MP 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 language
languages layouts lfs libraries lmx logs lpdf
lpeg lua 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 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	**directives**	table
FFISUPPORTED	boolean	**document**	table
LUAMAJORVERSION	number	**documentdata**	table
LUAMINORVERSION	number	**dofile**	function
LUATEXENGINE	string	**drivers**	table
LUATEXFORMATID	number	**environment**	table
LUATEXFUNCTIONALITY	number	**error**	function
LUATEXVERSION	number	**experiments**	table
LUAVERSION	number	**fasttrack**	boolean
MP	function	**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
commands	table	**ipairs**	function
containers	table	**job**	table
context	function	**language**	table
converters	table	**languages**	table
coroutine	table	**layouts**	table
createmask	function	**lfs**	table
ctxrunner	table	**libraries**	table
data	table	**lmx**	table
debug	table	**load**	function
dimen	function	**loadfile**	function
dir	table	**loadstring**	function

logs	table	**regimes**	table
lpdf	table	**require**	function
lpeg	table	**required**	function
lua	table	**resolvers**	table
luatex	table	**ruledspace**	function
lxml	table	**sandbox**	table
math	table	**scripts**	table
mathematics	table	**select**	function
md5	table	**set**	table
metapost	table	**setinspector**	function
mime	table	**setmetatable**	function
moduledata	table	**sha2**	table
modules	table	**shipbox_ref_h**	number
mp	function	**shipbox_ref_v**	number
mplib	table	**sio**	table
next	function	**socket**	table
noads	table	**sorters**	table
node	table	**sparse**	table
nodes	table	**statistics**	table
number	table	**status**	table
objects	table	**storage**	table
optional	table	**streams**	table
optionalrequire	function	**string**	table
os	table	**structures**	table
p_number_p	userdata	**table**	table
p_number_u	userdata	**tex**	table
package	table	**texconditionals**	data table
pagebuilders	table	**texconfig**	table
pairs	function	**texconstants**	data table
parametersets	table	**texifs**	data table
pcall	function	**texio**	table
pdf	table	**texisdefined**	data table
pdfdecode	table	**texmodes**	data table
pdfe	table	**texsystemmodes**	data table
physics	table	**thirddata**	table
pngdecode	table	**toboolean**	function
popleaderlevel	function	**todecimal**	function
print	function	**token**	table
publications	table	**tokens**	table
pushleaderlevel	function	**tonumber**	function
rawequal	function	**tostring**	function
rawget	function	**tracers**	table
rawlen	function	**trackers**	table
rawset	function	**type**	function

typesetters	table	**warn**	function
unpack	function	**xcomplex**	table
updaters	table	**xdecimal**	table
url	table	**xmath**	table
userdata	table	**xml**	table
utf	table	**xpcall**	function
utf8	table	**xzip**	table
utilities	table	**zip**	table
visualizers	table	**zlib**	table

attributes (context)

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

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

F	spot	F	disabletriggering
F	spotcolorname	F	enabletriggering
F	spotcolorparent	F	finalize
F	spotcolorvalue	F	initialize
B	supported	F	process
F	toattributes	F	selective
F	transparencycomponents	F	simple
B	triggering	F	stacked
F	usecolors	F	stacker

system	function
tooverloads	function
transparencies	table

D	valid
F	value
D	values
B	weightgray
F	xyztolab
F	xyztorgb

define function
effects table

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

handlers table
list data table
markasoverload function
names data table
negatives table

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

numbers data table
ofnode function
private function
public function
restore function
save function
showcurrent function
states table

N attribute
D data
F enable
F forcesupport
F handler
T names
  N color
  N colorburn
  N colordodge
  N darken
  N difference
  N exclusion
  N hardlight
  N hue
  N lighten
  N luminosity
  N multiply
  N none
  N normal
  N overlay
  N saturation
  N screen
  N softlight
N none
F register
D registered
B supported
F toattribute
B triggering
F value
D values

unsetvalue number

viewerlayers table

- N attribute
- F cleanup
- D data
- F define
- F definedlayoutcomponent
- F enable
- F forcesupport
- F handler
- B hasorder
- D listwise
- F register
- D registered
- F resolve_begin
- F resolve_end
- F resolve_reset
- F resolve_step
- D scopes
- F setfeatures
- F start
- F stop
- B supported
- D values

backends (context)

closeout	function
codeinjections	table
F boxresourcedimensions	
F registerboxresource	
F restoreboxresource	
current	string
defaults	table
T codeinjections	
T nodeinjections	
T registrations	
D tables	
getcallbackstate	function
included	table
B context	
B date	
B id	
B metadata	
B pdf	
install	function
latelua	function
nodeinjections	table
nothing	function
openout	function
pdf	table
T codeinjections	
F addbookmarks	
F analyzenormalsymbol	
F analyzesymbol	
F attachmentid	
F bitmap	
F clonefield	
F copyimage	
F definefield	
F definefieldset	
F defineviewerlayer	
F embedfile	
F embedimage	
F enabletags	
F exportformdata	
F fieldsurrounding	
F flushmergelayer	

F getbookmarks
F getdefaultfieldvalue
F getfieldcategory
F getfieldset
F getformatoption
F getidentityvariable
F getinfo
F getpreviewfigure
F insertrenderingwindow
F jp2
F jpg
F maptag
F mergebookmarks
F mergecomments
F mergefields
F mergereferences
F mergeviewerlayers
F newimage
F png
F prerollreference
F presetsymbol
F presetsymbollist
F processrendering
F registerdocumentcloseaction
F registerdocumentopenaction
F registeredsymbol
F registerpagecloseaction
F registerpageopenaction
F registerpattern
F registersymbol
F scanimage
F setattachmentsupport
F setfieldcalculationset
F setfigurealternative
F setfigurecolorspace
F setfiguremask
F setformat
F setformsmethod
F setpagetransition
F settaggingsupport
F setupidentity

F setxmpfile	F knockout
F startlayer	F negative
F startunicodetoactualtext	F overprint
F startunicodetoactualtextdirect	F positive
F stoplayer	F reference
F stopunicodetoactualtext	F rgbcolor
F stopunicodetoactualtextdirect	F spotcolor
F supportedformats	F startalternate
F unicodetoactualtext	F startlayer
F useviewerlayer	F startstackedlayer
F validfield	F stopalternate
F validfieldcategory	F stoplayer
F validfieldset	F stopstackedlayer
F wrapimage	F transparency
S comment	F typesetfield
T nodeinjections	T registrations
F addtags	F cmykindexcolor
F annotation	F cmykspotcolor
F attachfile	F getspotcolorreference
F changestackedlayer	F grayindexcolor
F cmykcolor	F grayspotcolor
F comment	F rgbindexcolor
F destination	F rgbspotcolor
F effect	F spotcolorname
F graycolor	F transparency
F injectbitmap	T tables
F insertmovie	**registrations** table
F insertsound	**tables** table
F insertu3d	**writeout** function

basexx (extra lua)

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

bit32 (basic lua)

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	F define	
assign	function	F hassomecontent	
collectcontent	function	F next	
erase	function	F place	
exists	function	F reset	
get	function	F save	
getcontent	function	**prepend**	function
getlines	function	**raw**	function
gettexbuffer	function	**run**	function
loadcontent	function	**samplefile**	function
parallel	table	**undent**	function

builders (context)

checkparcontext   function
checksidefloat   function
kernel   table
   F collapsing
   F hyphenating
   F kerning
   F ligaturing
   F mlisttohlist
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
profiling   table
   F add
   F distance
   F fixedprofile
   F get
   F list
   F pagehandler
   F profilebox
   F set
vspacing   table
   D categories
   F checkstrutdepth
   F collapsevbox
   T data
    D map
    D skip
    D snapmethods
   F definesnapmethod
   B fixed
   F forcepageflush
   F forcestrutdepth
   F getnofpreviouslines
   F inject
   F injectdisable
   F injectpenalty
   F injectskip
   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 append_to_vlist_filter
    B begin_paragraph
    B build_page_insert
    B buildpage_filter
    B contribute_filter
    B define_font
    B find_format_file
    B find_log_file
    B get_attribute
    B glyph_run
    B handle_overload
    B hpack_filter
    B hpack_quality
    B hyphenate
    B insert_par
    B intercept_lua_error

B intercept_tex_error
B kerning
B ligaturing
B linebreak_filter
B make_extensible
B missing_character
B mlist_to_hlist
B open_data_file
B paragraph_context
B post_linebreak_filter
B pre_dump
B pre_linebreak_filter
B pre_output_filter
B process_jobname
B show_error_message
B show_lua_call
B show_warning_message
B show_whatsit
B start_file
B start_run
B stop_file
B stop_run
B trace_memory
B vpack_filter
B vpack_quality
B wrapup_run

catcodes (context)

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

characters (context)

adobename	function		
bidi	data table		
blockrange	function		
blocks	data table		
casemap	table		
categories	data table		
category	function		
categorytags	data table		
classifiers	table		
collapsed	data table		
combined	data table		
contextname	function		
csletters	data table		
data	data table		
decomposed	data table		
description	function		
descriptions	data table		
detailtags	data table		
directions	table		
emoji	table		
F compact			
F known			
F resolve			
emojized	function		
enccodes	data table		
entities	data table		
fallbacks	data table		
filters	data table		
fractions	table		
fromnumber	function		
fschars	data table		
fscodes	data table		
getrange	function		
graphemes	data table		
hangul	data table		
indicgroups	table		
T above_mark			
T after_half			
T after_main			
T after_postscript			
T after_subscript			

T anudatta			
T before_half			
T before_main			
T before_postscript			
T before_subscript			
T below_mark			
T consonant			
T dependent_vowel			
T halant			
T independent_vowel			
T nukta			
T post_mark			
T pre_mark			
T ra			
T stress_tone_mark			
T twopart_mark			
T vowel_modifier			
initialize	function		
is_character	data table		
is_command	data table		
is_hyphenator	data table		
is_letter	data table		
is_mark	data table		
is_punctuation	data table		
is_spacing	data table		
is_symbol	data table		
lcchars	data table		
lccode	function		
lccodes	data table		
lettered	function		
lhash	data table		
linebreaks	data table		
lower	function		
mathlists	data table		
mirrors	table		
otfscripts	data table		
private	table		
ranges	data table		
registerentities	function		
remap_hangul_syllabe	function		
setactivecatcodes	function		

