MP aes attributes backends basexx bit32 blobs
boolean buffers builders caches callback
callbacks catcodes characters chemistry
commands containers context converters
coroutine ctxrunner debug dir directives
document documentdata drivers environment
experiments figures file fio floats font fonts
functions global graphics gzip images
interactions interfaces io job kpse language
languages layouts lfs libraries lmx loaders
logs lpdf lpeg lua luac luatex lxml math
mathematics md5 metapost mime moduledata
modules mp mplib noads node nodes number
objects optional os package pagebuilders
parametersets pdf pdfdecode pdfe physics
pngdecode posit potrace publications regimes
resolvers sandbox scripts set sha2 sio socket
sorters sparse statistics status storage
streams string structures table tex
texconditionals texconfig texconstants texifs
texio texisdefined texmodes texsystemmodes
thirddata token tokens tracers trackers
typesetters updaters url userdata utf8
utilities visualizers xcomplex xdecimal xmath
xml xzip zip zlib

ConTEXt LMTX

global (alias: _G)

CONTEXTLMTXMODE	number	**createmask**	function
LUAMAJORVERSION	number	**ctxrunner**	table
LUAMINORVERSION	number	**debug**	table
LUATEXENGINE	string	**dimen**	function
LUATEXFORMATID	number	**dir**	table
LUATEXFUNCTIONALITY	number	**directives**	table
LUATEXVERBOSE	string	**document**	table
LUATEXVERSION	number	**documentdata**	table
LUAVERSION	number	**dofile**	function
MP	function	**drivers**	table
aes	table	**environment**	table
arg	table	**error**	function
asnumber_p	function	**experiments**	table
assert	function	**figures**	table
attributes	table	**file**	table
backends	table	**fio**	table
basexx	table	**floats**	table
bit32	table	**flushsimplerule**	function
blobs	table	**flushspecialrule**	function
blockrequire	function	**font**	table
boolean	table	**fonts**	table
buffers	table	**functions**	table
builders	table	**getmetatable**	function
caches	table	**getscriptstatus**	function
callback	table	**global**	table
callbacks	table	**graphics**	table
catcodes	table	**gzip**	table
characters	table	**handledefinitions**	function
checkimage	function	**handletransformstring**	function
chemistry	table	**images**	table
collectgarbage	function	**inspect**	function
collectstructure	function	**interactions**	table
combine	function	**interfaces**	table
commands	table	**io**	table
containers	table	**ipairs**	function
context	function	**job**	table
converters	table	**kpse**	table
copyarray	function	**language**	table
copydictionary	function	**languages**	table
coroutine	table	**last_pdf**	number
count	number	**layouts**	table

lfs	table	**pngdecode**	table
libraries	table	**popleaderlevel**	function
lmx	table	**posit**	table
load	function	**potrace**	table
loaders	data table	**potracefrompng**	function
loadfile	function	**print**	function
loadstring	function	**profilelines**	function
logs	table	**publications**	table
lpdf	table	**pushleaderlevel**	function
lpeg	table	**rawequal**	function
lua	table	**rawget**	function
luac	table	**rawlen**	function
luatex	table	**rawset**	function
lxml	table	**recolor**	function
math	table	**regimes**	table
mathematics	table	**require**	function
mathshapekern	function	**resolvers**	table
md5	table	**ruledspace**	function
metapost	table	**sandbox**	table
mime	table	**scripts**	table
moduledata	table	**select**	function
modules	table	**set**	table
mp	function	**setinspector**	function
mplib	table	**setmathparameters**	function
next	function	**setmetatable**	function
noads	table	**sha2**	table
node	table	**shipbox_ref_h**	number
nodes	table	**shipbox_ref_v**	number
number	table	**sio**	table
objects	table	**socket**	table
optional	table	**sorters**	table
optionalrequire	function	**sparse**	table
os	table	**statistics**	table
p_number_p	userdata	**status**	table
p_number_u	userdata	**storage**	table
package	table	**streams**	table
pagebuilders	table	**string**	table
pairs	function	**structures**	table
parametersets	table	**table**	table
pcall	function	**tex**	table
pdf	table	**texconditionals**	data table
pdfdecode	table	**texconfig**	table
pdfe	table	**texconstants**	data table
physics	table	**texifs**	data table

texio	table	**url**	table
texisdefined	data table	**userdata**	table
texmodes	data table	**utf**	table
texsystemmodes	data table	**utf8**	table
thirddata	table	**utilities**	table
toboolean	function	**visualizers**	table
todecimal	function	**warn**	function
token	table	**width**	number
tokens	table	**xcomplex**	table
tonumber	function	**xdecimal**	table
tostring	function	**xmath**	table
tracers	table	**xml**	table
trackers	table	**xpcall**	function
type	function	**xshift**	number
typesetters	table	**xzip**	table
unpack	function	**zip**	table
updaters	table	**zlib**	table

aes (extra lua)

decode function   **random** function
encode function

attributes (context)

alternates   table
- N attribute
- D data
- F enable
- F handler
- F register
- D registered
- D values

applyoverloads   function
checkvalues   function
colorintents   table
- N attribute
- D data
- F enable
- F handler
- F register
- D registered

colors   table
- N attribute
- F cmyk
- F cmyktogray
- F cmyktorgb
- F colorcomponents
- D counts
- B couple
- F currentmodel
- F currentnamedmodel
- D data
- N default
- F defineintermediatecolor
- F definemultitonecolor
- F defineprocesscolor
- F defineprocesscolordirect
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- N forced
- F forcedmodel
- F forcesupport

- F formatcolor
- F formatgray
- F formatluminance
- F formatluminanceratio
- F getpagecolormodel
- F gray
- F graytohsv
- F handler
- T helpers
  - F complement
  - F inbetween
  - F justone
- F hsvtogray
- F hsvtorgb
- F hwbtorgb
- F iccprofile
- F isblack
- F labtorgb
- F labtoxyz
- N main
- S model
- D models
- F mpcolor
- F mpnamedcolor
- F mpoptions
- F namedcolorattributes
- N none
- F popset
- F processcolorcomponents
- F pushset
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbtocmyk
- F rgbtogray
- F rgbtohsv
- F rgbtoxyz
- N selector
- F setlist
- F setmodel

F	setpagecolormodel
D	sets
F	spec
F	spot
F	spotcolorname
F	spotcolorparent
F	spotcolorvalue
B	supported
F	toattributes
F	transparencycomponents
B	triggering
F	usecolors
D	valid
F	value
D	values
B	weightgray
F	xyztolab
F	xyztorgb

counts	data table	
define	function	
effects	table	
	N	attribute
	D	data
	F	enable
	F	handler
	F	register
	D	registered
	D	values
getvalue	function	
getvalues	function	
handlers	table	
hasvalues	function	
list	data table	
markasoverload	function	
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	
registervalue	function	
restore	function	
save	function	
setcleaner	function	
showcurrent	function	
states	table	
	F	disabletriggering
	F	enabletriggering
	F	finalize
	F	initialize
	F	process
	F	selective
	F	simple
	F	stacked
	F	stacker
system	function	
tooverloads	function	
transparencies	table	
	N	attribute
	D	data
	F	enable
	F	forcesupport
	F	handler
	T	names
	N	color
	N	colorburn
	N	colordodge
	N	darken
	N	difference
	N	exclusion
	N	hardlight
	N	hue
	N	lighten
	N	luminosity
	N	multiply
	N	none
	N	normal
	N	overlay
	N	saturation
	N	screen
	N	softlight

N none	F forcesupport
F register	F handler
D registered	B hasorder
B supported	D listwise
F toattribute	F register
B triggering	D registered
F value	F resolve_begin
D values	F resolve_end
unsetvalue number	F resolve_reset
values data table	F resolve_step
viewerlayers table	D scopes
N attribute	F setfeatures
F cleanup	F setup
D data	F start
F define	F stop
F definedlayoutcomponent	B supported
F enable	D values

backends (context)

closeout	function		F analyzenormalsymbol
codeinjections	table		F analyzesymbol
F registerboxresource			F attachmentid
F registerfont			F bitmap
F restoreboxresource			F clonefield
current	string		F copyimage
defaults	table		F defaultprofile
T codeinjections			F definefield
F prerollreference			F definefieldset
F setautoprefix			F defineviewerlayer
F vfstartcolor			F embedfile
F vfstopcolor			F embedimage
T nodeinjections			F enabletags
F cmykcolor			F exportformdata
F destination			F fieldsurrounding
F graycolor			F flushmergelayer
F injectknockout			F getbookmarks
F injectoverprint			F getboxresourcebox
F reference			F getdefaultfieldvalue
F rgbcolor			F getfieldcategory
F spotcolor			F getfieldset
F transparency			F getformatoption
T registrations			F getinfo
F transparency			F getpreviewfigure
D tables			F getrefobj
getcallbackstate	function		F insertrenderingwindow
included	table		F jp2
B context			F jpg
B date			F maptag
B id			F mergebookmarks
B metadata			F mergecomments
B pdf			F mergefields
initialize	function		F mergereferences
latelua	function		F mergerenditions
nodeinjections	table		F mergeviewerlayers
nothing	function		F newimage
openout	function		F png
registered	table		F prerollreference
T pdf			F presetsymbol
T codeinjections			F presetsymbollist
F addbookmarks			F processrendering

F	reducetags	F	vfstartcolor
F	registercompactor	F	vfstopcolor
F	registerdocumentcloseaction	F	wrapimage
F	registerdocumentopenaction	S	name
F	registeredsymbol	T	nodeinjections
F	registerfiguremask	F	addtags
F	registerfigurerange	F	annotation
F	registerpagecloseaction	F	attachfile
F	registerpageopenaction	F	changestackedlayer
F	registerpattern	F	cmykcolor
F	registersymbol	F	comment
F	ruleactionbox	F	destination
F	ruleactiondraw	F	effect
F	ruleactionfill	F	getboxresourcedimensions
F	ruleactionmp	F	graycolor
F	ruleactionstroke	F	injectbitmap
F	saveboxresource	F	insertu3d
F	scanimage	F	knockout
F	setattachmentsupport	F	negative
F	setautoprefix	F	overprint
F	setencryption	F	positive
F	setfieldcalculationset	F	reference
F	setfigurealternative	F	rgbcolor
F	setfigurecolorspace	F	spotcolor
F	setfiguremask	F	startalternate
F	setformat	F	startlayer
F	setformsmethod	F	startstackedlayer
F	setpagetransition	F	stopalternate
F	settaggingsupport	F	stoplayer
F	setupviewerlayer	F	stopstackedlayer
F	setxmpfile	F	transparency
F	startlayer	F	typesetfield
F	startunicodetoactualtext	F	useboxresource
F	startunicodetoactualtextdirect	T	registrations
F	stoplayer	F	cmykindexcolor
F	stopunicodetoactualtext	F	cmykspotcolor
F	stopunicodetoactualtextdirect	F	getspotcolorreference
F	supportedformats	F	grayindexcolor
F	unicodetoactualtext	F	grayspotcolor
F	useviewerlayer	F	rgbindexcolor
F	validcompactor	F	rgbspotcolor
F	validfield	F	spotcolorname
F	validfieldcategory	F	transparency
F	validfieldset	T	tables

registrations	table	**writeout**	function
setencryption	function		
tables	table		

basexx (extra lua)

decode16	function	**encode16**	function
decode64	function	**encode64**	function
decode85	function	**encode85**	function
decodeLZW	function	**encodeLZW**	function
decodeRL	function	**encodeRL**	function

bit32 (context)

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

blobs (context)

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

boolean (context)

tocontext function
tonumber   function

buffers (context)

append	function	**parallel**	table
assign	function	F define	
collectcontent	function	F hassomecontent	
empty	function	F next	
erase	function	F place	
exists	function	F reset	
get	function	F save	
getcontent	function	**prepend**	function
getctxlua	function	**raw**	function
getlines	function	**run**	function
getmkvi	function	**samplefile**	function
gettex	function	**splitsamplefile**	function
loadcontent	function	**undent**	function

builders (context)

checkparcontext	function		F split	
checksidefloat	function		F start	
hpack	table		F stop	
F qualityactions			F tag	
F report			**profiling**	table
F show			F add	
kernel	table		F addrivers	
F collapsing			F boxlinehandler	
F hyphenating			F distance	
F kerning			F fixedprofile	
F ligaturing			F get	
F mlisttohlist			F getrivers	
local_box_filter	function		F list	
paragraphs	table		F pagehandler	
T constructors			F pagelinehandler	
N attribute			F profilebox	
F define			F profilelines	
F disable			F set	
F enable			F setlines	
F handler			**registerpaspasscallback**	function
T methods			**vpack**	table
F basic			F qualityactions	
F default			F report	
F hpack			**vspacing**	table
F oneline			D categories	
D names			F checkstrutdepth	
D numbers			F collapsevbox	
F set			T data	
F start			D map	
F stop			D skip	
T expansion			D snapmethods	
F trace			F definesnapmethod	
F keeptogether			B fixed	
F registertogether			F flushcontributions	
T solutions			F forcepageflush	
T splitters			F forcestrutdepth	
F define			F getnofpreviouslines	
F optimize			F inject	
T registered			F injectdisable	
F reset			F injectpenalty	
F set			F injectskip	

F interceptsamepagecontent

F pagehandler

F pageoverflow

F popatsame

F pushatsame

F setmap

F setskip

F snapbox

F synchronizepage

F tocategories

F tocategory

F vboxhandler

caches (context)

base	string	**loadcontent**	function
collapsecontent	function	**loaddata**	function
configfiles	function	**more**	string
contentstate	function	**savecontent**	function
defaults	table	**savedata**	function
getfirstreadablefile	function	**setfirstwritablefile**	function
getreadablepaths	function	**setluanames**	function
getwritablepath	function	**treehash**	function
hashed	function	**usedpaths**	function
is_writable	function		

callback (basic tex)

find	function	**register**	overloaded function
known	function	**usage**	function
list	function		

callbacks (context)

freeze   function
functions   table
    F start_page_number
    F stop_page_number
known   function
list   data table
pop   function
push   function
register   function
report   function
supported   table
    B alignment_filter
    B append_line_filter
    B append_to_vlist_filter
    B begin_paragraph
    B buildpage_filter
    B define_font
    B find_format_file
    B find_log_file
    B get_attribute
    B get_math_dictionary
    B get_noad_class
    B glyph_run
    B handle_overload
    B handle_uleader
    B hpack_filter
    B hpack_quality
    B hyphenate
    B insert_distance
    B insert_par
    B intercept_lua_error
    B intercept_tex_error
    B italic_correction
    B kerning

B ligaturing
B linebreak_filter
B linebreak_quality
B local_box_filter
B make_extensible
B math_rule
B missing_character
B mlist_to_hlist
B open_data_file
B packed_vbox_filter
B paragraph_context
B paragraph_pass
B post_linebreak_filter
B pre_dump
B pre_linebreak_filter
B pre_output_filter
B process_character
B process_jobname
B quality_font
B register_extensible
B show_break
B show_build
B show_error_message
B show_lua_call
B show_warning_message
B show_whatsit
B start_file
B start_run
B stop_file
B stop_run
B trace_memory
B vpack_filter
B vpack_quality
B wrapup_run

catcodes (context)

names   data table   **register**   function
numbers   data table

characters (context)

addcharacternames	function	T after_postscript	
adobename	function	T after_subscript	
bidi	data table	T anudatta	
blockrange	function	T before_half	
blocks	data table	T before_main	
can_have_space	data table	T before_postscript	
casemap	table	T before_subscript	
categories	data table	T below_mark	
category	function	T consonant	
categorytags	data table	T dependent_vowel	
classifiers	table	T halant	
collapsed	data table	T independent_vowel	
combined	data table	T nukta	
contextname	function	T post_mark	
csletters	data table	T pre_mark	
data	data table	T ra	
decomposed	data table	T stress_tone_mark	
description	function	T twopart_mark	
descriptions	data table	T vowel_modifier	
detailtags	data table	**initialize**	function
directions	table	**is_character**	data table
emoji	table	**is_command**	data table
F compact		**is_hyphenator**	data table
F known		**is_letter**	data table
F resolve		**is_mark**	data table
emojized	function	**is_punctuation**	data table
enccodes	data table	**is_spacing**	data table
entities	data table	**is_symbol**	data table
fallbacks	data table	**lcchars**	data table
filters	data table	**lccode**	function
fractions	table	**lccodes**	data table
fromnumber	function	**lettered**	function
fschars	data table	**lhash**	data table
fscodes	data table	**linebreaks**	data table
getrange	function	**lower**	function
graphemes	data table	**mathlists**	data table
hangul	data table	**mirrors**	table
indicgroups	table	**otfscripts**	data table
T above_mark		**ranges**	data table
T after_half		**registerentities**	function
T after_main		**remap_hangul_syllabe**	function

scripthash	table	**tex**	table
setactivecatcodes	function	D accentmapping	
setlettercatcodes	function	D commandmapping	
setothercatcodes	function	F defineaccents	
shape	function	F safechar	
shaped	function	F strtextoutf	
shash	data table	F strtoutfpattern	
shchars	data table	F toutf	
shcodes	data table	F toutfpattern	
showstring	function	**textclasses**	table
specialchars	data table	**tonumber**	function
specials	data table	**ucchars**	data table
splits	table	**uccode**	function
T char		**uccodes**	data table
T compat		**uhash**	data table
subscripts	table	**unicodechar**	function
superscripts	table	**upper**	function
synonyms	data table	**verbosemarks**	data table

chemistry (context)

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

containers (context)

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

converters (context)

A	function	**cn-a**	function
A:es	function	**cn-c**	function
A:ru	function	**cn-d**	function
A:sl	function	**convert**	function
AK	function	**decimals**	function
Alphabetic	function	**define**	function
Alphabetic:es	function	**gregorian_to_hebrew**	function
Alphabetic:ru	function	**gregorian_to_jalali**	function
Alphabetic:sl	function	**hebrewnumerals**	function
Character	function	**helpers**	table
Characters	function	**hexstringtonumber**	function
I	function	**i**	function
KA	function	**isleapyear**	function
KR	function	**jalali_to_gregorian**	function
R	function	**lchexnumber**	function
RK	function	**lchexnumbers**	function
Romannumerals	function	**leapyear**	function
Russiannumerals	function	**lower**	function
Slovceniannumerals	function	**max**	function
Spanishnumerals	function	**maxchrs**	function
Word	function	**nicenumber**	function
Words	function	**nofdays**	function
a	function	**number**	function
a:es	function	**numbers**	function
a:ru	function	**octnumber**	function
a:sl	function	**octstringtonumber**	function
abjadnodotnumerals	function	**ordinal**	function
abjadnumerals	function	**r**	function
alphabetic	function	**romannumerals**	function
alphabetic:es	function	**russiannumerals**	function
alphabetic:ru	function	**sequences**	data table
alphabetic:sl	function	**settime**	function
character	function	**sloveniannumerals**	function
characters	function	**spaceddigits**	function
chineseallnumerals	function	**spanishnumerals**	function
chinesecapnumerals	function	**textime**	function
chinesedatenumerals	function	**toabjad**	function
chinesenumerals	function	**tochinese**	function
chr	function	**tohebrew**	function
chrs	function	**toroman**	function
cn	function	**totime**	function

uchexnumber	function	F translate	
uchexnumbers	function	**weekday**	function
upper	function	**word**	function
verbose	table	**words**	function
D data			

coroutine (basic lua)

close	function		**running**	function
create	function		**status**	function
isyieldable	function		**wrap**	function
resume	function		**yield**	function

ctxrunner (context)

load	function	**prepfiles**	data table
preparedfile	function	**resolve**	function

debug (basic lua)

getinfo   function   **traceback**   function
sethook   function

dir (context)

