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

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

## global (alias: \_G)

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

mathematics table table mhox md5 table table metapost mime table module function moduledata table modules table mp table mplib table function newproxy function next noads table node table table nodes number table objects table oldtoken number optionalrequire function os table package table pagebuilders table function pairs table parametersets pcall function pdf table pdfscanner table table physics function print profiler table publications table rawequal function function rawget rawlen function rawset function regimes table require function resolvers table resolvestoredfunction function sandbox table scripts table select function set table setfenv function

setinspector setmetatable socket sorters statistics status storage streams string structures swialib table tex texconfig texio thirddata toboolean tokens tonumber tostring tracers trackers type typesetters unicode unpack url userdata utf utilities νf visualizers xml xpcall zip zlib

function function table table table table table table table table function table table table table table function table function function table table function table table function table table table table table table table function table 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)

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

con
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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 process
T features		F registermain
N blwf		F report
N fina		F reset
N half		T vectors
N init		constructors table
N isol		F addcoreunicodes
N medi		F aftercopyingcharacters
N pref		F applymanipulators
N pstf		F assignmathparameters
N rphf		B autocleanup
D initializers		F beforecopyingcharacters
D methods		D cache
F setstate		B cacheintex
T states		F calculatescale
N blwf		F checkedfeatures
N fina		F checkedfilename
N half		F checkvirtualids
N init		F cleanuptable
N isol		F collectprocessors
N mark		F currentfonthasfeature
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	F hashfeatures
F getmissing		F hashinstance
F missing		T hashmethods
F placeholder		F normal
cid	table	F virtual
F getmap		F initializefeatures
F loadfile		T keys
collections	table	T character
F checkenabled		S depth
F clonevector		S height
F define		S italic
T definitions		S width
F found		T description
F prepare		T boundingbox

S depth	S xheight	
S height	T properties	
S width	S autoitalicamo	ount
T parameters	T cidinfo	
S ascender	S embedding	
S descender	S encodingbytes	5
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 resolvevirtualto	0
S extra_space	F scale	
S extraspace	F scaled	
S slant	F setfactor	
S space	F setname	
S space_shrink	B sharefonts	
S space_stretch	F trytosharefont	
S spaceshrink	N version	
S spacestretch	current	function
S x_height	currentid	function
S units	definers	table
S vfactor	F addlookup	

F analysis	N Engunillia
F analyze	N Encyrillic
F applypostprocessors F checkedmode	N Ercyrillic
	N Ereversedcyrillic
F checkedscript	N Escyrillic
F current	N Fitacyrillic
S defaultlookup	N Gcedilla
F define	N Gdot
F getspecification	N Gecyrillic
F internal	N Gheupturncyrillic
Floadfont	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 Iecyrillic
F registered	N Iicyrillic
F registersplit	N Iishortcyrillic
F resetnullfont	N Iocyrillic
F resolve	N Izhitsacyrillic
T resolvers	N Jecyrillic
F file	N Kacyrillic
F name	N Kcedilla
F spec	N Khacyrillic
F spec <b>definetypeface</b> function	N Khacyrillic N Kjecyrillic
definetypeface function	N Kjecyrillic
definetypeface function encodings table	N Kjecyrillic N Lcedilla
<pre>definetypeface function encodings table T agl</pre>	N Kjecyrillic N Lcedilla N Ljecyrillic
<pre>definetypeface function encodings table  T agl     D ctxcodes</pre>	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla
definetypeface function encodings table  T agl D ctxcodes D extras	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic
definetypeface function encodings table  T agl D ctxcodes D extras D names	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic
definetypeface function encodings table  T agl D ctxcodes D extras D names T synonyms	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute
definetypeface function table  T agl D ctxcodes D extras D names T synonyms N Acyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic
definetypeface function table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic N Decyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic N Decyrillic N Djecyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic N Softsigncyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic N Decyrillic N Decyrillic N Decyrillic N Decyrillic N Decyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic N Softsigncyrillic
definetypeface function encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic N Decyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic N Softsigncyrillic N Tcedilla N Tecyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Checyrillic N Decyrillic N Decyrillic N Decyrillic N Dzecyrillic N Dzecyrillic N Dzecyrillic N Dzecyrillic N Dzecyrillic N Dzecyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic N Shchacyrillic N Softsigncyrillic N Tcedilla N Tecyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic N Decyrillic N Djecyrillic N Dzecyrillic N Dzecyrillic N Dzhecyrillic N Ecyrillic N Ecyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic N Shchacyrillic N Toedilla N Tecyrillic N Tecyrillic N Tecyrillic
definetypeface encodings table  T agl D ctxcodes D extras D names T synonyms N Acyrillic N Becyrillic N Cdot N Checyrillic N Djecyrillic N Djecyrillic N Dzecyrillic N Dzhecyrillic N Edot N Efyrillic N Efcyrillic	N Kjecyrillic N Lcedilla N Ljecyrillic N Ncedilla N Njecyrillic N Ocyrillic N Odblacute N Ohm N Pecyrillic N Rcedilla N Shacyrillic N Shchacyrillic N Toedilla N Tecyrillic N Tecyrillic N Tsecyrillic N Tshecyrillic

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 of abthrotohoomed
3 3 3 3	N eighthnotebeamed
N blackleftpointingpointer	N etnahtafoukhhebrew
	_
N blackleftpointingpointer	N etnahtafoukhhebrew
N blackleftpointingpointer N blackrectangle	N etnahtafoukhhebrew N etnahtafoukhlefthebrew
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew N finalkafqamats
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew N finalkafqamats
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew N finalkafqamats N finalkafqamats
N blackleftpointingpointer N blackrectangle N blacksightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh N dalet	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew N finalkafqamats N finalkafqamats N finalkafqamatshebrew N finalkafsheva N finalkafsheva
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh N dalet N daletdagesh	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew N finalkafqamats N finalkafqamats N finalkafqamatshebrew N finalkafsheva N finalmem N finalnun
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh N dalet N daletdagesh N dalethatafpatah	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafhebrew N finalkafqamats N finalkafqamats N finalkafqamatshebrew N finalkafsheva N finalmem N finalnun
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh N dalet N daletdagesh N dalethatafpatah	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafdebrew N finalkafqamats N finalkafqamats N finalkafqamatshebrew N finalkafsheva N finalmem N finalnun N finalpe N finaltsadi
N blackleftpointingpointer N blackrectangle N blackrightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh N dalet N dalethatafpatah N dalethatafpatahhebrew N dalethatafsegol	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafdebrew N finalkafqamats N finalkafqamats N finalkafqamatshebrew N finalkafsheva N finalmem N finalnun N finalpe N finaltsadi N fivearabic
N blackleftpointingpointer N blackrectangle N blacksightpointingpointer N blacksmilingface N blacksquare N blackuppointingtriangle N bulletinverse N cdot N compass N dagesh N dalet N daletdagesh N dalethatafpatah N dalethatafpatahhebrew N dalethatafsegol N dalethatafsegolhebrew	N etnahtafoukhhebrew N etnahtafoukhlefthebrew N etnahtahebrew N fathaarabic N finalkaf N finalkafdagesh N finalkafdebrew N finalkafqamats N finalkafqamatshebrew N finalkafsheva N finalmem N finalnun N finalpe N finaltsadi N fivearabic N forall

