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

aes (extra lua)

decode function

encode function

random 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 labtolch
- F labtorgb
- F labtoxyz
- F lchtolab
- F lchtorgb
- 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			D registered	
F setlist			F set	
F setmodel				
F setpagecolormodel		**numbers**	data table	
D sets		**ofnode**	function	
F spec		**private**	function	
F spot		**public**	function	
F spotcolorname		**registervalue**	function	
F spotcolorparent		**restore**	function	
F spotcolorvalue		**save**	function	
B supported		**setcleaner**	function	
F toattributes		**showcurrent**	function	
F transparencycomponents		**states**	table	
B triggering		F disabletriggering		
F usecolors		F enabletriggering		
D valid		F finalize		
F value		F initialize		
D values		F process		
B weightgray		F selective		
F xyztolab		F simple		
F xyztorgb		F stacked		
		F stacker		
counts	data table	**system**	function	
define	function	**tooverloads**	function	
effects	table	**transparencies**	table	
N attribute		N attribute		
D data		D data		
F enable		F enable		
F handler		F forcesupport		
F register		F handler		
D registered		T names		
D values		N color		
getvalue	function	N colorburn		
getvalues	function	N colordodge		
handlers	table	N darken		
hasvalues	function	N difference		
list	data table	N exclusion		
markasoverload	function	N hardlight		
names	data table	N hue		
negatives	table	N lighten		
N attribute		N luminosity		
D data		N multiply		
F enable		N none		
F handler		N normal		
F register		N overlay		

N	saturation	F	enable
N	screen	F	forcesupport
N	softlight	F	handler
N	none	B	hasorder
F	register	D	listwise
D	registered	F	register
B	supported	D	registered
F	toattribute	F	resolve_begin
B	triggering	F	resolve_end
F	value	F	resolve_reset
D	values	F	resolve_step

unsetvalue	number	D	scopes
values	data table	F	setfeatures
viewerlayers	table	F	setup
N	attribute	F	start
F	cleanup	F	stop
D	data	B	supported
F	define	D	values
F	definedlayoutcomponent		

backends (context)

closeout	function	
codeinjections	table	
F registerboxresource		
F registerfont		
F restoreboxresource		
current	string	
defaults	table	
T codeinjections		
F prerollreference		
F setautoprefix		
F vfstartcolor		
F vfstopcolor		
T nodeinjections		
F cmykcolor		
F destination		
F graycolor		
F injectknockout		
F injectoverprint		
F reference		
F rgbcolor		
F spotcolor		
F transparency		
T registrations		
F transparency		
D tables		
getcallbackstate	function	
included	table	
B context		
B date		
B id		
B metadata		
B pdf		
initialize	function	
latelua	function	
nodeinjections	table	
nothing	function	
openout	function	
registered	table	
T pdf		
T codeinjections		
F addbookmarks		

F analyzenormalsymbol
F analyzesymbol
F attachmentid
F bitmap
F clonefield
F copyimage
F defaultprofile
F definefield
F definefieldset
F defineviewerlayer
F discardpages
F embedfile
F embedimage
F enabletags
F exportformdata
F fieldsurrounding
F flushmergelayer
F getbookmarks
F getboxresourcebox
F getdefaultfieldvalue
F getfieldcategory
F getfieldset
F getformatoption
F getinfo
F getlinkstructureparent
F getpreviewfigure
F getreferencestructureobject
F getrefobj
F insertrenderingwindow
F jp2
F jpg
F maptag
F mergebookmarks
F mergecomments
F mergefields
F mergereferences
F mergerenditions
F mergeviewerlayers
F newimage
F png
F prerollreference

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

F	rgbindexcolor	**registrations**	table
F	rgbspotcolor	**setencryption**	function
F	spotcolorname	**tables**	table
F	transparency	**writeout**	function
T	tables		

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
checksidefloat   function
hpack   table
   F qualityactions
   F report
   F show
kernel   table
   F collapsing
   F hyphenating
   F kerning
   F ligaturing
   F mlisttohlist
local_box_filter   function
paragraphs   table
   T constructors
    N attribute
    F define
    F disable
    F enable
    F handler
    T methods
     F basic
     F default
     F hpack
     F oneline
    D names
    D numbers
    F set
    F start
    F stop
   T expansion
    F trace
   F keeptogether
   F registertogether
   T solutions
    T splitters
     F define
     F optimize
     T registered
     F reset
     F set

    F split
    F start
    F stop
   F tag
parpassidentifier   function
passnames   data table
profiling   table
   F add
   F addrivers
   F boxlinehandler
   F distance
   F fixedprofile
   F get
   F getrivers
   F list
   F pagehandler
   F pagelinehandler
   F profilebox
   F profilelines
   F set
   F setlines
registerpaspasscallback   function
vpack   table
   F qualityactions
   F report
vspacing   table
   D categories
   F checkstrutdepth
   F collapsevbox
   T data
    D map
    D skip
    D snapmethods
   F definesnapmethod
   B fixed
   F flushcontributions
   F forcepageflush
   F forcestrutdepth
   F getnofpreviouslines
   F inject
   F injectdisable

F injectpenalty

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 balance
    B balance_boundary
    B balance_insert
    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_uinsert
    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 line_break
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_build
B show_error_message
B show_loners
B show_lua_call
B show_vsplit
B show_warning_message
B show_whatsit
B start_file
B start_run
B stop_file
B stop_run
B tail_append
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_nothing**	data table
enccodes	data table	**is_punctuation**	data table
entities	data table	**is_spacing**	data table
fallbacks	data table	**is_symbol**	data table
filters	data table	**lcchars**	data table
fractions	table	**lccode**	function
fromnumber	function	**lccodes**	data table
fschars	data table	**lettered**	function
fscodes	data table	**lhash**	data table
getrange	function	**linebreaks**	data table
graphemes	data table	**lower**	function
hangul	data table	**mathlists**	data table
indicgroups	table	**mirrors**	table
T above_mark		**otfscripts**	data table
T after_half		**ranges**	data table
T after_main		**registerentities**	function

remap_hangul_syllabe	function	**tex**	table
scripthash	table	D accentmapping	
setactivecatcodes	function	D commandmapping	
setlettercatcodes	function	F defineaccents	
setothercatcodes	function	F safechar	
shape	function	F strtextoutf	
shaped	function	F strtoutfpattern	
shash	data table	F toutf	
shchars	data table	F toutfpattern	
shcodes	data table	**textclasses**	table
showstring	function	**tonumber**	function
specialchars	data table	**ucchars**	data table
specials	data table	**uccode**	function
splits	table	**uccodes**	data table
T char		**uhash**	data table
T compat		**unicodechar**	function
subscripts	table	**upper**	function
superscripts	table	**verbosemarks**	data table
synonyms	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
Sloveniannumerals	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_cleanup_procsets**	function
files	table	**pdf_identify_content**	function
functions	table	**pdf_serialize_content**	function
getargument	function	**pdf_strip_content**	function
getfilename	function	**pdf_strip_page**	function
options	table	**setargument**	function
T commandline		**setcommandline**	function
D environments		**setdefaultargument**	function
D modes		**setenvironments**	function
D modules		**setfilename**	function
T ctxfile		**setfilenames**	function
D environments		**setmodes**	function
D modes		**setmodules**	function
D modules		**variables**	data table
pdf_cleanup_cidsets	function		

documentdata (context)

variable function

drivers (context)

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

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

S name

T mpo

  T actions

    F finalize

    F initialize

  T flushers

    F character

    F popleaderlevel

    F pushleaderlevel

    F rule

    F simplerule

    F specialrule

    T whatsit

  S name

T mps

  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 none

  T actions

  T flushers

    F popleaderlevel

    F pushleaderlevel

    T whatsit

  S name

T pdf

  T actions

    F cleanup

    F convert

    F finalize

    F initialize

    F outputfilename

    F prepare

    F wrapup

  T flushers

    F character

    F flushimage

    F fontchar

    F group

    F literal

    F popleaderlevel

    F poporientation

    F pushleaderlevel

    F pushorientation

    F restore

    F rule

    F save

    F setmatrix

    F setstate

    F simplerule

    F space

    F specialrule

    F startclipping

    F startmatrix

    F startmirroring

    F startrotation

    F startscaling

    F stopclipping

    F stopmatrix

    F stopmirroring

    F stoprotation

    F stopscaling

    F updatefontstate

    T whatsit

  S name

lmtxversion   number

outputfilename   function

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
globfiles	function	**prerollrun**	boolean
homedir	string	**rawarguments**	data table
initex	boolean	**reconstructcommandline**	function
initexmode	boolean	**relativepath**	function
initializearguments	function	**setargument**	function
initializefilenames	function	**splitarguments**	function
inputfilebarename	string	**suffix**	string
inputfilename	string	**texfile**	function
inputfilesuffix	string	**texmfos**	string
jobfilefullname	string	**texos**	string
jobfilename	string	**texroot**	string
jobfilesuffix	string	**truefilename**	function
kindofrun	number	**useluamodule**	function
lmtxmode	number	**usemodules**	function
loadexamodes	function	**validengines**	data table
loadluafile	function	**version**	string
luafile	function		

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

```
D pdfcache                                T gsubhandlers
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
```

F close	F writecardinal1
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

```
    T vectors                              F combine
      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 registerscriptset
      F loadvector                         F resetfeature
      N version                            B resolvevirtualtoo
    T tfm                                  F scale
      D cache                              F scaled
      D features                           F setfactor
      N maxnestingdepth                    F setfeature
      N maxnestingsize                     F setmathparameter
      T readers                            F setname
        F loadpk                           B sharefonts
        F loadtfm                          F trytosharefont
        F loadtfmvf                        N version
        F loadvf                       current                    function
        F pktopdf                      currentid                  function
        F potracedtopdf                definers                   table
        F showpk                         F addlookup
      F reencode                         F analyze
      F setfeatures                      F applypostprocessors
      N version                          F checkedmode
    T vf                                  F checkedscript
      T combinations                     S defaultlookup
```

F define	
F getspecification	
F internal	
F loadfont	
F makespecification	
T methods	
F install	
D variants	
F read	
F register	
F registered	
F registerfallbackfont	
F registersplit	
F resetnullfont	
F resolve	
T resolvers	
F file	
F name	
F spec	
definetypeface	function
dropins	table
F clone	
F getshape	
F getshapes	
F nextid	
F provide	
F registerglyph	
F registerglyphs	
F swap	
F swapone	
effects	table
encodings	table
T agl	
D ctxcodes	
D extras	
D synonyms	
D unicodes	
D cache	
F is_known	
D known	
F load	
F make_unicode_vector	
D math	
N version	

enhanceid	function
expansions	data table
formats	data table
getalternate	function
getindices	function
getkern	function
getmultiple	function
getsubstitution	function
getters	table
T alternate	
F opentype	
T kern	
F opentype	
F type1	
F type3	
T multiple	
F opentype	
T substitution	
F opentype	
goodies	table
D colorschemes	
T data	
T common-math.lfg	
S author	
S comment	
S copyright	
B initialized	
T mathematics	
T tweaks	
T presets	
F addmathkerns	
F braille	
F eulertocalligraphic	
F fallbacks	
F moderntocalligraphic	
F moveintegrals	
F moveitalics	
F pagellaradical	
F rsfstoscript	
F rsfsuprighttoscript	
F scripttocalligraphic	
F smalldigits	
F wipeanchors	
F wipeitalics	

```
        F xitsarabic                    D filenames
    S name                              F getcompositions
    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
```