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

directives (context)

data	data table	**register**	function
default	function	**report**	function
disable	function	**reset**	function
done	table	**show**	function
enable	function	**value**	function
list	function	**values**	function
name	string		

document (context)

arguments	data table	**pdf_add_cidsets**	function
files	table	**pdf_identify_content**	function
functions	table	**pdf_strip_content**	function
getargument	function	**pdf_strip_page**	function
getfilename	function	**setargument**	function
options	table	**setcommandline**	function
T commandline		**setdefaultargument**	function
D environments		**setenvironments**	function
D modes		**setfilename**	function
D modules		**setfilenames**	function
T ctxfile		**setmodes**	function
D environments		**setmodules**	function
D modes		**variables**	data table
D modules			

documentdata (context)

variable function

drivers (context)

applyanchor function
applyorientation function
convert function
converters table
   F analyze
   F engine
   F lmtx
   F resyncbox
enable function
gethpos function
getpos function
getrpos function
getvpos function
helpers table
install function
instances table
   T empty
    T actions
     F convert
     F prepare
    T flushers
     F popleaderlevel
     F pushleaderlevel
     T whatsit
    S name
   T js
    T actions
     F cleanup
     F convert
     F finalize
     F initialize
     F outputfilename
     F prepare
     F wrapup
    T flushers
     F character
     F popleaderlevel
     F pushleaderlevel
     F rule
     F simplerule
     F specialrule

     F updatefontstate
     T whatsit
    S name
   T json
    T actions
     F cleanup
     F convert
     F finalize
     F initialize
     F outputfilename
     F prepare
     F wrapup
    T flushers
     F character
     F popleaderlevel
     F pushleaderlevel
     F rule
     F setstate
     F simplerule
     F specialrule
     F updatefontstate
     T whatsit
    S name
   T lua
    T actions
     F cleanup
     F convert
     F finalize
     F initialize
     F outputfilename
     F prepare
     F wrapup
    T flushers
     F character
     F popleaderlevel
     F pushleaderlevel
     F rule
     F simplerule
     F specialrule
     F updatefontstate
    T whatsit

S name		F cleanup
T mpo		F convert
T actions		F finalize
F finalize		F initialize
F initialize		F outputfilename
T flushers		F prepare
F character		F wrapup
F popleaderlevel		T flushers
F pushleaderlevel		F character
F rule		F fontchar
F simplerule		F group
F specialrule		F image
T whatsit		F literal
S name		F popleaderlevel
T mps		F poporientation
T actions		F pushleaderlevel
F cleanup		F pushorientation
F convert		F restore
F finalize		F rule
F initialize		F save
F outputfilename		F setmatrix
F prepare		F setstate
F wrapup		F simplerule
T flushers		F space
F character		F specialrule
F popleaderlevel		F startclipping
F pushleaderlevel		F startmatrix
F rule		F startmirroring
F simplerule		F startrotation
F specialrule		F startscaling
F updatefontstate		F stopclipping
T whatsit		F stopmatrix
S name		F stopmirroring
T none		F stoprotation
T actions		F stopscaling
T flushers		F updatefontstate
F popleaderlevel		T whatsit
F pushleaderlevel		S name
T whatsit		

S name	**lmtxversion** number
T pdf	**outputfilename** function
T actions	**report** function

environment (context)

argument	function	**luafilechunk**	function
arguments	data table	**luatexengine**	string
basicengines	data table	**luatexfunctionality**	number
currentrun	number	**luatexverbose**	string
definefilefallback	function	**luatexversion**	number
definefilesynonym	function	**maxnofruns**	number
engineflags	data table	**oldhome**	string
filename	string	**originalarguments**	data table
filenames	table	**outputfilename**	string
files	table	**ownbin**	string
filesynonyms	data table	**ownmain**	string
forcedruns	number	**ownname**	string
getargument	function	**ownpath**	string
homedir	string	**prerollrun**	boolean
initex	boolean	**rawarguments**	data table
initexmode	boolean	**reconstructcommandline**	function
initializearguments	function	**relativepath**	function
initializefilenames	function	**setargument**	function
inputfilebarename	string	**splitarguments**	function
inputfilename	string	**suffix**	string
inputfilesuffix	string	**texfile**	function
jobfilefullname	string	**texmfos**	string
jobfilename	string	**texos**	string
jobfilesuffix	string	**texroot**	string
kindofrun	number	**truefilename**	function
lmtxmode	number	**useluamodule**	function
loadexamodes	function	**usemodules**	function
loadluafile	function	**validengines**	data table
luafile	function	**version**	string

experiments (context)

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

figures (context)

applyratio	function		F resetstore	
badname	function		F scan	
bases	data table		F serialize	
bitmapimage	function		T sizes	
boxnumber	number		B art	
cachepaths	data table		B bleed	
check	function		B crop	
checkers	data table		B media	
conversions	data table		B none	
converters	data table		B trim	
current	function		F storedata	
defaultdepth	number		F totable	
defaultheight	number		T types	
defaultsearch	boolean		N jbig2	
defaultwidth	number		N jp2	
done	function		N jpg	
dummy	function		N none	
existers	data table		N pdf	
exists	function		N png	
formats	data table		N stream	
found	data table		F wrap	
get	function		**include**	function
getinfo	function		**includers**	data table
getpdfinfo	function		**initialize**	function
getrealpage	function		**loaded**	data table
guess	function		**localpaths**	data table
guessfromstring	function		**magics**	data table
hash	function		**mergegoodies**	function
identifiers	data table		**nofmissing**	number
identify	function		**nofprocessed**	number
images	table		**order**	data table
F check			**paths**	data table
F checksize			**patterns**	data table
F copy			**pop**	function
F create			**preferquality**	boolean
F embed			**programs**	data table
F embedfromstore			**push**	function
F fetchdata			**registerpattern**	function
T keys			**registerresource**	function
F print			**registersuffix**	function
F resetdata			**remappers**	data table

resources	data table	**setorder**	function
scale	function	**setpaths**	function
set	function	**suffixes**	data table
setconversion	function	**used**	data table
setlookups	function		

file (basic lua)

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

fio (extra lua)

getposition	function	**readinteger1le**	function
read2dot14	function	**readinteger2**	function
readbytes	function	**readinteger2le**	function
readbytetable	function	**readinteger3**	function
readcardinal1	function	**readinteger3le**	function
readcardinal1le	function	**readinteger4**	function
readcardinal2	function	**readinteger4le**	function
readcardinal2le	function	**readintegertable**	function
readcardinal3	function	**setposition**	function
readcardinal3le	function	**skipposition**	function
readcardinal4	function	**writecardinal1**	function
readcardinal4le	function	**writecardinal1le**	function
readcardinaltable	function	**writecardinal2**	function
readcline	function	**writecardinal2le**	function
readcstring	function	**writecardinal3**	function
readfixed2	function	**writecardinal3le**	function
readfixed4	function	**writecardinal4**	function
readinteger1	function	**writecardinal4le**	function

floats (context)

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

font (basic tex)

addcharacters	function	**getmathspec**	function
addquality	function	**id**	function
current	function	**max**	function
define	function	**nextid**	function
getfont	function	**setfont**	function
getfontdimen	function	**setfontdimen**	function
getfontspec	function	**xscaled**	function
getmathindex	function	**yscaled**	function

fonts (context)

analyzers   table
   D features
   D initializers
   D methods
   F setstate
   D states
   B useunicodemarks
callbacks   table
   F callback
   F devirtualize
checkers   table
   F getmissing
   D mapping
   F missing
   F placeholder
cid   table
   F getmap
   F loadfile
collections   table
   F checkenabled
   F clonevector
   F define
   T definitions
   F direct
   F found
   F prepare
   F process
   F register
   F registermain
   F report
   F reset
   T rscales
   T vectors
constructors   table
   F addcharacters
   F addcoreunicodes
   F aftercopyingcharacters
   F applyfinalizers
   F applymanipulators
   F assignmathparameters
   F beforecopyingcharacters

F beforepassingfonttotex
D cache
F calculatescale
F checkedfeatures
F checkedfilename
F collectprocessors
F currentfonthasfeature
D designsizes
F enhanceparameters
T enhancers
  T afm
    F apply
    F patch
    T patches
      F register
      F report
    F register
    F report
  T otf
    F addfeature
    F apply
    F enhance
    F patch
    T patches
      F register
      F report
    F register
    F report
  T tfm
    F apply
    F patch
    T patches
      F register
      F report
    F register
    F report
N factor
T features
  D afm
  D otf
  D tfm

```
F finalize
F getfeatureaction
F getmathparameter
F getprivate
T handlers
  T afm
    B autoprefixed
    D cache
    D features
    F getkern
    T helpdata
      D bothkerned
      D leftkerned
      D ligatures
      D rightkerned
      D texligatures
    F load
    T readers
      F getinfo
      F loadfont
      F loadshapes
    F setfeatures
    B syncspace
    N version
  T otf
    F addfeature
    F basemodeinitializer
    D cache
    F collectlookups
    T coverup
      T actions
        F alternate
        F chainposition
        F chainsubstitution
        F kern
        F ligature
        F multiple
        F pair
        F single
        F substitution
      F register
      S stepkey
    F dataset
    F datasetpositionprocessor
    S defaultbasealternate
    S defaultnodealternate
    D features
    F featuresinitializer
    F featuresprocessor
    F getactualtext
    F getalternate
    F getgsub
    F getkern
    F getmultiple
    F getstreamhash
    F getsubstitution
    T handlers
      F ctx_camelcasing
      F devanagari_remove_joiners
      F devanagari_reorder_matras
      F devanagari_reorder_pre_base_reordering_consonants
      F devanagari_reorder_reph
      F gpos_context
      F gpos_contextchain
      F gpos_cursive
      F gpos_mark2base
      F gpos_mark2ligature
      F gpos_mark2mark
      F gpos_pair
      F gpos_single
      F gsub_alternate
      F gsub_context
      F gsub_contextchain
      F gsub_ligature
      F gsub_multiple
      F gsub_reversecontextchain
      F gsub_single
      F trigger_space_kerns
    T helpers
      F blockligatures
      F pardirstate
      F txtdirstate
    F load
    F loadoutlinedata
    F loadstreamdata
    F modeinitializer
    D mpscache
    D pdfcache
```

```
F plugininitializer                           F alternate
F pluginprocessor                             F chainedcontext
T plugins                                     F context
  T text                                      F extension
D pngcache                                    F ligature
B pngenabled                                  F multiple
T readers                                     F reversechainedcontextsingle
  F addunicodetable                           F single
  F avar                                    F gvar
  F cbdt                                    F head
  F cblc                                    T helpers
  F cff                                       F axistofactors
  F cff2                                      F cleanname
  T cffencoder                                F getaxisscale
  F checkhash                                 F getfactors
  F cmap                                      F getscales
  F colr                                      F gotodatatable
  F compact                                   F normalizedaxis
  F condense                                  T normalizedaxishash
  F cpal                                      F readvariationdata
  F dsig                                      F reportskippedtable
  F ebdt                                      F setvariabledata
  F eblc                                    F hhea
  F ebsc                                    F hmtx
  F expand                                  F hvar
  F extend                                  F kern
  F fvar                                    F loadfont
  F gdef                                    F loadshapes
  F getcomponents                           F loca
  F getinfo                                 F math
  F glyf                                    F maxp
  F gpos                                    F mvar
  T gposhandlers                            F name
    F chainedcontext                        F os/2
    F context                               F pack
    F cursive                               F parsecharstrings
    F extension                             F post
    F marktobase                            F potracetocff
    F marktoligature                        F registerextender
    F marktomark                            F rehash
    F pair                                  F sbix
    F single                                F stat
  F gsub                                    T streamreader
  T gsubhandlers                              F close
```

F getposition	F writecardinal1le
F getsize	F writecardinal2
F look	F writecardinal2le
F open	F writecardinal3
F read2dot14	F writecardinal3le
F readbyte	F writecardinal4
F readbytes	F writecardinal4le
F readbytetable	F writeinteger1
F readcardinal	F writeinteger1le
F readcardinal1	F writeinteger2
F readcardinal1le	F writeinteger2le
F readcardinal2	F writeinteger3
F readcardinal2le	F writeinteger3le
F readcardinal3	F writeinteger4
F readcardinal3le	F writeinteger4le
F readcardinal4	F writestring
F readcardinal4le	F stripredundant
F readcardinaltable	F svg
F readchar	N tableversion
F readcline	F unifymissing
F readcstring	F unpack
F readfixed2	F vhea
F readfixed4	F vmtx
F readinteger	F vorg
F readinteger1	F vvar
F readinteger1le	F woff2otf
F readinteger2	F registerpalette
F readinteger2le	F registerplugin
F readinteger3	F reorderlookups
F readinteger3le	F scriptandlanguage
F readinteger4	F setdynamics
F readinteger4le	F setfeatures
F readintegertable	T statistics
F readsignedbyte	D usedfeatures
F readstring	D svgcache
F readtag	B svgenabled
F setposition	T tables
F size	D baselines
F skip	D features
F skiplong	D featuretypes
F skipposition	D languages
F skipshort	D scripts
F writebyte	F texthandler
F writecardinal1	T vectors

```
    T arab                           T combiner
       T gpos                           D commands
          N curs                        D helpers
          N kern                        D math
          N mark                        D predefined
          N mkmk                        N version
       T gsub                           D whatever
          N calt                     F hashfeatures
          N ccmp                     F hashinstance
          N cswh                     T hashmethods
          N dlig                        F normal
          N fina                        F virtual
          N init                     F initializefeatures
          N isol                     D loadedfonts
          N liga                     N noffontsloaded
          N medi                     N nofsharedfonts
          N mset                     N nofsharedhashes
          N rclt                     N nofsharedvectors
          N rlig                     N privateoffset
    N version                        D privateslots
    T pfb                            F readanddefine
       F filterencoding              F registerfeature
       F filtermetadata              F resetfeature
       F loadvector                  B resolvevirtualtoo
       N version                     F scale
    T tfm                            F scaled
       D cache                       F setfactor
       D features                    F setfeature
       N maxnestingdepth             F setmathparameter
       N maxnestingsize              F setname
       T readers                     B sharefonts
          F loadpk                   F trytosharefont
          F loadtfm                  N version
          F loadtfmvf          current                    function
          F loadvf             currentid                  function
          F pktopdf            definers                   table
          F potracedtopdf         F addlookup
          F showpk                F analyze
       F reencode                  F applypostprocessors
       F setfeatures               F checkedmode
       N version                   F checkedscript
    T vf                            S defaultlookup
       T combinations              F define
       F combine                   F getspecification
```

F	internal		**formats**	data table
F	loadfont		**getalternate**	function
F	makespecification		**getindices**	function
T	methods		**getkern**	function
	F install		**getmultiple**	function
	D variants		**getsubstitution**	function
F	read		**getters**	table
F	register		T alternate	
F	registered		F opentype	
F	registerfallbackfont		T kern	
F	registersplit		F opentype	
F	resetnullfont		F type1	
F	resolve		F type3	
T	resolvers		T multiple	
	F file		F opentype	
	F name		T substitution	
	F spec		F opentype	
definetypeface	function		**goodies**	table
dropins	table		D colorschemes	
F	clone		T data	
F	getshape		T common-math.lfg	
F	getshapes		S author	
F	nextid		S comment	
F	provide		S copyright	
F	registerglyph		B initialized	
F	registerglyphs		T mathematics	
F	swap		T tweaks	
F	swapone		T presets	
effects	table		F addmathkerns	
encodings	table		F braille	
T	agl		F eulertocalligraphic	
	D ctxcodes		F fallbacks	
	D extras		F moderntocalligraphic	
	D synonyms		F moveintegrals	
	D unicodes		F moveitalics	
D	cache		F pagellaradical	
F	is_known		F rsfstoscript	
D	known		F rsfsuprighttoscript	
F	load		F scripttocalligraphic	
F	make_unicode_vector		F smalldigits	
D	math		F wipeanchors	
N	version		F wipeitalics	
enhanceid	function		F xitsarabic	
expansions	data table		S name	

```
    S version                              T list
  T dejavu-math                            F load
    S author                               F prepare_features
    S comment                              F register
    S copyright                            F registerpostprocessor
    B initialized                          F report
    T mathematics                          T suffixes
      T alternates                    handlers              table
        T dotless                     hashes                table
          S comment                        D characters
          S feature                        D classes
          N value                          D csnames
        T bigslots                         D descriptions
        T parameters                       D dynamics
          N AccentBaseDepth                D emwidths
          N AccentTopShiftUp               D exheights
          N DelimiterDisplayPercent        D features
          N DelimiterDisplayShortfall      D identifiers
          N DelimiterPercent               D italics
          N DelimiterShortfall             D lastmathids
          N DisplayOperatorMinHeight       D marks
          N FlattenedAccentTopShiftUp      D mathparameters
          N FractionRuleThickness          D modes
          S PrimeBaselineDropMax           D originals
          S PrimeShiftUp                   D parameters
          S PrimeShiftUpCramped            T processes
          N SubscriptShiftDown             D properties
          S SubscriptShiftDownWithSuperscript  D quads
          N SuperscriptShiftUp             D resources
        T tweaks                           T setdynamics
          T aftercopying                   T shapes
      S name                               D spaces
      S version                            D spacings
  T dejavu-text                            T streams
    S author                               D unicodes
    S comment                              D unislots
    S copyright                            D variants
    T extensions                           D xheights
    B initialized                     helpers               table
    S name                                 F addextraprivate
    S version                              F addprivate
  D designsizes                            F appendcommands
  D filenames                              F appendcommandtable
  F getcompositions                        F checkflags
```

F checkmerge	T backgrounds
F checksteps	T outlines
F collectanchors	**infofont** function
F combineglyphs	**iterators** table
D commands	F characters
F composecharacters	F descriptions
F descriptiontoslot	F glyphs
F dimenfactor	**loggers** table
F expandglyph	F format
D extraprivates	F onetimemessage
F fontpatternhassize	F register
F getcoloredglyphs	F reportdefinedfonts
F getdigitwidth	F reportusedfeatures
F getinstancespec	**mappings** table
F getparameters	F addtounicode
F getprivatecharornode	F fromunicode16
F getprivatenode	F getentry
F getprivates	F loadfile
F getprivateslot	F loadline
F hasprivate	F makenameparser
F indextoslot	D overloads
F isprivate	F reset
F mathscriptslots	F tounicode
F name	F tounicode16
F nametoslot	F tounicode16sequence
F newprivateslot	**metapost** table
F prependcommands	F baseline
F prependcommandtable	F boundingbox
F privateslot	F boxtomp
F registerglyphbox	F draw
F scalecommands	F fill
F setboxdirectly	F glyph
F setboxglyph	F maxbounds
F setboxglyphs	F paths
F setdigitwidth	F widthline
F setmetaglyph	F zeroline
F setmetaglyphs	**mode** function
D sharedprivates	**names** data table
F splitfontpattern	**nulldata** data table
F tochar	**privateoffsets** table
T vfinjectors	B keepnames
F startcolor	N mathbase
F stopcolor	N mathextrabase
T vfspecials	N textbase