N gdot

N dalethiriqhebrew

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 hamzafathatanarahic N integralbottom N hamzalowarabic N integraltop N hamzalowkasraarabic N kaf N hamzalowkasratanarabic N kafdagesh N hatafpatah N kashidaautoarabic N hatafpatah16 N kashidaautonosidebearingarabic N hatafpatah23 N kcedilla N hatafpatah2f N lamed N hatafpatahhebrew N lameddagesh N hatafpatahnarrowhebrew N lamedhebrew N hatafpatahquarterhebrew N lamedholam N hatafgamats N lamedholamdagesh N hatafgamats1b N lamedholamdageshhebrew N hatafqamats28 N laminitialarabic N lammeemjeeminitialarabic N hatafgamats34 N hatafgamatshebrew N lcedilla N hatafqamatsnarrowhebrew N logicalnotreversed N hatafqamatsquarterhebrew N mahapakhhebrew N hatafsegol N mem N hatafsegol17 N memdagesh N hatafsegol24 N merkhahebrew N hatafsegol30 N merkhakefulahebrew N hatafsegolhebrew N middot N hatafsegolnarrowhebrew N munahhebrew N hatafsegolquarterhebrew N nbspace N he N ncedilla N hedagesh N newshegelsign N hehfinalalttwoarabic N ninearabic N het N noonhehinitialarabic N hiriq N nun N hiriq14 N nundagesh N hiria21 N odblacute N hiriq2d N onearabic N hiriqhebrew N overscore N hirignarrowhebrew N patah

N patah11

N hirigguarterhebrew

N patahld N aubuts N qubuts18 N patah2a N qubuts25 N patahhebrew N patahnarrowhebrew N qubuts31 N patahquarterhebrew N gubutshebrew N pe N gubutsnarrowhebrew N qubutsquarterhebrew N pedagesh N quoteleftreversed N gamats N gamats10 N rafe N rcedilla N gamatsla N gamats1c N reharabic N gamats27 N resh N gamats29 N reshhatafpatah N gamats33 N reshhatafpatahhebrew N gamatsde N reshhatafsegol N gamatshebrew N reshhatafsegolhebrew N gamatsnarrowhebrew N reshhebrew N gamatsgatanhebrew N reshhiriq N qamatsqatannarrowhebrew N reshhirighebrew N gamatsgatanguarterhebrew N reshholam N gamatsgatanwidehebrew N reshholamhebrew N gamatsquarterhebrew N reshpatah N reshpatahhebrew N qof N gofdagesh N reshgamats N qofhatafpatah N reshgamatshebrew N qofhatafpatahhebrew N reshaubuts N qofhatafsegol N reshqubutshebrew N qofhatafsegolhebrew N reshsegol N qofhebrew N reshsegolhebrew N gofhirig N reshsheva N gofhirighebrew N reshshevahebrew N qofholam N reshtsere N qofholamhebrew N reviahebrew N samekh N gofpatah N gofpatahhebrew N samekhdagesh N qofqamats N segol N gofgamatshebrew N segol13 N gofgubuts N segol1f N qofqubutshebrew N segol2c N qofsegol N segolhebrew N qofsegolhebrew N segolnarrowhebrew N gofsheva N segolquarterhebrew N qofshevahebrew N sevenarabic N goftsere N sfthyphen

N	shaddaarabic	N vavholam	
		N vavholam N yerahbenyomohebrew	
	sheya		ebrew
	sheva115	N yod	
		N yoddagesh	
	sheva15	N zayin	
	sheva22	N zayindagesh	
	sheva2e	N zdot	
	shevahebrew	N zeroarabic	
	shevanarrowhebrew	D unicodes	
	shevaquarterhebrew 	D cache	
	shin	F is_known	
	shindagesh	D known	
	shindageshshindot	F load	
	shindageshsindot	F make_unicode_vect	tor
	shinshindot	D math	
	shinsindot	N version	
	siluqhebrew	enhanceid	function
	sixarabic	expansions	data table
	tav	formats	data table
	tavdages	getalternate	function
	tavdagesh	getdiscexpansion	
	tcedilla	getkern	function
N	tchehinitialarabic	getmultiple	function
N	tet	getsubstitution	function
N	tetdagesh	<b>getters</b> table	
N	tevirhebrew	T alternate	
N	thousandsseparatorarabic	F opentype	
N	threearabic	T kern	
N	tildecmb	F opentype	
N	tipehahebrew	F type1	
N	tsadi	T multiple	
N	tsadidagesh	F opentype	
N	tsere	T substitution	
N	tsere12	F opentype	
N	tserele	goodies	table
N	tsere2b	D colorschemes	
N	tserehebrew	D data	
N	tserenarrowhebrew	D designsizes	
N	tserequarterhebrew	D filenames	
N	twoarabic	F getcompositions	
N	udblacute	T list	
N	vav	F compositions	
N	vavdagesh	F designsizes	
N	vavdagesh65	F expansions	

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	5	F getalternate
F register		F getgsub
F registerpostprod	cessor	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 addtexligature	25	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 load
F collectlookups	:	F packoutlines
T coverup		T readers
T actions		F addunicodetable
F alternate		D cache
F chainpositi		F cff
F chainsubsti	itution	F checkhash
F kern		F cmap
F ligature		F compact
F multiple		F expand

F gdef	F skipshort
F getinfo	N tableversion
F glyf	F unpack
F gpos	N version
F gsub	F scriptandlanguage
F head	F setdynamics
F hhea	F setfeatures
F hmtx	T statistics
F kern	D usedfeatures
F loadfont	T tables
F loadshapes	D baselines
F loca	D features
F math	D featuretypes
F maxp	D languages
F name	D scripts
F os/2	F unpackoutlines
F pack	N version
F post	T pfb
F rehash	T tfm
T streamreader	D features
F close	N maxnestingdepth
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	<b>hashes</b> table
F readinteger1	D characters
F readinteger2	D csnames
F readinteger4	D descriptions
F readstring	D dynamics
F readtag	D emwidths
F setposition	D exheights
F size	D extensibles
F skip	D features
F skiplong	D identifiers