F appendcommandtable			F stopcolor	
F checkflags		T vfspecials		
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		

N	mathextrabase	F	registerfontfamily
N	textbase	F	textfallback
N	textextrabase	F	typeface
protrusions	data table	F	typescript
readers	table	F	userdata
F	afm	**specifiers**	table
F	check_lua	D	contextmerged
F	check_tfm	F	contextnumber
F	lua	D	contextnumbers
F	ofm	D	contextsetups
F	opentype	F	contexttostring
F	otf	F	definecontext
F	pfb	F	mergecontext
D	sequence	F	presetcontext
F	tfm	F	registercontext
F	ttc	T	scriptsets
F	ttf		T af
F	woff		S language
registersanitizer	function		N number
reserveid	function		S script
select	table		T always
D	alternatives		S autolanguage
F	bodyfont		S autoscript
D	data		B checkmissing
F	default		B curs
D	defaults		B kern
F	definefallbackfamily		B mark
F	definefontfamily		B mkmk
F	definefontfamilypreset		S mode
D	extras		N number
F	fallback		S script
D	fallbacks		S textcontrol
F	features		B wipemath
F	filefallback		T arabic
F	fontdata		B analyze
F	fontfallback		S autolanguage
F	fontsynonym		S autoscript
F	goodies		B calt
F	mathfallback		B ccmp
D	methods		B clig
D	presets		B curs
F	registerfallback		B dlig
F	registerfiles		B fina
F	registerfontalternative		B init

B isol

B kern

S language

B liga

B mark

B medi

B mkmk

S mode

N number

B rlig

S script

T ba

S language

N number

S script

T bandw:overlay

B ccmp

B dist

N number

T bengali-one

B abvm

B abvs

B akhn

B blwf

B blwm

B blws

B calt

B cjct

B dist

B half

B haln

S indic

B init

B kern

S language

B locl

S mode

B nukt

N number

B pres

B pstf

B psts

B rphf

S script

B vatu

T bengali-two

B abvm

B abvs

B akhn

B blwf

B blwm

B blws

B calt

B cjct

B dist

B half

B haln

S indic

B init

B kern

S language

B locl

S mode

B nukt

N number

B pres

B pstf

B psts

B rphf

S script

B vatu

T boldened

S effect

N number

T boldened-10

S effect

N number

T boldened-15

S effect

N number

T boldened-20

S effect

N number

T boldened-25

S effect

N number

T boldened-30

S effect

N number

T ca
  S language
  N number
  S script

T camelcasing
  B camelcasing
  N number

T cn
  S language
  N number
  S script

T color
  B ccmp
  S color
  B dist
  N number

T color:bitmap
  B ccmp
  B dist
  N number
  B sbix

T color:overlay
  B ccmp
  B colr
  B dist
  N number

T color:svg
  B ccmp
  B dist
  N number
  B svg

T complete
  S autolanguage
  S autoscript
  B checkmissing
  B compose
  B curs
  B kern
  B liga
  B mark
  B mkmk
  S mode
  N number

  S script
  S textcontrol
  B wipemath

T cy
  S language
  N number
  S script

T cz
  S language
  N number
  S script

T de
  S language
  N number
  S script

T default
  S autolanguage
  S autoscript
  B checkmissing
  B curs
  B itlc
  B kern
  B liga
  B mark
  B mkmk
  S mode
  N number
  S script
  S textcontrol
  B wipemath

T deo
  S language
  N number
  S script

T devanagari-one
  B abvm
  B abvs
  B akhn
  B blwf
  B blwm
  B blws
  B calt
  B cjct
  B dist

```
B half                                    B unicoding
B haln                                  T es
S indic                                   S language
B kern                                    N number
S language                                S script
B locl                                  T et
S mode                                     S language
B nukt                                    N number
N number                                  S script
B pres                                  T f:fractions
B psts                                    B frac
B rkrf                                    N number
B rphf                                  T f:inferiors
S script                                  N number
B vatu                                    B subs
T devanagari-two                        T f:kern
B abvm                                    B kern
B abvs                                    N number
B akhn                                  T f:kerns
B blwf                                    B kern
B blwm                                    N number
B blws                                  T f:oldstyle
B calt                                    N number
B cjct                                    B onum
B dist                                  T f:smallcaps
B half                                    N number
B haln                                    B smcp
S indic                                 T f:superiors
B kern                                    N number
S language                                B sups
B locl                                  T f:tabular
S mode                                     N number
B nukt                                    B tnum
N number                                 T fi
B pres                                     S language
B psts                                     N number
B rkrf                                     S script
B rphf                                   T followtext
S script                                   B liga
B vatu                                     N number
T dingbats                               T fr
S goodies                                  S language
S mode                                     N number
N number                                   S script
```

```
T fullprotrusion                          B dist
  N number                                B half
  S protrusion                            B haln
T gr                                      S indic
  S language                              B kern
  N number                                S language
  S script                                B locl
T grek                                    S mode
  N number                                B nukt
  S script                                N number
T gujarati-one                            B pres
  B abvm                                  B psts
  B abvs                                  B rkrf
  B akhn                                  B rphf
  B blwf                                  S script
  B blwm                                  B vatu
  B blws                                T gurmukhi-one
  B calt                                  B abvm
  B cjct                                  B abvs
  B dist                                  B akhn
  B half                                  B blwf
  B haln                                  B blwm
  S indic                                 B blws
  B kern                                  B calt
  S language                              B cjct
  B locl                                  B dist
  S mode                                  B half
  B nukt                                  B haln
  N number                                S indic
  B pres                                  B kern
  B psts                                  S language
  B rkrf                                  B locl
  B rphf                                  S mode
  S script                                B nukt
  B vatu                                  N number
T gujarati-two                            B pres
  B abvm                                  B pstf
  B abvs                                  B psts
  B akhn                                  B rphf
  B blwf                                  S script
  B blwm                                  B vatu
  B blws                                T gurmukhi-two
  B calt                                  B abvm
  B cjct                                  B abvs
```

```
B akhn                              S script
B blwf                            T hr
B blwm                              S language
B blws                              N number
B calt                              S script
B cjct                            T hu
B dist                              S language
B half                              N number
B haln                              S script
S indic                          T indic-common
B kern                              B abvm
S language                          B abvs
B locl                              B akhn
S mode                              B blwm
B nukt                              B blws
N number                            B calt
B pres                              B dist
B pstf                              B haln
B psts                              S indic
B rphf                              B kern
S script                            S language
B vatu                              B locl
T hebrew                            S mode
B analyze                           B nukt
S autolanguage                      N number
S autoscript                        B pres
B calt                              B psts
B ccmp                              B rphf
B clig                            T inlinenumbers
B curs                              N number
B dlig                              B pnum
B fina                              B tnum
B init                            T is
B isol                              S language
B kern                              N number
S language                          S script
B liga                            T it
B mark                              S language
B medi                              N number
B mkmk                              S script
S mode                            T ja
N number                            S language
B reordercombining                  N number
B rlig                              S script
```

```
T jamoforms                          B half
  B ljmo                             B haln
  N number                           S indic
  B tjmo                             B kern
  B vjmo                             S language
T just-os                            B locl
  S mode                             S mode
  N number                           B nukt
  B onum                             N number
T kannada-one                        B pref
  B abvm                             B pres
  B abvs                             B pstf
  B akhn                             B psts
  B blwf                             B rphf
  B blwm                             S script
  B blws                           T la
  B calt                             S language
  B cjct                             N number
  B dist                             S script
  B half                           T latn
  B haln                             N number
  S indic                            S script
  B kern                           T letterspacing
  S language                         B ccmp
  B locl                             B clig
  S mode                             B dlig
  B nukt                             S keepligatures
  N number                           B liga
  B pref                             N number
  B pres                             B rlig
  B pstf                           T ligatures
  B psts                             S autolanguage
  B rphf                             S autoscript
  S script                           B checkmissing
T kannada-two                        B curs
  B abvm                             B kern
  B abvs                             B liga
  B akhn                             B mark
  B blwf                             B mkmk
  B blwm                             S mode
  B blws                             N number
  B calt                             S script
  B cjct                             S textcontrol
  B dist                             B wipemath
```

```
T lm-math-bold                          B kern
  S effect                              S language
  N number                              B locl
T lowercasing                           S mode
  B lowercasing                         B nukt
  N number                              N number
T malayalam-one                         B pref
  B abvm                                B pres
  B abvs                                B pstf
  B akhn                                B psts
  B blwf                                B rphf
  B blwm                                S script
  B blws                              T math
  B calt                                B compactmath
  B cjct                                B flattenaccents
  B dist                                B kern
  B half                                S language
  B haln                                B mathalternates
  S indic                               S mathexpansion
  B kern                                S mode
  S language                            N number
  B locl                                S script
  S mode                                B ssty
  B nukt                                B wipemath
  N number                            T math-script
  B pref                                B compactmath
  B pres                                B flattenaccents
  B pstf                                B kern
  B psts                                S language
  B rphf                                B mathalternates
  S script                              S mathexpansion
T malayalam-two                         S mode
  B abvm                                N number
  B abvs                                S script
  B akhn                                N ssty
  B blwf                                B wipemath
  B blwm                              T math-scriptscript
  B blws                                B compactmath
  B calt                                B flattenaccents
  B cjct                                B kern
  B dist                                S language
  B half                                B mathalternates
  B haln                                S mathexpansion
  S indic                               S mode
```

N number	S mset
S script	N number
N ssty	B rclt
B wipemath	B rlig
T math-text	S script
B compactmath	S textcontrol
B flattenaccents	B wipemath
B kern	T nl
S language	S language
B mathalternates	N number
S mathexpansion	S script
S mode	T none
N number	B features
S script	S mode
B ssty	N number
B wipemath	T oldstyle
T mathematics	S autolanguage
B compactmath	S autoscript
B flattenaccents	B checkmissing
B kern	B curs
S language	B kern
B mathalternates	B liga
S mathexpansion	B mark
S mode	B mkmk
N number	S mode
S script	N number
B wipemath	B onum
T mixed	S script
T mongolian	S textcontrol
S autolanguage	B wipemath
S autoscript	T oldstylenumbers
B calt	N number
B checkmissing	B onum
B curs	T original
B fina	S autolanguage
B init	S autoscript
B isol	B checkmissing
B itlc	B curs
B kern	B itlc
B liga	B kern
B mark	B liga
B medi	B mark
B mkmk	B mkmk
S mode	S mode

```
    N number                          N number
    S script                          B pres
    S textcontrol                     B pstf
    B wipemath                        B psts
T oriya-one                           B rphf
    B abvm                            S script
    B abvs                        T pl
    B akhn                            S language
    B blwf                            N number
    B blwm                            S script
    B blws                        T primes
    B calt                            N number
    B cjct                            B primes
    B dist                        T pt
    B haln                            S language
    S indic                           N number
    B kern                            S script
    S language                    T quality
    B locl                            S expansion
    S mode                            N number
    B nukt                            S protrusion
    N number                      T reordercombining
    B pres                            N number
    B pstf                            B reordercombining
    B psts                        T ro
    B rphf                            S language
    S script                          N number
T oriya-two                           S script
    B abvm                        T ru
    B abvs                            S language
    B akhn                            N number
    B blwf                            S script
    B blwm                        T semitic-complete
    B blws                            B analyze
    B calt                            S autolanguage
    B cjct                            S autoscript
    B dist                            B calt
    B haln                            B ccmp
    S indic                           B clig
    B kern                            B curs
    S language                        B dlig
    B locl                            B fina
    S mode                            B init
    B nukt                            B isol
```