N textextrabase

protrusions data table

readers table

   F afm

   F check_lua

   F check_tfm

   F lua

   F ofm

   F opentype

   F otf

   F pfb

   D sequence

   F tfm

   F ttc

   F ttf

   F woff

registersanitizer function

reserveid function

select table

   D alternatives

   F bodyfont

   D data

   F default

   D defaults

   F definefallbackfamily

   F definefontfamily

   F definefontfamilypreset

   D extras

   F fallback

   D fallbacks

   F features

   F filefallback

   F fontdata

   F fontfallback

   F fontsynonym

   F goodies

   F mathfallback

   D methods

   D presets

   F registerfallback

   F registerfiles

   F registerfontalternative

   F registerfontfamily

   F textfallback

   F typeface

   F typescript

   F userdata

specifiers table

   D contextmerged

   F contextnumber

   D contextnumbers

   D contextsetups

   F contexttostring

   F definecontext

   F mergecontext

   F presetcontext

   F registercontext

   F showcontext

   F splitcontext

   D synonyms

   D variants

symbols table

   T emoji

     F checked

     F resolved

   F uselibrary

tables table

toeffect function

tracers table

treatments table

   F applyfixes

   D data

   S filename

   F ignoredfile

   F report

   F trace

typefaces table

functions (context)

dummy function

graphics (context)

backgrounds	table	**registerpdffont**	function
F fetchmultipar		**synchronizers**	table
F pair		F collapse	
F path		F collect	
F point		F extend	
bitmaps	table	F getbottom	
F flush		F getd	
F new		F geth	
F placeholder		F getkind	
F tocontext		F getsize	
identifiers	table	F gettask	
F bitmap		F gettop	
F jp2		F getw	
F jpg		F getx	
F png		F gety	
identify	function	F prune	
registerpdfcompactor	function		

gzip (context)

compress	function	**load**	function
compressed	function	**save**	function
decompress	function	**suffix**	function

images (context)

check	function		B crop	
checksize	function		B media	
copy	function		B none	
create	function		B trim	
embed	function	**storedata**	function	
embedfromstore	function	**totable**	function	
fetchdata	function	**types**	table	
keys	table		N jbig2	
print	function		N jp2	
resetdata	function		N jpg	
resetstore	function		N none	
scan	function		N pdf	
serialize	function		N png	
sizes	table		N stream	
	B art	**wrap**	function	
	B bleed			

interactions (context)

attachments data table
fields   table
    F clone
    F define
    F defineset
    F insert
general   table
    F getidentity
    F getidentityvariable
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
pages   table
    F setpagetransition
    F setupcanvas
references   table
    F setclosedocumentaction
    F setclosepageaction
    F setopendocumentaction
    F setopenpageaction
renderings   data table

interfaces (context)

arrays	table	**namesofscanners**	table
cachedsetups	data table	**namespaces**	table
cachesetup	function	F define	
cardinals	table	F list	
checkedspecification	function	**numbers**	table
complete	data table	**registernamespace**	function
constants	data table	**registerscanner**	function
corenamespaces	data table	**scanners**	data table
currentinterface	string	**setconstant**	function
currentresponse	string	**setcount**	function
definecommand	function	**setdimen**	function
defined	function	**setelement**	function
doifelsemessage	function	**setformat**	function
elements	data table	**setmacro**	function
floats	table	**setmessage**	function
formats	data table	**setmessages**	function
getmessage	function	**settranslation**	function
getnamespace	function	**setupstrings**	data table
getsetupstring	function	**setvariable**	function
hashedsetups	data table	**showmessage**	function
implement	function	**storedscanners**	data table
integers	table	**tolist**	function
interfacedcommand	function	**translations**	data table
interfaces	table	**usednamespaces**	data table
knownscanner	function	**variables**	data table
message	function	**writestatus**	function
nameofscanner	function		

io (basic lua)

ask	function	**open**	overloaded function
bytes	function	**output**	overloaded function
characters	function	**pathseparator**	string
close	function	**popen**	overloaded function
copydata	function	**read**	function
exists	function	**readall**	function
fileseparator	string	**readnumber**	function
flush	function	**readstring**	function
gobble	function	**savedata**	function
input	overloaded function	**size**	function
lines	overloaded function	**stderr**	userdata
loadchunk	function	**stdin**	userdata
loaddata	function	**stdout**	userdata
loadlines	function	**tmpfile**	function
newreader	function	**type**	function
noflines	function	**write**	function

job (context)

comment	function
datasets	table
D collected	
F extend	
F getdata	
F setdata	
D tobesaved	
disablesave	function
embedded	table
D collected	
D tobesaved	
fileobjreferences	table
D collected	
D tobesaved	
files	table
D collected	
F context	
B forcerun	
F run	
D tobesaved	
getrandomseed	function
initialize	function
linkedlists	table
D collected	
D tobesaved	
load	function
loadother	function
objects	table
D collected	
F get	
F number	
F page	
F save	
F set	
D tobesaved	
pack	boolean
packversion	number
pagestates	table
D collected	
F countervalue	
F extend	

F realpage	
F realpageorder	
F setstate	
D tobesaved	
parwrappers	table
D collected	
D tobesaved	
positions	table
F b_column	
F b_region	
F c	
D collected	
F column	
F columnofpos	
F copy	
F depth	
F e_column	
F e_region	
F enhance	
F extra	
F get	
F getcolumndata	
F getfree	
F gethpos	
F getpos	
F getreserved	
F getrpos	
F getsync	
F gettobesaved	
F getvpos	
F hangafter	
F hangindent	
F height	
F hsize	
N lastx	
N lasty	
F leftskip	
F lowerleft	
F lowerright	
F markregionbox	
F n	

F onsamepage		F x		
F overlapping		F xy		
F p		F y		
F page		**register**	function	
F paragraph		**save**	function	
F parindent		**structure**	table	
F position		D collected		
F r		T components		
F region		T namestack		
F registerhandlers		T tobesaved		
F replace		T branches		
F rightskip		S name		
F set		S type		
F setall		**variables**	table	
F setregionbox		D checksums		
F setspec		D collected		
F settobesaved		F getchecksum		
D tobesaved		F makechecksum		
F upperleft		F restore		
F upperright		F save		
F used		F setchecksum		
F whd		D tobesaved		
F width		**version**	number	

language (basic tex)

clean	function		**id**	function
clearhyphenation	function		**new**	function
clearpatterns	function		**patterns**	function
current	function		**postexhyphenchar**	function
gethjcode	function		**posthyphenchar**	function
has_language	function		**preexhyphenchar**	function
hyphenate	function		**prehyphenchar**	function
hyphenation	function		**sethjcode**	function
hyphenationmin	function		**setwordhandler**	function

languages (context)

addgoodiesdata	function		F installmethod
addgoodiesfile	function		F lasttrace
appliedoptions	table		F loadpatterns
associate	function		F registerexception
associated	data table		F registerpattern
association	function		F setfeatures
counters	data table	**installed**	function
current	function	**installhandler**	function
data	data table	**labels**	table
decimals	data table		F define
define	function		F split
explicithyphen	function	**loadable**	function
flatten	function	**loadwords**	function
frequencies	table	**logger**	table
	F averagecharwidth		F report
	F getdata	**nofflattened**	function
getdata	function	**numbers**	data table
getnumber	function	**postexhyphenchar**	function
goodiefiles	function	**posthyphenchar**	function
hjcounts	table	**preexhyphenchar**	function
hyphenate	function	**prehyphenchar**	function
hyphenators	table	**registered**	data table
	T dictionaries	**registeredactions**	table
	D featuresets	**replacements**	table
	F handler		F add
	T methods		F addlist
	F expanded		F handler
	B none		F set
	F original	**serializediscretionary**	function
	F tex	**setexceptions**	function
	F traditional	**setgoodieshandler**	function
	F popmethod	**setoptions**	function
	F pushmethod	**setpatterns**	function
	F setmethod	**setsynonym**	function
	F setup	**setwordhandler**	function
	F showhyphenationtrace	**showdiscretionaries**	function
	T traditional	**strippedgoodiewords**	function
	F definefeatures	**tolang**	function
	F gettrace	**transliteration**	table
	F hyphenate		F exception
	F injecthyphens		F handler

F register		**visualizediscretionaries**	function
F set		**words**	table
F use		F check	
unload	function	T data	
urls	table	F disable	
D characters		F enable	
N lefthyphenmin		T enablers	
D mapping		B enables	
B packslashes		F found	
N righthyphenmin		F load	
F setcharacters		T methods	
version	number	N threshold	

layouts (context)

getcanvas	function	**status**	table
getpagedimensions	function	F isleftpage	
setupcanvas	function	F leftorrightpageaction	

lfs (extra lua)

attributes	overloaded function	**link**	overloaded function
chdir	overloaded function	**mkdir**	overloaded function
currentdir	function	**mkdirs**	function
dir	overloaded function	**modification**	function
isdir	overloaded function	**readlink**	function
isfile	overloaded function	**rmdir**	overloaded function
isfound	function	**setexecutable**	function
isreadabledir	function	**symlink**	function
isreadablefile	function	**symlinktarget**	function
iswriteabledir	function	**touch**	overloaded function
iswriteablefile	function	**walkdir**	function

libraries (context)

basiclua	data table		**extratex**	data table
basictex	data table		**functions**	data table
builtin	data table		**globals**	data table
extralua	data table		**optional**	data table

lmx (context)

color	function		**loadedfile**	function
convert	function		**make**	function
convertfile	function		**new**	function
convertstring	function		**overloaderror**	function
einject	function		**popupfile**	function
eprint	function		**print**	function
escape	function		**pv**	function
finalized	function		**report**	function
finject	function		**reset**	function
fprint	function		**result**	function
get	function		**set**	function
getvariables	function		**show**	function
htmfile	function		**showerror**	function
html	table		**stripcss**	function

   F a

   F td

   F th

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

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	**setformats**	function
categories	function	**setformatters**	function
direct	function	**setlogfile**	function
disable	function	**setmessenger**	function
enable	function	**setprocessor**	function
finalactions	function	**settarget**	function
flush	function	**settimedlog**	function
loggingerrors	function	**settranslations**	function
messenger	function	**show**	function
new	function	**start_page_number**	function
newline	function	**start_run**	function
poplogfile	function	**starterrorlogging**	function
poptarget	function	**startfilelogging**	function
private	table	**status**	function
F enablepagetiming		**stop_page_number**	function
F getpagetiming		**stoperrorlogging**	function
pushlogfile	function	**stopfilelogging**	function
pushtarget	function	**subdirect**	function
registerfinalactions	function	**subreport**	function
report	function	**system**	function
reporter	function	**texerrormessage**	function
resetlogfile	function	**writer**	function

lpdf (context)

action	function	**deferredobject**	function
adddocumentcolorspace	function	**delayedobject**	function
adddocumentextgstate	function	**destinationspecification**	function
adddocumentpattern	function	**dictionary**	function
adddocumentshade	function	**docstring**	function
addtocatalog	function	**epdf**	table
addtoinfo	function	F allcontent	
addtonames	function	F analyzefonts	
addtopageattributes	function	F contentplugin	
addtopageresources	function	F contenttostring	
addtopagesattributes	function	F contenttotext	
addxmpinfo	function	D encryptioncodes	
annotationspecification	function	F expanded	
array	function	F expandwidths	
attachmentsymbols	function	F fontplugin	
boolean	function	F getpagecontent	
border	function	F getstructure	
checkedkey	function	T helpers	
checkedvalue	function	F tounicodetable	
circularshade	function	T image	
close	function	F close	
cmykcode	function	F copy	
collectedresources	function	F new	
color	function	F open	
colorspace	function	F query	
colorspaceconstants	data table	F load	
colorspec	function	F mergewidths	
colorvalue	function	D objectcodes	
colorvalues	function	F objectrange	
commentsymbols	function	F objecttype	
compresslevel	function	F pageplugin	
constant	function	F parsecontent	
copyarray	function	F producer	
copyboolean	function	T resolvers	
copyconstant	function	F destinations	
copydictionary	function	F embeddedfiles	
copyfloat	function	F javascripts	
copyinteger	function	F layers	
copynumber	function	F pages	
copystring	function	F structure	
copyunicode	function	F widgets	

F stripcontent		N file	
F unload		N fixed	
F verboseobject		N nocheck	
escaped	function	N protected	
finalizedocument	function	N readonly	
finalizepage	function	N required	
finalizesignature	function	N sorted	
finishtransparencycode	function	N unavailable	
flags	table	**flushfonts**	function
T annotations		**flushgroup**	function
N AutoView		**flushobject**	function
N Hidden		**flushstreamfileobject**	function
N Invisible		**flushstreamobject**	function
N Locked		**fonts**	table
N LockedContents		F color_direct	
N NoRotate		F color_indirect	
N NoView		**formats**	data table
N NoZoom		**frombytes**	function
N Print		**fromeight**	function
N Printable		**frompdfdoc**	function
N ReadOnly		**fromsixteen**	function
N ToggleNoView		**getcatalog**	function
N auto		**getcompression**	function
N hidden		**getfontname**	function
N printable		**getfontobjectnumber**	function
T widgets		**getinfo**	function
N Comb		**getmatrix**	function
N CommitOnSelChange		**getnofpages**	function
N DoNotScroll		**getpageproperties**	function
N DoNotSpellCheck		**getpagereference**	function
N Edit		**getpagetags**	function
N FileSelect		**getpos**	function
N MultiLine		**gettrailerid**	function
N NoExport		**getversion**	function
N NoToggleToOff		**getxformname**	function
N Password		**graycode**	function
N PopUp		**h_hex_2**	table
N PushButton		S	
N Radio		S	
N RadiosInUnison		S	
N ReadOnly		S	
N Required		S	
N RichText		S (	
N Sort		S)	

S \		**registerinitializer**	function
h_hex_4	table	**registerpagefinalizer**	function
hasmatrix	function	**registerpattern**	function
immediateobject	function	**registersignature**	function
includeimage	function	**replacexmpinfo**	function
initialize	function	**reserveobject**	function
injectors	table	**rgbcode**	function
F bitmap		**rotationcm**	function
F jp2		**setcompression**	function
F jpg		**setencryption**	function
F png		**setincludecidset**	function
injectxmpinfo	function	**setpageorder**	function
insertxmpinfo	function	**setpagestate**	function
lastreferredpage	function	**setpagetag**	function
layerreference	function	**setversion**	function
limited	function	**sharedobject**	function
linearshade	function	**shareobject**	function
literal	function	**shareobjectreference**	function
majorversion	function	**spotcode**	function
makenametree	function	**stream**	function
minorversion	function	**string**	function
nofpages	function	**tocidset**	function
null	function	**toeight**	function
number	function	**topdfdoc**	function
object	function	**tosixteen**	function
objectcompresslevel	function	**transparency**	function
pagereference	function	**transparencycode**	function
patternstream	function	**transparencygroups**	table
pdfcolor	function	B none	
pdftimestamp	function	**transparencyvalue**	function
preparesignature	function	**unicode**	function
print	function	**usedcharacters**	table
procset	function	**usedfontnames**	table
protectresources	boolean	N dejavusansmonoboldttf-1-0-0	
rectangle	function	**usedfontobjects**	table
reference	function	N dejavusansmonoboldttf-1-0-0	
registerannotation	function	**usedfontstreams**	data table
registerdestination	function	**usedindices**	table
registerdocumentfinalizer	function	T dejavusansmonoboldttf-1-0-0	
registerfontmethod	function	**verbose**	function

lpeg (basic lua)

B	function	**firstofsplit**	function
C	function	**frontstripper**	function
Carg	function	**instringchecker**	function
Cb	function	**is_lpeg**	function
Cc	function	**keeper**	function
Cf	function	**locale**	function
Cg	function	**match**	function
Cmt	function	**oneof**	function
Cp	function	**patterns**	data table
Cs	function	**pcode**	function
Ct	function	**print**	function
P	function	**ptree**	function
R	function	**replacer**	function
S	function	**secondofsplit**	function
UP	function	**setmaxstack**	function
UR	function	**setutfcasers**	function
US	function	**split**	function
V	function	**splitat**	function
afterprefix	function	**splitter**	function
anywhere	function	**stripper**	function
append	function	**times**	function
balancer	function	**tsplitat**	function
beforesuffix	function	**tsplitter**	function
checkedsplit	function	**type**	function
containsws	function	**utfR**	function
counter	function	**utfchartabletopattern**	function
endstripper	function	**utfreplacer**	function
finder	function	**version**	string

lua (basic tex)

bytecode	table	**getstartupfile**	function
bytedata	data table	**getversion**	function
bytedone	table	**lastbytecode**	number
callbytecode	function	**messages**	data table
finalizeinitex	function	**newindex**	function
firstbytecode	number	**newtable**	function
get_functions_table	function	**numbers**	data table
getbytecode	function	**registercode**	function
getcurrenttime	function	**registeredcodes**	function
getdebuginfo	function	**registerinitexfinalizer**	function
getexitcode	function	**registername**	function
getfunctionstable	overloaded function	**setbytecode**	function
getpreciseseconds	function	**setexitcode**	function
getpreciseticks	function	**startupfile**	string
getruntime	function	**version**	string
getstacktop	function		

luac (extra lua)

inspect function
print function

luatex (context)

abort	function	F disable	
cleanup	function	F enable	
cleanuptempfiles	function	F finish	
currentfile	function	F pause	
currentlevel	function	F popline	
currenttotal	function	F pushline	
poprunstate	function	F registerdisabler	
pushrunstate	function	F registerenabler	
registerdumpactions	function	F resetfilename	
registerpageactions	function	F resume	
registerstartactions	function	F setfilename	
registerstopactions	function	F setup	
registertempfile	function	F start	
starttime	number	F stop	
synctex	table	F wrapup	
F blockfilename		**wrapup**	function
F collect			

lxml (context)

addindex	function		**filter**	function
all	function		**filterlist**	function
applyfunction	function		**first**	function
applyselectors	function		**flush**	function
att	function		**flushlinewise**	function
attribute	function		**flushsetups**	function
badinclusions	function		**flushspacewise**	function
chainattribute	function		~~**get_id**~~	~~function~~
checkindex	function		**getid**	function
collected	function		**getindex**	function
command	function		**id**	function
concat	function		**idsplitter**	userdata
concatrange	function		**ifatt**	function
content	function		**ifattempty**	function
context	function		**include**	function
convert	function		**inclusion**	function
count	function		**inclusions**	function
delete	function		**index**	function
depth	function		**inlineverbatim**	function
direct	function		**installsetup**	function
directives	table		**last**	function
F after			**lastatt**	function
F before			**lastmatch**	function
F handle			**lastpar**	function
F load			**load**	function
F setup			**loadbuffer**	function
displayverbatim	function		**loaddata**	function
doif	function		**loaded**	table
doifelse	function		**main**	function
doifelseempty	function		**match**	function
doifelsetext	function		**name**	function
doifempty	function		**namespace**	function
doifnot	function		**nonspace**	function
doifnotempty	function		**par**	function
doifnottext	function		**param**	function
doiftext	function		**parameter**	function
element	function		**path**	function
elements	function		**popmatch**	function
entities	data table		**pos**	function
fileline	function		**position**	function
filename	function		**pure**	function

pushmatch	function		**sorters**	table
raw	function			F add
rawroot	function			F compare
rawtex	function			F flush
refatt	function			F reset
register	function			F show
registerentity	function			F sort
removesetup	function		**splitid**	function
replace	function		**startraw**	function
resetcdata	function		**startunescaped**	function
resetsetups	function		**stopraw**	function
resolvedentity	function		**stopunescaped**	function
root	function		**store**	function
save	function		**strip**	function
serialize	function		**stripped**	function
setaction	function		**tag**	function
setatt	function		**texatt**	function
setattribute	function		**text**	function
setcdata	function		**tobuffer**	function
setcommandtonone	function		**tofile**	function
setcommandtotext	function		**toparameters**	function
setpar	function		**toverbatim**	function
setparam	function		**verbatim**	function
setparameter	function		**withindex**	function
setsetup	function		**xmltexhandler**	data table
snippet	function			

math (basic lua)