D italics		Fre	eportusedfeatures	5
D lastmathids		mappir	ngs	table
D marks		F ac	ddtounicode	
D modes		F fi	romunicode16	
D originals		Flo	oadfile	
D parameters		Flo	oadline	
T processes		F ma	akenameparser	
D properties		D ov	verloads	
D quads		Fre	eset	
D resources		F to	ounicode	
T setdynamics		F to	ounicode16	
T shapes		F to	ounicode16sequend	ce
D spaces		metapo	ost	table
D spacings		F bo	oundingbox	
D unicodes		F bo	oxtomp	
D variants		F dı	raw	
D xheights		F fi	ill	
helpers	table	F ma	axbounds	
F addprivate		Fou	ıtput	
F dimenfactor		F pa	aths	
F expandglyph			idthline	
F fontpatternhassi	ze	F ze	eroline	
F getdigitwidth		mp		table
F getparameters		D ca	ache	
F getprivatenode			nline	
F hasprivate			ersion	
F indextoslot		names		data table
F name		nullda		data table
F nametoslot		protru		data table
F setdigitwidth		reade		table
F splitfontpattern		F at		
F tochar infofont	function		neck_lua	
iterators	table		neck_tfm	
	table	Fli		
F characters			pentype	
F descriptions		F of		
F glyphs <b>loggers</b>	table	F pt		
F add_placeholders		F ti	equence	
D category_to_place		Fti		
F format	CHOCUEI	Ftt		
F onetimemessage		reser\		function
F register		select		table
F reportdefinedfon	ıts	T da		-30 -0
i reportuerineuron	11.3	I Q	icu	

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 table symbols F uselibrary tables table tracers table treatments table F applyfixes D data S filename F ignoredfile F report F trace typefaces data table

# functions (context)

**dummy** function

### graphics (context)

#### backgrounds table

- F calculatemultipar
- F fetchmultipar
- F pair
- F path
- F point

### gsubfeatures (context)

```
anum
                   table
   T arab
    B dflt
    B urd
char-ligatures
                table
   T *
    B *
compat-ligatures table
   T *
    B *
tlig
                   table
   T *
                   table
trep
   T *
    B *
```

### gzip (extra lua)

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

# img (basic tex)

function
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 filterreference F enabletrackers F finalizebox F enabletransparency F findtwopassdata F enableutf F finishcolumnsetflush F enhancelinkedlist F finishexport F enhancelist F firstcountervalue F enhancereference F firstinset F enhanceregister F firstsubcountervalue F eposcolumn F flushcolumnsetareas F eposcolumnregistered F flushcolumnsetcolumn F erasebuffer F flushcolumnsetrest F flushfloat F execute F expandcurrentreference F flushlabeledfloat F exportformdata F flushnotes F exportreferences F flushpageinjectionsafter F extendregister F flushpageinjectionsbefore F extensiblecode F flushpostponedblocks F featureattribute F flushpostponednotes F featurelist F flushstream F feedback F flushstreamcopy F fetchallmarks F fontchar F fetchmultipar F fontcharbvindex F fetchmultishape F fontcollectionclone F fetchonemark F fontcollectiondefine F fetchposboxes F fontcollectionprepare F fetchtwomarks F fontcollectionregister F fontcollectionreport F figure\_check F figure done F fontcollectionreset F figure dummy F fontlookupgetkey F figure\_identify F fontlookupgetkeyofindex F figure\_include F fontlookupinitialize F figure mergegoodies F fontlookupnoffound F figure pop F forceendjob F figure push F forcequitjob F formatcolor F figure\_reset F figure scale F formatgray F figurefilename F from F figurefilepath F getbidimode F figurefiletype F getbodyfontsizes F figurerequest F aetbuffer F figuresetdimensions F getbufferctxlua F figurestatus F getbuffermkvi F figureused F getcheckedinterfaceparameters

F getcurrentprefixspec

F filterdefaultreference

F getcurrentreferencemetadata F helpreference F getdefaultfieldvalue F hexstringtonumber F getdocumentargument F horizontalcode F hour F getdocumentfilename F getelementtag F hyphenatedlist F getfieldcategory F hyphenatedurl F getfile F immediatemessage F getfirstcharacter F increment counter F getfirsttwopassdata F incrementedcounter F getfloatvariable F incrementsubcounter F getfullstructurenumber F initializeiob F getinternallistreference F initializemathdomain F getlasttwopassdata F initializemathitalics F getmarking F initializestream F getmathdomain F initializetexdirectives 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 getobjectreferencepage F inputfilesuffix F getprivatechar F insertattachment F getprogram F insertcomment F insertfield F getrandomdimen F getrandomfloat F insertionnumber F insertrenderingwindow F getrandomnumber 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 getstructurenumber F lastcountervalue F lastsubcountervalue F getsubstring F gettexbuffer F lchexnumber F lchexnumbers F gettwopassdata F gettwopassdatalist F leapyear F geturl F linenumbersstageone F linenumbersstagetwo F getvisual F hboxtovbox F listgroupindex F helpaction F listlabel

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 E listuserdata F mixflushlist F loadexamodes F mixflushrest F loadfontgoodies F mixgetsplit F loadluamodule F mixsetsplit F loadmapfile F mixstate F loadmapline F molecule F loadspellchecklist F month F loadtypescriptfile F monthmnem F loadvisualizer F monthname F locatefilepath F mpcolor F locfilename F mpflushliteral F mpflushreset F lower F lpdf adddocumentcolorspace F mpgettext F lpdf adddocumentextgstate F mpgraphic F lpdf adddocumentpattern F mpoptions F lpdf\_adddocumentshade F morunset F mpruntab F lpdf\_addtocatalog F lpdf addtoinfo F mprunvar F lpdf addtonames F mpsetclippath F mpsetoutercolor F lpdf\_addtopageattributes 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 nextparallel F markregionbox F markregionboxcorrected F nextsubcountervalue F markregionboxtagged F nofdays F markvisualfonts F nofstackedfloats F mathfraction F notedeltapage

F notelistindex

F mathrenderset

F notenumberpage F presettabulate F noteprefixednumber F prevcountervalue F notesymbolpage F previoussubcountervalue F notetitle F processbodyfontsizes F ntimes F processbuffer F number F processcolorcomponents F numbers F processedfile Foctnumber 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 parpos F processsplit F pdfrotation F processsynonyms F pdfstartmatrix F profilebox F purefontname F pdfstartmirroring 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 pushregime F pgfxcolorspec F pickupbuffer F pushsectionblock F pickupmarkedcontent F pushstream F pickuppunctuation F putincolumnset F rawcharacter F placeparallel F popfloat F rawcountervalue F pophyphenation F rawdate F popitaliccorrection F rawsubcountervalue F poplist F referencepagedetail F poppath F referencepagestate F poprandomseed F referencerealpage F popreferenceprefix F registerattachment F popregime F registerbackendsymbol F popsectionblock F registerbodyfontsize F postponenotes F registerbookmark F prefixedconverted F registerbuttons

