F upperall first	function
	default	found	function function
	first		
	function	functions	table
	index	getbuffer	function
	last	gethandlers	function
	lettered	gethandlersfunction	function
	lower	helpers	table
-	lowerall	F recursetext	£
	match	include	function
	name	inclusion	function
	position	inclusions	function
	reverse	index	function
	stripped	inheritedconvert	function
F	tag	inject	function
	tags	inject_element	function
	text	<pre>inject_element_after</pre>	function
F	upper	<pre>inject_element_before</pre>	function
	upperall	injectafter	function
Τx		injectbefore	function
	all	insert	function
	att	insert_element	function
	attribute	insert_element_after	function
	attributes	insert_element_before	function
	cdata	insertafter	function
	chainattribute	insertbefore	function
F	count	insertcdata	function
F	default	insertcomment	function
F	elements	inspect	function
	empty	is_valid	function
	first	kind	function
	function	last	function
	index	lastmatch	function
	last	load	function
F	lowerall	lpath	function

lpathcached	function	selection	function
lpathcalls	function	separate	function
lshow	function	serialize	function
makestandalone	function	setcdata	function
match	function	setcomment	function
name	function	sethandlersfunction	function
newhandlers	function	setinjectors	function
nodesettostring	function	setproperty	function
originalload	function	settings	function
package	function	specialcodes	table
parent	function	S "	
parsedentitylpeg	userdata	S #	
pihandlers	table	S \$	
F injector		S %	
placeholders	table	S &	
F unknown_any_entity		S '	
F unknown_dec_entity		S <	
F unknown_hex_entity		S >	
position	function	S \	
privatecodes	table	S {	
privatetoken	function	S	
process	function	S }	
<pre>process_attributes</pre>	<del>function</del>	S ~	
<pre>process_elements</pre>	<del>function</del>	specialhandler	table
processattributes	function	sprint	function
profiled	table	string	function
raw	function	strip	function
registerentity	function	<pre>strip_whitespace</pre>	<del>function</del>
registerns	function	stripelement	function
reindex	function	stripleadingspaces	function
remap_name	<del>function</del>	table	function
remap_namespace	<del>function</del>	text	function
remap_tag	<del>function</del>	textonly	function
remapname	function	texttocdata	function
remapnamespace	function	tocdata	function
remaptag	function	toelement	function
renamespace	function	tostring	function
reparsedentitylpeg	userdata	totable	function
replace	function	toxml	function
replace_element	function	tprint	function
resetinjectors	function	traverse	function
resolvens	function	unescaped	function
root	function	unescapedentitylpeg	userdata
save	function	unprivatized	function

unspecialized	function
withelement	function
withelements	function
wrap	function
xmlns	table

#### zip (extra lua)

archivestableclosefunctionclosearchivefunction

openarchive function
openfile function
registeredfiles table
type function

# zlib (extra lua)

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