B kern	B rlig
S language	S script
B liga	T simplehebrew
B mark	B analyze
B medi	S autolanguage
B mkmk	S autoscript
S mode	B calt
N number	B ccmp
B rlig	B curs
T semitic-simple	B fina
B analyze	B init
S autolanguage	B isol
S autoscript	B kern
B calt	S language
B ccmp	B mark
B curs	B medi
B fina	B mkmk
B init	S mode
B isol	N number
B kern	B rlig
S language	S script
B mark	T sk
B medi	S language
B mkmk	N number
S mode	S script
N number	T sl
B rlig	S language
T simplearabic	N number
B analyze	S script
S autolanguage	T slanted
S autoscript	N number
B calt	N slant
B ccmp	T smallcaps
B curs	S autolanguage
B fina	S autoscript
B init	B checkmissing
B isol	B curs
B kern	B kern
S language	B mark
B mark	B mkmk
B medi	S mode
B mkmk	N number
S mode	S script
N number	B smcp

S textcontrol	B abvm
B wipemath	B abvs
T sv	B akhn
S language	B blwm
N number	B blws
S script	B calt
T syriac	B dist
B analyze	B half
S autolanguage	B haln
S autoscript	S indic
B calt	B kern
B ccmp	S language
B clig	B locl
B curs	S mode
B dlig	B nukt
B fin2	N number
B fin3	B pref
B fina	B pres
B init	B psts
B isol	B rphf
B kern	S script
S language	T tamil-two
B liga	B abvm
B mark	B abvs
B med2	B akhn
B medi	B blwm
B mkmk	B blws
S mode	B calt
N number	B dist
B rlig	B half
S script	B haln
T system:tabnum	S indic
B lnum	B kern
N number	S language
B tnum	B locl
T tabledigits	S mode
N number	B nukt
B tabledigits	N number
B tnum	B pref
T tabularnumbers	B pres
N number	B psts
B pnum	B rphf
B tnum	S script
T tamil-one	T telugu-one

B abvm	B pres
B abvs	B pstf
B akhn	B psts
B blwf	B rphf
B blwm	S script
B blws	T th
B calt	S language
B cjct	N number
B dist	S script
B half	T tibetan
B haln	B abvm
S indic	B abvs
B kern	S autolanguage
S language	S autoscript
B locl	B blwm
S mode	B blws
B nukt	B calt
N number	B ccmp
B pref	B checkmissing
B pres	B curs
B pstf	B kern
B psts	S language
B rphf	B liga
S script	B locl
T telugu-two	B mark
B abvm	B mkmk
B abvs	S mode
B akhn	N number
B blwf	S script
B blwm	S textcontrol
B blws	B wipemath
B calt	T tr
B cjct	S language
B dist	N number
B half	S script
B haln	T uk
S indic	S language
B kern	N number
S language	S script
B locl	T uppercasing
S mode	N number
B nukt	B uppercasing
N number	T us
B pref	S language

N	number	F	showcontext
S	script	F	splitcontext
T virtualmath		D	synonyms
B	compactmath	D	variants
B	flattenaccents	**symbols**	**table**
B	kern	T	emoji
S	language	F	checked
B	mathalternates	F	resolved
S	mathexpansion	F	uselibrary
S	mode	**tables**	**table**
N	number	**toeffect**	**function**
S	script	**tracers**	**table**
B	wipemath	**treatments**	**table**
T vn		F	applyfixes
S	language	D	data
N	number	S	filename
S	script	F	ignoredfile
T zero		F	report
N	number	F	trace
B	zero	**typefaces**	**table**

functions (context)

dummy function

graphics (context)

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

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		D collected
datasets	table		F countervalue
D collected			F extend
F extend			F realpage
F getdata			F realpageorder
F setdata			F setstate
D tobesaved			D tobesaved
disablesave	function	**parwrappers**	table
embedded	table		D collected
D collected			D tobesaved
D tobesaved		**positions**	table
fileobjreferences	table		F b_column
D collected			F b_region
D tobesaved			F c
files	table		D collected
D collected			F column
F context			F columnofpos
B forcerun			F copy
F run			F depth
D tobesaved			F e_column
getrandomseed	function		F e_region
initialize	function		F enhance
linkedlists	table		F extra
D collected			F get
D tobesaved			F getcolumndata
load	function		F getfree
loadother	function		F gethpos
meshedup	table		F getpos
D collected			F getreserved
D tobesaved			F getrpos
objects	table		F getsync
D collected			F gettobesaved
F get			F getvpos
F number			F hangafter
F page			F hangindent
F save			F height
F set			F hsize
D tobesaved			N lastx
pack	boolean		N lasty
packversion	number		F leftskip
pagestates	table		F lowerleft

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

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
addgoodiesfile function
appliedoptions table
associate function
associated data table
association function
counters data table
current function
data data table
decimals data table
define function
explicithyphen function
flatten function
frequencies table
   F averagecharwidth
   F getdata
getdata function
getnumber function
goodiefiles function
hjcounts table
hyphenate function
hyphenators table
   T dictionaries
   D featuresets
   F handler
   T methods
    F expanded
    B none
    F original
    F tex
    F traditional
   F popmethod
   F pushmethod
   F setmethod
   F setup
   F showhyphenationtrace
   T traditional
    F definefeatures
    F gettrace
    F hyphenate
    F injecthyphens

   F installmethod
   F lasttrace
   F loadpatterns
   F registerexception
   F registerpattern
   F setfeatures
installed function
installhandler function
labels table
   F define
   F split
loadable function
loadwords function
logger table
   F report
nofflattened function
numbers data table
postexhyphenchar function
posthyphenchar function
preexhyphenchar function
prehyphenchar function
registered data table
registeredactions table
replacements table
   F add
   F addlist
   F handler
   F set
serializediscretionary function
setexceptions function
setgoodieshandler function
setoptions function
setpatterns function
setsynonym function
setwordhandler function
showdiscretionaries function
strippedgoodiewords function
tolang function
transliteration table
   F exception
   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

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	**copyunicode**	function
adddocumentcolorspace	function	**deferredobject**	function
adddocumentextgstate	function	**delayedobject**	function
adddocumentpattern	function	**destinationspecification**	function
adddocumentshade	function	**dictionary**	function
addtocatalog	function	**docstring**	function
addtoinfo	function	**encodingvalues**	table
addtonames	function	N base16	
addtopageattributes	function	N base85	
addtopageresources	function	N decoded	
addtopagesattributes	function	N encoded	
addxmpinfo	function	N plain	
annotationspecification	function	N utf16be	
array	function	N utf16le	
attachmentsymbols	function	**epdf**	table
boolean	function	F allcontent	
border	function	F analyzefonts	
checkedkey	function	F contentplugin	
checkedresources	function	F contenttostring	
checkedvalue	function	F contenttotext	
circularshade	function	D encryptioncodes	
close	function	F expanded	
cmykcode	function	F expandwidths	
collectedresources	function	F fontplugin	
color	function	F getpagecontent	
colorspace	function	F getstructure	
colorspaceconstants	data table	T helpers	
colorspec	function	F tounicodetable	
colorvalue	function	T image	
colorvalues	function	F close	
commentsymbols	function	F copy	
compresslevel	function	F new	
constant	function	F open	
copyarray	function	F query	
copyboolean	function	F load	
copyconstant	function	F mergewidths	
copydictionary	function	D objectcodes	
copyfloat	function	F objectrange	
copyinteger	function	F objecttype	
copynumber	function	F pageplugin	
copystring	function	F parsecontent	

	F producer	
	T resolvers	
	F destinations	
	F embeddedfiles	
	F javascripts	
	F layers	
	F pages	
	F structure	
	F widgets	
	F unload	
	F verboseobject	

escaped		function
finalizedocument		function
finalizepage		function
finalizesignature		function
finishtransparencycode		function
flags		table
	T annotations	
	N AutoView	
	N Hidden	
	N Invisible	
	N Locked	
	N LockedContents	
	N NoRotate	
	N NoView	
	N NoZoom	
	N Print	
	N Printable	
	N ReadOnly	
	N ToggleNoView	
	N auto	
	N hidden	
	N printable	
	T widgets	
	N Comb	
	N CommitOnSelChange	
	N DoNotScroll	
	N DoNotSpellCheck	
	N Edit	
	N FileSelect	
	N MultiLine	
	N NoExport	
	N NoToggleToOff	
	N Password	

	N PopUp	
	N PushButton	
	N Radio	
	N RadiosInUnison	
	N ReadOnly	
	N Required	
	N RichText	
	N Sort	
	N file	
	N fixed	
	N nocheck	
	N protected	
	N readonly	
	N required	
	N sorted	
	N unavailable	

flushfonts		function
flushgroup		function
flushobject		function
flushstreamfileobject		function
flushstreamobject		function
fonts		table
	F color_direct	
	F color_indirect	
formats		data table
frombytes		function
fromeight		function
frompdfdoc		function
fromsixteen		function
getcatalog		function
getcompression		function
getfontname		function
getfontobjectnumber		function
getinfo		function
getmatrix		function
getnofpages		function
getpageproperties		function
getpagereference		function
getpagetags		function
getpos		function
gettrailerid		function
getversion		function
getxformname		function
graycode		function

h_hex_2	table	N fillin	
S		N modify	
S		N print	
S		N quality	
S		**preparesignature**	function
S		**print**	function
S (		**procset**	function
S)		**protectresources**	boolean
S \		**quads**	function
h_hex_4	table	**rectangle**	function
hasmatrix	function	**reference**	function
immediateobject	function	**registerannotation**	function
includeimage	function	**registerdestination**	function
initialize	function	**registerdocumentfinalizer**	function
injectors	table	**registerfontmethod**	function
F bitmap		**registerinitializer**	function
F jp2		**registerpagefinalizer**	function
F jpg		**registerpattern**	function
F png		**registersignature**	function
injectxmpinfo	function	**replacexmpinfo**	function
insertxmpinfo	function	**reserveobject**	function
lastreferredpage	function	**rgbcode**	function
layerreference	function	**rotationcm**	function
limited	function	**setcompression**	function
linearshade	function	**setencryption**	function
literal	function	**setincludecidset**	function
majorversion	function	**setincludeprocset**	function
makenametree	function	**setpageorder**	function
minorversion	function	**setpagestate**	function
noffontregistries	function	**setpagetag**	function
nofpages	function	**setuserdata**	function
null	function	**setversion**	function
number	function	**sharedobject**	function
object	function	**shareobject**	function
objectcompresslevel	function	**shareobjectreference**	function
pagereference	function	**spotcode**	function
patternstream	function	**stream**	function
pdfcolor	function	**string**	function
pdftimestamp	function	**tocidset**	function
permissions	table	**toeight**	function
N access		**topdfdoc**	function
N add		**topermissions**	function
N assemble		**tosixteen**	function
N extract		**transparency**	function