F registercolorintent

F registercolumnsetarea

F preparecolumnsetflush

F presetsymbollist

F registeredviewerlaver F resetparallel F registerfigurepattern F resetpath F registerfiguresuffix F resetprevdepth F registerhelp F resetreference F registerhyphenationexception F resetscript F registerhyphenationpattern F resetshownsynonyms F resetstructureprocessor F registeritemaroup F registerlanguagefeatures F resetsubcounter F registerlinenumbering F resettimer F registermaintextcolor F resettrackers F registermpyfile F resetusedsvnonvms 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 reuserandomseed F registersection F registershownsynonym F revivefeature F registerstructureprocessor F romannumerals F registersynonym F rounded F registerunit F runbuffer F registerusedsynonym F runcontextjob F registeruserdata F safechar F relatemarking F savebuffer F renderingvar F savecounter F savecurrentattributes F replacefeature F replacepospxywhd F savedlistnumber F savedlistprefixednumber F reportstructure 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 savetaggedtwopassdata F resetitaliccorrection F resetmapfiles F savetwopassdata F resetmarking F savevariable

F resetmathitalics F selectstructureblock
F resetmullfont F setactivecatcodes

F resetmathattributes

F second

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

E setreferenceattribute F setvalidinterfacekevs F setreferenceoperation F setvisual F setvisualfont F setregionbox F setregionboxtagged F setvisuallaver F setregistermethod F setvsizecolumnset F setreplacements F setxmpfile 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 splitfilename F settagnotation F spotcolorname F settagnotationsymbol F settagproperty F spotcolorparent F settagproperty b F spotcolorvalue F startactualtext F settagproperty\_n 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 setupexport F startsectionlevel F setupfontexpansion F startstream F setupfontprotrusion F starttag F setupidentity F starttag c F setupinsertion F starttag\_d F setupitaliccorrection F starttag\_u F setuplinenumbering F starttext F setuserinterface F startviewerlayer

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

Fusetexfile 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 utfmathclass F xmlattdef F utfmathcommand F xmlattribute 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 verbose F xmlcommand F vspacing F xmlconcat F vspacingcollapse F xmlconcatrange F xmlcontext F vspacingcollapseonly F vspacingdefine F xmlcount F vspacingsetamount F xmldelete F vspacingsnap F xmldirect F xmldirectives F way F xmldirectivesafter F weekday F weekdavname F xmldirectivesbefore F writestatus F xmldisplavverbatim F xmldoif F x\_table\_c F x table cleanup F xmldoifelse F x table construct F xmldoifelseempty F x\_table\_create F xmldoifelseselfempty F x\_table\_finish\_row F xmldoifelsetext F x table flush F xmldoifempty F x table init construct F xmldoifnot F xmldoifnotempty F x\_table\_init\_reflow\_height 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 xmldoifselfempty F x\_table\_next\_row F xmldoiftext F xmlelement F x\_table\_next\_row\_option F x table r F xmlfilter F x\_table\_reflow\_height F xmlfilterlist F x\_table\_reflow\_width F xmlfirst F x table set construct F xmlflush F x\_table\_set\_reflow\_height F xmlflushcontext

F xmlflushlinewise
F xmlflushsetups
F xmlflushspacewise
F xmlfunction
F xmlgetindex
F xmlinclude

F xmlincludeoptionsF xmlinclusionF xmlinclusions

F xmlinlineverbatim

F xmlindex

F xmlinstalldirective

F xmllast
F xmllastatt
F xmllastmatch
F xmlload

F xmlloadbuffer F xmlloaddata

F xmlloaddirectives
F xmlloadentities

F xmlmain
F xmlmatch
F xmlname
F xmlnamespace
F xmlnonspace
F xmlpath
F xmlpos

F xmlprependsetup

F xmlraw
F xmlrawtex
F xmlrefatt
F xmlregisterns
F xmlremapname
F xmlremapnamespace
F xmlremovesetup

F xmlresetinjectors
F xmlresetsetups

F xmlsave

F xmlsetcommandtonone

F xmlsetcommandtotext

F xmlsetentity
F xmlsetinjectors
F xmlsetsetup

F xmlsnippet

F xmlstartraw
F xmlstarttiming
F xmlstopraw
F xmlstoptiming
F xmlstrip

F xmlstripanywhere F xmlstripnolines F xmlstripped

 ${\sf F} \ {\sf xmlstrippednolines}$ 

F xmltag
F xmltexentity
F xmltext
F xmltobuffer

F xmltobufferverbose

F xmltofile
F xmltoparameters
F xmlverbatim
F xmlwithindex
F year

setconstant setcount setdimen setelement setformat setmacro setmessage setmessages settranslation setuserinterface setvalidkeys setvariable showmessage storedscanners strings syntax

tolist translations variables writestatus function function

function data table data table function

data table

table

#### io (basic lua)

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

loadchunk function
loaddata function
loadlines function
noflines function

open overloaded function
output overloaded function

pathseparator string

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
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)

F registerexception

associate	function	F registerpattern	
associated	data table	F setfeatures	
association	function	installed	function
counters	data table	labels	table
current	function	F define	
data	data table	F split	
decimals	data table	lefthyphenmin	function
define	function	loadable	function
expand	function	loadwords	function
expanders	table	logger	table
frequencies	table	F report	
F averagecharwidth		numbers	data table
F getdata		postexhyphenchar	function
getdata	function	posthyphenchar	function
getnumber	function	preexhyphenchar	function
hyphenate	function	prehyphenchar	function
hyphenators	table	registered	data table
T dictionaries		replacements	table
D featuresets		F add	
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		version	number
F pushmethod		visualizediscretionaries	function
F setmethod		words	table
F setup		F check	
F showhyphenationtrace		T data	
T traditional		F disable	
F definefeatures		F enable	
F gettrace		T enablers	
F hyphenate		B enables	
F injecthyphens		F found	
F installmethod		F load	
F lasttrace		T methods	
F loadpatterns		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 function show 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	pagedestinations	data table
colorvalue	function	pagereference	function
colorvalues	function	pagereferences	data table
constant	function	pdfcolor	function
delayedobject	function	pdftimestamp	function
destinationspecification	function	protectresources	boolean
dictionary	function	rectangle	function
docstring	function	reference	function
epdf	table	registerannotation	function
F contenttotext		registerdestination	function
F expand		registerdocumentfinalizer	function
F expanded		registerpagefinalizer	function
F getpagecontent		reserveobject	function
F getstructure		rgbcode	function
F load		rotationcm	function
F unload		shareobject	function
escaped	function	shareobjectreference	function

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

B none

transparencyvalue function
unicode function
verbose function

## lpeg (basic lua)

В	function	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)

collectgarbage function delay function finalize function firstbytecode number function flush flushdelayed function get\_functions\_table function getbytecode function function getluaname lastbytecode number mask strina data table messages table name

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)