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

chemistry (context)

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

containers (context)

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

converters (context)

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

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

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

data (context)

action	function	**prerolled**	string
depth	number	**width**	number
height	number		

debug (basic lua)

getinfo   function   **traceback** function
sethook   function

dir (context)

collectpattern	function	**globpattern**	function
current	function	**ls**	function
expandname	function	**makedirs**	function
found	function	**mkdirs**	function
glob	function	**pop**	function
globdirs	function	**push**	function
globfiles	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	D modes	
files	table	D modules	
functions	table	**setargument**	function
getargument	function	**setcommandline**	function
getfilename	function	**setdefaultargument**	function
options	table	**setenvironments**	function

- T commandline
  - D environments
  - D modes
  - D modules
- T ctxfile
  - D environments

setfilename	function
setfilenames	function
setmodes	function
setmodules	function
variables	data table

documentdata (context)

variable function

drivers (context)

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

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

F popleaderlevel	**lmtxversion** number
F pushleaderlevel	**outputfilename** function
T whatsit	**report** function

environment (context)

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

experiments (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		

figures (context)

applyratio	function	F scan	
badname	function	F serialize	
bases	data table	T sizes	
bitmapimage	function	B art	
boxnumber	number	B bleed	
cachepaths	data table	B crop	
check	function	B media	
checkers	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
F resetstore		**resources**	data table

scale	function	**setpaths**	function
set	function	**suffixes**	data table
setlookups	function	**used**	data table
setorder	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	**readinteger2le**	function
read2dot14	function	**readinteger3**	function
readbytes	function	**readinteger3le**	function
readbytetable	function	**readinteger4**	function
readcardinal1	function	**readinteger4le**	function
readcardinal1le	function	**readintegertable**	function
readcardinal2	function	**readline**	function
readcardinal2le	function	**setposition**	function
readcardinal3	function	**skipposition**	function
readcardinal3le	function	**writecardinal1**	function
readcardinal4	function	**writecardinal1le**	function
readcardinal4le	function	**writecardinal2**	function
readcardinaltable	function	**writecardinal2le**	function
readfixed2	function	**writecardinal3**	function
readfixed4	function	**writecardinal3le**	function
readinteger1	function	**writecardinal4**	function
readinteger1le	function	**writecardinal4le**	function
readinteger2	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	**id**	function
current	function	**max**	function
define	function	**nextid**	function
getfont	function	**setfont**	function
getfontdimen	function	**setfontdimen**	function

fonts (context)

analyzers   table
- D features
- D initializers
- D methods
- F setstate
- D states
- B useunicodemarks

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 found
- F prepare
- F process
- F register
- F registermain
- F report
- F reset
- T vectors

constructors   table
- F addcharacters
- F addcoreunicodes
- F aftercopyingcharacters
- F applyfinalizers
- F applymanipulators
- F assignmathparameters
- F beforecopyingcharacters
- D cache
- F calculatescale
- F checkedfeatures
- F checkedfilename
- F collectprocessors

- F currentfonthasfeature
- D designsizes
- F enhanceparameters
- T enhancers
  - T afm
    - F apply
    - F patch
    - T patches
      - F register
      - F report
    - F register
    - F report
  - T otf
    - F addfeature
    - F apply
    - F enhance
    - F patch
    - T patches
      - F register
      - F report
    - F register
    - F report
  - T tfm
    - F apply
    - F patch
    - T patches
      - F register
      - F report
    - F register
    - F report
- N factor
- T features
  - D afm
  - D otf
  - D tfm
- F finalize
- F getfeatureaction
- F getmathparameter
- F getprivate
- T handlers
  - T afm

```
F addunicodetable          F gvar
F avar                     F head
F cbdt                     T helpers
F cblc                       F axistofactors
F cff                        F cleanname
F cff2                       F getaxisscale
F cffcheck                   F getfactors
T cffencoder                 F getscales
F checkhash                  F gotodatatable
F cmap                       F normalizedaxis
F colr                       T normalizedaxishash
F compact                    F readvariationdata
F cpal                       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 registerextender
  F marktoligature         F rehash
  F marktomark             F sbix
  F pair                   F stat
  F single                 T streamreader
F gsub                       F close
T gsubhandlers               F getposition
  F alternate                F getsize
  F chainedcontext           F look
  F context                  F open
  F extension                F read2dot14
  F ligature                 F readbyte
  F multiple                 F readbytes
  F reversechainedcontextsingle  F readbytetable
  F single                   F readcardinal
```

```
F readcardinal1                              F writeinteger3
F readcardinal1le                            F writeinteger3le
F readcardinal2                              F writeinteger4
F readcardinal2le                            F writeinteger4le
F readcardinal3                              F writestring
F readcardinal3le                          F stripredundant
F readcardinal4                            F svg
F readcardinal4le                          N tableversion
F readcardinaltable                        F unifymissing
F readchar                                 F unpack
F readfixed2                               F vhea
F readfixed4                               F vmtx
F readinteger                              F vorg
F readinteger1                             F vvar
F readinteger1le                           F woff2otf
F readinteger2                           F registerpalette
F readinteger2le                         F registerplugin
F readinteger3                           F reorderlookups
F readinteger3le                         F scriptandlanguage
F readinteger4                           F setdynamics
F readinteger4le                         F setfeatures
F readintegertable                       T statistics
F readsignedbyte                           D usedfeatures
F readstring                             D svgcache
F readtag                                B svgenabled
F setposition                            T tables
F size                                     D baselines
F skip                                     D features
F skiplong                                 D featuretypes
F skipposition                             D languages
F skipshort                                D scripts
F writebyte                                F texthandler
F writecardinal1                           N version
F writecardinal1le                       T pfb
F writecardinal2                           F loadvector
F writecardinal2le                       T tfm
F writecardinal3                           D cache
F writecardinal3le                         D features
F writecardinal4                           N maxnestingdepth
F writecardinal4le                         N maxnestingsize
F writeinteger1                            T readers
F writeinteger1le                            F loadpk
F writeinteger2                              F loadtfm
F writeinteger2le                            F loadtfmvf
```

F	is_known	D	designsizes
D	known	D	filenames
F	load	F	getcompositions
F	make_unicode_vector	T	list
D	math	F	load
N	version	F	prepare_features

enhanceid	function	F	register
expansions	data table	F	registerpostprocessor
formats	data table	F	report
getalternate	function	T	suffixes

getindices	function	**handlers**	table
getkern	function	**hashes**	table
getmultiple	function	D	characters
getsubstitution	function	D	classes
getters	table	D	csnames
T	alternate	D	descriptions
F	opentype	D	dynamics
T	kern	D	emwidths
F	opentype	D	exheights
F	type1	D	extensibles
F	type3	D	features
T	multiple	D	identifiers
F	opentype	D	italics
T	substitution	D	lastmathids
F	opentype	D	marks
		D	mathparameters
goodies	table	D	modes
D	colorschemes	D	originals
T	data	D	parameters
T	dejavu-math	T	processes
S	author	D	properties
S	comment	D	quads
S	copyright	D	resources
B	initialized	T	setdynamics
T	mathematics	T	shapes
T	alternates	D	spaces
T	dotless	D	spacings
S	comment	T	streams
S	feature	D	unicodes
N	value	D	variants
T	kerns	D	xheights
T	*:0x1D449	**helpers**	table
T	bottomright	F	addextraprivate
S	name	F	addprivate
S	version		

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

protrusions	data table
readers	table
F	afm
F	check_lua
F	check_tfm
F	lua
F	ofm
F	opentype
F	otf
F	pfb
D	sequence
F	tfm
F	ttc
F	ttf
F	woff
reserveid	function
select	table
D	alternatives
F	bodyfont
D	data
F	default
D	defaults
F	definefallbackfamily
F	definefontfamily
F	definefontfamilypreset
D	extras
F	fallback
D	fallbacks
F	features
F	filefallback
F	fontdata
F	fontfallback
F	fontsynonym
F	goodies
F	mathfallback
D	methods
D	presets

F	registerfallback
F	registerfiles
F	registerfontalternative
F	registerfontfamily
F	textfallback
F	typeface
F	typescript
F	userdata
specifiers	table
D	contextmerged
F	contextnumber
D	contextnumbers
D	contextsetups
F	contexttostring
F	definecontext
F	mergecontext
F	presetcontext
F	registercontext
F	showcontext
F	splitcontext
D	synonyms
D	variants
symbols	table
T	emoji
F	checked
F	resolved
F	uselibrary
tables	table
tracers	table
treatments	table
F	applyfixes
D	data
S	filename
F	ignoredfile
F	report
F	trace
typefaces	table

functions (context)

dummy function

graphics (context)

backgrounds   table
- F fetchmultipar
- F pair
- F path
- F point

bitmaps   table
- F flush
- F new
- F placeholder
- F tocontext

identifiers   table
- F bitmap
- F jp2
- F jpg
- F png

identify   function

synchronizers   table
- F collapse
- F collect
- F extend
- F getbottom
- F getd
- F geth
- F getkind
- F getsize
- F gettask
- F gettop
- F getw
- F getx
- F gety
- F prune

gzip (extra lua)

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 setupidentity
help   table
    F collect
    F reference
    F register
javascripts table
    F addtopreamble
    F code
    D codes
    F flushpreambles

    D functions
    D preambles
    F setpreamble
    F storecode
    F storepreamble
    F usepreamblenow
    F usescripts
linkedlists data table
pages   table
    F setpagetransition
    F setupcanvas
references   table
    F setclosedocument
    F setclosepage
    F setopendocument
    F setopenpage
renderings   data table
soundclips   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	**output**	overloaded function
bytes	function	**pathseparator**	string
characters	function	**popen**	overloaded function
close	function	**read**	function
copydata	function	**readall**	function
exists	function	**readnumber**	function
fileseparator	string	**readstring**	function
flush	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
open	overloaded function		

job (context)

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

    D tobesaved
parwrappers   table
    D collected
    D tobesaved
passes   table
    F check
    D collected
    F count
    F define
    F find
    F first
    F get
    F getcollected
    F getdata
    F getfield
    F gettobesaved
    F inlist
    F last
    F list
    F save
    F savetagged
    D tobesaved
positions   table
    F b_column
    F b_region
    F c
    D collected
    F column
    F columnofpos
    F copy
    F depth
    F e_column
    F e_region
    F enhance
    F extra
    F get
    F getfree
    F gethpos
    F getpos
    F getreserved
    F getrpos