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

mathematics (context)

addfallbacks	function	**gaps**	data table
addvariant	function	**getblobindex**	function
alphabets	data table	**getboth**	function
alternatives	data table	**getdomainname**	function
beforepassingfonttotex	function	**getmathblob**	function
big	function	**getoptionallabel**	function
boldmap	data table	**getstyle**	function
categories	table	**gettextblob**	function
D functions		**getverboselabel**	function
charactersets	data table	**horizontalcode**	function
checkaftercopyingfont	function	**initializeparameters**	function
classes	data table	**makefont**	function
classnames	data table	**mapremap**	data table
codes	data table	**markblobindexdone**	function
define	function	**overloadparameters**	function
dictionaries	table	**preset**	function
D data		**presets**	table
D defaults		T less	
D groups		T more	
F groupset		T zero	
F groupsetgroup		**privatebase**	number
F name		**registersimplematrix**	function
D names		**registerverboselabel**	function
F registercharacter		**remapalphabets**	function
F registergroup		**renderings**	table
F registergroupset		D mappings	
D sets		D numbers	
D variants		D sets	
dimensions	function	**renderset**	function
domainlabels	table	**resetattributes**	function
domainnames	table	**scaleparameters**	function
N default		**setmathsymbol**	function
enablecollecting	function	**sets**	data table
extensiblecode	function	**setsnapping**	function
extensibles	data table	**setvariant**	function
extrabase	number	**styles**	data table
fallbacks	table	**syncboth**	function
F apply		**syncname**	function
F install		**syncstyle**	function
fallbackstyleattr	function	**tagging**	table
functiontype	function	B mfenced	

toengineclass	function		F fixslashes
toname	function		F fixvariants
tostyle	function		F flattenaccents
tweakaftercopyingfont	function		F inspect
tweakbeforecopyingfont	function		F keepbases
tweaks	table		F kernpairs
F accentdimensions			F kerns
F action			T kernsets
F addactuarian			T .,
F addarrows			F margins
F addbars			F message
F addcomposites			F moveitalics
F addequals			F movelimits
F addfourier			F parameters
F addmirrors			F radicalbodymargins
F addparts			F radicaldegreeanchors
F addprivates			F replace
F addrules			F replacealphabets
F addscripts			F replacerules
F bigslots			F setoptions
F checkaccents			F setovershoots
F checkspacing			F showinfo
F copyaccents			F simplifykerns
T datasets			F sortvariants
T accentdimensions			F staircase
T accent			T subsets
T over			T acenorsuvxz
T under			T bhklt
T addarrows			T d
T addscripts			T dotless
T checkspacing			T f
T copyaccents			T gjqy
T fixprimes			T horizontalfences
T fixslashes			T i
T wipecues			T integrals
F dimensions			T letterlike
F extendaccents			T mw
F fallbacks			T p
F fixaccents			F substitute
F fixellipses			F topanchors
F fixintegrals			F tweaks
F fixoldschool			F version
F fixprimes			F wipeanchors
F fixradicals			F wipecues

F	wipeitalics	**utfmathfiller**	function
F	wipevariants	**utfmathstretch**	function
F	wipeweirdones	**variantcode**	function
utfmathaccent	function	**variantcount**	function
utfmathclass	function	**virtualize**	function
utfmathcommand	function	**virtualized**	data table

md5 (extra lua)

HEX   function   **sum**   function
dec   function   **sumHEXA** function
hex   function   **sumhexa** function

metapost (context)

checkformat	function
checktracingonline	function
cm	function
codes	table

N addto

N ampersand

N and

N assignment

N atleast

N begingroup

N btex

N capsule

N colon

N comma

N controls

N curl

N cycle

N definedmacro

N delimiters

N endgroup

N equals

N etex

N everyjob

N exittest

N expandafter

N fiorelse

N if

N input

N interim

N internal

N iteration

N leftbrace

N leftbracket

N leftdelimiter

N let

N macrodef

N macrospecial

N maketext

N message

N mode

N newinternal

N nullary

N numeric

N of

N ofbinary

N onlyset

N parametertype

N pathconnect

N pathjoin

N plusorminus

N primarybinary

N primarydef

N property

N protection

N relax

N repeatloop

N rightbrace

N rightbracket

N rightdelimiter

N runscript

N save

N scantokens

N secondarybinary

N secondarydef

N semicolon

N setbounds

N shipout

N show

N slash

N step

N stop

N str

N string

N tag

N tension

N tertiarybinary

N tertiarydef

N thingstoadd

N to

N typename

N unary

N undefinedcs

	N until	**getstatistics**	function
	N void	**gettext**	function
	N with	**gettolerance**	function
	N within	**graphic**	function
	N write	**graphic_base_pass**	function
colorinitializer	function	**includesvgbuffer**	function
convert	function	**includesvgfile**	function
currentmpx	function	**installplugin**	function
currentmpxstatus	function	**isobject**	function
defaultformat	string	**knownparameters**	table
defaultinstance	string	**lastlog**	string
defaultmethod	string	**load**	function
directrun	function	**maketext**	function
escaped	function	**metafonts**	table
exectime	table	**metafun**	table
extensiondata	data table	F interpolate	
filterclippath	function	F topath	
flush	function	**mptopdf**	table
flushers	table	F convertmpstopdf	
T pdf		N nofconverted	
F flushfigure		**n**	number
F startfigure		**newlogger**	function
F stopfigure		**nofruns**	number
F textfigure		**nofscriptruns**	function
F tocomment		**nvformat**	function
flushnormalpath	function	**pdfliterals**	function
fonts	table	**pluginactions**	function
F define		**popformat**	function
format_number	function	**popscriptrunner**	function
format_string	function	**popvariable**	function
formatnumber	function	**popvariables**	function
getbendtolerance	function	**preparetextextsdata**	function
getbuffer	function	**process**	function
getclippath	function	**processing**	function
getextensions	function	**processplugins**	function
getextradata	function	**properties**	table
gethashentries	function	**pushformat**	function
getinstancenames	function	**pushscriptrunner**	function
getjobdata	function	**pushvariable**	function
getmovetolerance	function	**pushvariables**	function
getparameter	function	**reducetogray**	boolean
getparameterpreset	function	**registerdirect**	function
getparameterset	function	**registerscript**	function
getrecord	function	**registertokens**	function

remappedtext	function		N pt	
remaptext	function		N px	
reporterror	function	**svgglyphtomp**		function
reportsvgfonts	function	**svgshapestomp**		function
reset	function	**svgshapestopdf**		function
resetlastlog	function	**svgsplitcolor**		function
resetplugins	function	**svgtomp**		function
run	function	**svgtopdf**		function
runinternal	function	**sxsy**		function
runscript	function	**tex**		table
scanparameters	function		F get	
scripterror	function		F reset	
scriptindex	function		F set	
setbendtolerance	function		F setfrombuffer	
setbuffer	function	**texerrors**		boolean
setextensions	function	**texexp**		function
setlogging	function	**theclippath**		function
setmovetolerance	function	**tographic**		function
setoutercolor	function	**totable**		function
setparameter	function	**types**		table
setparameterset	function		N boolean	
setrecord	function		N cmykcolor	
settext	function		N color	
settolerance	function		N dependent	
setvariable	function		N independent	
showlog	boolean		N known	
showsvgpage	function		N nep	
simple	function		N numeric	
splitprescript	function		N pair	
startgraphic	function		N path	
startsvghashing	function		N pen	
stopgraphic	function		N picture	
stopsvghashing	function		N protodependent	
svformat	function		N string	
svgcolorremapper	function		N structured	
svgfactors	table		N suffixedmacro	
N %			N tokenlist	
N bp			N transform	
N cm			N unknownboolean	
N em			N unknownnep	
N ex			N unknownpath	
N in			N unknownpen	
N mm			N unknownpicture	
N pc			N unknownstring	

N unsuffixedmacro		**unload**	function
N vacuous		**untagvariable**	function
typesvgpage	function	**variables**	table

mime (context)

b64   function
decode   function
decodet   table
    F base64
    F quoted-printable
dot   function
encode   function
encodet   table
    F base64
    F quoted-printable
eol   function
normalize function
qp   function

qpwrp   function
report   function
stuff   function
unb64   function
unqp   function
wrap   function
wrapt   table
    F base64
    F default
    F quoted-printable
    F text
wrp   function

mp (context)

autoinject	function	**fprint**	function
aux	function	**get**	table
F boolean		F hashentry	
F color		**graphformat**	function
F direct		**inject**	function
F draw		F boolean	
F fill		F cmykcolor	
F flush		F color	
F fprint		F integer	
F integer		F number	
F number		F numeric	
F numeric		F pair	
F pair		F path	
F pairpoints		F pt	
F path		F quadruplet	
F pathpoints		F string	
F points		F transform	
F print		F triplet	
F quadruple		F whatever	
F quadruplepoints		F whd	
F quoted		F xy	
F size		**integer**	function
F string		**lmt_color_functions**	table
F transform		F shade	
F triplet		F step	
F tripletpoints		**lmt_contours_bitmap_get**	function
F vprint		**lmt_contours_bitmap_set**	function
boolean	function	**lmt_contours_cleanup**	function
cleaned	function	**lmt_contours_color**	function
color	function	**lmt_contours_edge_get_band**	function
dataset	function	**lmt_contours_edge_get_cell**	function
datasets	function	**lmt_contours_edge_paths**	function
F load		**lmt_contours_edge_set**	function
direct	function	**lmt_contours_edge_set_by_band**	function
draw	function	**lmt_contours_edge_set_by_cell**	function
expandtex	function	**lmt_contours_format**	function
fill	function	**lmt_contours_function**	function
flatten	function	**lmt_contours_maxmean**	function
flush	function	**lmt_contours_maxz**	function
format	function	**lmt_contours_minmean**	function
formatted	function	**lmt_contours_minz**	function

lmt_contours_nofvalues	function	**mf_blob_size**	function
lmt_contours_nx	function	**mf_blob_width**	function
lmt_contours_ny	function	**mf_external_figure**	function
lmt_contours_range	function	**mf_finish_saving_data**	function
lmt_contours_shade_paths	function	**mf_formatted_text**	function
lmt_contours_shade_set	function	**mf_get_outline_text**	function
lmt_contours_shape_paths	function	**mf_graphic_text**	function
lmt_contours_start	function	**mf_inject_blob**	function
lmt_contours_stop	function	**mf_map_move**	function
lmt_contours_value	function	**mf_map_text**	function
lmt_contours_xrange	function	**mf_named_color**	function
lmt_contours_yrange	function	**mf_outline_text**	function
lmt_function_x	function	**mf_save_data**	function
lmt_glyphshape_accent	function	**mf_script_index**	function
lmt_glyphshape_baseline	function	**mf_start_saving_data**	function
lmt_glyphshape_boundingbox	function	**mf_stop_saving_data**	function
lmt_glyphshape_depth	function	**mode**	function
lmt_glyphshape_height	function	**n**	function
lmt_glyphshape_italic	function	**number**	function
lmt_glyphshape_llx	function	**numeric**	function
lmt_glyphshape_n	function	**pair**	function
lmt_glyphshape_path	function	**pairpoints**	function
lmt_glyphshape_start	function	**path**	function
lmt_glyphshape_stop	function	**pathpoints**	function
lmt_glyphshape_usedbox	function	**points**	function
lmt_glyphshape_usedline	function	**print**	function
lmt_glyphshape_width	function	F boolean	
lmt_mesh_set	function	F color	
lmt_mesh_update	function	F direct	
lmt_poisson_generate	function	F draw	
lmt_start_potrace	function	F fill	
lmt_step_potrace	function	F flush	
lmt_stop_potrace	function	F fprint	
lmt_surface_do	function	F integer	
lmt_svg_include	function	F number	
mf_blob_add	function	F numeric	
mf_blob_dimensions	function	F pair	
mf_blob_index	function	F pairpoints	
mf_blob_new	function	F path	
mf_blob_raw_content	function	F pathpoints	
mf_blob_raw_dimensions	function	F points	
mf_blob_raw_reset	function	F print	
mf_blob_raw_toutf	function	F quadruple	
mf_blob_raw_wipe	function	F quadruplepoints	

	F quoted		F path
	F size		F pen
	F string		F property
	F transform		F string
	F triplet		F symbol
	F tripletpoints		F token
	F vprint		T tokenscanners
processingmode	function		F transform
quadruple	function		T typescanners
quadruplepoints	function		F whatever
quoted	function	**set**	table
report	function	**size**	function
scan	table	**skip**	table
	F boolean		F token
	F cmykcolor	**solve**	function
	F color	**string**	function
	F expression	**systemmode**	function
	F integer	**transform**	function
	F next	**triplet**	function
	F number	**tripletpoints**	function
	F numeric	**vprint**	function
	F pair		

mplib (extra tex)

execute	function		**injectstring**	function
expandtex	function		**injecttransform**	function
finder	function		**injectwhatever**	function
finders	table		**new**	overloaded function
F file			**peninfo**	function
F mpstemplate			**propertycodes**	table
finish	function		**realtimelogging**	boolean
getcallbackstate	function		**scanboolean**	function
getcodes	function		**scancmykcolor**	function
getcolormodels	function		**scancolor**	function
getfields	function		**scanexpression**	function
gethashentries	function		**scaninteger**	function
gethashentry	function		**scannext**	function
getobjecttypes	function		**scannumber**	function
getstates	function		**scannumeric**	function
getstatistics	function		**scanpair**	function
getstatus	function		**scanpath**	function
gettolerance	function		**scanpen**	function
gettype	function		**scanproperty**	function
gettypes	function		**scanstring**	function
injectboolean	function		**scansymbol**	function
injectcmykcolor	function		**scantoken**	function
injectcolor	function		**scantransform**	function
injectinteger	function		**settolerance**	function
injectnumber	function		**showcontext**	function
injectnumeric	function		**skiptoken**	function
injectpair	function		**solvepath**	function
injectpath	function		**version**	function

noads (context)

handlers   table
- F alternates
- F autofences
- F classes
- F collapse
- F dictionaries
- F export
- F families
- F fencing
- F intervals
- F kernpairs
- F makeup
- F normalize
- F numbers
- F relocate
- F render
- F showtree
- F snap
- F spacing
- F suspicious
- F tags
- F unscript
- F unstack
- F variants

process   function
processnested   function
processors   table
- T dictionaries
- T intervals
- F mlisttohlist
- T suspicious
- T unscript
- T unstack

processouter   function

node (basic tex)

checkdiscretionaries	function		F getattributelist
checkdiscretionary	function		F getattributes
copy	function		F getboth
copylist	function		F getbottom
count	function		F getbottomdelimiter
currentattributes	function		F getbox
dimensions	function		F getcachestate
direct	table		F getchar

F addmargins

F addxoffset

F addxymargins

F addyoffset

F appendaftertail

F checkdiscretionaries

F checkdiscretionary

F collapsing

F copy

F copylist

F copyonly

F count

F currentattributes

F dimensions

F effectiveglue

F endofmath

F exchange

F fields

F findattribute

F findattributerange

F findnode

F firstchar

F firstglyph

F firstglyphnode

F firstitalicglyph

F flattendiscretionaries

F flattenleaders

F flushlist

F flushnode

F free

F freeze

F getanchors

F getattribute

F getattributelist

F getattributes

F getboth

F getbottom

F getbottomdelimiter

F getbox

F getcachestate

F getchar

F getchardict

F getcharspec

F getchoice

F getclass

F getcornerkerns

F getdata

F getdegree

F getdelimiter

F getdenominator

F getdepth

F getdirection

F getdisc

F getdiscpart

F getexpansion

F getfam

F getfield

F getfont

F getgeometry

F getglue

F getglyphdata

F getglyphdimensions

F getheight

F getid

F getindex

F getinputfields

F getkern

F getkerndimension

F getlanguage

F getleader

F getleftdelimiter

F getlist

F getlistdimensions

F getnext

F	getnodes	F	hasdiscoption
F	getnormalizedline	F	hasfield
F	getnucleus	F	hasgeometry
F	getnumerator	F	hasglyph
F	getoffsets	F	hasglyphoption
F	getoptions	F	hpack
F	getorientation	F	hyphenating
F	getparstate	F	id
F	getpenalty	F	ignoremathskip
F	getpost	F	insertafter
F	getpre	F	insertbefore
F	getprev	F	isboth
F	getprime	F	ischar
F	getpropertiestable	F	isdirect
F	getproperty	F	isglyph
F	getreplace	F	isitalicglyph
F	getrightdelimiter	F	isnext
F	getruledimensions	F	isnextchar
F	getscale	F	isnextglyph
F	getscales	F	isnode
F	getscript	F	isprev
F	getshift	F	isprevchar
F	getslant	F	isprevglyph
F	getspeciallist	F	issimilarglyph
F	getstate	F	isspeciallist
F	getsub	F	isvalid
F	getsubpre	F	iszeroglue
F	getsubtype	F	kerning
F	getsup	F	lastnode
F	getsuppre	F	length
F	gettop	F	ligaturing
F	gettopdelimiter	F	makeextensible
F	gettotal	F	migrate
F	getusedattributes	F	mlisttohlist
F	getweight	F	naturalhsize
F	getwhd	F	naturalwidth
F	getwidth	F	new
F	getwordrange	F	newcontinuationatom
F	getxscale	F	newmathglyph
F	getxyscales	F	newtextglyph
F	getyscale	F	patchattributes
F	gluetostring	F	prependbeforehead
F	hasattribute	F	protectglyph
F	hasdimensions	F	protectglyphs

F	protectglyphsnone	F	setnext
F	protrusionskippable	F	setnucleus
F	rangedimensions	F	setnumerator
F	remove	F	setoffsets
F	removefromlist	F	setoptions
F	repack	F	setorientation
F	reverse	F	setpenalty
F	serialized	F	setpost
F	setanchors	F	setpre
F	setattribute	F	setprev
F	setattributelist	F	setprime
F	setattributes	F	setproperty
F	setboth	F	setreplace
F	setbottom	F	setrightdelimiter
F	setbottomdelimiter	F	setruledimensions
F	setbox	F	setscales
F	setchar	F	setscript
F	setchardict	F	setshift
F	setchoice	F	setslant
F	setclass	F	setspeciallist
F	setdata	F	setsplit
F	setdegree	F	setstate
F	setdelimiter	F	setsub
F	setdenominator	F	setsubpre
F	setdepth	F	setsubtype
F	setdirection	F	setsup
F	setdisc	F	setsuppre
F	setdiscpart	F	settop
F	setexpansion	F	settopdelimiter
F	setfam	F	settotal
F	setfield	F	setweight
F	setfont	F	setwhd
F	setgeometry	F	setwidth
F	setglue	F	show
F	setglyphdata	F	slide
F	setheight	F	softenhyphens
F	setindex	F	startofpar
F	setinputfields	F	subtypes
F	setkern	F	tail
F	setlanguage	F	todirect
F	setleader	F	tonode
F	setleftdelimiter	F	tostring
F	setlink	F	tovaliddirect
F	setlist	F	traverse