- 442 - 4	for the co	£1h	£
addindex	function	flush	function
all	function	flushlinewise	function
applyfunction	function	flushsetups	function
applyselectors	function	flushspacewise	function
att	function	get_id	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	raw	function
doifnot	function	rawroot	function
doifnotempty	function	rawtex	function
doifnottext	function	refatt	function
doiftext	function	register	function
element	function	registerentity	function
elements	function	removesetup	function
entities	data table	resetcdata	function
filter	function	resetsetups	function
filterlist	function	resolvedentity	function
first	function	root	function

function save serialize function setaction function setcdata function setcommandtonone function setcommandtotext function setsetup function function snippet table sorters F add

F add

F compare
F flush
F reset
F show

F sort

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

## math (basic lua)

abs	function
acos	function
asin	function
atan	function
atan2	function
ceil	function
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

setoutercolor
settext function
showlog boolean
svformat function
tex table

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)

сору	function	F is_direct	
copy_list	function	F is_node	
count	function	F kerning	
current attr	function	F last_node	
dimensions	function	F length	
direct	table	F ligaturing	
F copy		F new	
F copy_list		F protect_glyph	
F count		F protect_glyphs	
F current_attr		F protrusion_skippable	
F dimensions		F remove	
F do_ligature_n		F set_attribute	
F effective_glue		F set_properties_mode	
F end_of_math		F setboth	
F first_glyph		F setbox	
F flush_list		F setchar	
F flush_node		F setdisc	
F flush_properties_table		F setfield	
F free		F setleader	
F get_attribute		F setlink	
F get_properties_table		F setlist	
F getboth		F setnext	
F getbox		F setprev	
F getchar		F setproperty	
F getdisc		F setsubtype	
F getfield		F slide	
F getfont		F tail	
F getid		F todirect	
F getleader		F tonode	
F getlist		F tostring	
F getnext		F traverse	
F getprev		F traverse_char	
F getproperty		F traverse_id	
F getsubtype		F unprotect_glyphs	
F has_attribute		F unset_attribute	
F has_field		F usedlist	
F has_glyph		F vpack	
F hpack		F write	
F insert_after		do_ligature_n	function
F insert_before		effective_glue	function
F is_char		end_of_math	function

familia fami	e
<pre>family_font fields</pre>	function function
	function
first_glyph flush_list	function
<del>-</del>	
flush_node	function
<pre>flush_properties_table</pre>	function
free	function
get_attribute	function
<pre>get_properties_table</pre>	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_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
protrusion_skippable	function
remove	function
set_attribute	function
set_properties_mode	function

setfield function setproperty function slide function subtype function subtypes function function tail tostrina function function traverse function traverse char 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	getattr	function
astable	function	getattribute	function
basepoints	function	getbox	function
builders	table	getchar	function
F buildpage_filter		getfield	function
F vpack_filter		getfont	function
codes	data table	getid	function
concat	function	getleader	function
сору	function	getlist	function
copy_list	function	getnext	function
copy_spec	function	getprev	function
count	function	getskip	function
current_attr	function	getsubtype	function
delete	function	gluecodes	data table
destinations	table	glyphcodes	data table
N attribute		glyphdir_is_equal	data table
T done		glyphdir_is_opposite	data table
F handler		glyphdir_is_orthogonal	data table
T stack		handlers	table
dimensionfields	data table	F accessibility	
dimensions	function	F alignbackgrounds	
dir_is_pop	data table	F backgrounds	
		F characters	
dir_negation	data table	r characters	
dir_negation disccodes	data table data table	F checkforleaks	
	data table data table		
disccodes discretionarycodes do_ligature_n	data table data table function	F checkforleaks	
discodes discretionarycodes do_ligature_n effective_glue	data table data table function function	F checkforleaks F checkglyphs	
discodes discretionarycodes do_ligature_n effective_glue end_of_math	data table data table function function function	F checkforleaks F checkglyphs F cleanupbox	
disccodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes	data table data table function function function data table	F checkforleaks F checkglyphs F cleanupbox F cleanuppage	
discodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields	data table data table function function function data table function	F checkforleaks F checkglyphs F cleanupbox F cleanuppage F export	
discodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes	data table data table function function function data table function data table	F checkforleaks F checkglyphs F cleanupbox F cleanuppage F export F finalize	
disccodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph	data table data table function function function data table function data table function	F checkforleaks F checkglyphs F cleanupbox F cleanuppage F export F finalize F migrate	
discodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph firstcharacter	data table data table function function data table function data table function data table function function	F checkforleaks F checkglyphs F cleanupbox F cleanuppage F export F finalize F migrate F protectglyphs F stripping F unprotectglyphs	
disccodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph firstcharacter firstcharinbox	data table data table function function data table function data table function data table function function function	F checkforleaks F checkglyphs F cleanupbox F cleanuppage F export F finalize F migrate F protectglyphs F stripping F unprotectglyphs has_attribute	function
discodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph firstcharacter firstcharinbox firstdirinbox	data table data table function function data table function data table function data table function function function function	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
disccodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph firstcharacter firstcharinbox firstglyph	data table data table function function data table function data table function data table function function function function function function	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
disccodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph firstcharacter firstdirinbox firstglyph flush_list	data table data table function function data table function data table function function function function function function function function function	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
disccodes discretionarycodes do_ligature_n effective_glue end_of_math fencecodes fields fillcodes first_glyph firstcharacter firstcharinbox firstglyph	data table data table function function data table function data table function data table function function function function function function	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

<pre>injections     F copy</pre>	table	listablefields listcodes
F getligaindex		listtoutf
F handler		load
F installnewkern		locate
F keepcounts		margincodes
F reset		marginkerncodes
F resetcounts		markers
F setcursive		Faet
F setkern		mathcodes
F setligaindex		maxboxwidth
F settigatildex		mlist to hlist
		new
F setpair insert after	function	noadcodes
insert_arter	function	nodecodes
<del>-</del>	function	
<pre>insert_list_after installattributehandler</pre>	function	nopts nuts
	function	
is_direct	function	F append
is_display_math	data table	F concat
is_mirrored		F copy
is_node	function	F copy_list
is_nut	function	F copy_properties
is_rotated	data table	F count
kerncodes	data table	F current_attr
kerning	function	F delete
keys	table	F dimensions
T whatsit		F do_ligature_n
last_node	function	F effective_glue
leadercodes	data table	F end_of_math
leftmarginwidth	function	F first_glyph
ligaturing	function	F firstcharacter
lines	table	F firstcharinbox
T boxed		F firstglyph
F register		F flush_list
F setup		F flush_node
F stage_one		F free
F stage_two		F fullhpack
D data		F getattr
F finalize		F getattribute
F number		F getboth
N scratchbox		F getbox
link	function	F getchar
linked	function	F getdisc
list	function	F getfield