F	gettobesaved	F	settobesaved
F	getvpos	D	tobesaved
F	hangafter	F	upperleft
F	hangindent	F	upperright
F	height	F	used
F	hsize	F	whd
N	lastx	F	width
N	lasty	F	x
F	leftskip	F	xy
F	lowerleft	F	y
F	lowerright		

F	markregionbox	**register**	function
F	n	**save**	function
F	onsamepage	**structure**	table
F	overlapping	D	collected
F	p	T	components
F	page	T	tobesaved
T	pagedata	T	branches
F	paragraph	S	name
F	parindent	S	type
F	position	**variables**	table
F	r	D	checksums
F	region	D	collected
F	registerhandlers	F	getchecksum
F	replace	F	makechecksum
F	rightskip	F	restore
F	set	F	save
F	setall	F	setchecksum
F	setregionbox	D	tobesaved
F	setspec	**version**	number

language (basic tex)

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

languages (context)

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

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

layouts (context)

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

lfs (extra lua)

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

libraries (context)

basiclua data table
basictex data table
builtin   data table
extralua data table

extratex   data table
functions data table
globals   data table

lmx (context)

color	function	**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

		tv	function
		type	function
		urlescape	function
include	function	**variable**	function
inherited	table	**variables**	table

   S color-background-four

   S color-background-one

   S color-background-three

   S color-background-two

   S title

   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

initialize	function
inject	function
lmxfile	function

logs (context)

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

lpdf (context)

action	function		**delayedobject**	function
adddocumentcolorspace	function		**destinationspecification**	function
adddocumentextgstate	function		**dictionary**	function
adddocumentpattern	function		**docstring**	function
adddocumentshade	function		**epdf**	table
addtocatalog	function		F analyzefonts	
addtoinfo	function		F contenttotext	
addtonames	function		F expanded	
addtopageattributes	function		F getpagecontent	
addtopageresources	function		F getstructure	
addtopagesattributes	function		T image	
addxmpinfo	function		F close	
annotationspecification	function		F copy	
array	function		F new	
attachmentsymbols	function		F open	
boolean	function		F query	
border	function		F load	
checkedkey	function		F parsecontent	
checkedvalue	function		F plugin	
circularshade	function		T resolvers	
cmykcode	function		F destinations	
collectedresources	function		F embeddedfiles	
color	function		F javascripts	
colorspace	function		F layers	
colorspaceconstants	data table		F pages	
colorspec	function		F structure	
colorvalue	function		F widgets	
colorvalues	function		F stripcontent	
commentsymbols	function		F unload	
compresslevel	function		**escaped**	function
constant	function		**finalizedocument**	function
copyarray	function		**finalizefonts**	function
copyboolean	function		**finalizepage**	function
copyconstant	function		**finishtransparencycode**	function
copydictionary	function		**flags**	table
copyfloat	function		T annotations	
copyinteger	function		N AutoView	
copynumber	function		N Hidden	
copystring	function		N Invisible	
copyunicode	function		N Locked	
deferredobject	function		N LockedContents	

N NoRotate		F color_indirect	
N NoView		**formats**	data table
N NoZoom		**frombytes**	function
N Print		**fromeight**	function
N Printable		**frompdfdoc**	function
N ReadOnly		**fromsixteen**	function
N ToggleNoView		**getcatalog**	function
N auto		**getcompression**	function
N hidden		**getfontname**	function
N printable		**getfontobjectnumber**	function
T widgets		**getinfo**	function
N Comb		**getmatrix**	function
N CommitOnSelChange		**getmetadata**	function
N DoNotScroll		**getnofpages**	function
N DoNotSpellCheck		**getpageproperties**	function
N Edit		**getpagereference**	function
N FileSelect		**getpagetags**	function
N MultiLine		**getpos**	function
N NoExport		**getversion**	function
N NoToggleToOff		**getxformname**	function
N Password		**graycode**	function
N PopUp		**hasmatrix**	function
N PushButton		**id**	function
N Radio		**immediateobject**	function
N RadiosInUnison		**includeimage**	function
N ReadOnly		**injectors**	table
N Required		F bitmap	
N RichText		F jp2	
N Sort		F jpg	
N file		F png	
N fixed		**injectxmpinfo**	function
N nocheck		**insertxmpinfo**	function
N protected		**lastreferredpage**	function
N readonly		**layerreference**	function
N required		**limited**	function
N sorted		**linearshade**	function
N unavailable		**literal**	function
flushfonts	function	**majorversion**	function
flushgroup	function	**makenametree**	function
flushobject	function	**minorversion**	function
flushstreamfileobject	function	**nofpages**	function
flushstreamobject	function	**null**	function
fonts	table	**number**	function
F color_direct		**object**	function

objectcompresslevel	function		**setomitcharset**	function
pagereference	function		**setomitcidset**	function
patternstream	function		**setpageorder**	function
pdfcolor	function		**setpagetag**	function
pdftimestamp	function		**settime**	function
pdfvfimage	function		**setversion**	function
permitdetail	function		**shareobject**	function
print	function		**shareobjectreference**	function
procset	function		**spotcode**	function
protectresources	boolean		**stream**	function
rectangle	function		**string**	function
reference	function		**toeight**	function
registerannotation	function		**topdfdoc**	function
registerdestination	function		**tosixteen**	function
registerdocumentfinalizer	function		**transparency**	function
registerfont	function		**transparencycode**	function
registerpagefinalizer	function		**transparencygroups**	table
registerpattern	function		B none	
reserveobject	function		**transparencyvalue**	function
rgbcode	function		**unicode**	function
rotationcm	function		**usedcharacters**	table
setcompression	function		**verbose**	function

lpeg (basic lua)

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

lua (basic tex)

bytecode	table	**macros**	table
bytedata	data table	B enabled	
bytedone	table	F loaded	
callbytecode	function	F required	
delay	function	F reset	
finalize	function	F resolvestring	
firstbytecode	number	F resolving	
flush	function	F showdefinitions	
flushdelayed	function	**messages**	data table
get_functions_table	function	**newindex**	function
getbytecode	function	**newtable**	function
getcurrenttime	function	**numbers**	data table
getdebuginfo	function	**registercode**	function
getfunctionstable	overloaded function	**registeredcodes**	function
getpreciseseconds	function	**registerfinalizer**	function
getpreciseticks	function	**registername**	function
getruntime	function	**setbytecode**	function
getstacktop	function	**setexitcode**	function
getstartupfile	function	**startupfile**	string
getversion	function	**version**	string
lastbytecode	number		

luatex (context)

abort	function
cleanup	function
cleanuptempfiles	function
currentfile	function
poprunstate	function
pushrunstate	function
registerdumpactions	function
registerpageactions	function
registerstartactions	function
registerstopactions	function
registertempfile	function
starttime	number
synctex	table

    F blockfilename
    F collect
    F disable
    F enable
    F finish
    F pause
    F popline
    F pushline
    F registerdisabler
    F registerenabler
    F resetfilename
    F resume
    F setfilename
    F setup
    F start
    F stop
    F wrapup

wrapup	function

lxml (context)

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

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

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	**mapremap**	data table
alphabets	data table	**overloadparameters**	function
alternatives	data table	**privatebase**	number
big	function	**registerdomain**	function
boldmap	data table	**registerfallbackid**	function
categories	table	**remapalphabets**	function
D functions		**renderings**	table
charactersets	data table	D mappings	
checkaccentbaseheight	function	D numbers	
checkprivateparameters	function	D sets	
classes	data table	**renderset**	function
codes	data table	**resetattributes**	function
define	function	**resetitalics**	function
dimensions	function	**resolvefallbacks**	function
domains	table	**scaleparameters**	function
extensiblecode	function	**setdomain**	function
extensibles	data table	**setitalics**	function
extrabase	number	**setridofprime**	function
extras	table	**sets**	data table
F add		**styles**	data table
F copy		**syncboth**	function
fallbacks	table	**syncname**	function
F apply		**syncstyle**	function
F install		**toname**	function
fallbackstyleattr	function	**tostyle**	function
families	data table	**tweakaftercopyingfont**	function
finishfallbacks	function	**tweakbeforecopyingfont**	function
gaps	data table	**tweaks**	table
getboth	function	**utfmathaccent**	function
getdomain	function	**utfmathclass**	function
getitalics	function	**utfmathcommand**	function
getridofprime	function	**utfmathfiller**	function
getstyle	function	**utfmathstretch**	function
horizontalcode	function	**virtualize**	function
initializeparameters	function	**virtualized**	data table
makefont	function		

md5 (extra lua)

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

metapost (context)

checkformat   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 declare
N def
N definedmacro
N delimiters
N endgroup
N equals
N etex
N everyjob
N exitif
N expandafter
N fi_or_else
N if
N input
N interim
N internal
N iteration
N join
N leftbrace
N leftbracket
N leftdelimiter
N let
N macrospecial
N maketext
N message
N mode

N newinternal
N nullary
N numeric
N of
N ofbinary
N outertag
N parametertype
N plus_or_minus
N primarybinary
N primarydef
N protection
N randomseed
N relax
N repeat_loop
N rightbrace
N rightbracket
N rightdelimiter
N runscript
N save
N scantokens
N scope
N secondarybinary
N secondarydef
N semicolon
N setbounds
N shipout
N show
N skip
N slash
N step
N stop
N str
N string
N tag
N tension
N tertiarybinary
N tertiarydef
N thingstoadd
N to
N unary
N undefinedcs

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

resetplugins	function		**tex**	table
run	function			F get
runscript	function			F reset
scanparameters	function			F set
scripterror	function			F setfrombuffer
scriptindex	function		**texerrors**	boolean
setbendtolerance	function		**texexp**	function
setextensions	function		**theclippath**	function
setoutercolor	function		**tographic**	function
setparameterset	function		**totable**	function
settext	function		**types**	table
setvariable	function			N boolean
showlog	boolean			N cmykcolor
showsvgpage	function			N color
simple	function			N dependent
splitprescript	function			N independent
startgraphic	function			N known
startsvghashing	function			N numeric
stopgraphic	function			N pair
stopsvghashing	function			N path
svformat	function			N pen
svgcolorremapper	function			N picture
svgfactors	table			N protodependent
N %				N string
N bp				N structured
N cm				N suffixedmacro
N em				N tokenlist
N ex				N transform
N in				N unknownboolean
N mm				N unknownpath
N pc				N unknownpen
N pt				N unknownpicture
N px				N unknownstring
				N unsuffixedmacro
svgglyphtomp	function			N vacuous
svgshapestomp	function		**typesvgpage**	function
svgshapestopdf	function		**unload**	function
svgsplitcolor	function		**untagvariable**	function
svgtomp	function		**variables**	table
svgtopdf	function			
sxsy	function			

mime (extra lua)