F traversechar		**insertafter**	function
F traversecontent		**insertbefore**	function
F traverseglyph		**instock**	function
F traverseid		**inuse**	function
F traverseitalic		**isnode**	function
F traverseleader		**iszeroglue**	function
F traverselist		**kerning**	function
F type		**lastnode**	function
F types		**length**	function
F unprotectglyph		**ligaturing**	function
F unprotectglyphs		**makeextensible**	function
F unsetattribute		**mlisttohlist**	function
F unsetattributes		**new**	function
F usedlist		**protectglyph**	function
F usesfont		**protectglyphs**	function
F verticalbreak		**protrusionskippable**	function
F vpack		**rangedimensions**	function
F write		**remove**	function
F xscaled		**serialized**	function
F yscaled		**setattribute**	function
effectiveglue	function	**setfield**	function
endofmath	function	**setglue**	function
family_font	function	**setproperty**	function
fields	function	**show**	function
findattribute	function	**slide**	function
flattendiscretionaries	function	**subtypes**	function
flushlist	function	**tail**	function
flushnode	function	**todirect**	function
free	function	**tonode**	function
getattribute	function	**tostring**	function
getcachestate	function	**traverse**	function
getfield	function	**traverseid**	function
getglue	function	**type**	function
getpropertiestable	function	**types**	function
getproperty	function	**unprotectglyph**	function
gluetostring	function	**unprotectglyphs**	function
hasattribute	function	**unsetattribute**	function
hasfield	function	**usedlist**	function
hasglyph	function	**usesfont**	function
hpack	function	**vpack**	function
hyphenating	function	**write**	function
id	function		

nodes (context)

accentcodes	data table	**dircodes**	data table
adaptive	table	**directioncodes**	data table
F handlehorizontal		**directionvalues**	data table
F handlevertical		**dirvalues**	data table
F set		**disccodes**	data table
aligned	function	**discretionarycodes**	data table
append	function	**fencecodes**	data table
apply	function	**fields**	function
applyvisuals	function	**fieldtypes**	table
astable	function	**fillcodes**	data table
attributecodes	data table	**fillvalues**	data table
basepoints	function	**firstdirinbox**	function
boundarycodes	data table	**flush**	function
boxes	table	**flushlist**	function
F count		**flushnode**	function
F dimensions		**fullhpack**	function
F direct		**getattr**	function
F dispose		**getattribute**	function
F found		**getboth**	function
F prune		**getbox**	function
F reset		**getchar**	function
F restore		**getfield**	function
F save		**getfont**	function
F savenode		**getid**	function
builders	table	**getleader**	function
F buildpage_filter		**getlist**	function
F vbox_filter		**getnext**	function
F vpack_filter		**getprev**	function
choicecodes	data table	**getproperty**	function
concat	function	**getsubtype**	function
copy	function	**gluecodes**	data table
copy_node	function	**glyphcodes**	data table
copylist	function	**handlers**	table
countall	function	F adjusters	
currentattributes	function	F aligncharacter	
delete	function	F backgrounds	
destinations	table	F backgroundspage	
N attribute		F backgroundsvbox	
T done		F characters	
F handler		F checkglyphs	
T stack		F checkparcounter	

F	cleanupbox		
F	cleanuppage		
F	export		
F	finalizebox		
F	finalizelist		
F	flatten		
F	flattenline		
F	mathalignrelocate		
F	mathmatrixornaments		
F	mathmatrixrules		
F	migrate		
F	protectglyphs		
F	recolor		
F	show		
F	showhyphenation		
F	showpreamble		
F	stripping		
F	textbackgrounds		
F	unprotectglyphs		
F	visualizehyphenation		
F	wipe		
hasattribute		function	
hasfield		function	
hpack		function	
idsandsubtypes		function	
idstostring		function	
injections		table	
F	copy		
F	getligaindex		
F	getthreshold		
F	handler		
F	installgetspaceboth		
F	installnewkern		
F	isspace		
F	keepcounts		
F	reset		
F	resetcounts		
F	setcursive		
F	setkern		
F	setligaindex		
F	setmark		
F	setmove		
F	setposition		
F	setspacekerns		

insertafter		function	
insertbefore		function	
insertlistafter		function	
installattributehandler		function	
is_display_math		function	
isdirect		function	
isnode		function	
isnut		function	
kerncodes		data table	
leftmarginwidth		function	
linefillers		table	
F	filler		
F	handler		
F	set		
lines		table	
T	boxed		
	F	addlinenumbers	
	F	register	
	F	setup	
D	data		
F	finalize		
F	number		
link		function	
linked		function	
list		function	
listcodes		data table	
listtoutf		function	
literalvalues		data table	
locate		function	
markcodes		data table	
markers		table	
F	get		
F	set		
mathcodes		data table	
mathvalues		data table	
maxboxwidth		function	
migrations		table	
F	setinserts		
F	setmarks		
new		function	
noadcodes		data table	
nodecodes		data table	
nopts		function	
nuts		table	

F addmargins	F flush
F addxoffset	F flushlist
F addxymargins	F flushnode
F addyoffset	F free
F append	F freeze
F appendaftertail	F fullhpack
F apply	F getanchors
F applyvisuals	F getattr
F checkdiscretionaries	F getattribute
F checkslide	F getattributelist
F collapsing	F getattributes
T colors	F getattrlist
F set	F getattrs
T components	F getboth
F copynocomponents	F getbottom
F copyonlyglyphs	F getbottomdelimiter
F count	F getbox
F flush	F getboxglue
F get	F getchar
F set	F getchardict
F concat	F getcharspec
F copy	F getchoice
F copy_properties	F getclass
F copylist	F getcomponents
F copynode	F getcornerkerns
F copyonly	F getdata
F copyvisual	F getdegree
F count	F getdelimiter
F countall	F getdenominator
F currentattributes	F getdepth
F delete	F getdirection
F dimensions	F getdisc
F dirdimensions	F getdiscpart
F effectiveglue	F getdiscretionary
F endofmath	F getexpansion
F exchange	F getfam
F findattribute	F getfield
F findnode	F getfont
F firstchar	F getgeometry
F firstglyph	F getglue
F firstglyphnode	F getglyphdata
F firstitalicglyph	F getglyphdimensions
F flattendiscretionaries	F getheight
F flattenleaders	F getid

F getindex	F gettopdelimiter
F getinputfields	F gettotal
F getkern	F getusedattributes
F getkerndimension	F getvalue
F getlang	F getweight
F getlanguage	F getwhd
F getleader	F getwidth
F getleftdelimiter	F getwordrange
F getlist	F getxscale
F getlistdimensions	F getxyscales
F getmiddle	F getyscale
F getmiddledelimiter	F gluetostring
F getnext	F hasattribute
F getnormalizedline	F hasdimensions
F getnucleus	F hasdiscoption
F getnumerator	F hasfield
F getoffsets	F hasgeometry
F getoptions	F hasglyph
F getorientation	F hasglyphoption
F getparstate	F hpack
F getpenalty	F hyphenating
F getpost	F ignoremathskip
F getpre	F insertafter
F getprev	F insertbefore
F getprime	F insertlistafter
F getprop	F is_display_math
F getreplace	F isboth
F getrightdelimiter	F ischar
F getruledata	F isdirect
F getruledimensions	F isdone
F getscale	F isglyph
F getscales	F isitalicglyph
F getscript	F isnext
F getshift	F isnextchar
F getslant	F isnextglyph
F getspeciallist	F isnode
F getstate	F isnut
F getsub	F isprev
F getsubpre	F isprevchar
F getsubtype	F isprevglyph
F getsup	F issimilarglyph
F getsuppre	F iszeroglue
F getsurround	F kerning
F gettop	F lastnode

F length
F ligaturing
F link
F linked
F locate
F migrate
F migratebox
F mlisttohlist
F naturalhsize
F naturalwidth
F nestedtracedslide
F new
F newcontinuationatom
F newmathglyph
F openup
F patchattributes
T pool
  F accent
  F baselineskip
  F boundary
  F boxrule
  F choice
  F cleanup
  F delim
  F delimiter
  F direction
  F directliteral
  F disc
  F emptyrule
  F fence
  F fontkern
  F fraction
  F glue
  F gluespec
  F glyph
  F hlist
  F imagerule
  F indentskip
  F italickern
  F kern
  F latelua
  F leader
  F lefthangskip
  F leftmarginkern

F leftskip
F lineskip
F literal
F mathchar
F mathtextchar
F negatedglue
F noad
F originliteral
F outlinerule
F pageliteral
F penalty
F radical
F rawliteral
F register
F restore
F righthangskip
F rightmarginkern
F rightskip
F rule
F save
F savepos
F setmatrix
F setstate
F shrink
F spacefontkern
F startrotation
F stock
F stretch
F strutrule
F subbox
F submlist
F temp
F usage
F userdefined
T userids
F usernode
F userrule
F virtualrule
F vlist
F wordboundary
F prepend
F prependbeforehead
F processranges
F processwords

F protectglyph

F protectglyphs

F protectglyphsnone

F protrusionskippable

F rangedimensions

F rawprop

F reference

F rehpack

F remove

F removefromlist

F repack

F repackhlist

F replace

F reverse

T rules

  T ruleactions

    F box

    F draw

    F fill

    F mp

    F stroke

  F userrule

F serialized

F setanchors

F setattr

F setattribute

F setattributelist

F setattributes

F setattrlist

F setattrs

F setboth

F setbottom

F setbox

F setboxglue

F setchar

F setchardict

F setchoice

F setclass

F setcomponents

F setdata

F setdegree

F setdelimiter

F setdenominator

F setdepth

F setdirection

F setdisc

F setdiscpart

F setdiscretionary

F setexpansion

F setfam

F setfield

F setfont

F setgeometry

F setglue

F setglyphdata

F setheight

F setinputfields

F setkern

F setlang

F setlanguage

F setleader

F setleftdelimiter

F setlink

F setlist

F setmiddledelimiter

F setnext

F setnucleus

F setnumerator

F setoffsets

F setoptions

F setorientation

F setparproperty

F setpenalty

F setpost

F setpre

F setprev

F setprime

F setprop

F setreplace

F setrightdelimiter

F setruledata

F setruledimensions

F setscale

F setscales

F setscript

F setshift

F setslant

F setspeciallist

F setsplit
F setstate
F setsub
F setsubpre
F setsubtype
F setsup
F setsuppre
F setsurround
F settop
F setvalue
F setvisual
F setvisuals
F setweight
F setwhd
F setwidth
F show
F slide
F softenhyphens
F somepenalty
F somespace
F splitbox
F startofpar
F striprange
F tail
F takeattr
F takebox
F takelist
F theprop
F tonode
F tonodes
F tonut
F tosequence
F tostring
F tracedslide
F traverse
F traversechar
F traversecontent
F traverseglyph
F traverseid
F traverseitalic
F traverseleader
F traverselist
T traversers
  F alignrecord

F boundary
F char
F content
F dir
F disc
F glue
F glyph
F hlist
F leader
F list
F mark
F next
F node
F penalty
F rule
F unset
F vlist
F whatsit
T treversers
F char
F content
F glyph
F leader
F list
F node
T typesetters
F tohbox
F tohpack
F tonodes
F tovbox
F tovpack
F unprotectglyph
F unprotectglyphs
F unsetattribute
F unsetattributes
F untracedslide
F usedlist
F usesfont
F verticalbreak
F vianodes
F vianuts
F vpack
F write
F xscaled

	F yscaled		F post_linebreak_filter
packlist	function		F pre_linebreak_filter
parcodes	data table		F trace_glyph_run_a
penaltycodes	data table		F trace_glyph_run_b
plugindata	table	**properties**	table
F finalizer		T data	
F initializer		**pts**	function
S name		**radicalcodes**	data table
T namespace		**references**	table
N attribute		N attribute	
D data		T done	
F enable		F handler	
F handler		T stack	
F register		**rehpack**	function
D registered		**remove**	function
D values		**repackhlist**	function
F processor		**replace**	function
points	function	**report**	function
pool	table	**rightmarginwidth**	function
F baselineskip		**rulecodes**	data table
F cleanup		**rules**	table
F directliteral		F handler	
F glyph		F process	
F hlist		F set	
F latelua		F userrule	
F leader		**serialize**	function
F lineskip		**serializebox**	function
F literal		**serialized**	function
F originliteral		**setattr**	function
F register		**setattribute**	function
F restore		**setboth**	function
F save		**setbox**	function
F savepos		**setboxtonaturalwd**	function
F setmatrix		**setchar**	function
F stock		**setfield**	function
F usage		**setfont**	function
F usernode		**setleader**	function
F vlist		**setlink**	function
prepend	function	**setlist**	function
print	function	**setnext**	function
processors	table	**setprev**	function
F alignment_filter		**setproperty**	function
F append_line_filter		**shifts**	table
F glyph_run		F handler	

F set		**toinches**	function
showboxes	function	**tomillimeters**	function
showlist	function	**tonode**	function
showsimplelist	function	**tonodes**	function
skipcodes	data table	**tonut**	function
snapshots	table	**topicas**	function
F getsamples		**topoints**	function
F resetsamples		**toscaledpoints**	function
F takesample		**tosequence**	function
somepenalty	function	**tostring**	function
somespace	function	**totable**	function
specialskipcodes	table	**totree**	function
splitbox	function	**toutf**	function
startofpar	function	**tracers**	table
stripdiscretionaries	function	T colors	
stripping	table	F reset	
T glyphs		F set	
F set		F setlist	
subtypes	data table	F directions	
tail	function	F fontchar	
takeattr	function	T frequencies	
takebox	function	F register	
tasks	table	T pool	
F actions		T nodes	
F appendaction		F rule	
F disableaction		T nuts	
F disablegroup		F rule	
F enableaction		F resetproperties	
F enablegroup		F rule	
F freeze		F setlist	
F freezegroup		F setproperties	
F new		F start	
F prependaction		T steppers	
F removeaction		F check	
F replaceaction		F codes	
F restart		F features	
F setaction		F font	
F showactions		F glyphs	
F table		F message	
tobasepoints	function	F messages	
tocentimeters	function	F nofsteps	
tociceros	function	F register	
todidots	function	F reset	
todimen	function	F start	

F stop		N expansion	
F stop		N fontkern	
T transparencies		N glue	
F reset		N glyph	
F set		N hbox	
F setlist		N hglue	
traverse	function	N hkern	
traverseid	function	N hpenalty	
typesetters	table	N insert	
F hbox		N italic	
F hpack		N kern	
F tohbox		N line	
F tohpack		N marginkern	
F tonodes		N mark	
F tovbox		N math	
F tovpack		N mathglue	
F vpack		N mathkern	
unsetattribute	function	N origin	
usedlist	function	N par	
vianodes	function	N penalty	
vianuts	function	N simple	
visualizebox	function	N simplehbox	
visualizers	table	N simplevbox	
F attribute		N simplevtop	
T attributes		N space	
F box		N strut	
F definelayer		N user	
F enable		N vbox	
T filters		N vglue	
N hglue		N vkern	
N hkern		N vpenalty	
N hpenalty		N vtop	
N vglue		N whatsit	
N vkern		F register	
N vpenalty		F registercache	
F getusedfont		F setfont	
F handler		F setlayer	
F markfonts		F setruledglyph	
T modes		F setvisual	
N boundary		**vpack**	function
N depth		**whatsitcodes**	data table
N dir		**write**	function
N discretionary			

number (context)

	function	**tobasepoints**	function
basepoints	function	**tobitstring**	function
bytetodecimal	function	**tocentimeters**	function
compactfloat	function	**tociceros**	function
decimaltobyte	function	**tocontext**	function
dimenfactors	data table	**todidots**	function
formatted	function	**todimen**	function
formattedfloat	function	**toediths**	function
idiv	function	**toevenhex**	function
maxdimen	number	**toinches**	function
nopts	function	**tomillimeters**	function
nubasepoints	function	**tonumberf**	function
nupoints	function	**tonumberg**	function
percent	function	**topicas**	function
points	function	**topoints**	function
pts	function	**toscaled**	function
signed	function	**toscaledpoints**	function
sparseexponent	function	**totoves**	function
splitdimen	function	**valid**	function
to16dot16	function		

objects (context)

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

optional (context)

curl   table

    F escape

    F fetch

    F getversion

    F initialize

    F unescape

foreign   table

    F abivalues

    F getbuffer

    F initialize

    F load

    F newbuffer

    F totable

    F types

ghostscript   table

    F execute

    F initialize

graphicsmagick table

    F execute

    F initialize

hb   table

    F getshapers

    F getversion

    F initialize

    F loadfont

    F shapestring

imagemagick   table

    F execute

    F initialize

kpse   table

    F expand_braces

    F expand_path

    F expand_var

    F find_file

    F find_files

    F get_file_types

    F initialize

    F readable_file

    F set_program_name

    F var_value

library   table

    F load

loaded   table

lz4   table

    F compress

    F decompresssize

    F framecompress

    F framedecompress

    F initialize

lzma   table

    F compress

    F decompress

    F initialize

lzo   table

    F compress

    F decompresssize

    F initialize

mujs   table

    F dofile

    F execute

    F initialize

    F reset

    F setclosefile

    F setconsole

    F setfindfile

    F setopenfile

    F setreadfile

    F setseekfile

mysql   table

    F close

    F execute

    F getmessage

    F initialize

    F open

openssl   table

    F getversion

    F initialize

    F sign

    F verify

postgress   table

    F close

    F execute

F getmessage

F initialize

F open

sqlite　　　table

F close

F execute

F getmessage

F initialize

F open

zint　　　table

F execute

F initialize

zstd　　　table

F compress

F decompress

F initialize

os (basic lua)

__getenv__	function		**remove**	overloaded function
__setenv__	function		**rename**	overloaded function
binsuffix	string		**resultof**	function
binsuffixes	table		**runtime**	function
bits	number		**selfarg**	table
clock	function		**selfbin**	string
converttime	function		**selfcore**	string
date	overloaded function		**selfdir**	string
difftime	function		**selflink**	string
enableansi	function		**selfname**	string
env	data table		**selfpath**	string
execute	overloaded function		**setenv**	overloaded function
exit	overloaded function		**setexitcode**	function
fulltime	function		**setlocale**	overloaded function
getcodepage	function		**sleep**	function
getenv	overloaded function		**time**	function
gettimeofday	function		**timezone**	function
isleapyear	function		**tmpname**	function
launch	function		**today**	function
libsuffix	string		**type**	string
localtime	function		**uname**	function
name	string		**uuid**	function
newline	string		**validdate**	function
nofdays	function		**weekday**	function
now	function		**where**	function
pipeto	function		**which**	function
platform	string			

package (basic lua)

config	string	**loadlib**	function
cpath	string	**luapaths**	function
extralibpath	function	**path**	string
extralibpaths	function	**poplibpath**	function
extraluapath	function	**popluapath**	function
extraluapaths	function	**preload**	table
helpers	table	**pushlibpath**	function
libpaths	function	**pushluapath**	function
loaded	table	**searchers**	table
loaders	table	**searchpath**	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 (context)

immediateobj function

pdfe (extra tex)

arraytotable	function	**getnumber**	function
close	function	**getobjectrange**	function
closestream	function	**getpage**	function
dictionarytotable	function	**getpages**	function
getarray	function	**getsize**	function
getboolean	function	**getstatus**	function
getbox	function	**getstream**	function
getcatalog	function	**getstring**	function
getdictionary	function	**gettrailer**	function
getfromarray	function	**getversion**	function
getfromdictionary	function	**new**	function
getfromobject	function	**open**	function
getfromreference	function	**openfile**	function
getfromstream	function	**openstream**	function
getinfo	function	**pagestotable**	function
getinteger	function	**readfromstream**	function
getmemoryusage	function	**readwholestream**	function
getname	function	**type**	function
getnofobjects	function	**unencrypt**	function
getnofpages	function		

physics (context)

units table

    F registershortcut

F registerunit

D tables

pngdecode (extra tex)

applyfilter	function	**splitmask**	function
expand	function	**tocmyk**	function
interlace	function	**tomask**	function
makemask	function		

posit (extra lua)

NaN	function		**copy**	function
NaR	function		**cos**	function
__add	function		**exp**	function
__band	function		**exp2**	function
__bor	function		**floor**	function
__bxor	function		**fromposit**	function
__div	function		**integer**	function
__eq	function		**log**	function
__le	function		**log10**	function
__lt	function		**log1p**	function
__mul	function		**log2**	function
__name	string		**logb**	function
__pow	function		**max**	function
__shl	function		**min**	function
__shr	function		**modf**	function
__sub	function		**new**	function
__tostring	function		**pow**	function
__unm	function		**rotate**	function
abs	function		**round**	function
acos	function		**rounded**	function
asin	function		**shift**	function
atan	function		**sin**	function
band	function		**sqrt**	function
bor	function		**tan**	function
bxor	function		**tonumber**	function
ceil	function		**toposit**	function
conj	function		**tostring**	function

potrace (extra tex)

checked	function	**getbitmap**	function
concat	function	**new**	function
contourplot	function	**process**	function
convert	function	**setbitmap**	function
count	function	**stripped**	function
flush	function	**totable**	function
free	function	**trace**	function

publications (context)