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

data table function function function data table data table function

table

F lateluafunction F aetfont F getid F leftmarginkern F getleader F leftskip F getlist F lineskip F getnext F negatedglue F getprev F noad F getprop F pdfannotation F getskip F pdfdestination F getsubtype F pdfdirect F has attribute F pdfliteral F has field F pdfrestore F pdfsave F has glyph F hpack F pdfsetmatrix F insert after F penalty F insert before F register F insert\_list\_after F rightmarginkern F is\_char F rightskip F is direct F rule F shrink F is display math F special F is node F is nut F stretch F kerning F temp F last\_node F textdir 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 userlist F nestedtracedslide F usernumber F new T pool F userstring F baselineskip Fusertokens F cleanup F vlist F disc F zeroglue F emptyrule F prepend F fontkern F protect\_glyph F glue F protect\_glyphs F gluespec F protrusion\_skippable F glyph F rawprop F hlist F reference F italickern F remove F kern F repackhlist F latelua F replace

F set_attribute F unsetattributes F setattr F untracedslide	
E cotatte E untracedolida	
1 Secarti	
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 f	unction
F setleader pardir_is_equal d	lata table
F setlink pardir_is_opposite d	lata table
F setlist pardir_is_parallel d	lata table
F setnext partextdir_is_equal d	lata table
F setprev <b>penaltycodes</b> d	lata table
F setprop <b>plugindata</b> t	able
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 f	unction
•	unction able
· _	
F tonut pool t	
F tonut pool t F tosequence F baselineskip	
F tonut pool t F tosequence F baselineskip F tostring F cleanup	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph F traverse F kern	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph F traverse F traverse_char F latelua	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph F traverse F kern F traverse_char F traverse_id F latelua F lateluafunction	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph F traverse F kern F traverse_char F traverse_id F latelua T typesetters F lineskip	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph F traverse F kern F traverse_char F traverse_id F latelua F traverse_id F lateluafunction T typesetters F lineskip F tohbox F pdfdirect	
F tonut pool t F tosequence F baselineskip F tostring F cleanup F tracedslide F glyph F traverse F kern F traverse_char F latelua F traverse_id F lateluafunction T typesetters F lineskip F tohbox F pdfdirect F tohpack F pdfliteral	
F tonut pool t  F tosequence F baselineskip  F tostring F cleanup  F tracedslide F glyph  F traverse F kern  F traverse_char  F traverse_id F latelua  F traverse_id F lateluafunction  T typesetters F lineskip  F tohbox F pdfdirect  F tohpack F pdfliteral  F tonodes F pdfsave  F tovpack F pdfsave  F tovpack F pdfsetmatrix	
F tonut pool t  F tosequence F baselineskip  F tostring F cleanup  F tracedslide F glyph  F traverse F kern  F traverse_char F latelua  F traverse_id F lateluafunction  T typesetters F lineskip  F tohbox F pdfdirect  F tohpack F pdfliteral  F tonodes F pdfrestore  F tovbox F pdfsave	

F special		serializebox	function
F usage		set_attribute	function
F usernumber		setattr	function
prepend	function	setattribute	function
print	function	setattributes	function
processors	table	setbox	function
B enabled		setfield	function
F hpack_filter		setunsetattributes	function
F post_linebreak_filter		shifts	table
F pre_linebreak_filter		D data	
F tracer		F define	
processwords	function	F enable	
properties	table	F handler	
T actions		show	function
F delayed		showboxes	function
F fdelayed		showcodes	function
F immediate		showlist	function
F attach		showsimplelist	function
T data		skipcodes	data table
F delayed		slide	function
protect_glyph	function	snapshots	table
protect_glyphs	function	F getparameters	
protrusion_skippable	function	F getsamples	
pts	function	F resetsamples	
radicalcodes	data table	F takesample	
reference	function	somepenalty	function
references	table	somespace	function
N attribute		splitbox	function
T done		stripdiscretionaries	function
F handler		stripping	table
T stack		T glyphs	
remove	function	F set	
repackhlist	function	striprange	function
replace	function	tail	function
report	function	takebox	function
rightmarginwidth	function	tasks	table
rulecodes	data table	F actions	
rules	table	F appendaction	
D data		F disableaction	
F define		F disablegroup	
F enable		F enableaction	
F handler		F enablegroup	
save	function	F freeze	
serialize	function	F freezegroup	

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
toutf	function	traverse_char	function
tracers	table	traverse_id	function
T characters		typesetters	table
F collect		F hbox	
F equal		F hpack	
F start		F tohbox	
F string		F tohpack	
F unicodes		F tonodes	
T colors		F tovbox	
F reset		F tovpack	
F set		F vpack	
F setlist		unprotect_glyphs	function
F fontchar		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

writable\_spec function
write function

# number (context)

	function
basepoints	function
bit	function
bits	function
clearbit	function
dimenfactors	data tabl
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)

actony	function	
getenv	function function	
setenv binsuffix		
binsuffixes	string	
clock	table function	
converttime		
	function	
date difftime	function function	
env	data table	£
exec	overloaded	
execute	overloaded	function
exit	function	
fulltime	function	e
getenv	overloaded	Tunction
gettimeofday	function	
isleapyear	function	
launch	function	
libsuffix	string	
localtime	function	
name	string	
newline	string	
nofdays	function	
now	function	
platform	string	
remove	overloaded	
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 function uname uuid function validdate function weekday function function where 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)

mapline

obj

maxobjnum

newcolorstack

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

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
currentspecification	table	T virtual

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
F default		splitoneauthor	function
F index		statistics	table
F num		N nofbytes	
F page		N nofdatasets	
F short		N nofdefinitions	
F tag		N nofshortcuts	
load	function	tables	table
loadbibdata			
	function	D implicits	
loaddefinitionfile	function	D implicits D origins	
		·	
loaddefinitionfile	function	D origins	
loaddefinitionfile loaders	function	D origins D privates	
loaddefinitionfile loaders F bbl	function	D origins D privates D sets	
loaddefinitionfile loaders F bbl F bib	function	D origins D privates D sets D specials	
loaddefinitionfile loaders  F bbl F bib F buffer F endnote F lua	function	D origins D privates D sets D specials D types D virtuals tags	function
loaddefinitionfile loaders  F bbl F bib F buffer F endnote F lua F refman	function	D origins D privates D sets D specials D types D virtuals tags tracers	function table
loaddefinitionfile loaders  F bbl F bib F buffer F endnote F lua F refman F registercleaner	function	D origins D privates D sets D specials D types D virtuals tags tracers F showdatasetauthors	table
loaddefinitionfile loaders  F bbl F bib F buffer F endnote F lua F refman F registercleaner F xml	function table	D origins D privates D sets D specials D types D virtuals tags tracers F showdatasetauthors F showdatasetcompletene	table
loaddefinitionfile loaders  F bbl F bib F buffer F endnote F lua F refman F registercleaner	function	D origins D privates D sets D specials D types D virtuals tags tracers F showdatasetauthors	table