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	**direct3**	function
aux	table	**direct4**	function
F boolean		**disposehash**	function
F color		**draw**	function
F direct		**expandtex**	function
F direct1		**fill**	function
F direct2		**flatten**	function
F direct3		**flush**	function
F direct4		**format**	function
F draw		**formatted**	function
F fill		**fprint**	function
F flush		**fromhash**	function
F fprint		**get**	table
F integer		F hashentry	
F number		**graphformat**	function
F numeric		**inhash**	function
F pair		**inject**	function
F pairpoints		F boolean	
F path		F cmykcolor	
F pathpoints		F color	
F points		F integer	
F print		F number	
F quadruple		F numeric	
F quadruplepoints		F pair	
F quoted		F path	
F size		F quadruplet	
F string		F string	
F transform		F transform	
F triplet		F triplet	
F tripletpoints		F whatever	
F vprint		**integer**	function
boolean	function	**isarray**	function
cleaned	function	**isobject**	function
color	function	**lmt_color_functions**	table
dataset	function	F shade	
datasets	function	F step	
F load		**lmt_contours_bitmap_get**	function
dimension	function	**lmt_contours_bitmap_set**	function
direct	function	**lmt_contours_cleanup**	function
direct1	function	**lmt_contours_color**	function
direct2	function	**lmt_contours_edge_get_band**	function

lmt_contours_edge_get_cell	function	**mf_graphic_text**	function
lmt_contours_edge_paths	function	**mf_inject_blob**	function
lmt_contours_edge_set	function	**mf_map_move**	function
lmt_contours_edge_set_by_band	function	**mf_map_text**	function
lmt_contours_edge_set_by_cell	function	**mf_named_color**	function
lmt_contours_format	function	**mf_outline_text**	function
lmt_contours_function	function	**mf_save_data**	function
lmt_contours_maxmean	function	**mf_script_index**	function
lmt_contours_maxz	function	**mf_start_saving_data**	function
lmt_contours_minmean	function	**mf_stop_saving_data**	function
lmt_contours_minz	function	**mf_tb_dimensions**	function
lmt_contours_nofvalues	function	**mf_tt_dimensions**	function
lmt_contours_nx	function	**mf_tt_initialize**	function
lmt_contours_ny	function	**mode**	function
lmt_contours_range	function	**n**	function
lmt_contours_shade_paths	function	**newhash**	function
lmt_contours_shade_set	function	**number**	function
lmt_contours_shape_paths	function	**numeric**	function
lmt_contours_start	function	**pair**	function
lmt_contours_stop	function	**pairpoints**	function
lmt_contours_value	function	**path**	function
lmt_contours_xrange	function	**pathpoints**	function
lmt_contours_yrange	function	**points**	function
lmt_function_x	function	**positionanchor**	function
lmt_mesh_set	function	**positionbox**	function
lmt_mesh_update	function	**positioncurve**	function
lmt_poisson_generate	function	**positionpage**	function
lmt_surface_do	function	**positionpath**	function
lmt_svg_include	function	**positionpxy**	function
mf_blob_add	function	**positionregion**	function
mf_blob_dimensions	function	**positionwhd**	function
mf_blob_index	function	**positionxy**	function
mf_blob_new	function	**prefix**	function
mf_blob_raw_content	function	**print**	function
mf_blob_raw_dimensions	function	**processingmode**	function
mf_blob_raw_reset	function	**quadruple**	function
mf_blob_raw_toutf	function	**quadruplepoints**	function
mf_blob_raw_wipe	function	**quoted**	function
mf_blob_size	function	**report**	function
mf_blob_width	function	**scan**	table
mf_external_figure	function	F boolean	
mf_finish_saving_data	function	F cmykcolor	
mf_formatted_text	function	F color	
mf_get_outline_text	function	F expression	

F integer		**size**		function
F next		**skip**		table
F number		F token		
F numeric		**solve**		function
F pair		**string**		function
F path		**systemmode**		function
F pen		**texstr**		function
F property		**texvar**		function
F string		**tohash**		function
F symbol		**transform**		function
F token		**triplet**		function
F transform		**tripletpoints**		function
set	table	**vprint**		function

mplib (extra tex)

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

noads (context)

handlers   table
- F align
- F alternates
- F autofences
- F classes
- F collapse
- F domains
- F families
- F fixscripts
- F italics
- F kernpairs
- F makeup
- F relocate
- F render
- F resize
- F showtree
- F tags
- F unscript
- F unstack
- F variants

process   function
processnested   function
processors   table
- F mlisttohlist
- T unscript
- T unstack

processouter   function

node (basic tex)

checkdiscretionaries	function		F flushnode
checkdiscretionary	function		F free
copy	function		F get_attribute
copy_list	function		F get_attributes
copylist	function		F getattribute
count	function		F getattributelist
current_attributes	function		F getattributes
currentattributes	function		F getboth
dimensions	function		F getbox
direct	table		F getchar
			F getcharspec
F addmargins			F getdata
F addxoffset			F getdepth
F addxymargins			F getdirection
F addyoffset			F getdisc
F checkdiscretionaries			F getdiscpart
F checkdiscretionary			F getexpansion
F collapsing			F getfam
F copy			F getfield
F copy_list			F getfont
F copylist			F getglue
F copyonly			F getglyphdata
F count			F getglyphdimensions
F current_attributes			F getheight
F currentattributes			F getid
F dimensions			F getindex
F effective_glue			F getkern
F effectiveglue			F getkerndimension
F end_of_math			F getlanguage
F endofmath			F getleader
F exchange			F getlist
F fields			F getnext
F find_node			F getnormalizedline
F findattribute			F getnucleus
F findattributerange			F getoffsets
F findnode			F getoptions
F first_glyph			F getorientation
F firstglyph			F getparstate
F flattendiscretionaries			F getpenalty
F flush_list			F getpost
F flush_node			F getpre
F flushlist			

F getprev	F isnextchar
F getpropertiestable	F isnextglyph
F getproperty	F isnode
F getreplace	F isprevchar
F getscale	F isprevglyph
F getscales	F isvalid
F getscript	F iszeroglue
F getshift	F kerning
F getstate	F length
F getsub	F ligaturing
F getsubpre	F makeextensible
F getsubtype	F migrate
F getsup	F mlist_to_hlist
F getsuppre	F mlisttohlist
F getsynctexfields	F naturalhsize
F gettotal	F naturalwidth
F getwhd	F new
F getwidth	F protect_glyph
F getxscale	F protect_glyphs
F getxyscales	F protectglyph
F getyscale	F protectglyphs
F has_attribute	F protrusionskippable
F has_field	F rangedimensions
F has_glyph	F remove
F hasattribute	F reverse
F hasdimensions	F set_attribute
F hasfield	F set_attributes
F hasglyph	F setattribute
F hasglyphoption	F setattributelist
F hpack	F setattributes
F hyphenating	F setboth
F id	F setbox
F ignoremathskip	F setchar
F insert_after	F setdata
F insert_before	F setdepth
F insertafter	F setdirection
F insertbefore	F setdisc
F is_char	F setdiscpart
F is_glyph	F setexpansion
F is_node	F setfam
F is_valid	F setfield
F is_zero_glue	F setfont
F ischar	F setglue
F isglyph	F setglyphdata

F	setheight	F	traverse_content
F	setindex	F	traverse_glyph
F	setkern	F	traverse_id
F	setlanguage	F	traverse_list
F	setleader	F	traversechar
F	setlink	F	traversecontent
F	setlist	F	traverseglyph
F	setnext	F	traverseid
F	setnucleus	F	traverselist
F	setoffsets	F	type
F	setoptions	F	types
F	setorientation	F	unprotect_glyph
F	setpenalty	F	unprotect_glyphs
F	setpost	F	unprotectglyph
F	setpre	F	unprotectglyphs
F	setprev	F	unset_attribute
F	setproperty	F	unset_attributes
F	setreplace	F	unsetattribute
F	setscales	F	unsetattributes
F	setscript	F	usedlist
F	setshift	F	uses_font
F	setsplit	F	usesfont
F	setstate	F	values
F	setsub	F	verticalbreak
F	setsubpre	F	vpack
F	setsubtype	F	write
F	setsup	F	xscaled
F	setsuppre	F	yscaled
F	setsynctexfields		
F	settotal		

effective_glue	function
effectiveglue	function
end_of_math	function
endofmath	function
family_font	function
fields	function
findattribute	function
first_glyph	function
firstglyph	function
flattendiscretionaries	function
flush_list	function
flush_node	function
flushlist	function
flushnode	function
free	function
get_attribute	function