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

T required		S page	
T sets		S pages	
T author		S volume	
T editionset		S version	
T virtual		D 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		N steps	
S author		**enhancers**	table
S institution		F details	
S organization		F order	
S subtitle		F suffixes	
S title		**finder**	function
S year		**firstofrange**	function
T optional		**found**	function
T required		**get**	function
T sets		**getcasted**	function
T authors		**getdetail**	function
T virtual		**getdirect**	function
S comment		**getfaster**	function
S copyright		**getfield**	function
T fields		**getfuzzy**	function
S name		**getindex**	function
T types		**inspectors**	data table
S author		**journals**	table
S editor		F abbreviated	
S keywords		F add	
S number		F expanded	

F load		F json	
F save		F lua	
lastofrange	function	F refman	
lists	table	F registercleaner	
F collectentries		F xml	
F combiinlist		**loadreplacementfile**	function
F fetchentries		**new**	function
F filterall		**okay**	function
F flushcombi		**oneorrange**	function
F flushentry		**parenttag**	function
F flushtag		**permitted**	function
T methods		**prerollcmdstring**	function
F dataset		**refman_to_btx**	function
F force		**resolvedname**	function
F global		**save**	function
F local		**savers**	table
F nofregistered		F bib	
F prepareentries		F lua	
F register		F xml	
F sameasprevious		**search**	function
T sorters		**setcategory**	function
F cite		**setspecification**	function
F dataset		**singularorplural**	function
F default		**sortedentries**	function
F index		**sortmethods**	table
F list		T authortitle	
F reference		T sequence	
F short		T authoryear	
F used		T sequence	
F uservariable		T dataset	
listvariants	table	T sequence	
F default		T key	
F index		T sequence	
F num		**specifications**	table
F short		T default	
F tag		S author	
load	function	S comment	
loadbibdata	function	S copyright	
loaddefinitionfile	function	S name	
loaders	table	S version	
F bbl		D virtual	
F bib		**splitauthor**	function
F buffer		**splitoneauthor**	function
F endnote		**statistics**	table

N nofbytes		F showdatasetfields	
N nofdatasets		F showentry	
N nofdefinitions		F showfields	
N nofshortcuts		F showhashedauthors	
tables	table	F showtables	
D implicits		F showvariants	
D origins		**typesetters**	table
D privates		F author	
D sets		F string	
D specials		**usedataset**	function
D types		**usedentries**	function
D virtuals		**writers**	table
tags	function	F author	
tracers	table	F keyword	
F showdatasetauthors		F pagenumber	
F showdatasetcompleteness		F range	

regimes (context)

backmapping	data table	**mapping**	data table
cleanup	function	**pop**	function
disable	function	**process**	function
enable	function	**push**	function
fromregime	function	**toregime**	function
list	function	**translate**	function

resolvers (context)

allprefixes	function	**findfiles**	function
appendhash	function	**findgivenfile**	function
automount	function	**findgivenfiles**	function
booleanvariable	function	**findlib**	function
cacheversion	string	**findpath**	function
checkedvariable	function	**findpk**	function
cleanedpathlist	function	**findtexfile**	function
cleaners	data table	**findwildcardfile**	function
cleanpath	function	**findwildcardfiles**	function
cleanpathlist	function	**formatofsuffix**	function
cleanupbinfile	function	**formatofvariable**	function
concatinators	data table	**formats**	data table
configbanner	string	**foundintree**	function
configurationfiles	function	**foundintrees**	function
dangerous	data table	**generators**	data table
datastate	function	**get_from_content**	function
decompressors	table	**getenv**	function
F register		**getextrapaths**	function
F unregister		**getfilehashes**	function
defaultsuffixes	table	**gethashes**	function
dirstatus	function	**getownpath**	function
dowithfilesandreport	function	**getreadfilename**	function
dowithfilesintree	function	**hashers**	data table
dowithpath	function	**homedir**	string
dowithvariable	function	**ignorelibrary**	function
executers	table	**initialized**	function
expandbraces	function	**installinputfilehandler**	function
expandedpathfromlist	function	**installinputlinehandler**	function
expandedpathlist	function	**jobpath**	function
expandedpathlistfromvariable	function	**jobs**	table
expandpath	function	F collectstructure	
expandpathfromvariable	function	F currentcomponent	
expansion	function	F currentenvironment	
extendtexmfvariable	function	F currentproduct	
filtered_from_content	function	F currentproject	
find_file	function	F currentstructure	
find_files	function	F justacomponent	
findbinfile	function	F namelist	
findctxfile	function	D processors	
finders	data table	F productcomponent	
findfile	function	F usefile	

joinpath	function	**registerfilehash**	function
knownvariables	function	**registerintrees**	function
libraries	table	**registermethod**	function
F optionalloaded		**registerzipfile**	function
F validoptional		**relations**	data table
load	function	**renew**	function
loadbinfile	function	**renewcache**	function
loaders	data table	**repath**	function
loadlualib	function	**reset**	function
loadtexfile	function	**resetextrapaths**	function
loadtime	function	**resetresolve**	function
locateformat	function	**resolve**	function
locators	data table	**savers**	data table
luacnffallback	string	**scandata**	function
luacnfname	string	**scanfiles**	function
luacnfspec	string	**schemes**	table
luacnfstate	string	T cleaners	
macros	table	F md5	
F convertfile		F none	
F decodecomment		F strip	
F enablecomment		F cleanname	
F encodecomment		F fetchstring	
F preprocessed		F fetchtable	
F processmk		F install	
F processmklx		**setdynamic**	function
F processmkvi		**setenv**	function
F version		**showpath**	function
maxreadlevel	number	**simplescanfiles**	function
methodhandler	function	**splitconfigurationpath**	function
openbinfile	function	**splitexpansions**	function
openers	data table	**splitmethod**	function
openfile	function	**splitpath**	function
opentexfile	function	**stackpath**	function
ownpath	string	**starttiming**	function
popextrapath	function	**stoptiming**	function
popinputname	function	**suffixes**	data table
poppath	function	**suffixmap**	data table
prefixes	data table	**suffixofformat**	function
prependhash	function	**texdatablob**	function
pushextrapath	function	**toppath**	function
pushinputname	function	**tracers**	data table
pushpath	function	**unexpandedpath**	function
registerextrapath	function	**unexpandedpathlist**	function
registerfile	function	**unresolve**	function

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

sandbox (context)

disablelibraries	function	**possiblepath**	function
disablerunners	function	**redefine**	function
enable	function	**register**	function
filehandlerone	function	**registerbinary**	function
filehandlertwo	function	**registerlibrary**	function
finalizer	function	**registerroot**	function
getrunner	function	**registerrunner**	function
initializer	function	**report**	function
iohandler	function	**setfilenamelogger**	function
logcalls	function	**setlogger**	function
logfiles	function	**setreporter**	function
original	function	**settrace**	function
overload	function	**validfilename**	function

scripts (context)

autofontfeature table

    F disable

    F enable

    F handler

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

getdata function

getinjector function

getsplitter function

getstatus function

handlers data table

helpers data table

injectors data table

inserters table

    F nobreakspace_after

    F nobreakspace_before

    F space_after

    F space_before

    F zerowidthspace_after

    F zerowidthspace_before

installdataset function

installmethod function

numbertodataset data table

numbertohandler data table

reset function

set function

setstatus function

splitters data table

set (context)

contains	function	**tonumber**	function
create	function	**totable**	function
tolist	function		

sha2 (extra lua)

HASH256	function	**hash256**	function
HASH384	function	**hash384**	function
HASH512	function	**hash512**	function
HEX256	function	**hex256**	function
HEX384	function	**hex384**	function
HEX512	function	**hex512**	function
digest256	function	**sum256**	function
digest384	function	**sum384**	function
digest512	function	**sum512**	function

sio (extra lua)

read2dot14	function	**readinteger1le**	function
readbytes	function	**readinteger2**	function
readbytetable	function	**readinteger2le**	function
readcardinal1	function	**readinteger3**	function
readcardinal1le	function	**readinteger3le**	function
readcardinal2	function	**readinteger4**	function
readcardinal2le	function	**readinteger4le**	function
readcardinal3	function	**readintegertable**	function
readcardinal3le	function	**tocardinal1**	function
readcardinal4	function	**tocardinal1le**	function
readcardinal4le	function	**tocardinal2**	function
readcardinaltable	function	**tocardinal2le**	function
readcline	function	**tocardinal3**	function
readcstring	function	**tocardinal3le**	function
readfixed2	function	**tocardinal4**	function
readfixed4	function	**tocardinal4le**	function
readinteger1	function		

socket (extra lua)

BLOCKSIZE	number
_DATAGRAMSIZE	number
_SETSIZE	number
_SOCKETINVALID	number
bind	function
choose	function
connect	function
connect4	function
connect6	function
dns	table

    F getaddrinfo
    F gethostname
    F getnameinfo
    F tohostname
    F toip

gettime	function
headers	table

    T canonic
      S accept
      S accept-charset
      S accept-encoding
      S accept-language
      S accept-ranges
      S action
      S age
      S allow
      S alternate-recipient
      S arrival-date
      S authorization
      S bcc
      S cache-control
      S cc
      S comments
      S connection
      S content-description
      S content-disposition
      S content-encoding
      S content-id
      S content-language
      S content-length
      S content-location

      S content-md5
      S content-range
      S content-transfer-encoding
      S content-type
      S cookie
      S date
      S diagnostic-code
      S dsn-gateway
      S etag
      S expect
      S expires
      S final-log-id
      S final-recipient
      S from
      S host
      S if-match
      S if-modified-since
      S if-none-match
      S if-range
      S if-unmodified-since
      S in-reply-to
      S keywords
      S last-attempt-date
      S last-modified
      S location
      S max-forwards
      S message-id
      S mime-version
      S original-envelope-id
      S original-recipient
      S pragma
      S proxy-authenticate
      S proxy-authorization
      S range
      S received
      S received-from-mta
      S references
      S referer
      S remote-mta
      S reply-to
      S reporting-mta

S resent-bcc		**protect**	function
S resent-cc		**report**	function
S resent-date		**select**	function
S resent-from		**sink**	function
S resent-message-id		**sinkt**	table
S resent-reply-to		F close-when-done	
S resent-sender		F default	
S resent-to		F http-chunked	
S retry-after		F keep-open	
S return-path		**skip**	function
S sender		**sleep**	function
S server		**source**	function
S smtp-remote-recipient		**sourcet**	table
S status		F by-length	
S subject		F default	
S te		F http-chunked	
S to		F until-closed	
S trailer		**tcp**	function
S transfer-encoding		**tcp4**	function
S upgrade		**tcp6**	function
S user-agent		**tp**	table
S vary		N TIMEOUT	
S via		F connect	
S warning		**try**	function
S will-retry-until		**udp**	function
S www-authenticate		**udp4**	function
S x-mailer		**udp6**	function
F lower		**url**	table
F normalize		F absolute	
http	table	F build	
N TIMEOUT		F build_path	
S USERAGENT		F escape	
F genericform		F parse	
F open		F parse_path	
F request		F unescape	
newtry	function		

sorters (context)

basicsorter   function
comparers   table
  F basic
constants   table
  S defaultdigits
  S defaultlanguage
  S defaultmethod
  N digitsmaximum
  N digitsoffset
  N ignoredoffset
  N replacementoffset
  T validmethods
   B ch
   B mc
   B mm
   B pc

   B pm
   B uc
   B zc
   B zm
definitions   data table
firstofsplit   function
packch   function
packuc   function
replacementlist   function
setlanguage   function
sort   function
splitters   table
  F utf
strip   function
tracers   data table
update   function

sparse (extra lua)

concat	function		**range**	function
get	function		**restore**	function
max	function		**set**	function
min	function		**traverse**	function
new	function		**wipe**	function

statistics (context)

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

status (basic tex)

getbufferstate	function	**getmarkstate**	function
getcallbackstate	function	**getneststate**	function
getconstants	function	**getnodestate**	function
geterrorlinestate	function	**getparameterstate**	function
geterrorstate	function	**getpoolstate**	function
getexpandstate	function	**getreadstate**	function
getextrastate	function	**getsavestate**	function
getfilestate	function	**getsparsestate**	function
getfontstate	function	**getstringstate**	function
gethalferrorlinestate	function	**gettexstate**	function
gethashstate	function	**gettokenstate**	function
getinputstate	function	**getwarningstate**	function
getinsertstate	function	**iocodes**	table
getlanguagestate	function	**list**	function
getlookupstate	function	**resetmessages**	function
getluastate	function		

storage (context)

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

streams (context)

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

string (basic lua)

autodouble	function		**longtostring**	function
autosingle	function		**lower**	function
booleanstring	function		**match**	function
byte	function		**nospaces**	function
bytepairs	function		**nspaces**	table
bytes	function		**octtointeger**	function
bytetable	function		**optionalquoted**	function
char	function		**pack**	function
characterpairs	function		**packrowscolumns**	function
characters	function		**packsize**	function
checkedsplit	function		**quote**	function
chrtointeger	function		**quoted**	function
collapsespaces	function		**rep**	function
containsws	function		**replacenewlines**	function
count	function		**reverse**	function
dawson	function		**split**	function
dectointeger	function		**splitlines**	function
dump	function		**splitup**	function
erf	function		**strip**	function
erfc	function		**sub**	function
erfcx	function		**texhashed**	function
erfi	function		**texnewlines**	function
escapedpattern	function		**tformat**	function
escapedquotes	function		**toHEX**	function
explode	function		**toboolean**	function
f6	function		**tobytes**	function
find	function		**tocontext**	function
format	function		**todec**	function
formatter	function		**todimen**	function
formatters	function		**tohex**	function
fullstrip	function		**tonodes**	function
gmatch	function		**topattern**	function
gsub	function		**totable**	function
hextocharacters	function		**tounicode16**	function
hextointeger	function		**toutf**	function
is_boolean	function		**toutf32**	function
is_empty	function		**toutf8**	function
itself	function		**tracedchar**	function
len	function		**tracedchars**	table
limit	function		**unescapedquotes**	function
linetable	function		**unpack**	function

unquote	function		**utfvalue**	function
unquoted	function		**utfvalues**	function
upper	function		**utfvaluetable**	function
utfcharacter	function		**valid**	function
utfcharacters	function		**voigt**	function
utfcharactertable	function		**voigt_hwhm**	function
utflength	function		**wordsplitter**	function
utfpadd	function			
utfpadding	function			

structures (context)

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

F	title	F	prefixedpage
F	touserdata	F	process
		D	pushed

inserts   table

D	data	F	pushnesting
F	define	F	rawnumber
F	getdata	F	realpage
F	getlocation	F	reordered
F	getname	T	result
F	getnumber	F	savedlistnumber
F	setlocation	F	savedlistprefixednumber
F	setup	F	savedlisttitle
D	stored	D	sectionblocks

itemgroups   table

D	collected	F	sectionnumber
D	tobesaved	F	size
		F	title

lists   table

F	addto	D	tobesaved
F	analyze	F	use
B	autoreorder	F	userdata
D	cached	F	uservalue

marks   table

D	collected	F	number
F	discard	F	title

notes   table

F	enhance	F	check_spacing
T	enhancers	F	checkpagechange
F	external	F	define
F	filter	F	doifonsamepageasprevious
F	formulanumber	F	get
F	getresult	F	getdeltapage
F	groupindex	F	getinternal
F	hasnumberdata	F	getn
F	haspagedata	F	getstate
F	hastitledata	F	hascontent
F	integrate	F	internal
F	iscached	F	internalid
D	kinds	F	listindex
F	label	D	numbers
F	location	F	ordered
D	names	F	postpone
F	number	F	resetpostponed
D	ordered	F	restore
F	page	F	save
F	popnesting	F	setstate
F	prefix	D	states
F	prefixednumber		

F store		
pages		**table**
F allmarked		
F analyze		
D collected		
F fraction		
F in_body		
F is_odd		
F mark		
F marked		
F markedlist		
N nofpages		
F number		
F on_right		
F save		
D tobesaved		
F toranges		
references		**table**
F analyze		
F checked		
F checkedfile		
F checkedfileorurl		
F checkedprogram		
F checkedrealpage		
F checkedurl		
D collected		
U componentsplitter		
F currentmetadata		
F currentorder		
D currentset		
F define		
D defined		
D derived		
F enhance		
D executers		
F export		
T files		
T data		
F define		
F found		
F get		
F filter		
F filterdefault		
D filters		

D flaginternals
F from
D functions
F get
F getcurrentlabel
F getcurrentmetadata
F getcurrentprefixspec
F getinnermethod
F getinternalcachedlistreference
F getinternallistreference
F getinternalreference
F getoutermethod
D handlers
F identify
F import
F inject
F injectcurrentset
S innermethod
F integrate
D internals
F load
F loadpresets
F mark
S outermethod
F pagefromhash
D pages
U prefixsplitter
D productdata
T programs
T data
F define
F get
F realpageofpage
U referencesplitter
D referred
F referredpage
F registerfinalizer
F registerinitializer
F registerpage
F reset
D runners
F set
F setandgetattribute
F setinternalreference

F setlinkmethod	F finalize
F setnextinternal	F findinternal
F setnextorder	F flush
F setreferencerealpage	F get
F setstructure	F integrate
D specials	F prepare
F splitcomponent	F process
F splitprefix	F setmethod
F splitreference	F sort
F synchronizepage	F store
T testrunners	D tobesaved
F inner	F tweak
F special	F unique
F special operation	F use
F special operation with arguments	F userdata
T testspecials	**sections** table
F deltapage	F autodepth
F i	F cct
F internal	D collected
F page	F current
F realpage	F currentblock
F section	F currentid
F userpage	F currentlevel
D tobereferred	F currentsectionindex
D tobesaved	F depthnumber
D tracedpages	F finddata
T urls	F findnumber
T data	F fullnumber
F define	F getcurrentlevel
F found	F getlevel
F get	F getnumber
F untex	F internalreference
D usedinternals	D levelmap
D usedviews	D levels
F valid	F matchingtilldepth
registers table	F numberatdepth
F analyze	F numbers
D collected	F popblock
F compare	F prefixedconverted
F define	F pushblock
F enhance	F register
F extend	D registered
F filter	F reportstructure
F filtercollected	F save