transparencycode	function		N dejavusansmonoboldttf-1-0-0
transparencygroups	table	**usedfontobjects**	table
B none			N dejavusansmonoboldttf-1-0-0
transparencyvalue	function	**usedfontstreams**	data table
unicode	function	**usedindices**	table
usedcharacters	table		T dejavusansmonoboldttf-1-0-0
usedfontnames	table	**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)

addnibble	function	**getstartupfile**	function
bytecode	table	**getversion**	function
bytedata	data table	**lastbytecode**	number
bytedone	table	**messages**	data table
callbytecode	function	**newindex**	function
finalizeinitex	function	**newtable**	function
firstbytecode	number	**numbers**	data table
get_functions_table	function	**registercode**	function
getbytecode	function	**registeredcodes**	function
getcurrenttime	function	**registerinitexfinalizer**	function
getdebuginfo	function	**registername**	function
getexitcode	function	**setbytecode**	function
getfunctionstable	overloaded function	**setexitcode**	function
getnibble	function	**setnibble**	function
getpreciseseconds	function	**startupfile**	string
getpreciseticks	function	**subnibble**	function
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	**familyname**	function
addvariant	function	**functiontype**	function
alphabets	data table	**gaps**	data table
alternatives	data table	**getblobindex**	function
beforepassingfonttotex	function	**getboth**	function
big	function	**getdomainname**	function
boldmap	data table	**getextensibledata**	function
categories	table	**getmathblob**	function
D functions		**getoptionallabel**	function
charactersets	data table	**getstyle**	function
checkaftercopyingfont	function	**gettextblob**	function
classes	data table	**getverboselabel**	function
classnames	data table	**horizontalcode**	function
codes	data table	**initializeparameters**	function
define	function	**makefont**	function
dictionaries	table	**mapremap**	data table
D data		**markblobindexdone**	function
D defaults		**overloadparameters**	function
D groups		**preset**	function
F groupset		**presets**	table
F groupsetgroup		T less	
F name		T more	
D names		T zero	
F registercharacter		**privatebase**	number
F registergroup		**registerextensible**	function
F registergroupset		**registersimplematrix**	function
D sets		**registerverboselabel**	function
D variants		**remapalphabets**	function
dimensions	function	**renderextensible**	function
disablecollecting	function	**renderings**	table
domainlabels	table	D mappings	
domainnames	table	D numbers	
N default		D sets	
enablecollecting	function	**renderset**	function
extensiblecode	function	**resetattributes**	function
extensibles	data table	**scaleparameters**	function
extrabase	number	**setextensibledata**	function
fallbacks	table	**setmathsymbol**	function
F apply		**sets**	data table
F install		**setsnapping**	function
fallbackstyleattr	function	**setvariant**	function

styles	data table		F fixaccents
syncboth	function		F fixellipses
syncname	function		F fixintegrals
syncstyle	function		F fixoldschool
tagging	table		F fixprimes
B mfenced			F fixradicals
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	substitute	**utfmathclass**	function
F	topanchors	**utfmathcommand**	function
F	tweaks	**utfmathfiller**	function
F	version	**utfmathstretch**	function
F	wipeanchors	**variantcode**	function
F	wipecues	**variantcount**	function
F	wipeitalics	**virtualize**	function
F	wipevariants	**virtualized**	data table
utfmathaccent	function		

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

registerdirect	function		N in	
registerscript	function		N mm	
registertokens	function		N pc	
remappedtext	function		N pt	
remaptext	function		N px	
reporterror	function	**svgglyphtomp**	function	
reportsvgfonts	function	**svgshapestomp**	function	
reset	function	**svgshapestopdf**	function	
resetbackendoptions	function	**svgsplitcolor**	function	
resetlastlog	function	**svgtomp**	function	
resetplugins	function	**svgtopdf**	function	
run	function	**sxsy**	function	
runinternal	function	**tex**	table	
runscript	function		F get	
scanparameters	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 unknownpen	**typesvgpage** function
N unknownpicture	**unload** function
N unknownstring	**untagvariable** function
N unsuffixedmacro	**variables** table
N vacuous	

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			
F vprint		**lmt_contours_bitmap_get**	function
boolean	function	**lmt_contours_bitmap_set**	function
cleaned	function	**lmt_contours_cleanup**	function
color	function	**lmt_contours_color**	function
dataset	function	**lmt_contours_edge_get_band**	function
datasets	function	**lmt_contours_edge_get_cell**	function
F load		**lmt_contours_edge_paths**	function
direct	function	**lmt_contours_edge_set**	function
draw	function	**lmt_contours_edge_set_by_band**	function
expandtex	function	**lmt_contours_edge_set_by_cell**	function
fill	function	**lmt_contours_format**	function
flatten	function	**lmt_contours_function**	function
flush	function	**lmt_contours_maxmean**	function
format	function	**lmt_contours_maxz**	function
formatted	function	**lmt_contours_minmean**	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	**injectpair**	function
expandtex	function	**injectpath**	function
finder	function	**injectstring**	function
finders	table	**injecttransform**	function
F file		**injectwhatever**	function
F mpstemplate		**new**	overloaded function
finish	function	**peninfo**	function
getcallbackstate	function	**propertycodes**	table
getcodes	function	**realtimelogging**	boolean
getcolormodels	function	**scanboolean**	function
getfields	function	**scancmykcolor**	function
gethashentries	function	**scancolor**	function
gethashentry	function	**scanexpression**	function
getinternalactions	function	**scaninteger**	function
getknotstates	function	**scannext**	function
getlogtargets	function	**scannnumber**	function
getobjecttypes	function	**scannumeric**	function
getscantypes	function	**scanpair**	function
getstates	function	**scanpath**	function
getstatistics	function	**scanpen**	function
getstatus	function	**scanproperty**	function
gettolerance	function	**scanstring**	function
gettype	function	**scansymbol**	function
gettypes	function	**scantoken**	function
injectboolean	function	**scantransform**	function
injectcmykcolor	function	**settolerance**	function
injectcolor	function	**showcontext**	function
injectinteger	function	**skiptoken**	function
injectnumber	function	**solvepath**	function
injectnumeric	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	
checkdiscretionary	function	
copy	function	
copylist	function	
count	function	
currentattributes	function	
dimensions	function	
direct	table	

F addmargins
F addxoffset
F addxymargins
F addyoffset
F appendaftertail
F beginofmath
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 getcontrol
F getcornerkerns
F getdata
F getdegree
F getdelimiter
F getdenominator
F getdepth
F getdirection
F getdisc
F getdiscpart
F getexcept
F getexpansion
F getfam
F getfield
F getfielderror
F getfont
F getgeometry
F getglue
F getglyphdata
F getglyphdimensions
F getheight
F getid
F getidsubtype
F getindex
F getinputfields
F getkern
F getkerndimension
F getlanguage

F getleader
F getleftdelimiter
F getlist
F getlistdimensions
F getmvllist
F getnext
F getnodes
F getnormalizedline
F getnucleus
F getnumerator
F getoffsets
F getoptions
F getorientation
F getparstate
F getpenalty
F getpost
F getpre
F getprev
F getprime
F getpropertiestable
F getproperty
F getreplace
F getrightdelimiter
F getruledimensions
F getscale
F getscales
F getscript
F getscripts
F getshift
F getslant
F getspeciallist
F getstate
F getsub
F getsubpre
F getsubtype
F getsup
F getsuppre
F gettop
F gettopdelimiter
F gettotal
F getusage
F getusedattributes
F getweight
F getwhd

F getwidth
F getwordrange
F getxscale
F getxyscales
F getyscale
F gluetostring
F hasattribute
F hasdimensions
F hasdiscoption
F hasfield
F hasgeometry
F hasglyph
F hasglyphoption
F hasusage
F hpack
F hyphenating
F id
F ignoremathskip
F insertafter
F insertbefore
F isboth
F ischar
F isdirect
F isglyph
F isitalicglyph
F isloop
F isnext
F isnextchar
F isnextglyph
F isnode
F isprev
F isprevchar
F isprevglyph
F issimilarglyph
F isspeciallist
F isvalid
F iszeroglue
F kerning
F lastnode
F length
F ligaturing
F makeextensible
F migrate
F mlisttohlist

F	naturalhsize	F	setfielderror
F	naturalwidth	F	setfont
F	new	F	setgeometry
F	newcontinuationatom	F	setglue
F	newmathglyph	F	setglyphdata
F	newtextglyph	F	setheight
F	patchattributes	F	setindex
F	patchparshape	F	setinputfields
F	prependbeforehead	F	setkern
F	protectglyph	F	setlanguage
F	protectglyphs	F	setleader
F	protectglyphsnone	F	setleftdelimiter
F	protrusionskippable	F	setlink
F	rangedimensions	F	setlist
F	remove	F	setnext
F	removefromlist	F	setnucleus
F	repack	F	setnumerator
F	reverse	F	setoffsets
F	serialized	F	setoptions
F	setanchors	F	setorientation
F	setattribute	F	setpenalty
F	setattributelist	F	setpost
F	setattributes	F	setpre
F	setboth	F	setprev
F	setbottom	F	setprime
F	setbottomdelimiter	F	setproperty
F	setbox	F	setreplace
F	setchar	F	setrightdelimiter
F	setchardict	F	setruledimensions
F	setchoice	F	setscale
F	setclass	F	setscales
F	setcontrol	F	setscript
F	setdata	F	setscripts
F	setdegree	F	setshift
F	setdelimiter	F	setslant
F	setdenominator	F	setspeciallist
F	setdepth	F	setsplit
F	setdirection	F	setstate
F	setdisc	F	setsub
F	setdiscpart	F	setsubpre
F	setexcept	F	setsubtype
F	setexpansion	F	setsup
F	setfam	F	setsuppre
F	setfield	F	settop

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

setproperty	function	**traverseid**	function
show	function	**type**	function
size	function	**types**	function
slide	function	**unprotectglyph**	function
subtypes	function	**unprotectglyphs**	function
tail	function	**unsetattribute**	function
todirect	function	**usedlist**	function
tonode	function	**usesfont**	function
tostring	function	**vpack**	function
traverse	function	**write**	function

nodes (context)

accentcodes	data table	T stack	
adaptive	table	**dircodes**	data table
F handlehorizontal		**directioncodes**	data table
F handlevertical		**directionvalues**	data table
T methods		**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		**fractioncodes**	data table
F direct		**fullhpack**	function
F dispose		**getattr**	function
F found		**getattribute**	function
F prune		**getboth**	function
F reset		**getbox**	function
F restore		**getchar**	function
F save		**getfield**	function
F savenode		**getfont**	function
builders	table	**getid**	function
F buildpage_filter		**getleader**	function
F vbox_filter		**getlist**	function
F vpack_filter		**getnext**	function
choicecodes	data table	**getprev**	function
concat	function	**getproperty**	function
copy	function	**getsubtype**	function
copy_node	function	**gluecodes**	data table
copylist	function	**glyphcodes**	data table
countall	function	**handlers**	table
currentattributes	function	F adjusters	
delete	function	F aligncharacter	
destinations	table	F backgrounds	
N attribute		F backgroundspage	
T done		F backgroundsvbox	
F handler		F characters	