F	setwhd
F	setwidth
F	show
F	slide
F	start_of_par
F	startofpar
F	subtypes
F	tail
F	todirect
F	tonode
F	tostring
F	tovaliddirect
F	traverse
F	traverse_char

getattribute	function	**protect_glyph**	function
getfield	function	**protect_glyphs**	function
getglue	function	**protectglyph**	function
getpropertiestable	function	**protectglyphs**	function
getproperty	function	**protrusionskippable**	function
has_attribute	function	**rangedimensions**	function
has_field	function	**remove**	function
has_glyph	function	set_attribute	function
hasattribute	function	**setattribute**	function
hasfield	function	**setfield**	function
hasglyph	function	setglue	function
hpack	function	**setproperty**	function
hyphenating	function	**show**	function
id	function	slide	function
insert_after	function	**subtypes**	function
insert_before	function	**tail**	function
insertafter	function	**tostring**	function
insertbefore	function	**traverse**	function
instock	function	traverse_id	function
inuse	function	**traverseid**	function
is_node	function	**type**	function
is_zero_glue	function	**types**	function
isnode	function	unprotect_glyph	function
iszeroglue	function	unprotect_glyphs	function
kerning	function	unprotectglyph	function
last_node	function	unprotectglyphs	function
lastnode	function	unset_attribute	function
length	function	**unsetattribute**	function
ligaturing	function	**usedlist**	function
makeextensible	function	usesfont	function
mlist_to_hlist	function	**values**	function
mlisttohlist	function	vpack	function
new	function	**write**	function

nodes (context)

accentcodes	data table	**fillcodes**	data table
aligned	function	**fillvalues**	data table
append	function	**firstcharacter**	function
apply	function	**firstcharinbox**	function
applyvisuals	function	**firstdirinbox**	function
astable	function	**flush**	function
basepoints	function	**flush_list**	function
boundarycodes	data table	**flush_node**	function
boxes	table	**flushlist**	function
F dimensions		**flushnode**	function
F direct		**fullhpack**	function
F found		**getattr**	function
F reset		**getattribute**	function
F restore		**getboth**	function
F save		**getbox**	function
F savenode		**getchar**	function
builders	table	**getfield**	function
F buildpage_filter		**getfont**	function
F vpack_filter		**getid**	function
concat	function	**getleader**	function
copy	function	**getlist**	function
copy_list	function	**getnext**	function
copylist	function	**getprev**	function
countall	function	**getproperty**	function
current_attributes	function	**getsubtype**	function
currentattributes	function	**gluecodes**	data table
delete	function	**glyphcodes**	data table
destinations	table	**handlers**	table
N attribute		F accessibility	
T done		F backgrounds	
F handler		F backgroundspage	
T stack		F backgroundsvbox	
dircodes	data table	F characters	
directioncodes	data table	F checkglyphs	
directionvalues	data table	F checkparcounter	
dirvalues	data table	F cleanuppage	
disccodes	data table	F export	
discretionarycodes	data table	F finalizebox	
fencecodes	data table	F flatten	
fields	function	F flattenline	
fieldtypes	table	F migrate	

	F protectglyphs		T whatsit
	F show	**leftmarginwidth**	function
	F showhyphenation	**linefillers**	table
	F stripping		D data
	F textbackgrounds		F define
	F unprotectglyphs		F enable
	F visualizehyphenation		F filler
	F wipe		F handler
has_attribute	function	**lines**	table
has_field	function		T boxed
hasattribute	function		F addlinenumbers
hasfield	function		F register
hpack	function		F setup
idsandsubtypes	function		D data
idstostring	function		F finalize
injections	table		F number
	F copy	**link**	function
	F getligaindex	**linked**	function
	F getthreshold	**list**	function
	F handler	**listcodes**	data table
	F installgetspaceboth	**listtoutf**	function
	F installnewkern	**literalvalues**	data table
	F isspace	**locate**	function
	F keepcounts	**markers**	table
	F reset		F get
	F resetcounts	**mathcodes**	data table
	F setcursive	**mathvalues**	data table
	F setkern	**maxboxwidth**	function
	F setligaindex	**migrations**	table
	F setmark		F setinserts
	F setmove		F setmarks
	F setposition	**new**	function
	F setspacekerns	**noadcodes**	data table
insert_after	function	**noadoptions**	table
insert_before	function		N axis
insertafter	function		N exact
insertbefore	function		N left
insertlistafter	function		N middle
installattributehandler	function		N no_axis
is_display_math	function		N right
is_node	function		N set
isnode	function		N unused_1
kerncodes	data table		N unused_2
keys	table	**nodecodes**	data table

nopts	function	F findnode
nuts	table	F first_glyph
F addmargins		F firstcharacter
F addxoffset		F firstcharinbox
F addxymargins		F firstglyph
F addyoffset		F flattendiscretionaries
F append		F flush
F apply		F flush_list
F applyvisuals		F flush_node
F checkdiscretionaries		F flushlist
F collapsing		F flushnode
T colors		F free
F set		F fullhpack
T components		F get_attribute
F copynocomponents		F get_synctex_fields
F copyonlyglyphs		F getattr
F count		F getattribute
F flush		F getattributelist
F get		F getattributes
F set		F getattrlist
F concat		F getattrs
F copy		F getboth
F copy_list		F getbox
F copy_node		F getboxglue
F copy_only		F getchar
F copy_properties		F getcharspec
F copylist		F getcomponents
F copynode		F getdata
F copyonly		F getdepth
F copyvisual		F getdirection
F count		F getdisc
F countall		F getdiscpart
F current_attr		F getdiscretionary
F currentattributes		F getexpansion
F delete		F getfam
F dimensions		F getfield
F dirdimensions		F getfont
F effective_glue		F getglue
F effectiveglue		F getglyphdata
F end_of_math		F getglyphdimensions
F endofmath		F getheight
F exchange		F getid
F find_attribute		F getkern
F findattribute		F getkerndimension

F getlang	F hasglyphoption
F getlanguage	F hpack
F getleader	F hyphenating
F getlist	F ignoremathskip
F getnext	F insert_after
F getnormalizedline	F insert_before
F getnucleus	F insertafter
F getoffsets	F insertbefore
F getoptions	F insertlistafter
F getorientation	F is_display_math
F getpenalty	F is_node
F getpost	F is_zero_glue
F getpre	F ischar
F getprev	F isdone
F getprop	F isglyph
F getreplace	F isnextchar
F getruledata	F isnextglyph
F getscale	F isnode
F getscales	F isprevchar
F getscript	F isprevglyph
F getshift	F iszeroglue
F getstate	F kerning
F getsub	F length
F getsubpre	F ligaturing
F getsubtype	F link
F getsup	F linked
F getsuppre	F locate
F getsurround	F migrate
F getsynctexfields	F mlist_to_hlist
F gettotal	F mlisttohlist
F getvalue	F naturalhsize
F getwhd	F naturalwidth
F getwidth	F nestedtracedslide
F getxscale	F new
F getxyscales	T pool
F getyscale	F accent
F has_attribute	F baselineskip
F has_dimensions	F boundary
F has_field	F choice
F has_glyph	F cleanup
F hasattribute	F delim
F hasdimensions	F delimiter
F hasfield	F direction
F hasglyph	F directliteral

F disc

F emptyrule

F fence

F fontkern

F fraction

F glue

F gluespec

F glyph

F hlist

F indentskip

F italickern

F kern

F latelua

F leader

F lefthangskip

F leftmarginkern

F leftskip

F lineskip

F literal

F mathchar

F mathtextchar

F negatedglue

F noad

F originliteral

F outlinerule

F pageliteral

F penalty

F radical

F rawliteral

F register

F restore

F righthangskip

F rightmarginkern

F rightskip

F rule

F save

F savepos

F setmatrix

F setstate

F shrink

F startrotation

F stock

F stretch

F subbox

F submlist

F temp

F usage

F userdefined

T userids

F usernode

F userrule

F vlist

F wordboundary

F prepend

F processranges

F processwords

F protect_glyph

F protect_glyphs

F protectglyph

F protectglyphs

F protrusionskippable

F rangedimensions

F rawprop

F reference

F rehpack

F remove

F repackhlist

F replace

F reverse

T rules

  T ruleactions

    F box

    F draw

    F fill

    F mp

    F stroke

  F userrule

F set_attribute

F setattr

F setattribute

F setattributelist

F setattrlist

F setattrs

F setboth

F setbox

F setboxglue

F setchar

F setcomponents

F setdata	F setsynctexfields
F setdepth	F setvalue
F setdirection	F setvisual
F setdisc	F setvisuals
F setdiscpart	F setwhd
F setdiscretionary	F setwidth
F setexpansion	F show
F setfam	F slide
F setfield	F somepenalty
F setfont	F somespace
F setglue	F splitbox
F setglyphdata	F start_of_par
F setheight	F startofpar
F setkern	F striprange
F setlang	F tail
F setlanguage	F takeattr
F setleader	F takebox
F setlink	F takelist
F setlist	F theprop
F setnext	F tonode
F setnucleus	F tonodes
F setoffsets	F tonut
F setoptions	F tosequence
F setorientation	F tostring
F setparproperty	F tracedslide
F setpenalty	F traverse
F setpost	F traverse_char
F setpre	F traverse_glyph
F setprev	F traverse_id
F setprop	F traverse_list
F setreplace	F traversechar
F setruledata	F traversecontent
F setscale	F traverseglyph
F setscales	F traverseid
F setscript	F traverselist
F setshift	T traversers
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 list		F processor	
F next		**points**	function
F node		**pool**	table
F vlist		F baselineskip	
F whatsit		F cleanup	
T typesetters		F directliteral	
F tohbox		F glyph	
F tohpack		F hlist	
F tonodes		F latelua	
F tovbox		F lineskip	
F tovpack		F literal	
F unprotect_glyph		F originliteral	
F unprotect_glyphs		F register	
F unprotectglyph		F restore	
F unprotectglyphs		F rule	
F unset_attribute		F save	
F unsetattribute		F savepos	
F unsetattributes		F setmatrix	
F untracedslide		F stock	
F usedlist		F usage	
F uses_font		F vlist	
F usesfont		**prepend**	function
F verticalbreak		**print**	function
F vianodes		**processors**	table
F vianuts		F contribute_filter	
F vpack		F glyph_run	
F write		F post_linebreak_filter	
F xscaled		F tracer	
F yscaled		**properties**	table
packlist	function	T data	
parcodes	data table	**pts**	function
penaltycodes	data table	**radicalcodes**	data table
plugindata	table	**references**	table
F finalizer		N attribute	
F initializer		T done	
S name		F handler	
T namespace		T stack	
N attribute		**rehpack**	function
D data		**remove**	function
F enable		**repackhlist**	function
F handler		**replace**	function
F register		**report**	function
D registered		**rightmarginwidth**	function
D values		**rulecodes**	data table

rules	table		T glyphs	
D data			F set	
F define		**subtypes**	data table	
F enable		**tail**	function	
F handler		**takeattr**	function	
F process		**takebox**	function	
F userrule		**tasks**	table	
serialize	function		F actions	
serializebox	function		F appendaction	
set_attribute	function		F disableaction	
setattr	function		F disablegroup	
setattribute	function		F enableaction	
setboth	function		F enablegroup	
setbox	function		F freeze	
setboxtonaturalwd	function		F freezegroup	
setchar	function		F new	
setfield	function		F prependaction	
setfont	function		F removeaction	
setleader	function		F replaceaction	
setlink	function		F restart	
setlist	function		F setaction	
setnext	function		F showactions	
setprev	function		F table	
setproperty	function	**tobasepoints**	function	
shifts	table	**tocentimeters**	function	
D data		**tociceros**	function	
F define		**todidots**	function	
F enable		**todimen**	function	
F handler		**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	