T	sectionblockdata		F	registerused
	T bodypart		F	reset
		S bookmark	F	resetall
F	set		F	resetlist
F	setblock		F	resetshown
F	setchecker		F	resetused
F	setentry		F	sort
F	setinitialblock		F	synonym
F	setlevel		D	tobesaved
F	setnumber	**tags**		table
F	showstructure	T	backend	
F	structuredata	T	checks	
F	title		F	marginanchor
D	tobesaved		F	margintext
F	typesetnumber		F	math
	F	userdata		F	mrow
B	verbose		F	mtable
sets		table	T	destinationhash
F	define		T	extras
F	get		F	adddestination
F	getall		F	addimplicit
D	setlist		F	addinternal
specials		table		F	addreference
D	collected		F	combination
F	retrieve		F	delimitedsymbol
F	store		F	description
D	tobesaved		F	descriptionsymbol
synonyms		table		F	document
F	analyzed		F	float
D	collected		F	formulacontent
F	compare		F	image
F	define		F	item
F	enhance		F	itemgroup
F	filter		F	link
F	finalize		F	listitem
F	flush		F	mmultiscripts
F	isshown		F	msub
F	isused		F	msubsup
F	meaning		F	msup
F	pages		F	paragraph
F	prepare		F	publication
F	process		F	reference
F	register		F	registerlocation
F	registershown		F	registerpages

```
    F registerseparator                        U splitter
    F section                               D properties
    F sorting                               F registerextradata
    F subsentencesymbol                     F registermetadata
    F synonym                               F restart
    F tablecell                             F setaspect
    F tabulate                              F setattributehash
    F tabulatecell                          F setcodepoint
  T finalizers                              F setcombination
    F descriptions                          F setconstruct
  T fixes                                   F setfigure
    F linenumber                            F setfloat
  T listdata                                F setformulacontent
  T referencehash                           F sethighlight
  F setattribute                            F setitem
  T usedimages                              F setitemgroup
    T image                                 F setlist
  T usedstyles                              F setnotation
    T construct                             F setnotationsymbol
    T highlight                             F setparagraph
F current                                   F setproperty
F elementtag                                F setpublication
F enabled                                   F setregister
F exportbox                                 F setsorting
F finishexport                              F setsynonym
F getextradata                              F settablecell
F getid                                     F settabulatecell
F getmetadata                               F settagdelimitedsymbol
F gettablecell                              F settagsubsentencesymbol
F gettabulatecell                           F setupexport
F handler                                   F setuserproperties
F initializeexport                          D specifications
D labels                                    F start
F last                                      F stop
F lastinchain                               F strip
F localexport                               D taglist
F locatedtag                                T usewithcare
T patterns
```

table (basic lua)

allkeys	function	**orderedhash**	function
append	function	**pack**	function
are_equal	function	**prepend**	function
collapsed	function	**print**	function
collapsedhash	function	**remove**	function
combine	function	**reverse**	function
compact	function	**reversed**	function
concat	function	**save**	function
contains	function	**sequenced**	function
copy	function	**serialize**	function
count	function	**setmetatablecall**	function
create	function	**setmetatableindex**	function
derive	function	**setmetatableindices**	function
deserialize	function	**setmetatablekey**	function
drop	function	**setmetatablenewindex**	function
fastcopy	function	**sort**	function
fastserialize	function	**sorted**	function
filtered	function	**sortedhash**	function
flattened	function	**sortedhashkeys**	function
fromhash	function	**sortedhashonly**	function
getmetatablekey	function	**sortedindexonly**	function
getn	function	**sortedkeys**	function
has_one_entry	function	**sortedpairs**	function
hashed	function	**sparse**	function
identical	function	**strip**	function
imerge	function	**sub**	function
imerged	function	**swapped**	function
insert	function	**tocontext**	function
is_empty	function	**tocsv**	function
is_simple_table	function	**tofile**	function
keys	function	**tohandle**	function
load	function	**tohash**	function
loweredkeys	function	**toxml**	function
makeweak	function	**twowaymapper**	function
merge	function	**unique**	function
merged	function	**unnest**	function
mirrored	function	**unpack**	function
move	function	**values**	function
ordered	function		

tex (basic tex)

amcode	table		**extraprimitives**	function
attribute	table		**fatalerror**	function
automigrationcodes	data table		**fillcodes**	data table
autoparagraphcodes	data table		**fitnesscodes**	data table
badness	function		**flagcodes**	data table
boundaries	table		**fontidentifier**	function
D names			**fontname**	function
D numbers			**forcehmode**	function
F system			**forceinputstatefile**	function
box	table		**forceinputstateline**	function
boxresources	table		**fprint**	function
F getbox			**frozenparcodes**	data table
F getdimensions			**get**	function
F save			**getalignmentcontextvalues**	function
F use			**getamcode**	function
breakcodes	data table		**getappendlinecontextvalues**	function
buildcodes	data table		**getattribute**	function
catcode	table		**getautomigrationvalues**	function
charactertagcodes	data table		**getautoparagraphvalues**	function
chardef	function		**getbox**	function
classoptioncodes	data table		**getboxdir**	function
codes	table		**getboxresourcebox**	function
conditionals	data table		**getboxresourcedimensions**	function
constants	data table		**getbreakcontextvalues**	function
count	table		**getbuildcontextvalues**	function
cprint	function		**getcardinalvalue**	function
ctdcatcodes	number		**getcatcode**	function
ctxcatcodes	number		**getcharactertagvalues**	function
definefont	function		**getcount**	function
delcode	table		**getdelcode**	function
dimen	table		**getdelcodes**	function
dimensiondef	function		**getdimen**	function
directioncodes	data table		**getdimensionvalue**	function
directives	data table		**getdirectionvalues**	function
discoptioncodes	data table		**getdiscoptionvalues**	function
dontcomplain	function		**getdiscstatevalues**	function
doublescriptoptioncodes	data table		**getdoublescriptoptionvalues**	function
enableprimitives	function		**geterrorvalues**	function
error	function		**getfillvalues**	function
expandasvalue	function		**getfitnessvalues**	function
experiments	data table		**getflagvalues**	function

getfloat	function	**getmathcodes**	function
getfontoffamily	function	**getmathcontrolvalues**	function
getfrozenparvalues	function	**getmathdir**	function
getglue	function	**getmathgluevalues**	function
getglueoptionvalues	function	**getmathoptionvalues**	function
getglyphdata	function	**getmathparametervalues**	function
getglyphoptionvalues	function	**getmathscriptordervalues**	function
getglyphscales	function	**getmathscriptsmodevalues**	function
getglyphscript	function	**getmathstylenamevalues**	function
getglyphstate	function	**getmathstylevalues**	function
getgroupvalues	function	**getmathsurroundvalues**	function
gethccode	function	**getmathvariantvalues**	function
gethelptext	function	**getmode**	function
gethmcode	function	**getmodevalues**	function
gethyphenationvalues	function	**getmuglue**	function
getiftypes	function	**getmuskip**	function
getinputstatefile	function	**getnest**	function
getinputstateline	function	**getnestlevel**	function
getinputstatemode	function	**getnoadoptionvalues**	function
getinsertcontent	function	**getnormalizelinevalues**	function
getinsertdepth	function	**getnormalizeparvalues**	function
getinsertdistance	function	**getoutputactive**	function
getinsertheight	function	**getpacktypevalues**	function
getinsertlimit	function	**getpagecontextvalues**	function
getinsertmultiplier	function	**getpagestate**	function
getinsertwidth	function	**getparametermodevalues**	function
getintegervalue	function	**getparcontextvalues**	function
getinteraction	function	**getpardir**	function
getinteractionmodes	function	**getparmodevalues**	function
getiovalues	function	**getparpassclassvalues**	function
getkerneloptionvalues	function	**getparstate**	function
getlargestusedmark	function	**getpartriggervalues**	function
getlccode	function	**getpenaltyoptionvalues**	function
getlinedir	function	**getpositvalue**	function
getlist	function	**getprepoststatevalues**	function
getlistanchorvalues	function	**getprimitiveorigins**	function
getlistgeometryvalues	function	**getprotrusionboundaryvalues**	function
getlistsignvalues	function	**getregisterindex**	function
getlocalbox	function	**getruleoptionvalues**	function
getlocallevel	function	**getrunstatevalues**	function
getmark	function	**getsfcode**	function
getmath	function	**getshapingpenaltiesvalues**	function
getmathclassoptionvalues	function	**getskip**	function
getmathcode	function	**getspecialmathclassvalues**	function

gettextcontrolvalues	function	N	defaulteqnogapstep
gettextdir	function	N	defaulthangafter
gettoks	function	N	defaultoutputbox
getuccode	function	N	defaultpredisplaygap
getunitclassvalues	function	N	defaultrule
glue	table	N	defaultspacefactor
glueoptioncodes	data table	N	defaulttolerance
glyphoptioncodes	data table	N	deplorable
groupcodes	data table	N	ejectpenalty
hashtokens	function	N	ignoredepth
hccode	table	N	infinitebad
hmcode	table	N	infinitepenalty
hshcatcodes	number	N	infinity
hyphenationcodes	data table	N	largewidthexcess
ifs	data table	N	loosecriterion
inicatcodes	number	N	mathallclass
integerdef	function	N	mathbeginclass
interactioncodes	data table	N	mathdefaultpenalty
isattribute	function	N	mathendclass
isbox	function	N	mathfirstuserclass
iscount	function	N	mathlastuserclass
isdefined	function	N	maxattributeregisterindex
isdimen	function	N	maxboxregisterindex
isfloat	function	N	maxbytecodeindex
isglue	function	N	maxcalculatedbadness
ismuglue	function	N	maxcardinal
ismuskip	function	N	maxcategorycode
isprintable	function	N	maxcharactercode
isskip	function	N	maxdatavalue
istoks	function	N	maxdimen
lastnodetype	function	N	maxdimenregisterindex
lccode	table	N	maxdimension
linebreak	function	N	maxdimensionregisterindex
listanchorcodes	data table	N	maxendlinecharacter
listgeometrycodes	data table	N	maxfloatregisterindex
lists	table	N	maxfontadjustshrinkfactor
listsigncodes	data table	N	maxfontadjuststep
luacatcodes	number	N	maxfontadjuststretchfactor
magicconstants	table	N	maxfunctionreference
N assumedmathcontrol		N	maxglueregisterindex
N awfulbad		N	maxhalfvalue
N decentcriterion		N	maxhalfword
N defaultcatcodetable		N	maxinteger
N defaultdeadcycles		N	maxintegerregisterindex

N maxintregisterindex	
N maxlimitedscale	
N maxmarkindex	
N maxmathclasscode	
N maxmathfamilyindex	
N maxmathscalingfactor	
N maxmathstylescale	
N maxmugluregisterindex	
N maxnewlinecharacter	
N maxnofbytecodes	
N maxnofcatcodetables	
N maxnoffonts	
N maxnoflanguages	
N maxnofmarks	
N maxnofmathfamilies	
N maxquarterword	
N maxscalefactor	
N maxsizeofword	
N maxspacefactor	
N maxtoksregisterindex	
N mincardinal	
N mindatavalue	
N mindimen	
N mindimension	
N minhalfword	
N mininfinity	
N mininteger	
N minquarterword	
N minscalefactor	
N minspacefactor	
N nocatcodetable	
N null	
N nullflag	
N nullfont	
N onebp	
N presetrulethickness	
N runningrule	
N smallstretchability	
N texeqtbsize	
N texhashprime	
N texhashsize	
N two	
N undefinedmathparameter	
N unity	

N unusedattributevalue	
N unusedmathfamily	
N unusedmathstyle	
N unusedscriptvalue	
N unusedstatevalue	
N zeroglue	

mathchardef   function
mathcode   table
mathcontrolcodes   data table
mathoptioncodes   data table
mathparametercodes   data table
mathscriptordercodes   data table
mathscriptsmodecodes   data table
modelevels   table

　　　N horizontal
　　　N math
　　　N unset
　　　N vertical

modes   data table
mprint   function
muglue   table
muskip   table
nest   table
nilcatcodes   number
noadoptioncodes   data table
normalizelinecodes   data table
normalizeparcodes   data table
notcatcodes   number
number   function
parcontextcodes   data table
parpassclasscodes   data table
partriggercodes   data table
penaltyoptioncodes   data table
poplocal   function
popsavelevel   function
posit   table
positdef   function
preparelinebreak   function
primitives   function
print   function
protrusionboundarycodes   data table
prtcatcodes   number
pushlocal   function
pushsavelevel   function

quitlocal	function	**setmath**	function
quittoks	function	**setmathcode**	function
resetparagraph	function	**setmathdir**	function
rlncatcodes	number	**setmuglue**	function
romannumeral	function	**setmuskip**	function
round	function	**setnest**	function
ruleoptioncodes	data table	**setpardir**	function
runlocal	function	**setpositvalue**	function
runstring	function	**setrunstate**	overloaded functi
runtoks	function	**setsfcode**	function
saveboxresource	function	**setskip**	function
scale	function	**settextdir**	function
scantoks	function	**settoks**	function
set	function	**setuccode**	function
setamcode	function	**sfcode**	table
setattribute	function	**shapingpenaltiescodes**	data table
setbox	function	**shiftparshape**	function
setboxdir	function	**shipout**	function
setcardinalvalue	function	**showcontext**	function
setcatcode	function	**skip**	table
setcount	function	**snapshotpar**	function
setdelcode	function	**sp**	function
setdimen	function	**specialmathclasscodes**	data table
setdimensionvalue	function	**splitbox**	function
setfloat	function	**sprint**	function
setglue	function	**stringtocodesbitmap**	function
setglyphdata	function	**systemmodes**	data table
setglyphscript	function	**takebox**	function
setglyphstate	function	**texcatcodes**	number
sethccode	function	**textcontrolcodes**	data table
sethmcode	function	**toks**	table
setinputstatefile	function	**tonumber**	function
setinputstateline	function	**toscaled**	function
setinputstatemode	function	**tpacatcodes**	number
setinsertcontent	function	**tpbcatcodes**	number
setinsertdistance	function	**tprint**	function
setinsertlimit	function	**trackers**	data table
setinsertmultiplier	function	**triggerbuildpage**	function
setintegervalue	function	**txtcatcodes**	number
setinteraction	function	**uccode**	table
setlccode	function	**uprint**	function
setlinedir	function	**useboxresource**	function
setlist	function	**userdiscoptioncodes**	data table
setlocalbox	function	**userglyphoptioncodes**	data table

vrbcatcodes	number
write	function

texconfig (basic tex)

buffersize	table		**languagesize**	table
N size			N size	
N step			N step	
errorlinesize	table		**marksize**	table
N size			N size	
expandsize	table		N step	
N size			**nestsize**	table
filesize	table		N size	
N size			N step	
N step			**nodesize**	table
firstline	string		N size	
fontsize	table		N step	
N size			**parametersize**	table
N step			N size	
formatname	string		N step	
functionsize	number		**poolsize**	table
halferrorlinesize	table		N size	
N size			N step	
hashsize	table		**propertiessize**	number
N size			**savesize**	table
N step			N size	
init	overloaded function		N step	
inputsize	table		**shell_escape**	string
N size			**stringsize**	table
N step			N size	
insertsize	table		N step	
N size			**tokensize**	table
N step			N size	
kpse_init	boolean		N step	

texio (basic tex)

closeinput	function	**write**	function
forceendoffile	function	**write_nl**	function
getinputindex	function	**writenl**	function
getsourcefilename	function	**writeselector**	function
setlogfile	function	**writeselectorlf**	function
terminal	function	**writeselectornl**	function

token (basic tex)

create	function	**getdimension**	function
expand	function	**getexpandable**	function
expand_macro	function	**getexpansion**	function
expandmacro	function	**getfields**	function
future_expand	function	**getflags**	function
futureexpand	function	**getfrozen**	function
get_active	function	**getfunctionvalues**	function
get_cmdchrcs	function	**getid**	function
get_cmdname	function	**getimmutable**	function
get_command	function	**getindex**	function
get_csname	function	**getinstance**	function
get_cstoken	function	**getinteger**	function
get_dimension	function	**getmacro**	function
get_expandable	function	**getmeaning**	function
get_fields	function	**getnoaligned**	function
get_flags	function	**getparameters**	function
get_frozen	function	**getpermanent**	function
get_id	function	**getprimitive**	function
get_immutable	function	**getprimitives**	function
get_index	function	**getprotected**	function
get_instance	function	**getrange**	function
get_integer	function	**gettok**	function
get_macro	function	**gettolerant**	function
get_meaning	function	**gobble**	function
get_noaligned	function	**gobble_dimen**	function
get_parameters	function	**gobble_integer**	function
get_permanent	function	**gobbledimen**	function
get_primitive	function	**gobbleinteger**	function
get_protected	function	**grab**	function
get_range	function	**is_defined**	function
get_tok	function	**is_next_char**	function
get_tolerant	function	**is_token**	function
getactive	function	**isdefined**	function
getcmdchrcs	function	**isnextchar**	function
getcmdname	function	**istoken**	function
getcommand	function	**new**	function
getcommandid	function	**peek_next**	function
getcommandvalues	function	**peek_next_char**	function
getconstant	function	**peek_next_expanded**	function
getcsname	function	**peeknext**	function
getcstoken	function	**peeknextchar**	function

peeknextexpanded	function	**scan_value**	function
pop_macro	function	**scan_word**	function
popmacro	function	**scanargument**	function
push_macro	function	**scanbox**	function
pushmacro	function	**scancardinal**	function
put_back	function	**scanchar**	function
put_next	function	**scancmdchr**	function
putback	function	**scancmdchrexpanded**	function
putnext	function	**scancode**	function
save_lua	function	**scancsname**	function
savelua	function	**scancstoken**	function
scan_argument	function	**scandelimited**	function
scan_box	function	**scandetokened**	function
scan_cardinal	function	**scandimen**	function
scan_char	function	**scandimenargument**	function
scan_cmdchr	function	**scandimension**	function
scan_cmdchr_expanded	function	**scandimensionargument**	function
scan_code	function	**scanfloat**	function
scan_csname	function	**scanglue**	function
scan_delimited	function	**scanint**	function
scan_dimen	function	**scaninteger**	function
scan_dimen_argument	function	**scanintegerargument**	function
scan_float	function	**scankey**	function
scan_glue	function	**scankeyword**	function
scan_integer	function	**scankeywordcs**	function
scan_integer_argument	function	**scanletters**	function
scan_key	function	**scanluacardinal**	function
scan_keyword	function	**scanluainteger**	function
scan_keyword_cs	function	**scanluanumber**	function
scan_letters	function	**scannext**	function
scan_luacardinal	function	**scannextchar**	function
scan_luainteger	function	**scannextexpanded**	function
scan_luanumber	function	**scanposit**	function
scan_next	function	**scanreal**	function
scan_next_char	function	**scanscale**	function
scan_next_expanded	function	**scanskip**	function
scan_real	function	**scanstring**	function
scan_scale	function	**scantoken**	function
scan_skip	function	**scantokencode**	function
scan_string	function	**scantokenlist**	function
scan_token	function	**scantokenstring**	function
scan_token_code	function	**scantoks**	function
scan_tokenlist	function	**scanvalue**	function
scan_toks	function	**scanword**	function

serialize	function	**setlua**	function
set_char	function	**setmacro**	function
set_dimension	function	**skip_next**	function
set_integer	function	**skip_next_expanded**	function
set_lua	function	**skipnext**	function
set_macro	function	**skipnextexpanded**	function
setchar	function	**type**	function
setdimension	function	**undefine_macro**	function
setinteger	function	**undefinemacro**	function

tokens (context)

accessors table
   F active
   F cmd
   F cmdchrcs
   F cmdname
   F command
   F csname
   F expandable
   F frozen
   F index
   F name
   F protected
   F range

astable function

bits table
   N active
   N alignment
   N begingroup
   N character
   N close
   N comment
   N endgroup
   N endofline
   N escape
   N ignore
   N invalid
   N letter
   N mathshift
   N open
   N other
   N parameter
   N space
   N subscript
   N superscript
   N whitespace

cache data table
commands data table
compile function
constant function
converters table
   S toboolean

   S todimen
   S toglue
   S tonumber
   S tostring

create function
defined function
flags function
getinteger function
getters table
   F box
   F count
   F cstoken
   F dimen
   F glue
   F macro
   F meaning
   F skip
   F token

gobble function
isdefined function
istoken function
new function
pickup function
popmacro function
presets table
   T 1 argument
   T 1 integer
   T 1 optional
   T 1 string
   T 2 arguments
   T 2 integers
   T 2 optionals
   T 2 strings
   T 3 arguments
   T 3 integers
   T 3 optionals
   T 3 strings
   T 4 arguments
   T 4 integers
   T 4 optionals
   T 4 strings

	T 5 strings		F lxmlid
	T 6 strings		F next
	T 7 strings		F nextchar
	T 8 strings		F nextexpanded
pushmacro	function		F number
scanners	table		F optional
	F argument		F peek
	F argumentasis		F peekchar
	F array		F peekexpanded
	F boolean		F posit
	F box		F real
	F bracketed		F scanclose
	F bracketedasis		F scanopen
	F cardinal		F skip
	F char		F skipexpanded
	F cmdchr		F string
	F cmdchrexpanded		F table
	F code		F token
	F conditional		F tokencode
	F count		F tokenlist
	F csname		F tokens
	F csnameunchecked		F tokenstring
	F delimited		F toks
	F detokened		F value
	F dimen		F vbox
	F dimenargument		F verbatim
	F dimension		F vtop
	F float		F whd
	F glue		F word
	F gluespec		**setinteger**	function
	F gluevalues		**setters**	table
	F hash		F box
	F hbox		F char
	F integer		F count
	F integerargument		F dimen
	F ischar		F glue
	F key		F lua
	F keyword		F macro
	F keywordcs		F skip
	F letters		**shortcuts**	table
	F list		T bits
	F luacardinal		N active
	F luainteger		N alignment
	F luanumber		N begingroup