F checkglyphs		F setmark	
F checkparcounter		F setmove	
F cleanupbox		F setposition	
F cleanuppage		F setspacekerns	
F export		**insertafter**	function
F finalizebox		**insertbefore**	function
F finalizelist		**insertlistafter**	function
F flatten		**installattributehandler**	function
F flattenline		**is_display_math**	function
T linebreakchecks		**isdirect**	function
F mathalignrelocate		**isnode**	function
F mathmatrixornaments		**isnut**	function
F mathmatrixrules		**kerncodes**	data table
F migrate		**leftmarginwidth**	function
F protectglyphs		**linefillers**	table
F recolor		F filler	
F show		F handler	
F showhyphenation		F set	
F showpreamble		**lines**	table
F stripping		T boxed	
F tabulateskip		F addlinenumbers	
F textbackgrounds		F register	
F unprotectglyphs		F setup	
F visualizehyphenation		D data	
F wipe		F finalize	
hasattribute	function	F number	
hasfield	function	**link**	function
hpack	function	**linked**	function
idsandsubtypes	function	**list**	function
idstostring	function	**listcodes**	data table
injections	table	**listtoutf**	function
F copy		**literalvalues**	data table
F getligaindex		**locate**	function
F getthreshold		**markcodes**	data table
F handler		**markers**	table
F installgetspaceboth		F get	
F installnewkern		F set	
F isspace		**mathcodes**	data table
F keepcounts		**mathvalues**	data table
F reset		**maxboxwidth**	function
F resetcounts		**migrations**	table
F setcursive		F setinserts	
F setkern		F setmarks	
F setligaindex		**new**	function

noadcodes	data table	F firstchar
nodecodes	data table	F firstglyph
nopts	function	F firstglyphnode
	table	F firstitalicglyph
nuts		F flattendiscretionaries
F addmargins		F flattenleaders
F addxoffset		F flush
F addxymargins		F flushlist
F addyoffset		F flushnode
F append		F free
F appendaftertail		F freeze
F apply		F fullhpack
F applyvisuals		F getanchors
F beginofmath		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 getexcept
F exchange		F getexpansion
F findattribute		F getfam
F findattributerange		F getfield
F findnode		

F	getfont	F	getslant
F	getgeometry	F	getspeciallist
F	getglue	F	getstate
F	getglyphdata	F	getsub
F	getglyphdimensions	F	getsubpre
F	getheight	F	getsubtype
F	getid	F	getsup
F	getidsubtype	F	getsuppre
F	getindex	F	getsurround
F	getinputfields	F	gettop
F	getkern	F	gettopdelimiter
F	getkerndimension	F	gettotal
F	getlang	F	getusedattributes
F	getlanguage	F	getvalue
F	getleader	F	getweight
F	getleftdelimiter	F	getwhd
F	getlist	F	getwidth
F	getlistdimensions	F	getwordrange
F	getmiddle	F	getxscale
F	getmiddledelimiter	F	getxyscales
F	getmvllist	F	getyscale
F	getnext	F	gluetostring
F	getnormalizedline	F	hasattribute
F	getnucleus	F	hasdimensions
F	getnumerator	F	hasdiscoption
F	getoffsets	F	hasfield
F	getoptions	F	hasgeometry
F	getorientation	F	hasglyph
F	getparstate	F	hasglyphoption
F	getpenalty	F	hpack
F	getpost	F	hyphenating
F	getpre	F	ignoremathskip
F	getprev	F	insertafter
F	getprime	F	insertbefore
F	getprop	F	insertlistafter
F	getreplace	F	is_display_math
F	getrightdelimiter	F	isboth
F	getruledata	F	ischar
F	getruledimensions	F	isdirect
F	getscale	F	isdone
F	getscales	F	isglyph
F	getscript	F	isitalicglyph
F	getscripts	F	isnext
F	getshift	F	isnextchar

F isnextglyph	F gluespec
F isnode	F glyph
F isnut	F hlist
F isprev	F imagerule
F isprevchar	F indentskip
F isprevglyph	F italickern
F issimilarglyph	F kern
F iszeroglue	F latelua
F kerning	F leader
F lastnode	F lefthangskip
F length	F leftmarginkern
F ligaturing	F leftskip
F link	F lineskip
F linked	F literal
F locate	F luaboundary
F migrate	F mathchar
F migratebox	F mathtextchar
F mlisttohlist	F negatedglue
F naturalhsize	F noad
F naturalwidth	F originliteral
F nestedtracedslide	F outlinerule
F new	F pageliteral
F newcontinuationatom	F penalty
F newmathglyph	F radical
F openup	F rawliteral
F patchattributes	F register
F patchparshape	F restore
T pool	F righthangskip
F accent	F rightmarginkern
F baselineskip	F rightskip
F boundary	F rule
F boxrule	F save
F choice	F savepos
F cleanup	F setmatrix
F delim	F setstate
F delimiter	F shrink
F direction	F spacefontkern
F directliteral	F spacingrule
F disc	F startrotation
F emptyrule	F startscaling
F fence	F stock
F fontkern	F stoprotation
F fraction	F stopscaling
F glue	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 setexcept

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 takelist
F setpenalty	F theprop
F setpost	F tonode
F setpre	F tonodes
F setprev	F tonut
F setprime	F tosequence
F setprop	F tostring
F setreplace	F tracedslide
F setrightdelimiter	F traverse
F setruledata	F traversechar
F setruledimensions	F traversecontent
F setscale	F traverseglyph
F setscales	F traverseid
F setscript	F traverseitalic
F setscripts	F traverseleader
F setshift	F traverselist
F setslant	T traversers
F setspeciallist	F alignrecord
F setsplit	F boundary
F setstate	F char
F setsub	F content
F setsubpre	F dir
F setsubtype	F disc
F setsup	F glue
F setsuppre	F glyph
F setsurround	F hlist
F settop	F leader
F setvalue	F list
F setvisual	F mark
F setvisuals	F next
F setweight	F node
F setwhd	F penalty
F setwidth	F rule
F show	F unset
F slide	F vlist
F softenhyphens	F whatsit
F somepenalty	T treversers
F somespace	F char
F splitbox	F content
F startofpar	F glyph
F striprange	F leader
F tail	F list
F takeattr	F node
F takebox	T typesetters

F tohbox		F glyph	
F tohpack		F hlist	
F tonodes		F latelua	
F tovbox		F leader	
F tovpack		F lineskip	
F unprotectglyph		F literal	
F unprotectglyphs		F luaboundary	
F unsetattribute		F originliteral	
F unsetattributes		F register	
F untracedslide		F restore	
F updatefirstandbotmark		F save	
F updatefirstmarks		F savepos	
F updatemarks		F setmatrix	
F updatetopmarks		F stock	
F usedlist		F usage	
F usesfont		F usernode	
F verticalbreak		F vlist	
F vianodes		**prepend**	function
F vianuts		**print**	function
F vpack		**processors**	table
F write		F alignment_filter	
F xscaled		F append_line_filter	
F yscaled		F glyph_run	

packlist	function	F post_linebreak_filter	
parcodes	data table	F pre_linebreak_filter	
penaltycodes	data table	F trace_glyph_run_a	
plugindata	table	F trace_glyph_run_b	
F finalizer		**properties**	table
F initializer		T data	
S name		**pts**	function
T namespace		**radicalcodes**	data table
N attribute		**references**	table
D data		N attribute	
F enable		T done	
F handler		F handler	
F register		T stack	
D registered		**rehpack**	function
D values		**remove**	function
F processor		**repackhlist**	function
points	function	**replace**	function
pool	table	**report**	function
F baselineskip		**rightmarginwidth**	function
F cleanup		**rulecodes**	data table
F directliteral		**rules**	table

	F handler		**set**
	F process	**subtypes**	data table
	F set	**tail**	function
	F userrule	**takeattr**	function
serialize	function	**takebox**	function
serializebox	function	**tasks**	table
serialized	function		F actions
setattr	function		F appendaction
setattribute	function		F disableaction
setattrlist	function		F disablegroup
setboth	function		F enableaction
setbox	function		F enablegroup
setboxtonaturalwd	function		F freeze
setchar	function		F freezegroup
setfield	function		F new
setfont	function		F prependaction
setleader	function		F removeaction
setlink	function		F replaceaction
setlist	function		F restart
setnext	function		F setaction
setprev	function		F showactions
setproperty	function		F table
shadows	table	**tobasepoints**	function
	F handler	**tocentimeters**	function
	F set	**tociceros**	function
shifts	table	**todidots**	function
	F handler	**todimen**	function
	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 setlist		
F directions		
F fontchar		
T frequencies		
F register		
T pool		
T nodes		
F rule		
T nuts		
F rule		
F resetproperties		
F rule		
F setlist		
F setproperties		
F start		
T steppers		
F check		
F codes		
F features		
F font		
F glyphs		
F message		
F messages		
F nofsteps		
F register		
F reset		
F start		
F stop		
F stop		
T transparencies		
F reset		
F set		
F setlist		
traverse	function	
traverseid	function	
typesetters	table	
F hbox		
F hpack		
F tohbox		
F tohpack		
F tonodes		
F tovbox		
F tovpack		
F vpack		

unsetattribute	function	
upcomingproperties	function	
usedlist	function	
vianodes	function	
vianuts	function	
visualizebox	function	
visualizers	table	
F attribute		
T attributes		
F box		
F definelayer		
F enable		
T filters		
N continuation		
N hglue		
N hkern		
N hpenalty		
N toddler		
N vglue		
N vkern		
N vpenalty		
F getusedfont		
F handler		
F markfonts		
T modes		
N boundary		
N depth		
N dir		
N discretionary		
N expansion		
N fontkern		
N glue		
N glyph		
N hbox		
N hglue		
N hkern		
N hpenalty		
N insert		
N italic		
N kern		
N line		
N marginkern		
N mark		
N math		

N mathglue	N vglue
N mathkern	N vkern
N origin	N vpenalty
N par	N vtop
N penalty	N whatsit
N simple	F register
N simplehbox	F registercache
N simplevbox	F setfont
N simplevtop	F setlayer
N space	F setruledglyph
N strut	F setvisual
N toddler	
N user	
N vbox	

vpack	function
whatsitcodes	data table
write	function

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

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 addmvl
- F block
- F blockrows
- F check
- F clean
- T data
- F define
- F definesub
- F delayedsheet
- F finishflush
- F flushareas
- F flushcolumn
- F goto
- F gotoslot
- F limit
- F noto
- F prepareflush
- F presetsheets
- F presetspreadsheets
- F put
- F putdirect
- F registerarea
- F registersheet
- F registerspreadsheets
- F reset
- F resetdirect
- F reshape
- F setarea
- F setextra
- F sethsize
- F sethspan
- F setlines
- F setmvl
- F setpresent
- F setproperties
- F setstart
- F shape
- F showshape
- F state
- F status
- F submvl
- F submvlbalance