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

### typesetters

table

F author

F string

usedataset usedentries writers function
function
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
configbanner	string	hashers	data table
criticalvars	data table	homedir	string
dangerous	data table	inputstack	table
datastate	function	installinputfilehandler	function
defaultsuffixes	table	installinputlinehandler	function
dowithfilesandreport	function	instance	table
dowithfilesintree	function	D data	
dowithpath	function	B diskcache	
dowithvariable	function	D environment	
env	function	D expansions	
executers	table	D fakepaths	
expandbraces	function	D files	
expandedpathfromlist	function	B force_suffixes	
expandedpathlist	function	D found	
expandedpathlistfromvariable	function	D foundintrees	
expandpath	function	D hashed	
expandpathfromvariable	function	D hashes	
expansion	function	D lists	
extendtexmfvariable	function	B loaderror	
filtered_from_content	function	D order	
find_file	function	D pathlists	
find_files	<del>function</del>	T pathstack	
findbinfile	function	B remember	
findctxfile	function	B renewcache	
finders	data table	B renewtree	
findfile	function	B savelists	
findfiles	function	D setups	
findgivenfile	function	D specification	
findgivenfiles	function	D variables	
findpath	function	jobpath	function

jobs	table	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
_DEBUG	boolean	S	content-description
_SETSIZE	number	S	content-disposition
bind	function	S	content-encoding
choose	function	S	content-id
connect	function	S	content-language
connect4	function	S	content-length
connect6	function	S	content-location
dns	table	S	content-md5
F getaddr:	info	S	content-range
F gethost	name	S	content-transfer-encoding
F getname:	info	S	content-type
F tohostn	ame	S	date
F toip		S	diagnostic-code
ftp	table	S	dsn-gateway
S PASSWORE	)	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 age		S	max-forwards
S allow		S	message-id
S altern	ate-recipient	S	mime-version
S arriva	l-date	S	original-envelope-id
S author	ization	S	original-recipient
S bcc		S	pragma
S cache-	control	S	proxy-authenticate
S cc		S	proxy-authorization
S commen	ts	S	range

S recei	ved	sinkt	table	
S recei	.ved-from-mta	F close-when-done		
S refer	rences	F default		
S refer	rer	F http-chunked		
S remot	re-mta	F keep-op	oen	
S reply	v-to	skip	function	
S repor	ting-mta	sleep	function	
S reser	rt-bcc	smtp	table	
S reser	rt-cc	S DOMAIN		
S reser	t-date	N PORT		
S reser	t-from	S SERVER		
S reser	t-message-id	N TIMEOUT	Г	
S reser	t-reply-to	S ZONE		
S reser	t-sender	F message	2	
S reser	t-to	F open		
S retry	r-after	F send		
S retur	n-path	source	function	
S sende		sourcet	table	
S serve		F by-leng		
	remote-recipient	F default		
S statu		F http-chunked		
S subje	ect	F until-d		
S te		tcp	function	
S to		tcp6	function	
S trail		tp	table	
	fer-encoding	N TIMEOUT		
S upgra		F connect		
S user-	agent	try udp	function function	
S vary S via		udp6	function	
S warni	ng	url	table	
	retry-until	F absolut		
	nuthenticate	F build	.e	
S x-mai		F build_p	nath	
http	table	F escape		
N PORT		F parse		
N TIMEOU	Г	F parse_p	oath	
S USERAGI	ENT	F unescape		
F open				
F request	t			
newtry	function			
protect	function			
select	function			
sink	function			

### 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)

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

## status (basic tex)

list function
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 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		<b>descriptions</b> table		
S method		<b>documents</b> 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		<b>helpers</b> 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 savedlistprefixednumber	
F getdata		F savedlistfile  F savedlisttitle	
F getlocation		D sectionblocks	
F getname		F sectionnumber	
F getnumber		F sectionnumber F size	
F setlocation		F title	
F setup			
D stored		D tobesaved F userdata	
itemgroups	table	F uservalue	
lists	table	marks tabl	_
F addto	table	D data	
F analyze		F define	
B autoreorder		F exists	
D cached		F fetch	
D cached D collected		F fetchallmarks	
F discard		F fetched F fetchonemark	
F enhance		F fetchtwomarks	
T enhancers			
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 tabl	.e
D names		notes tabl	.e
D names F number		<pre>notes tabl   F checkpagechange   F define</pre>	.e
D names F number D ordered		<pre>notes tabl    F checkpagechange    F define    F doifonsamepageasprevious</pre>	.e
D names F number D ordered F page		<pre>notes tabl   F checkpagechange   F define   F doifonsamepageasprevious   F get</pre>	e
D names F number D ordered F page F popnesting		<pre>notes tabl   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage</pre>	e
D names F number D ordered F page F popnesting F prefix		<pre>notes tabl   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage   F getn</pre>	.e
D names F number D ordered F page F popnesting F prefix F prefixednumber		<pre>notes tabl   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage</pre>	.e
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage		<pre>notes tabl   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage   F getn   F getnumberpage   F getstate</pre>	e
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage F process		notes tabl  F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getn F getnumberpage F getstate F getsymbolpage	e
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage F process D pushed		<pre>notes tabl   F checkpagechange   F define   F doifonsamepageasprevious   F get   F getdeltapage   F getn   F getnumberpage   F getsymbolpage   F hascontent</pre>	e
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage F process D pushed F pushnesting		<pre>notes tabl    F checkpagechange    F define    F doifonsamepageasprevious    F get    F getdeltapage    F getn    F getnumberpage    F getstate    F getsymbolpage    F hascontent    F internal</pre>	е
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage F process D pushed F pushnesting F realpage		r checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getn F getnumberpage F getstate F getsymbolpage F hascontent F internal F internalid	е
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage F process D pushed F pushnesting		F checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getnumberpage F getstate F getsymbolpage F hascontent F internal F internalid F listindex	e
D names F number D ordered F page F popnesting F prefix F prefixednumber F prefixedpage F process D pushed F pushnesting F realpage		r checkpagechange F define F doifonsamepageasprevious F get F getdeltapage F getn F getnumberpage F getstate F getsymbolpage F hascontent F internal F internalid	e

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

F setreferencerealpage	F setmethod	
D specials	F sort	
F splitcomponent	F store	
F splitprefix	D tobesaved	
F splitreference	F unique	
F synchronizepage	F userdata	
T testrunners	<b>sections</b> tak	ole
F inner	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 setlevel D labels F setnumber F last F structuredata F lastinchain F title F locatedtag D tobesaved T patterns U splitter F typesetnumber F userdata D properties B verbose F registermetadata sets table 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 setitemgroup F retrieve 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 F prepare D specifications 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