F set	F setlist	
F setlist	**traverse**	function
F directions	**traverse_id**	function
F fontchar	**traverseid**	function
T frequencies	**typesetters**	table
F register	F hbox	
T pool	F hpack	
T nodes	F tohbox	
F rule	F tohpack	
T nuts	F tonodes	
F rule	F tovbox	
F resetproperties	F tovpack	
F rule	F vpack	
F setlist	**unset_attribute**	function
F setproperties	**unsetattribute**	function
F start	**usedlist**	function
T steppers	**vianodes**	function
F check	**vianuts**	function
F codes	**visualizebox**	function
F features	**visualizers**	table
F font	F attribute	
F glyphs	T attributes	
F message	F box	
F messages	F handler	
F nofsteps	F markfonts	
F register	F register	
F reset	F setfont	
F start	F setlayer	
F stop	F setruledglyph	
F stop	F setvisual	
T transparencies	**vpack**	function
F reset	**whatsitcodes**	data table
F set	**write**	function

number (context)

	function	**to16dot16**	function
basepoints	function	**tobasepoints**	function
bytetodecimal	function	**tobitstring**	function
compactfloat	function	**tocentimeters**	function
decimaltobyte	function	**tociceros**	function
dimenfactors	data table	**tocontext**	function
formatted	function	**todidots**	function
formattedfloat	function	**todimen**	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	**valid**	function
splitdimen	function		

objects (context)

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

optional (context)

curl   table
- F escape
- F fetch
- F getversion
- F initialize
- F unescape

foreign   table
- F abivalues
- F getbuffer
- F initialize
- F load
- F newbuffer
- F totable
- F types

ghostscript   table
- F execute
- F initialize

graphicsmagick table
- F execute
- F initialize

hb   table
- F getshapers
- F getversion
- F initialize
- F loadfont
- F shapestring

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

loaded   table

lz4   table
- F compress
- F decompresssize

- F framecompress
- F framedecompress
- 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

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		**rename**	overloaded function
__setenv__	function		**resolvers**	table
binsuffix	string			F bits
binsuffixes	table		**resultof**	function
clock	function		**runtime**	function
converttime	function		**selfarg**	table
date	overloaded function		**selfbase**	string
difftime	function		**selfbin**	string
enableansi	function		**selfcore**	string
env	data table		**selfdir**	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
gettimeofday	function		**sleep**	function
isleapyear	function		**time**	function
launch	function		**timezone**	function
libsuffix	string		**tmpname**	function
localtime	function		**today**	function
name	string		**type**	string
newline	string		**uname**	function
nofdays	function		**uuid**	function
now	function		**validdate**	function
pipeto	function		**weekday**	function
platform	string		**where**	function
remove	overloaded 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 block
- F check
- F currentcolumn
- F define
- F finishflush
- F flushareas
- F flushcolumn
- F flushrest
- F goto
- F noto
- F prepareflush
- F put
- F registerarea
- F reset
- F setarea
- F sethsize
- F sethspan
- F setlines
- F setproperties
- F setstart
- F setvsize

injections table
- F flushafter
- F flushbefore
- F save

mixedcolumns table
- F cleanup
- F finalize
- F getlist
- F getrest
- F getsplit
- F setsplit

pdf (basic tex)

immediateobj function

pdfe (extra tex)

arraytotable	function	**getnumber**	function
close	function	**getpage**	function
closestream	function	**getpages**	function
dictionarytotable	function	**getsize**	function
encryptioncodes	data table	**getstatus**	function
getarray	function	**getstream**	function
getboolean	function	**getstring**	function
getbox	function	**gettrailer**	function
getcatalog	function	**getversion**	function
getdictionary	function	**new**	function
getfromarray	function	**objectcodes**	data table
getfromdictionary	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   D tables
    F registerunit

pngdecode (extra tex)

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

publications (context)

addtexentry	function	**converttoxml**	function
analyze	function	**currentspecification**	table
anywhere	function	S author	
authorcache	data table	T categories	
authorcollapsers	data table	T article	
authorhashers	table	S category	
F invertedshort		T extra	
F normal		T fields	
F normalinverted		S author	
F normalshort		S editor	
F sequential		S journal	
F sequentialshort		S keywords	
F short		S note	
authormap	data table	S number	
authortoregister	function	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	
concatstate	function	T required	

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			
S year		**finder**	function
T optional		**firstofrange**	function
T required		**found**	function
T sets		**get**	function
T authors		**getcasted**	function
T virtual		**getdetail**	function
S comment		**getdirect**	function
S copyright		**getfaster**	function
T fields		**getfield**	function
S name		**getfuzzy**	function
T types		**getindex**	function
S author		**inspectors**	data table
S editor		**journals**	table
S keywords		F abbreviated	
S number		F add	
S page		F expanded	
		F load	

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

D privates		F showtables	
D sets		F showvariants	
D specials		**typesetters**	table
D types		F author	
D virtuals		F string	
tags	function	**usedataset**	function
tracers	table	**usedentries**	function
F showdatasetauthors		**writers**	table
F showdatasetcompleteness		F author	
F showdatasetfields		F keyword	
F showentry		F pagenumber	
F showfields		F range	
F showhashedauthors			

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	**findtexfile**	function
appendhash	function	**findwildcardfile**	function
automount	function	**findwildcardfiles**	function
booleanvariable	function	**formatofsuffix**	function
cacheversion	string	**formatofvariable**	function
checkedvariable	function	**formats**	data table
cleanedpathlist	function	**foundintree**	function
cleanpath	function	**foundintrees**	function
cleanpathlist	function	**generators**	data table
concatinators	data table	**get_from_content**	function
configbanner	string	**getenv**	function
configurationfiles	function	**getextrapaths**	function
dangerous	data table	**getfilehashes**	function
datastate	function	**gethashes**	function
defaultsuffixes	table	**getownpath**	function
dirstatus	function	**getreadfilename**	function
dowithfilesandreport	function	**hashers**	data table
dowithfilesintree	function	**homedir**	string
dowithpath	function	**initialized**	function
dowithvariable	function	**installinputfilehandler**	function
executers	table	**installinputlinehandler**	function
expandbraces	function	**jobpath**	function
expandedpathfromlist	function	**jobs**	table
expandedpathlist	function	F currentcomponent	
expandedpathlistfromvariable	function	F currentenvironment	
expandpath	function	F currentproduct	
expandpathfromvariable	function	F currentproject	
expansion	function	F justacomponent	
extendtexmfvariable	function	D processors	
filtered_from_content	function	F productcomponent	
find_file	function	F usefile	
find_files	function	**joinpath**	function
findbinfile	function	**knownvariables**	function
findctxfile	function	**libraries**	table
finders	data table	F optionalloaded	
findfile	function	F validoptional	
findfiles	function	**load**	function
findgivenfile	function	**loadbinfile**	function
findgivenfiles	function	**loaders**	data table
findlib	function	**loadlualib**	function
findpath	function	**loadtexfile**	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	**unexpandedpath**	function
pushpath	function	**unexpandedpathlist**	function
registerextrapath	function	**unresolve**	function
registerfile	function	**updaterelations**	function
registerfilehash	function	**updatescript**	function
registerintrees	function	**uselibrary**	function
registermethod	function	**usertypes**	data table
registerzipfile	function	**usezipfile**	function
relations	data table	**validatedpath**	function
renew	function	**variable**	function
renewcache	function	**variableofformat**	function
repath	function	**variableofformatorsuffix**	function
reset	function	**wildcardpattern**	function
resetextrapaths	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
hash 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	**readfixed2**	function
readbytes	function	**readfixed4**	function
readbytetable	function	**readinteger1**	function
readcardinal1	function	**readinteger1le**	function
readcardinal1le	function	**readinteger2**	function
readcardinal2	function	**readinteger2le**	function
readcardinal2le	function	**readinteger3**	function
readcardinal3	function	**readinteger3le**	function
readcardinal3le	function	**readinteger4**	function
readcardinal4	function	**readinteger4le**	function
readcardinal4le	function	**readintegertable**	function
readcardinaltable	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 (context)

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

statistics (context)

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

status (basic tex)

getbufferstate	function	**getmarksstate**	function
getcallbackstate	function	**getneststate**	function
getconstants	function	**getnodestate**	function
geterrorlinestate	function	**getparameterstate**	function
geterrorstate	function	**getpoolstate**	function
getexpandstate	function	**getreadstate**	function
getextrastate	function	**getsavestate**	function
getfilestate	function	**getsparsestate**	function
getfontstate	function	**getstringstate**	function
gethalferrorlinestate	function	**gettexstate**	function
gethashstate	function	**gettokenstate**	function
getinputstate	function	**getwarningstate**	function
getlanguagestate	function	**iocodes**	table
getlookupstate	function	**list**	function
getluastate	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		**nspaces**	table
autosingle	function		**optionalquoted**	function
booleanstring	function		**pack**	function
byte	function		**packsize**	function
bytepairs	function		**quote**	function
bytes	function		**quoted**	function
bytetable	function		**rep**	function
char	function		**replacenewlines**	function
characterpairs	function		**reverse**	function
characters	function		**split**	function
checkedsplit	function		**splitlines**	function
collapsespaces	function		**splitup**	function
containsws	function		**strip**	function
count	function		**sub**	function
dawson	function		**tformat**	function
dump	function		**toHEX**	function
erf	function		**toboolean**	function
erfc	function		**tobytes**	function
erfcx	function		**tocontext**	function
erfi	function		**todec**	function
escapedpattern	function		**todimen**	function
escapedquotes	function		**tohex**	function
explode	function		**tonodes**	function
f6	function		**topattern**	function
find	function		**totable**	function
format	function		**tounicode16**	function
formatter	function		**toutf**	function
formatters	function		**toutf32**	function
fullstrip	function		**toutf8**	function
gmatch	function		**tracedchar**	function
gsub	function		**tracedchars**	table
is_boolean	function		**unpack**	function
is_empty	function		**unquote**	function
itself	function		**unquoted**	function
len	function		**upper**	function
limit	function		**utfcharacter**	function
linetable	function		**utfcharacters**	function
longtostring	function		**utfcharactertable**	function
lower	function		**utflength**	function
match	function		**utfpadd**	function
nospaces	function		**utfpadding**	function

utfvalue	function		**valid**	function
utfvalues	function		**voigt**	function
utfvaluetable	function		**voigt_hwhm**	function

structures (context)

atlocation	function	F next	
blocks	table	F prev	
D collected		F previous	
F define		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 last		F title	