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	**getpermissions**	function
getboolean	function	**getsize**	function
getbox	function	**getstatus**	function
getcatalog	function	**getstatusvalues**	function
getdictionary	function	**getstream**	function
getencodingvalues	function	**getstring**	function
getfieldtypes	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	**getpolicyvalues**	function
concat	function	**getprocessfields**	function
contourplot	function	**new**	function
convert	function	**process**	function
count	function	**setbitmap**	function
flush	function	**stripped**	function
free	function	**totable**	function
getbitmap	function	**trace**	function
getnewfields	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 endnote	
F save			F json	
lastofrange	function		F lua	
lists	table		F refman	
F collectentries			F registercleaner	
F combiinlist			F xml	
F fetchentries		**loadreplacementfile**	function
F filterall		**meanings**	table
F flushcombi		**new**	function
F flushentry		**okay**	function
F flushtag		**oneorrange**	function
T methods		**parenttag**	function
F dataset		**permitted**	function
F force		**prerollcmdstring**	function
F global		**refman_to_btx**	function
F label		**resolvedname**	function
F local		**save**	function
F nofregistered		**savers**	table
F prepareentries		F bib	
F register		F lua	
F sameasprevious		F xml	
T sorters		**search**	function
F cite		**setcategory**	function
F dataset		**setspecification**	function
F default		**singularorplural**	function
F index		**sortedentries**	function
F list		**sortmethods**	table
F reference		T authortitle	
F short		T sequence	
F used		T authoryear	
F uservariable		T sequence	
listvariants	table		T dataset	
F default		T sequence	
F index		T key	
F num		T sequence	
F short		**specifications**	table
F tag		T default	
load	function		S author	
loadbibdata	function		S comment	
loaddefinitionfile	function		S copyright	
loaders	table		S name	
F bbl		S version	
F bib		D virtual	
F buffer		**splitauthor**	function

splitoneauthor	function		F showdatasetcompleteness	
statistics	table		F showdatasetfields	
N nofbytes			F showentry	
N nofdatasets			F showfields	
N nofdefinitions			F showhashedauthors	
N nofshortcuts			F showtables	
tables	table		F showvariants	
D implicits		**typesetters**	table	
D origins		F author		
D privates		F string		
D sets		**usedataset**	function	
D specials		**usedentries**	function	
D types		**writers**	table	
D virtuals		F author		
tags	function		F keyword	
tracers	table		F pagenumber	
F showdatasetauthors		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		S content-md5
_DATAGRAMSIZE	number		S content-range
_SETSIZE	number		S content-transfer-encoding
_SOCKETINVALID	number		S content-type
bind	function		S cookie
choose	function		S date
connect	function		S diagnostic-code
connect4	function		S dsn-gateway
connect6	function		S etag
dns	table		S expect
F getaddrinfo			S expires
F gethostname			S final-log-id
F getnameinfo			S final-recipient
F tohostname			S from
F toip			S host
gettime	function		S if-match
headers	table		S if-modified-since
T canonic			S if-none-match
S accept			S if-range
S accept-charset			S if-unmodified-since
S accept-encoding			S in-reply-to
S accept-language			S keywords
S accept-ranges			S last-attempt-date
S action			S last-modified
S age			S location
S allow			S max-forwards
S alternate-recipient			S message-id
S arrival-date			S mime-version
S authorization			S original-envelope-id
S bcc			S original-recipient
S cache-control			S pragma
S cc			S proxy-authenticate
S comments			S proxy-authorization
S connection			S range
S content-description			S received
S content-disposition			S received-from-mta
S content-encoding			S references
S content-id			S referer
S content-language			S remote-mta
S content-length			S reply-to
S content-location			S reporting-mta

S	resent-bcc	
S	resent-cc	
S	resent-date	
S	resent-from	
S	resent-message-id	
S	resent-reply-to	
S	resent-sender	
S	resent-to	
S	retry-after	
S	return-path	
S	sender	
S	server	
S	smtp-remote-recipient	
S	status	
S	subject	
S	te	
S	to	
S	trailer	
S	transfer-encoding	
S	upgrade	
S	user-agent	
S	vary	
S	via	
S	warning	
S	will-retry-until	
S	www-authenticate	
S	x-mailer	
F	lower	
F	normalize	
http		table
N	TIMEOUT	
S	USERAGENT	
F	genericform	
F	open	
F	request	
newtry		function

protect		function
report		function
select		function
sink		function
sinkt		table
F	close-when-done	
F	default	
F	http-chunked	
F	keep-open	
skip		function
sleep		function
source		function
sourcet		table
F	by-length	
F	default	
F	http-chunked	
F	until-closed	
tcp		function
tcp4		function
tcp6		function
tp		table
N	TIMEOUT	
F	connect	
try		function
udp		function
udp4		function
udp6		function
url		table
F	absolute	
F	build	
F	build_path	
F	escape	
F	parse	
F	parse_path	
F	unescape	

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)

getbalancestate	function	**getluastate**	function
getbufferstate	function	**getmarkstate**	function
getcallbackstate	function	**getmvlstate**	function
getconstants	function	**getneststate**	function
geterrorlinestate	function	**getnodestate**	function
geterrorstate	function	**getparameterstate**	function
getexpandstate	function	**getpoolstate**	function
getfilestate	function	**getreadstate**	function
getfontstate	function	**getsavestate**	function
gethalferrorlinestate	function	**getsparsestate**	function
gethashstate	function	**getstringstate**	function
gethyphenationstate	function	**gettexstate**	function
getinputstate	function	**gettokenstate**	function
getinsertstate	function	**getwarningstate**	function
getlanguagestate	function	**iocodes**	table
getlinebreakstate	function	**list**	function
getlookupstate	function	**resetmessages**	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		**octtointeger**	function
autosingle	function		**optionalquoted**	function
booleanstring	function		**pack**	function
byte	function		**packrowscolumns**	function
bytepairs	function		**packsize**	function
bytes	function		**quote**	function
bytetable	function		**quoted**	function
char	function		**rep**	function
characterpairs	function		**replacenewlines**	function
characters	function		**reverse**	function
checkedsplit	function		**split**	function
chrtointeger	function		**splitlines**	function
collapsespaces	function		**splitup**	function
containsws	function		**strip**	function
count	function		**sub**	function
dectointeger	function		**texhashed**	function
dump	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
longtostring	function		**unquote**	function
lower	function		**unquoted**	function
match	function		**upper**	function
nospaces	function		**utf16toutf8**	function
nspaces	table		**utfcharacter**	function

utfcharacters	function	utfvalue	function
utfcharactertable	function	**utfvalues**	function
utflength	function	**utfvaluetable**	function
utfpadd	function	**valid**	function
utfpadding	function	**wordsplitter**	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	prefix
F	touserdata		F	prefixednumber
inserts		**table**	F	prefixedpage
F	attach		F	process
D	data		D	pushed
F	define		F	pushnesting
F	detach		F	rawnumber
F	getdata		F	realpage
F	getlocation		F	reorder
F	getname		F	reordered
F	getnumber		T	result
F	nofdetached		F	savedlistnumber
F	setlocation		F	savedlistprefixednumber
F	setup		F	savedlisttitle
D	stored		D	sectionblocks
itemgroups		**table**	F	sectionnumber
D	collected		F	size
D	tobesaved		F	title
lists		**table**	D	tobesaved
F	addto		F	use
F	analyze		F	userdata
D	cached		F	uservalue
D	collected		**marks**		**table**
F	discard		F	number
F	enhance		F	title
T	enhancers		**notes**		**table**
F	external		F	check_spacing
F	filter		F	checkpagechange
F	formulanumber		F	define
F	getresult		F	doifonsamepageasprevious
F	groupindex		F	flushrange
F	hasnumberdata		F	get
F	haspagedata		F	getdeltapage
F	hastitledata		F	getinternal
F	integrate		F	getn
F	iscached		F	getstate
D	kinds		F	hascontent
F	label		F	internal
F	location		F	internalid
D	names		F	listindex
F	number		D	numbers
D	ordered		F	ordered
F	page		F	postpone
F	popnesting		F	resetpostponed

F	registerpage	F	compare
F	reset	F	define
D	runners	F	enhance
F	set	F	extend
F	setandgetattribute	F	filter
F	setinternalreference	F	filtercollected
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

sections   table

T	testspecials	F	autodepth
F	deltapage	F	cct
F	i	D	collected
F	internal	F	current
F	page	F	currentblock
F	realpage	F	currentid
F	section	F	currentlevel
F	userpage	F	currentsectionindex
D	tobereferred	F	depthnumber
D	tobesaved	F	finddata
D	tracedpages	F	findnumber
T	urls	F	fullnumber
T	data	F	getcurrentlevel
F	define	F	getlevel
F	found	F	getnumber
F	get	F	internalreference
F	untex	D	levelmap
D	usedinternals	D	levels
D	usedviews	F	matchingtilldepth
F	valid	F	numberatdepth

registers   table

F	analyze	F	numbers
D	collected	F	popblock

F	prefixedconverted		F	meaning
F	pushblock		F	pages
F	register		F	prepare
D	registered		F	process
F	reportstructure		F	register
F	save		F	registershown
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

tags   table

F	setnumber		T	backend
F	showstructure		T	checks
F	structuredata		F	marginanchor
F	title		F	margintext
D	tobesaved		F	math
F	typesetnumber		F	mrow
F	userdata		F	mtable
B	verbose		T	destinationhash

sets   table

			T	extras
F	define		F	adddestination
F	get		F	addimplicit
F	getall		F	addinternal
D	setlist		F	addreference

specials   table

			F	combination
D	collected		F	combinationpair
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	mover
F	isused			

```
F msub                              T ignored
F msubsup                           F initializeexport
F msup                              D labels
F munder                            F last
F munderover                        F lastinchain
F paragraph                         F localexport
F publication                       F locatedtag
F reference                         D overloads
F registerlocation                  T patterns
F registerpages                       U splitter
F registerseparator                 F pop
F section                           D properties
F sorting                           F push
F subsentencesymbol                 F registerextradata
F synonym                           F registermetadata
F tablecell                         F restart
F tabulate                          F setaspect
F tabulatecell                      F setattributehash
T finalizers                        F setcodepoint
  F descriptions                    F setcombination
T fixes                             F setcombinationpair
  F linenumber                      F setconstruct
F fontfaced                         F setfigure
T listdata                          F setfloat
T referencehash                     F setformulacontent
F setattribute                      F sethighlight
F tofontface                        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 getitemgroup                      F settagdelimitedsymbol
F getmetadata                       F settagsubsentencesymbol
F gettablecell                      F setupexport
F gettabulatecell                   F setuserproperties
F handler                           D specifications
```