### table (basic lua)

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

## tex (basic tex)

attribute	table	ifs	data table
badness	function	inicatcodes	number
box	table	init_rand	function
catcode	table	isattribute	function
conditionals	data table	isbox	function
constants	data table	iscount	overloaded function
count	table	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	romannumeral	function
getlist	function	round	function
getmath	function	run	function
getmathcode	function	saveboxresource	function
getmathcodes	function	scale	function
getmuskip	function	scantoks	function
getnest	function	set	function
getsfcode	function	setattribute	function
getskip	function	setbox	function
gettoks	function	setcatcode	function
getuccode	function	setcount	function
hashtokens	function	setdelcode	function

setdimen function setlccode function setlist function setmath function setmathcode function setmuskip function function setnest setsfcode function setskip function settoks function setuccode function sfcode table function shipout show context function table skip function sp **splitbox** function sprint function data table systemmodes takebox function texcatcodes number toks table tpacatcodes number number tpbcatcodes tprint function trackers data table triggerbuildpage function txtcatcodes number function type uccode table uniform rand function uniformdeviate function function uprint 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 alignment	t	F count	
N begingrou	qu	F dimen	
N characte	r	F token	
N close		hbox	userdata
N comment		istoken	function
N endgroup		letter	function
N endofline	9	letters	function
N escape		other	function
N ignore		pickup	function
N invalid		printlist	function
N letter		scanners	table
N mathshift	t	F boolean	
N open		F code	
N other		F conditio	nal
N paramete	r	F count	
N space		F csname	
N subscript	t	F dimen	
N superscri	ipt	F dimensio	n
N whitespac	ce	F glue	
collectors	table	F integer	
T data		F keyword	
F defaultwo	ords	F list	
F dowithwor	rds	F lxmlid	
F flush		F number	
F install		F scanclos	e
F register		F scanopen	
T registere	ed	F skip	
F show		F string	
F test		F token	
compile	function	F tokens	
constant	function	F toks	
converters	table	F word	
S toboolear	า	scantable	function
S todimen		setters	table
S toglue		F box	
S tonumber		F count	
S tostring		F dimen	

F macro	F dimension
<pre>shortcuts table</pre>	F glue
T bits	F integer
N active	F keyword
N alignment	F list
N begingroup	F lxmlid
N character	F number
N close	F scanclose
N comment	F scanopen
N endgroup	F skip
N endofline	F string
N escape	F token
N ignore	F tokens
N invalid	F toks
N letter	F word
N mathshift	F scannumber
N open	F scanopen
N other	F scanstring
N parameter	F scanword
N space	F toboolean
N subscript	F todimen
N superscript	T tokens
N whitespace	F astable
N close	U bgroup
F inspect	T collectors
N open	F defaultwords
F report	F dowithwords
F scanboolean	F flush
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
T scanners	S toglue
F boolean	S tonumber
F code	S tostring
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)

alianments	table	T handlers	
alignments	table	T handlers	
F handler		F installhandler	
F set	+ahla	F processmath	
breakpoints	table	F set	
F define		F setcolor	
F handler		F setmath	
D mapping		F tomode	4-bl-
T methods		firstlines	table
T numbers		T actions	
F set		F default	
F setreplacement		F line	
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	е
F resetcharacter	align	F addtoline	
F setcharacteral		F calculatedelta	
characters	table	F checkline	
F handler		F handler	
T methods		F moveinline	
F replacenbsp		F normalize	
F replacenbspace		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 set manipulators table F apply F applyspecification T methods F Word F Words F abbreviatedjournal F reset F set F expandedjournal F lowercase F setup F stripperiod wrappers F uppercase xtables T patterns U list U pair F splitspecification margins table F finalhandler F flush F globalhandler F ha F localhandler F save function marksuspects paragraphs table F addanchortoline F addtoline F calculatedelta 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

F define F handler D mapping T numbers T frenchpunctuation T characters S name N number table F handler table F cleanup F construct F create F finish row F initialize construct F initialize\_reflow\_height F initialize\_reflow\_width F next\_row F reflow height F reflow\_width F set\_construct F set reflow height F set reflow width

table

# unicode (extra lua)

ascii	table F	len
F byte	F	lower
F char	F	match
F dump	F	rep
F find	F	reverse
F format	F	sub
F gfind	F	upper
F gmatch	utf8	table
F gsub	F	byte
F len	F	char
F lower	F	characters
F match	F	chrlen
F rep	F	count
F revers	e F	dump
F sub	F	filetype
F upper		find
grapheme		format
F byte	F	gfind
F char	F	gmatch
F dump		gsub
F find		is_valid
F format		len
F gfind	F	length
F gmatch	F	lower
F gsub		magic
F len	F	match
F lower		remapper
F match	F	rep
F rep		replacer
F revers		reverse
F sub		split
F upper		splitlines
latin1		sub
F byte		subtituter
F char		tocodes
F dump		toeight
F find		toentities
F format		tostring
F gfind		totable
F gmatch		upper
F gsub	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	l function	
registerescapeline	function	
registerescapepattern	<b>n</b> function	
signal	string	
signalpattern	userdata	
specifications	data table	
visualize	function	
visualizebuffer	function	
visualizefile	function	
visualizestring	function	
write	function	
writeargument	function	
writedefault	function	
writeemptyline	function	
<b>writenewline</b> function		
writespace	function	

# xml (context)

addontitiondontyno	function	D =====d::::1	
addentitiesdoctype	function	D parsedxml	
addspecialcode after	function	D string D tex	
all	function	ν tex D texline	
	function		
applylpath assign	function	D texspace	
assign attribute	function	D verbose	string
badinclusions	function	defaultprotocol delete	string function
before	function		function
	function	<del>delete_element</del> each	function
body			
builtinentities	table	each_element	function
B amp		elements	function
B apos		elementtocdata	function
B gt		empty	function
B lt		entities	data table
B quot		erase	function
cdata	function	errorhandler	function
cdatatotext	function	escaped	function
checkbom 	function	expressions	table
checkerror	function	F boolean	
checknamespace 	function	F child	
checkns	function	F contains	
cleansed	function	F count	
collect	function	F error	
collect_elements	function	F find	
collect_tags	function	F idstring	
collect_texts	function	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	
	chainpath	F reverse	
	command	F table	
	concat	F tag	
	concatrange	F tags F text	
	context		
-	ctxtext	F texts	
-	default	F upperall first	function
	first	found	function
		functions	table
	function		
	index	getbuffer	function function
	last	gethandlers	
	lettered	gethandlersfunction	function
	lower	helpers	table
	lowerall	F recursetext	£
	match	include	function
	name	inclusion	function
	position	inclusions	function
	reverse	index	function
	stripped	inheritedconvert	function
	tag	inject	function
	tags	inject_element	function
	text	<pre>inject_element_after</pre>	function
	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
F	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
F	first	kind	function
	function	last	function
	index	lastmatch	function
F	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>	function	S ~	
<pre>process_elements</pre>	function	specialhandler	table
processattributes	function	sprint	function
profiled	table	string	function
raw	function	strip	function
registerentity	function	strip_whitespace	<b>function</b>
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	unprivatized	function
save	function	unspecialized	function

function	
function	
function	
table	

#### zip (extra lua)

archives table close function closearchive function

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	