F touserdata			F reordered	

inserts   table

- D data
- F define
- F getdata
- F getlocation
- F getname
- F getnumber
- F setlocation
- F setup
- D stored

itemgroups   table

lists   table

- F addto
- F analyze
- B autoreorder
- D cached
- D collected
- F discard
- F enhance
- T enhancers
- F filter
- F formulanumber
- F getresult
- F groupindex
- F hasnumberdata
- F haspagedata
- F hastitledata
- F iscached
- D kinds
- F label
- F location
- D names
- F number
- D ordered
- F page
- F popnesting
- F prefix
- F prefixednumber
- F prefixedpage
- F process
- D pushed
- F pushnesting
- F realpage

- F reordered
- T result
- F savedlistnumber
- F savedlistprefixednumber
- F savedlisttitle
- D sectionblocks
- F sectionnumber
- F size
- F title
- D tobesaved
- F userdata
- F uservalue

marks   table

- D data
- F define
- F exists
- F fetch
- F fetchallmarks
- F fetched
- F fetchonemark
- F fetchtwomarks
- F get
- F number
- F relate
- F reset
- F set
- F show
- F synchronize
- F title
- T tracers
    - F showtable

notes   table

- F check_spacing
- F checkpagechange
- F define
- F doifonsamepageasprevious
- F get
- F getdeltapage
- F getinternal
- F getn
- F getstate
- F hascontent
- F internal
- F internalid

F	listindex	F	expandcurrent
D	numbers	F	export
F	ordered	T	files
F	postpone	T	data
F	resetpostoned	F	define
F	restore	F	found
F	save	F	get
F	setstate	F	filter
D	states	F	filterdefault
F	store	D	filters
pages	table	D	flaginternals
F	allmarked	F	from
F	analyze	D	functions
D	collected	F	get
F	fraction	F	getcurrentmetadata
F	has_changed	F	getcurrentprefixspec
F	in_body	F	getinnermethod
F	is_odd	F	getinternalcachedlistreference
F	mark	F	getinternallistreference
F	marked	F	getinternalreference
F	markedlist	F	getoutermethod
N	nofpages	D	handlers
F	number	F	identify
F	on_right	F	import
F	save	F	inject
D	tobesaved	F	injectcurrentset
F	toranges	S	innermethod
references	table	D	internals
F	analyze	F	load
F	checkedfile	F	loadpresets
F	checkedfileorurl	F	mark
F	checkedprogram	S	outermethod
F	checkedrealpage	D	pages
F	checkedurl	U	prefixsplitter
D	collected	D	productdata
U	componentsplitter	T	programs
F	currentmetadata	T	data
F	currentorder	F	define
D	currentset	F	get
F	define	F	realpageofpage
D	defined	U	referencesplitter
D	derived	D	referred
F	enhance	F	referredpage
D	executers	F	registerfinalizer

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

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

table (basic lua)

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

tex (basic tex)

attribute	table	**getboxresourcebox**	function
badness	function	**getboxresourcedimensions**	function
box	table	**getcatcode**	function
boxresources	table	**getcount**	function
F getbox		**getdelcode**	function
F getdimensions		**getdelcodes**	function
F save		**getdimen**	function
F use		**getdimensionvalue**	function
catcode	table	**getdiscoptionvalues**	function
chardef	function	**geterrorvalues**	function
codes	table	**getflagvalues**	function
conditionals	data table	**getfontoffamily**	function
constants	data table	**getfrozenparvalues**	function
count	table	**getglue**	function
cprint	function	**getglyphdata**	function
ctdcatcodes	number	**getglyphoptionvalues**	function
ctxcatcodes	number	**getglyphscript**	function
definefont	function	**getglyphstate**	function
delcode	table	**getgroupvalues**	function
dimen	table	**gethelptext**	function
dimensiondef	function	**gethyphenationvalues**	function
directives	data table	**getintegervalue**	function
discoptioncodes	data table	**getinteraction**	function
enableprimitives	function	**getiovalues**	function
error	function	**getlargestusedmark**	function
expandasvalue	function	**getlccode**	function
experiments	data table	**getlinedir**	function
extraprimitives	function	**getlist**	function
fatalerror	function	**getlocallevel**	function
flagcodes	data table	**getmark**	function
fontidentifier	function	**getmath**	function
fontname	function	**getmathcode**	function
forcehmode	function	**getmathcodes**	function
forcesynctexline	function	**getmathdir**	function
forcesynctextag	function	**getmathparametervalues**	function
fprint	function	**getmathstylenamevalues**	function
frozenparcodes	data table	**getmathstylevalues**	function
get	function	**getmathvariantvalues**	function
getattribute	function	**getmodevalues**	function
getbox	function	**getmuglue**	function
getboxdir	function	**getmuskip**	function

getnest	function	**luacatcodes**	number
getnormalizevalues	function	**magicconstants**	table
getoutputactive	function	N maxdimen	
getpacktypevalues	function	N running	
getpagestate	function	N trueinch	
getparbeginvalues	function	**mathchardef**	function
getparcontextvalues	function	**mathcode**	table
getpardir	function	**modelevels**	table
getparmodevalues	function	N horizontal	
getprimitiveorigins	function	N math	
getregisterindex	function	N unset	
getrunstatevalues	function	N vertical	
getsfcode	function	**modes**	data table
getskip	function	**mprint**	function
getsynctexline	function	**muglue**	table
getsynctexmode	function	**muskip**	table
getsynctextag	function	**nest**	table
gettextdir	function	**nilcatcodes**	number
gettoks	function	**normalizecodes**	data table
getuccode	function	**notcatcodes**	number
glue	table	**number**	function
glyphoptioncodes	data table	**poplocal**	function
groupcodes	data table	**primitives**	function
hashtokens	function	**print**	function
hyphenationcodes	data table	prtcatcodes	number
ifs	data table	**pushlocal**	function
inicatcodes	number	**quitlocal**	function
integerdef	function	quittoks	function
isattribute	function	**resetparagraph**	function
isbox	function	rlncatcodes	number
iscount	overloaded function	**romannumeral**	function
isdefined	function	**round**	function
isdimen	overloaded function	**runlocal**	function
isglue	function	runtoks	function
ismuglue	function	saveboxresource	function
ismuskip	overloaded function	**scale**	function
isprintable	function	**scantoks**	function
isskip	overloaded function	**set**	function
istoken	function	**setattribute**	function
istoks	function	**setbox**	function
lastnodetype	function	**setboxdir**	function
lccode	table	**setcatcode**	function
linebreak	function	**setcount**	function
lists	table	**setdelcode**	function

setdimen	function	**sfcode**	table
setdimensionvalue	function	**shiftparshape**	function
setglue	function	**shipout**	function
setglyphdata	function	**showcontext**	function
setglyphscript	function	**skip**	table
setglyphstate	function	**sp**	function
setintegervalue	function	**splitbox**	function
setinteraction	function	**sprint**	function
setlccode	function	**systemmodes**	data table
setlinedir	function	**takebox**	function
setlist	function	**texcatcodes**	number
setmath	function	**toks**	table
setmathcode	function	**tonumber**	function
setmathdir	function	**toscaled**	function
setmuglue	function	**tpacatcodes**	number
setmuskip	function	**tpbcatcodes**	number
setnest	function	**tprint**	function
setpardir	function	**trackers**	data table
setrunstate	overloaded function	**triggerbuildpage**	function
setsfcode	function	**txtcatcodes**	number
setskip	function	**type**	function
setsynctexline	function	**uccode**	table
setsynctexmode	function	**uprint**	function
setsynctextag	function	**useboxresource**	function
settextdir	function	**vrbcatcodes**	number
settoks	function	**write**	function
setuccode	function		

texconfig (basic tex)

buffersize	table
N size	
N step	
errorlinesize	table
N size	
expandsize	table
N size	
filesize	table
N size	
N step	
firstline	string
fontsize	table
N size	
N step	
formatname	string
functionsize	number
halferrorlinesize	table
N size	
hashsize	table
N size	
N step	
init	overloaded function
inputsize	table
N size	
N step	
kpse_init	boolean
languagesize	table
N size	

N step	
marksize	table
N size	
N step	
nestsize	table
N size	
N step	
nodesize	table
N size	
N step	
parametersize	table
N size	
N step	
poolsize	table
N size	
N step	
propertiessize	number
savesize	table
N size	
N step	
shell_escape	string
stringsize	table
N size	
N step	
tokensize	table
N size	
N step	

texio (basic tex)

closeinput	function	**writenl**	function
terminal	function	**writeselector**	function
write	function	**writeselectornl**	function
write_nl	function		

token (basic tex)