F start
F stop
F strip

D taglist
T usewithcare

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	**dontcomplain**	function
attribute	table	**doublescriptoptioncodes**	data table
automigrationcodes	data table	**enableprimitives**	function
autoparagraphcodes	data table	**error**	function
badness	function	**expandasvalue**	function
badnessmodecodes	data table	**experiments**	data table
balance	function	**extraprimitives**	function
balancecallbackcodes	data table	**fatalerror**	function
boundaries	table	**fillcodes**	data table
D names		**flagcodes**	data table
D numbers		**fontidentifier**	function
F system		**fontname**	function
box	table	**forcehmode**	function
boxresources	table	**forceinputstatefile**	function
F getbox		**forceinputstateline**	function
F getdimensions		**fprint**	function
F save		**frozenparcodes**	data table
F use		**get**	function
breakcodes	data table	**getadjustoptionvalues**	function
buildcodes	data table	**getalignmentcontextvalues**	function
catcode	table	**getamcode**	function
cccode	table	**getappendlinecontextvalues**	function
charactercontrolcodes	data table	**getattribute**	function
charactertagcodes	data table	**getautomigrationvalues**	function
chardef	function	**getautoparagraphvalues**	function
classoptioncodes	data table	**getbadnessmodevalues**	function
codes	table	**getbalancecallbackvalues**	function
conditionals	data table	**getbalanceparameterfields**	function
constants	data table	**getbalanceresultfields**	function
count	table	**getbalancestepoptionvalues**	function
cprint	function	**getbox**	function
ctdcatcodes	number	**getboxdir**	function
ctxcatcodes	number	**getboxoptionvalues**	function
definefont	function	**getboxresourcebox**	function
delcode	table	**getboxresourcedimensions**	function
dimen	table	**getbreakcontextvalues**	function
dimensiondef	function	**getbuildcontextvalues**	function
directioncodes	data table	**getcardinalvalue**	function
directives	data table	**getcatcode**	function
discoptioncodes	data table	**getcccode**	function
discpartcodes	data table	**getcharactercontrolvalues**	function

getcharactertagvalues	function	**getinteraction**	function
getcount	function	**getinteractionmodes**	function
getcurrentmvl	function	**getiovalues**	function
getdelcode	function	**getkerneloptionvalues**	function
getdelcodes	function	**getkernoptionvalues**	function
getdimen	function	**getlargestusedmark**	function
getdimensionvalue	function	**getlccode**	function
getdirectionvalues	function	**getlinebreakparameterfields**	function
getdiscoptionvalues	function	**getlinebreakresultfields**	function
getdiscpartvalues	function	**getlinebreakstatevalues**	function
getdoublescriptoptionvalues	function	**getlinedir**	function
getemptyparagraphmodevalues	function	**getlist**	function
geterrorvalues	function	**getlistanchorvalues**	function
getfillvalues	function	**getlistfields**	function
getflagvalues	function	**getlistgeometryvalues**	function
getfloat	function	**getlistsignvalues**	function
getfontoffamily	function	**getlocalbox**	function
getfrozenparvalues	function	**getlocalboxlocations**	function
getglue	function	**getlocallevel**	function
getglueoptionvalues	function	**getmark**	function
getglyphdata	function	**getmarknames**	function
getglyphdiscvalues	function	**getmath**	function
getglyphoptionvalues	function	**getmathclassoptionvalues**	function
getglyphprotectionvalues	function	**getmathcode**	function
getglyphscales	function	**getmathcodes**	function
getglyphscript	function	**getmathcontrolvalues**	function
getglyphstate	function	**getmathdir**	function
getgroupvalues	function	**getmathgluevalues**	function
gethccode	function	**getmathoptionvalues**	function
gethelptext	function	**getmathparametervalues**	function
gethmcode	function	**getmathscriptordervalues**	function
gethyphenationvalues	function	**getmathscriptsmodevalues**	function
getiftypes	function	**getmathstylenamevalues**	function
getinputstatefile	function	**getmathstylevalues**	function
getinputstateline	function	**getmathstylevariant**	function
getinputstatemode	function	**getmathsurroundvalues**	function
getinsertcontent	function	**getmathvariantpresets**	function
getinsertdepth	function	**getmathvariantvalues**	function
getinsertdistance	function	**getmeasure**	function
getinsertheight	function	**getmode**	function
getinsertlimit	function	**getmodevalues**	function
getinsertmultiplier	function	**getmuglue**	function
getinsertwidth	function	**getmuskip**	function
getintegervalue	function	**getmvloptionvalues**	function

getnest	function	**glyphdisccodes**	data table
getnestfields	function	**glyphoptioncodes**	data table
getnestlevel	function	**groupcodes**	data table
getnoadoptionvalues	function	**hashtokens**	function
getnormalizelinevalues	function	**hccode**	table
getnormalizeparvalues	function	**hmcode**	table
getoutputactive	function	**hshcatcodes**	number
getpacktypevalues	function	**hyphenationcodes**	data table
getpagecontextvalues	function	**ifs**	data table
getpagestate	function	**inicatcodes**	number
getpagestatevalues	function	**integerdef**	function
getparametermodevalues	function	**interactioncodes**	data table
getparcontextvalues	function	**isattribute**	function
getpardataspecifications	function	**isbox**	function
getpardir	function	**iscount**	function
getparmodevalues	function	**isdefined**	function
getparstate	function	**isdimen**	function
getparstatefields	function	**isfloat**	function
getpartriggervalues	function	**isglue**	function
getpenaltyoptionvalues	function	**ismuglue**	function
getpositvalue	function	**ismuskip**	function
getprepoststatevalues	function	**isprintable**	function
getprimitiveorigins	function	**isskip**	function
getprotrusionboundaryvalues	function	**istoks**	function
getregisterindex	function	**lastnodetype**	function
getruleoptionvalues	function	**lccode**	table
getrunstate	function	**linebreak**	function
getrunstatevalues	function	**linebreakstatecodes**	data table
getsfcode	function	**listanchorcodes**	data table
getshapingpenaltiesvalues	function	**listgeometrycodes**	data table
getskip	function	**lists**	table
getspecialmathclassvalues	function	**listsigncodes**	data table
getspecification	function	**luacatcodes**	number
getspecificationoptionvalues	function	**magicconstants**	table
gettextcontrolvalues	function		N allfitnessvalues
gettextdir	function		N assumedmathcontrol
gettoks	function		N awfulbad
getuccode	function		N decentcriterion
getuleaderlocationvalues	function		N defaultcatcodetable
getunitclassvalues	function		N defaultcharactercontrol
getusedmarks	function		N defaultdeadcycles
getvsplitcontextvalues	function		N defaulteqnogapstep
glue	table		N defaulthangafter
glueoptioncodes	data table		N defaultoutputbox

N defaultpredisplaygap
N defaultrule
N defaultspacefactor
N defaulttolerance
N deplorable
N ejectpenalty
N ignoredepth
N infinitebad
N infinitepenalty
N infinity
N largewidthexcess
N loosecriterion
N mathallclass
N mathbeginclass
N mathdefaultpenalty
N mathendclass
N mathfirstuserclass
N mathlastuserclass
N maxattributeregisterindex
N maxboxregisterindex
N maxbytecodeindex
N maxcalculatedbadness
N maxcardinal
N maxcharactercode
N maxdatavalue
N maxdimen
N maxdimenregisterindex
N maxdimension
N maxdimensionregisterindex
N maxendlinecharacter
N maxfloatregisterindex
N maxfontadjustshrinkfactor
N maxfontadjuststep
N maxfontadjuststretchfactor
N maxfunctionreference
N maxglueregisterindex
N maxhalfvalue
N maxhalfword
N maxinteger
N maxintegerregisterindex
N maxintregisterindex
N maxlimitedscale
N maxmarkindex
N maxmathclasscode

N maxmathfamilyindex
N maxmathscalingfactor
N maxmathstylescale
N maxmuglueregisterindex
N maxmvlindex
N maxnewlinecharacter
N maxnofbytecodes
N maxnofcatcodetables
N maxnoffitnessvalues
N maxnoffonts
N maxnoflanguages
N maxnofmarks
N maxnofmathfamilies
N maxquarterword
N maxscalefactor
N maxsizeofword
N maxspacefactor
N maxtoksregisterindex
N maxtwinlength
N mincardinal
N mindatavalue
N mindimen
N mindimension
N minhalfword
N mininfinity
N mininteger
N minmvlindex
N minnoffitnessvalues
N minquarterword
N minscalefactor
N minspacefactor
N nocatcodetable
N null
N nullflag
N nullfont
N onebp
N presetrulethickness
N runningrule
N smallstretchability
N specialspacefactor
N texeqtbsize
N texhashprime
N texhashsize
N two

N undefinedmathparameter		**pushlocal**	function
N unity		**pushsavelevel**	function
N unusedattributevalue		**quitlocal**	function
N unusedmathfamily		**quittoks**	function
N unusedmathstyle		**resetparagraph**	function
N unusedscriptvalue		**rlncatcodes**	number
N unusedstatevalue		**romannumeral**	function
N zeroglue		**round**	function
mathchardef	function	**ruleoptioncodes**	data table
mathcode	table	**runlocal**	function
mathcontrolcodes	data table	**runstatecodes**	data table
mathoptioncodes	data table	**runstring**	function
mathparametercodes	data table	**runtoks**	function
mathscriptordercodes	data table	**saveboxresource**	function
mathscriptsmodecodes	data table	**scale**	function
modelevels	table	**scantoks**	function
N horizontal		**set**	function
N math		**setamcode**	function
N unset		**setattribute**	function
N vertical		**setbalanceshape**	function
modes	data table	**setbox**	function
mprint	function	**setboxdir**	function
muglue	table	**setcardinalvalue**	function
muskip	table	**setcatcode**	function
mvloptioncodes	data table	**setcccode**	function
nest	table	**setconditional**	function
nilcatcodes	number	**setcount**	function
noadoptioncodes	data table	**setdelcode**	function
normalizelinecodes	data table	**setdimen**	function
normalizeparcodes	data table	**setdimensionvalue**	function
notcatcodes	number	**setfloat**	function
number	function	**setglue**	function
parcontextcodes	data table	**setglyphdata**	function
partriggercodes	data table	**setglyphscript**	function
penaltyoptioncodes	data table	**setglyphstate**	function
poplocal	function	**sethccode**	function
popsavelevel	function	**sethmcode**	function
posit	table	**setinputstatefile**	function
positdef	function	**setinputstateline**	function
preparelinebreak	function	**setinputstatemode**	function
primitives	function	**setinsertcontent**	function
print	function	**setinsertdistance**	function
protrusionboundarycodes	data table	**setinsertlimit**	function
prtcatcodes	number	**setinsertmultiplier**	function

setintegervalue	function	**sp**	function
setinteraction	function	**specialmathclasscodes**	data table
setlccode	function	**specificationoptioncodes**	data table
setlinedir	function	**splitbox**	function
setlist	function	**splitcodes**	data table
setlocalbox	function	**sprint**	function
setmath	function	**stringtocodesbitmap**	function
setmathcode	function	**systemmodes**	data table
setmathdir	function	**takebox**	function
setmuglue	function	**texcatcodes**	number
setmuskip	function	**textcontrolcodes**	data table
setnest	function	**toks**	table
setpardir	function	**tonumber**	function
setpositvalue	function	**toscaled**	function
setrunstate	overloaded function	**tpacatcodes**	number
setsfcode	function	**tpbcatcodes**	number
setskip	function	**tprint**	function
settextdir	function	**trackers**	data table
settoks	function	**triggerbuildpage**	function
setuccode	function	**txtcatcodes**	number
sfcode	table	**uccode**	table
shapingpenaltiescodes	data table	**uprint**	function
shiftparshape	function	**useboxresource**	function
shipout	function	**userdiscoptioncodes**	data table
showcontext	function	**userglyphoptioncodes**	data table
skip	table	**vrbcatcodes**	number
snapshotpar	function	**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
getselectorvalues	function	**writeselector**	function
getsourcefilename	function	**writeselectorlf**	function
setlogfile	function	**writeselectornl**	function
terminal	function		