N character
N close
N comment
N endgroup
N endofline
N escape
N ignore
N invalid
N letter
N mathshift
N open
N other
N parameter
N space
N subscript
N superscript
N whitespace
N close
F inspect
N open
T posit
  F NaN
  F NaR
  F __add
  F __band
  F __bor
  F __bxor
  F __div
  F __eq
  F __le
  F __lt
  F __mul
  S __name
  F __pow
  F __shl
  F __shr
  F __sub
  F __tostring
  F __unm
  F abs
  F acos
  F asin
  F atan
  F band

F bor
F bxor
F ceil
F conj
F copy
F cos
F exp
F exp2
F floor
F fromposit
F integer
F log
F log10
F log1p
F log2
F logb
F max
F min
F modf
F new
F pow
F rotate
F round
F rounded
F shift
F sin
F sqrt
F tan
F tonumber
F toposit
F tostring
F report
F scanargument
F scanargumentasis
F scanarray
F scanboolean
F scanbox
F scanbracketed
F scanbracketedasis
F scancardinal
F scanclose
F scancode
F scanconditional
F scancsname

F scancsnameunchecked	F hash
F scandelimited	F hbox
F scandetokened	F integer
F scandimen	F integerargument
F scandimenargument	F ischar
F scandimension	F key
F scanfloat	F keyword
F scanglue	F keywordcs
F scangluespec	F letters
F scangluevalues	F list
F scanhash	F luacardinal
F scanhbox	F luainteger
F scaninteger	F luanumber
F scanintegerargument	F lxmlid
F scankeyword	F next
F scankeywordcs	F nextchar
F scanletters	F nextexpanded
F scanlist	F number
T scanners	F optional
F argument	F peek
F argumentasis	F peekchar
F array	F peekexpanded
F boolean	F posit
F box	F real
F bracketed	F scanclose
F bracketedasis	F scanopen
F cardinal	F skip
F char	F skipexpanded
F cmdchr	F string
F cmdchrexpanded	F table
F code	F token
F conditional	F tokencode
F count	F tokenlist
F csname	F tokens
F csnameunchecked	F tokenstring
F delimited	F toks
F detokened	F value
F dimen	F vbox
F dimenargument	F verbatim
F dimension	F vtop
F float	F whd
F glue	F word
F gluespec	F scannumber
F gluevalues	F scanopen

F scandetokened			F scanoptional	
F scandimen			F scanstring	
F scandimenargument			F scantable	
F scandimension			F scantokenlist	
F scanfloat			F scantokenstring	
F scanglue			F scantoks	
F scangluespec			F scanvbox	
F scangluevalues			F scanverbatim	
F scanhash			F scanvtop	
F scanhbox			F scanword	
F scaninteger			F toboolean	
F scanintegerargument			F todimen	
F scankeyword			F tonumber	
F scankeywordcs			F tostring	
F scanletters		D values	
F scanlist		F tonumber	
F scannumber		F tostring	
F scanopen		**values** data table	

tracers (context)

printerror function   **showlines**   function
printwarning function

trackers (context)

data	data table	**register**	function
default	function	**report**	function
disable	function	**reset**	function
done	table	**savehash**	function
dumphashtofile	function	**show**	function
enable	function	**value**	function
list	function	**values**	function
name	string		

typesetters (context)

alignments   table
breakpoints   table

    F define

    F handler

    F last

    D mapping

    T methods

    T numbers

    F set

    F setreplacement

    F show

cases   table

    T actions

    F handler

    F register

    F set

characteralign table

    F handler

    F resetcharacteralign

    F setcharacteralign

characters   table

    F handler

    T methods

    F replacenbsp

    F replacenbspaces

checkers   table

    F handler

    F reset

    F set

cleaners   table

    F handler

    F set

corrections   table

    F handler

digits   table

    T actions

    F handler

    F set

directions   table

    F getfences

    F getglobal

    F getmethod

    F handler

    T handlers

    F installhandler

    F set

    F setcolor

    F tomode

firstlines   table

    T actions

      F default

      F line

      F word

    F handler

    F set

fontkerns   table

    F handler

initials   table

    T actions

      F default

    F handler

    F set

injectors   table

    F check

    T list

    F mark

    F reset

    F set

    F show

italics   table

    F enablemath

    F enabletext

    F handler

kerns   table

    D factors

    F handler

    F keepligature

    D mapping

    F set

localboxes   table

    F handler

manipulators   table

F apply

F applyspecification

T methods

  F Word

  F Words

  F abbreviatedjournal

  F expandedjournal

  F lowercase

  F stripperiod

  F uppercase

T patterns

  U list

  U pair

F splitspecification

margins   table

F finalhandler

F globalhandler

F localhandler

F save

marksuspects   function

paragraphs   table

F addanchortoline

F addtoline

F calculatedelta

F checkline

F moveinline

periodkerns   table

D factors

F handler

D mapping

F set

processors   table

F apply

F register

F reset

F split

F startapply

F stopapply

F stripped

F tostring

rubies   table

F attach

F check

showinvisibles   function

showsuspects   function

spacings   table

F define

F handler

D mapping

T numbers

  T frenchpunctuation

    T characters

    S name

    N number

F reset

F set

F setup

synchronize   table

F handler

tighten   table

F handler

wrappers   table

xtables   table

F cleanup

F construct

F create

F finish_row

F flush

F initialize_construct

F initialize_reflow_height

F initialize_reflow_width

F next_row

F reflow_height

F reflow_width

F set_construct

F set_reflow_height

F set_reflow_width

updaters (context)

apply   function
register function

url (context)

addscheme	function	**hashed**	function
barepath	function	**hasscheme**	function
construct	function	**query**	function
decode	function	**split**	function
encode	function	**toquery**	function
escape	function	**unescape**	function
filename	function	**unescapeget**	function

utf8 (basic lua)

char	function		**codes**	function
charpattern	string		**len**	function
codepoint	function		**offset**	function

utilities (context)

debugger   table
- F disable
- F enable
- F savestats
- F showstats
- F showtraceback

files   table
- F close
- F getposition
- F getsize
- F look
- F open
- F read2dot14
- F readbyte
- F readbytes
- F readbytetable
- F readcardinal
- F readcardinal1
- F readcardinal1le
- F readcardinal2
- F readcardinal2le
- F readcardinal3
- F readcardinal3le
- F readcardinal4
- F readcardinal4le
- F readcardinaltable
- F readchar
- F readcline
- F readcstring
- F readfixed2
- F readfixed4
- F readinteger
- F readinteger1
- F readinteger1le
- F readinteger2
- F readinteger2le
- F readinteger3
- F readinteger3le
- F readinteger4
- F readinteger4le
- F readintegertable

- F readsignedbyte
- F readstring
- F readtag
- F setposition
- F size
- F skip
- F skiplong
- F skipposition
- F skipshort
- F writebyte
- F writecardinal1
- F writecardinal1le
- F writecardinal2
- F writecardinal2le
- F writecardinal3
- F writecardinal3le
- F writecardinal4
- F writecardinal4le
- F writeinteger1
- F writeinteger1le
- F writeinteger2
- F writeinteger2le
- F writeinteger3
- F writeinteger3le
- F writeinteger4
- F writeinteger4le
- F writestring

formatters   table
- F formatcolumns
- F list
- F stripzeros

ghostscript   table
- F convert
- F statistics

graphicmagick   table
- F convert
- F statistics

graphicsmagick   table
- F convert
- F statistics

lua   table

B alwaysstripcode	B auto
F checkmemory	B broad
F compile	B fit
F loadedluacode	B max
F loadstring	B min
F loadstripped	T text,hidden,paper,page,leftpage,rightpage
N nofstrippedbytes	B hidden
N nofstrippedchunks	B leftpage
F registerfinalizer	B page
B stripcode	B paper
T strippedchunks	B rightpage
F strippedloadstring	B text
T suffixes	F iterator
S lmt	F keq_to_hash
S lua	F listitem
S luc	F make_settings_to_hash_pattern
S lui	F mergehashes
S luj	F options_to_array
S luv	F options_to_hash
S tma	T patterns
S tmc	U settings_to_array
S tua	U settings_to_hash_a
S tuc	U settings_to_hash_b
packers table	U settings_to_hash_c
F hashed	U settings_to_hash_d
F new	U unittotex
F pack	F process_stripped_settings
F simplehashed	F rfc4180splitter
F strip	F runtime
F unpack	F settings_to_array
N version	F settings_to_array_obey_fences
parsers table	F settings_to_array_with_repeat
F add_settings_to_array	F settings_to_hash
F arguments_to_table	F settings_to_hash_colon_too
F array_to_string	F settings_to_hash_strict
F csvsplitter	F settings_to_hash_tolerant
F getparameters	F settings_to_numbers
F groupedsplitat	F settings_to_set
F hash_to_string	F simple_hash_to_string
T hashes	F splitmethod
T settings_to_list	F splitthousands
T tablet	F stepper
T settings_to_set	F stripped_settings_to_array
T min,max,fit,broad,auto	F totime

F unittotex		F show	
F unittoxml		**stacker**	table
randomizer	table	F new	
F get		**storage**	table
F getnumber		F allocate	
F getrepeatable		F checked	
F getrepeatableseed		F mark	
F getseed		F marked	
F newrepeatable		F setinitializer	
F popseed		F sparse	
F pushseed		**streams**	table
F repeatable		F close	
F reuseseed		F getposition	
F setseed		F getsize	
F setseedi		F getstring	
randomizers	table	F look	
F poisson		F open	
sequencers	table	F openstring	
F appendaction		F read2dot14	
F appendgroup		F readbyte	
F compile		F readbytes	
F disableaction		F readbytetable	
F disablegroup		F readcardinal	
F enableaction		F readcardinal1	
F enablegroup		F readcardinal1le	
D functions		F readcardinal2	
F localize		F readcardinal2le	
F new		F readcardinal3	
F nodeprocessor		F readcardinal3le	
F prependaction		F readcardinal4	
F prependgroup		F readcardinal4le	
F removeaction		F readcardinaltable	
F replaceaction		F readchar	
F setkind		F readcline	
F tostring		F readcstring	
setters	table	F readfixed2	
F disable		F readfixed4	
F enable		F readinteger	
F initialize		F readinteger1	
F list		F readinteger1le	
F new		F readinteger2	
F register		F readinteger2le	
F report		F readinteger3	
F reset		F readinteger3le	

F readinteger4	F definedtable
F readinteger4le	F definetable
F readintegertable	F encapsulate
F readsignedbyte	F insertaftervalue
F readstring	F insertbeforevalue
F setposition	F migratetable
F size	F removevalue
F skip	F replacevalue
F skipbytes	**tar** table
F skiplong	T archives
F skipshort	F closearchive
F tocardinal1	T files
F tocardinal1le	F fetch
F tocardinal2	F hash
F tocardinal2le	F list
F tocardinal3	F pack
F tocardinal3le	F unpack
F tocardinal4	F openarchive
F tocardinal4le	T registeredfiles
strings table	T streams
F collapse	F fetch
F collapsecrlf	F hash
T formatters	F list
F add	F pack
F new	F unpack
F newcollector	T strings
F newrepeater	F fetch
F nice	F hash
T striplinepatterns	F list
U collapse	F pack
U collapse all	F unpack
U prune	**templates** table
U prune and collapse	F load
U prune and no empty	F replace
U prune and to space	F replacer
U retain	F resolve
U retain and collapse	**zipfiles** table
U retain and no empty	F close
F striplines	F found
F striplong	F hash
F tabtospace	F list
T tracers	F open
tables table	F unzip
F accesstable	

F unzipdir

F zipdir

visualizers (context)

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

xcomplex (extra lua)

I	function		**cos**	function
__add	function		**cosh**	function
__div	function		**exp**	function
__eq	function		**i**	function
__mul	function		**imag**	function
__name	string		**log**	function
__pow	function		**new**	function
__sub	function		**pow**	function
__tostring	function		**proj**	function
__unm	function		**real**	function
abs	function		**sin**	function
acos	function		**sinh**	function
acosh	function		**sqrt**	function
arg	function		**tan**	function
asin	function		**tanh**	function
asinh	function		**topair**	function
atan	function		**tostring**	function
atanh	function		**totable**	function
conj	function			

xdecimal (extra lua)

__add	function	**bxor**	function
__band	function	**conj**	function
__bor	function	**copy**	function
__bxor	function	**exp**	function
__div	function	**getprecision**	function
__eq	function	**ln**	function
__idiv	function	**log**	function
__le	function	**max**	function
__lt	function	**min**	function
__mod	function	**minus**	function
__mul	function	**new**	function
__name	string	**plus**	function
__pow	function	**pow**	function
__shl	function	**rotate**	function
__shr	function	**setprecision**	function
__sub	function	**shift**	function
__tostring	function	**sqrt**	function
__unm	function	**toengstring**	function
abs	function	**tonumber**	function
band	function	**tostring**	function
bor	function	**trim**	function

xmath (extra lua)

acos	function		**isnormal**	function
acosh	function		**j0**	function
asin	function		**j1**	function
asinh	function		**jn**	function
atan	function		**ldexp**	function
atan2	function		**lgamma**	function
atanh	function		**log**	function
cbrt	function		**log10**	function
ceil	function		**log1p**	function
copysign	function		**log2**	function
cos	function		**logb**	function
cosh	function		**modf**	function
deg	function		**nan**	number
erf	function		**nearbyint**	function
erfc	function		**nextafter**	function
exp	function		**pi**	number
exp2	function		**pow**	function
expm1	function		**rad**	function
fabs	function		**remainder**	function
fdim	function		**remquo**	function
floor	function		**round**	function
fma	function		**scalbn**	function
fmax	function		**sin**	function
fmin	function		**sinh**	function
fmod	function		**sqrt**	function
frexp	function		**tan**	function
gamma	function		**tanh**	function
hypot	function		**tgamma**	function
inf	number		**trunc**	function
isfinite	function		**y0**	function
isinf	function		**y1**	function
isnan	function		**yn**	function

xml (context)

addentitiesdoctype	function	F family	
addspecialcode	function	F fontspecification	
after	function	F mappedstylevalue	
all	function	F padding	
applylpath	function	F size	
applyselector	function	F style	
assign	function	F stylevalue	
attribute	function	F todimension	
badinclusions	function	F variant	
before	function	F weight	
body	function	**defaulthandlers**	table
builtinentities	table	D file	
B amp		D parsedxml	
B apos		D string	
B gt		D tex	
B lt		D texline	
B quot		D texspace	
cdata	function	D verbose	
cdatatotext	function	**defaultprotocol**	string
checkbom	function	**delete**	function
checkedempty	function	~~**delete_element**~~	~~function~~
checkerror	function	**despecialized**	function
checknamespace	function	**each**	function
checkns	function	~~**each_element**~~	~~function~~
cleansed	function	**elements**	function
collect	function	**elementtocdata**	function
~~**collect_elements**~~	~~function~~	**empty**	function
collect_tags	function	**entities**	data table
~~**collect_texts**~~	~~function~~	**erase**	function
collected	function	**errorhandler**	function
collecttexts	function	**escaped**	function
compactelement	function	**expand**	function
content	function	**expressions**	table
convert	function	F attribute	
copy	function	F boolean	
count	function	F child	
cprint	function	F contains	
css	table	F count	
F applyselector		F error	
F colorspecification		F find	
F dimension		F hasclass	

F idstring		F tags	
F lower		F text	
F name		F upper	
F number		F upperall	
F oneof		F url	
F print		F xml	
F quit		T xml	
F tag		F all	
F text		F att	
F undefined		F attribute	
F upper		F attributes	
fillin	function	F cdata	
filter	function	F chainattribute	
finalizers	table	F count	
F paragraphs		F default	
T tex		F elements	
F all		F empty	
F attribute		F first	
F chainattribute		F function	
F chainpath		F index	
F collapsed		F last	
F command		F lowerall	
F concat		F match	
F concatrange		F name	
F context		F position	
F count		F reverse	
F ctxtext		F table	
F default		F tag	
F depth		F tags	
F first		F text	
F function		F texts	
F index		F tomacro	
F last		F upperall	
F lettered		F url	
F lower		**first**	function
F lowerall		**found**	function
F match		**functions**	table
F name		F classes	
F param		F hasclass	
F parameter		**getbuffer**	function
F position		**gethandlers**	function
F reverse		**gethandlersfunction**	function
F stripped		**helpers**	table
F tag		F recursetext	

include	function		F tex
inclusion	function	**placeholders**	table
inclusions	function	F unknown_any_entity	
index	function	F unknown_dec_entity	
inheritattributes	function	F unknown_hex_entity	
inheritedconvert	function	**popmatch**	function
inject	function	**position**	function
~~**inject_element**~~	~~function~~	**privatecodes**	data table
~~**inject_element_after**~~	~~function~~	**privatetoken**	function
~~**inject_element_before**~~	~~function~~	**process**	function
injectafter	function	~~**process_attributes**~~	~~function~~
injectbefore	function	~~**process_elements**~~	~~function~~
insert	function	**processattributes**	function
insert_element	function	**profiled**	table
~~**insert_element_after**~~	~~function~~	**pure**	function
~~**insert_element_before**~~	~~function~~	**pushmatch**	function
insertafter	function	**raw**	function
insertbefore	function	**registerentity**	function
insertcdata	function	**registerns**	function
insertcomment	function	**reindex**	function
inspect	function	~~**remap_name**~~	~~function~~
is_valid	function	~~**remap_namespace**~~	~~function~~
kind	function	~~**remap_tag**~~	~~function~~
last	function	**remapname**	function
lastmatch	function	**remapnamespace**	function
load	function	**remaptag**	function
lpath	function	**rename**	function
lpathcached	function	**renamespace**	function
lpathcalls	function	**reparsedentitylpeg**	userdata
lshow	function	**replace**	function
makestandalone	function	~~**replace_element**~~	~~function~~
match	function	**resetinjectors**	function
mml	table	**resolvens**	function
F stripped		**root**	function
F verbose		**save**	function
name	function	**selection**	function
newhandlers	function	**separate**	function
nodesettostring	function	**serialize**	function
originalload	function	**serializetotext**	function
package	function	**setcdata**	function
parent	function	**setcomment**	function
parsedentitylpeg	userdata	**sethandlersfunction**	function
pihandlers	table	**setinjectors**	function
F injector		**setproperty**	function

settings	function		tostring	function
specialcodes	data table		**totable**	function
specialhandler	table		**toxml**	function
sprint	function		**tprint**	function
string	function		**traverse**	function
strip	function		**unescaped**	function
~~**strip_whitespace**~~	~~function~~		**unescapedentitylpeg**	userdata
stripelement	function		**unprivatized**	function
stripleadingspaces	function		**unspecialized**	function
table	function		**wipe**	function
text	function		**withelement**	function
textonly	function		**withelements**	function
texttocdata	function		**wrap**	function
tocdata	function		**xmlns**	table
toelement	function			

xzip (extra lua)

adler32	function	**crc32**	function
compress	function	**decompress**	function
compresssize	function	**decompresssize**	function

zip (context)

archives	table	**openarchive**	function
closearchive	function	**registeredfiles**	table

zlib (context)

adler32	function	**crc32**	function
compress	function	**decompress**	function
compresssize	function	**decompresssize**	function