token (basic tex)

create	function	**getexpandable**	function
expand	function	**getexpansion**	function
expand_macro	function	**getfields**	function
expandmacro	function	**getflags**	function
future_expand	function	**getfrozen**	function
futureexpand	function	**getfunctionvalues**	function
get_active	function	**getid**	function
get_cmdchrcs	function	**getimmutable**	function
get_cmdname	function	**getindex**	function
get_command	function	**getinstance**	function
get_csname	function	**getinteger**	function
get_cstoken	function	**getmacro**	function
get_dimension	function	**getmeaning**	function
get_expandable	function	**getnoaligned**	function
get_fields	function	**getparameters**	function
get_flags	function	**getpermanent**	function
get_frozen	function	**getprimitive**	function
get_id	function	**getprimitives**	function
get_immutable	function	**getprotected**	function
get_index	function	**getrange**	function
get_instance	function	**gettok**	function
get_integer	function	**gettolerant**	function
get_macro	function	**gobble**	function
get_meaning	function	**gobble_dimension**	function
get_noaligned	function	**gobble_integer**	function
get_parameters	function	**gobbledimension**	function
get_permanent	function	**gobbleinteger**	function
get_primitive	function	**grab**	function
get_protected	function	**is_defined**	function
get_range	function	**is_next_char**	function
get_tok	function	**is_token**	function
get_tolerant	function	**isdefined**	function
getactive	function	**isnextchar**	function
getcmdchrcs	function	**istoken**	function
getcmdname	function	**locatemacro**	function
getcommand	function	**new**	function
getcommandvalues	function	**peek_next**	function
getconstant	function	**peek_next_char**	function
getcsname	function	**peek_next_expanded**	function
getcstoken	function	**peeknext**	function
getdimension	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	**setmacrofrommark**	function
set_dimension	function	**skip_next**	function
set_integer	function	**skip_next_expanded**	function
set_lua	function	**skipnext**	function
set_macro	function	**skipnextexpanded**	function
setdimension	function	**type**	function
setinteger	function	**undefine_macro**	function
setlua	function	**undefinemacro**	function
setmacro	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 luanumber
    T 6 strings                                     F lxmlid
    T 7 strings                                     F next
    T 8 strings                                     F nextchar
pushmacro    function                               F nextexpanded
scanners     table                                  F number
    F argument                                      F optional
    F argumentasis                                  F peek
    F array                                         F peekchar
    F boolean                                       F peekexpanded
    F box                                           F posit
    F bracketed                                     F real
    F bracketedasis                                 F scanclose
    F cardinal                                      F scanopen
    F char                                          F skip
    F cmdchr                                        F skipexpanded
    F cmdchrexpanded                                F string
    F code                                          F table
    F conditional                                   F token
    F count                                         F tokencode
    F csname                                        F tokenlist
    F csnameunchecked                               F tokens
    F delimited                                     F tokenstring
    F detokened                                     F toks
    F dimen                                         F value
    F dimenargument                                 F vbox
    F dimension                                     F verbatim
    F float                                         F vtop
    F glue                                          F whd
    F gluespec                                      F word
    F gluevalues                              setinteger    function
    F hash                                    setters       table
    F hbox                                          F box
    F integer                                       F char
    F integerargument                               F count
    F ischar                                        F dimen
    F key                                           F glue
    F keyword                                       F lua
    F keywordcs                                     F macro
    F letters                                       F skip
    F list                                    shortcuts     table
    F lua                                           T bits
    F luacardinal                                     N active
    F luainteger                                      N alignment
```

N begingroup	F band
N character	F bor
N close	F bxor
N comment	F ceil
N endgroup	F conj
N endofline	F copy
N escape	F cos
N ignore	F exp
N invalid	F exp2
N letter	F floor
N mathshift	F fromposit
N open	F integer
N other	F log
N parameter	F log10
N space	F log1p
N subscript	F log2
N superscript	F logb
N whitespace	F max
N close	F min
F inspect	F modf
N open	F new
T posit	F pow
F NaN	F rotate
F NaR	F round
F __add	F rounded
F __band	F shift
F __bor	F sin
F __bxor	F sqrt
F __div	F tan
F __eq	F tonumber
F __le	F toposit
F __lt	F tostring
F __mul	F report
S __name	F scanargument
F __pow	F scanargumentasis
F __shl	F scanarray
F __shr	F scanboolean
F __sub	F scanbox
F __tostring	F scanbracketed
F __unm	F scanbracketedasis
F abs	F scancardinal
F acos	F scanclose
F asin	F scancode
F atan	F scanconditional

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

F word
 F scannumber
 F scanopen
 F scanoptional
 F scanposit
 F scanstring
 F scantable
 F scantokenlist
 F scantokenstring
 F scantoks
 F scanvbox
 F scanverbatim
 F scanvtop
 F scanword
 F toboolean
 F todimen
 T tokens
  T accessors
   F active
   F cmd
   F cmdchrcs
   F cmdname
   F command
   F csname
   F expandable
   F frozen
   F index
   F name
   F protected
   F range
  F astable
  D cache
  D commands
  F compile
  F constant
  T converters
   S toboolean
   S todimen
   S toglue
   S tonumber
   S tostring
  F create
  F defined
  F flags

 F getinteger
 T getters
  F box
  F count
  F cstoken
  F dimen
  F glue
  F macro
  F meaning
  F skip
  F token
 F gobble
 F isdefined
 F istoken
 F new
 F pickup
 F popmacro
 T presets
 F pushmacro
 F setinteger
 T setters
  F box
  F char
  F count
  F dimen
  F glue
  F lua
  F macro
  F skip
 T shortcuts
  N close
  F inspect
  N open
  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 scannumber
F scancsname	F scanopen
F scancsnameunchecked	F scanoptional
F scandelimited	F scanposit
F scandetokened	F scanstring
F scandimen	F scantable
F scandimenargument	F scantokenlist
F scandimension	F scantokenstring
F scanfloat	F scantoks
F scanglue	F scanvbox
F scangluespec	F scanverbatim
F scangluevalues	F scanvtop
F scanhash	F scanword
F scanhbox	F toboolean
F scaninteger	F todimen
F scanintegerargument	F tonumber
F scankeyword	F tostring
F scankeywordcs	D values
F scanletters	F tonumber
F scanlist	F tostring
F scanlua	**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
 F handler
 F set
breakpoints table
 F define
 F handler
 D mapping
 T methods
 T numbers
 F set
 F setreplacement
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 check	
F applyspecification		**showinvisibles**	function
T methods		**showsuspects**	function
F Word		**spacings**	table
F Words		F define	
F abbreviatedjournal		F handler	
F expandedjournal		D mapping	
F lowercase		T numbers	
F stripperiod		T frenchpunctuation	
F uppercase		T characters	
T patterns		S name	
U list		N number	
U pair		F reset	
F splitspecification		F set	
margins	table	F setup	
F finalhandler		**stacking**	table
F globalhandler		F getindex	
F localhandler		F getselection	
F save		F handler	
marksuspects	function	**swapping**	table
paragraphs	table	F handler	
F addanchortoline		**synchronize**	table
F addtoline		F handler	
F calculatedelta		**tighten**	table
F checkline		F handler	
F moveinline		**wrappers**	table
periodkerns	table	**xtables**	table
D factors		F cleanup	
F handler		F construct	
D mapping		F create	
F set		F finish_row	
processors	table	F flush	
F apply		F initialize_construct	
F register		F initialize_reflow_height	
F reset		F initialize_reflow_width	
F split		F next_row	
F startapply		F reflow_height	
F stopapply		F reflow_width	
F stripped		F set_construct	
F tostring		F set_reflow_height	
rubies	table	F set_reflow_width	
F attach				

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 readsignedbyte
F disable			F readstring
F enable			F readtag
F savestats			F setposition
F showstats			F size
F showtraceback			F skip
files	table		F skiplong
F close			F skipposition
F getposition			F skipshort
F getsize			F writebyte
F look			F writecardinal1
F open			F writecardinal1le
F read2dot14			F writecardinal2
F readbyte			F writecardinal2le
F readbytes			F writecardinal3
F readbytetable			F writecardinal3le
F readcardinal			F writecardinal4
F readcardinal1			F writecardinal4le
F readcardinal1le			F writeinteger1
F readcardinal2			F writeinteger1le
F readcardinal2le			F writeinteger2
F readcardinal3			F writeinteger2le
F readcardinal3le			F writeinteger3
F readcardinal4			F writeinteger3le
F readcardinal4le			F writeinteger4
F readcardinaltable			F writeinteger4le
F readchar			F writestring
F readcline			**formatters** table
F readcstring			F formatcolumns
F readfixed2			F list
F readfixed4			F stripzeros
F readinteger			**ghostscript** table
F readinteger1			F convert
F readinteger1le			F statistics
F readinteger2			**graphicmagick** table
F readinteger2le			F convert
F readinteger3			F statistics
F readinteger3le			**graphicsmagick** table
F readinteger4			F convert
F readinteger4le			F statistics
F readintegertable			**json** table

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

F splitthousands	F new
F stepper	F register
F stripped_settings_to_array	F report
F totime	F reset
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	readinteger2	F	tabtospace
F	readinteger2le	T	tracers
F	readinteger3	**tables**	table
F	readinteger3le	F	accesstable
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 list

F open

F unzip

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		**erf**	function
__add	function		**erfc**	function
__div	function		**erfcx**	function
__eq	function		**erfi**	function
__mul	function		**exp**	function
__name	string		**i**	function
__pow	function		**imag**	function
__sub	function		**log**	function
__tostring	function		**new**	function
__unm	function		**pow**	function
abs	function		**proj**	function
acos	function		**real**	function
acosh	function		**sin**	function
arg	function		**sinh**	function
asin	function		**sqrt**	function
asinh	function		**tan**	function
atan	function		**tanh**	function
atanh	function		**topair**	function
conj	function		**tostring**	function
cos	function		**totable**	function
cosh	function		**voigt**	function
dawson	function		**voigt_hwhm**	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 lower		
F name		
F number		
F oneof		
F print		
F quit		
F tag		
F text		
F undefined		
F upper		
fillin		function
filter		function
finalizers		table
F paragraphs		
T tex		
F all		
F attribute		
F chainattribute		
F chainpath		
F collapsed		
F command		
F concat		
F concatrange		
F context		
F count		
F ctxtext		
F default		
F depth		
F first		
F function		
F index		
F last		
F lettered		
F lower		
F lowerall		
F match		
F name		
F param		
F parameter		
F position		
F reverse		
F stripped		
F tag		

F tags		
F text		
F upper		
F upperall		
F url		
F xml		
T xml		
F all		
F att		
F attribute		
F attributes		
F cdata		
F chainattribute		
F count		
F default		
F elements		
F empty		
F first		
F function		
F index		
F last		
F lowerall		
F match		
F name		
F position		
F reverse		
F table		
F tag		
F tags		
F text		
F texts		
F tomacro		
F upperall		
F url		
first		function
found		function
functions		table
F classes		
F hasclass		
getbuffer		function
gethandlers		function
gethandlersfunction		function
helpers		table
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	**reparsedentitypeg**	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
parsedentitypeg	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