create	function	**getexpandable**	function
expand	function	**getfields**	function
expand_macro	function	**getflags**	function
expandmacro	function	**getfrozen**	function
future_expand	function	**getfunctionvalues**	function
futureexpand	function	**getid**	function
get_active	function	**getimmutable**	function
get_cmdchrcs	function	**getindex**	function
get_cmdname	function	**getinstance**	function
get_command	function	**getinteger**	function
get_csname	function	**getmacro**	function
get_cstoken	function	**getmeaning**	function
get_dimension	function	**getnoaligned**	function
get_expandable	function	**getparameters**	function
get_fields	function	**getpermanent**	function
get_flags	function	**getprimitive**	function
get_frozen	function	**getprimitives**	function
get_id	function	**getprotected**	function
get_immutable	function	**getrange**	function
get_index	function	**gettok**	function
get_instance	function	**gettolerant**	function
get_integer	function	**gobble**	function
get_macro	function	**gobble_dimen**	function
get_meaning	function	**gobble_integer**	function
get_noaligned	function	**gobbledimen**	function
get_parameters	function	**gobbleinteger**	function
get_permanent	function	**is_defined**	function
get_primitive	function	**is_next_char**	function
get_protected	function	**is_token**	function
get_range	function	**isdefined**	function
get_tok	function	**isnextchar**	function
get_tolerant	function	**istoken**	function
getactive	function	**new**	function
getcmdchrcs	function	**peek_next**	function
getcmdname	function	**peek_next_char**	function
getcommand	function	**peek_next_expanded**	function
getcommandid	function	**peeknext**	function
getcommandvalues	function	**peeknextchar**	function
getcsname	function	**peeknextexpanded**	function
getcstoken	function	**pop_macro**	function
getdimension	function	**popmacro**	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	**scandelimited**	function
scan_argument	function	**scandimen**	function
scan_box	function	**scandimenargument**	function
scan_cardinal	function	**scanfloat**	function
scan_char	function	**scanglue**	function
scan_cmdchr	function	**scaninteger**	function
scan_cmdchr_expanded	function	**scanintegerargument**	function
scan_code	function	**scankey**	function
scan_csname	function	**scankeyword**	function
scan_delimited	function	**scankeywordcs**	function
scan_dimen	function	**scanletters**	function
scan_dimen_argument	function	**scanluacardinal**	function
scan_float	function	**scanluainteger**	function
scan_glue	function	**scanluanumber**	function
scan_integer	function	**scannext**	function
scan_integer_argument	function	**scannextchar**	function
scan_key	function	**scannextexpanded**	function
scan_keyword	function	**scanreal**	function
scan_keyword_cs	function	**scanscale**	function
scan_letters	function	**scanskip**	function
scan_luacardinal	function	**scanstring**	function
scan_luainteger	function	**scantoken**	function
scan_luanumber	function	**scantokencode**	function
scan_next	function	**scantokenlist**	function
scan_next_char	function	**scantoks**	function
scan_next_expanded	function	**scanvalue**	function
scan_real	function	**scanword**	function
scan_scale	function	**serialize**	function
scan_skip	function	**set_char**	function
scan_string	function	**set_dimension**	function
scan_token	function	**set_integer**	function
scan_token_code	function	**set_lua**	function
scan_tokenlist	function	**set_macro**	function
scan_toks	function	**setchar**	function
scan_value	function	**setdimension**	function
scan_word	function	**setinteger**	function
scanargument	function	**setlua**	function

setmacro	function	**skipnextexpanded**	function
skip_next	function	**type**	function
skip_next_expanded	function	**undefine_macro**	function
skipnext	function	**undefinemacro**	function

tokens (context)

accessors　table

   F active

   F cmd

   F cmdchrcs

   F cmdname

   F command

   F csname

   F expandable

   F frozen

   F index

   F name

   F protected

   F range

astable　function

bits　table

   N active

   N alignment

   N begingroup

   N character

   N close

   N comment

   N endgroup

   N endofline

   N escape

   N ignore

   N invalid

   N letter

   N mathshift

   N open

   N other

   N parameter

   N space

   N subscript

   N superscript

   N whitespace

cache　table

   U NC

   U NR

   U bf

   U buff_finish

   U c_font_compact

   U color

   U colordefalc

   U colordefflc

   U colordefflt

   U colordefrlt

   U dofinishreference

   U dostarttext

   U finishjob

   U firstofoneargument

   U firstoftwoarguments

   U gobbleoneargument

   U goto

   U iftrue

   U input

   U loadfoundtypescriptfile

   U resetctxscanner

   U rlap

   U secondoftwoarguments

   U setfalsevalue

   U setsectionblock

   U setupsystem

   U startcolumns

   U starttabulate

   U starttitle

   U startxtitle

   U stopcolumns

   U stoptabulate

   U stoptitle

   U stopxtitle

   U texsetup

   U xmlw

commands　data table

compile　function

constant　function

converters　table

   S toboolean

   S todimen

   S toglue

   S tonumber

   S tostring

create　function

defined	function		F cmdchrexpanded
flags	function		F code
getinteger	function		F conditional
getters	table		F count
F box			F csname
F count			F delimited
F cstoken			F dimen
F dimen			F dimenargument
F glue			F dimension
F macro			F float
F meaning			F glue
F skip			F gluespec
F token			F gluevalues
gobble	function		F hash
isdefined	function		F hbox
istoken	function		F integer
new	function		F integerargument
pickup	function		F ischar
popmacro	function		F key
presets	table		F keyword
T 1 argument			F keywordcs
T 1 string			F letters
T 2 arguments			F list
T 2 strings			F luacardinal
T 3 arguments			F luainteger
T 3 strings			F luanumber
T 4 arguments			F lxmlid
T 4 strings			F next
T 5 strings			F nextchar
T 6 strings			F nextexpanded
T 7 strings			F number
T 8 strings			F optional
pushmacro	function		F peek
scanners	table		F peekchar
F argument			F peekexpanded
F argumentasis			F real
F array			F scanclose
F boolean			F scanopen
F box			F skip
F bracketed			F skipexpanded
F bracketedasis			F string
F cardinal			F table
F char			F token
F cmdchr			F tokencode

F	tokenlist	F	report
F	tokens	F	scanargument
F	toks	F	scanargumentasis
F	value	F	scanarray
F	vbox	F	scanboolean
F	verbatim	F	scanbox
F	vtop	F	scanbracketed
F	whd	F	scanbracketedasis
F	word	F	scancardinal
setinteger	function	F	scanclose
setters	table	F	scancode
F	box	F	scanconditional
F	char	F	scancsname
F	count	F	scandelimited
F	dimen	F	scandimen
F	glue	F	scandimenargument
F	lua	F	scandimension
F	macro	F	scanglue
F	skip	F	scangluespec
shortcuts	table	F	scangluevalues
T	bits	F	scanhash
N	active	F	scanhbox
N	alignment	F	scaninteger
N	begingroup	F	scanintegerargument
N	character	F	scankeyword
N	close	F	scankeywordcs
N	comment	F	scanletters
N	endgroup	F	scanlist
N	endofline	T	scanners
N	escape	F	argument
N	ignore	F	argumentasis
N	invalid	F	array
N	letter	F	boolean
N	mathshift	F	box
N	open	F	bracketed
N	other	F	bracketedasis
N	parameter	F	cardinal
N	space	F	char
N	subscript	F	cmdchr
N	superscript	F	cmdchrexpanded
N	whitespace	F	code
N	close	F	conditional
F	inspect	F	count
N	open	F	csname

F delimited	F verbatim
F dimen	F vtop
F dimenargument	F whd
F dimension	F word
F float	F scannumber
F glue	F scanopen
F gluespec	F scanoptional
F gluevalues	F scanstring
F hash	F scantable
F hbox	F scantokenlist
F integer	F scantoks
F integerargument	F scanvbox
F ischar	F scanverbatim
F key	F scanvtop
F keyword	F scanword
F keywordcs	F toboolean
F letters	F todimen
F list	T tokens
F luacardinal	T accessors
F luainteger	F active
F luanumber	F cmd
F lxmlid	F cmdchrcs
F next	F cmdname
F nextchar	F command
F nextexpanded	F csname
F number	F expandable
F optional	F frozen
F peek	F index
F peekchar	F name
F peekexpanded	F protected
F real	F range
F scanclose	F astable
F scanopen	T cache
F skip	U NC
F skipexpanded	U NR
F string	U bf
F table	U buff_finish
F token	U c_font_compact
F tokencode	U color
F tokenlist	U colordefalc
F tokens	U colordefflc
F toks	U colordefflt
F value	U colordefrlt
F vbox	U dofinishreference

U dostarttext	F macro
U finishjob	F meaning
U firstofoneargument	F skip
U firstoftwoarguments	F token
U gobbleoneargument	F gobble
U goto	F isdefined
U iftrue	F istoken
U input	F new
U loadfoundtypescriptfile	F pickup
U resetctxscanner	F popmacro
U rlap	T presets
U secondoftwoarguments	F pushmacro
U setfalsevalue	F setinteger
U setsectionblock	T setters
U setupsystem	F box
U startcolumns	F char
U starttabulate	F count
U starttitle	F dimen
U startxtitle	F glue
U stopcolumns	F lua
U stoptabulate	F macro
U stoptitle	F skip
U stopxtitle	T shortcuts
U texsetup	N close
U xmlw	F inspect
D commands	N open
F compile	F report
F constant	F scanargument
T converters	F scanargumentasis
S toboolean	F scanarray
S todimen	F scanboolean
S toglue	F scanbox
S tonumber	F scanbracketed
S tostring	F scanbracketedasis
F create	F scancardinal
F defined	F scanclose
F flags	F scancode
F getinteger	F scanconditional
T getters	F scancsname
F box	F scandelimited
F count	F scandimen
F cstoken	F scandimenargument
F dimen	F scandimension
F glue	F scanglue

F scangluespec

F scangluevalues

F scanhash

F scanhbox

F scaninteger

F scanintegerargument

F scankeyword

F scankeywordcs

F scanletters

F scanlist

F scannumber

F scanopen

F scanoptional

F scanstring

F scantable

F scantokenlist

F scantoks

F scanvbox

F scanverbatim

F scanvtop

F scanword

F toboolean

F todimen

F tonumber

F tostring

D values

F tonumber

F tostring

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
digits   table
   T actions
   F handler
   F set
directions   table
   F getfences
   F getglobal
   F getmethod
   F handler

   T handlers
   F installhandler
   F processmath
   F set
   F setcolor
   F setmath
   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 addanchortoline
   F addtoline
   F calculatedelta
   F checkline
   F handler
   F moveinline
   F set
injectors   table
   F check
   T list
   F mark
   F reset
   F set
   F show
italics   table
   F enablemath
   F enabletext
   F forcevariant
   F handler
   F reset
   F set
kerns   table

updaters (context)

apply   function
register function

url (context)

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

utf8 (basic lua)

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

utilities (context)

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

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

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

formatters   table
- F formatcolumns
- F list
- F stripzeros

ghostscript   table
- F convert
- F statistics

graphicmagick   table
- F convert
- F statistics

graphicsmagick   table
- F convert
- F statistics

lua   table
- B alwaysstripcode
- F checkmemory

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 readfixed2
F tostring			F readfixed4
setters	table		F readinteger
F disable			F readinteger1
F enable			F readinteger1le
F initialize			F readinteger2
F list			F readinteger2le
F new			F readinteger3
F register			F readinteger3le
F report			F readinteger4
F reset			F readinteger4le
F show			F readintegertable
stacker	table		F readsignedbyte
F new			F readstring
storage	table		F setposition
F allocate			F size
F checked			F skip
F mark			F skipbytes
F marked			F skiplong
F setinitializer			F skipshort
F sparse			**strings** table
streams	table		F collapse
F close			F collapsecrlf
F getposition			T formatters
F getsize			F add
F getstring			F new

```
  F newcollector                           F insertaftervalue
  F newrepeater                            F insertbeforevalue
  F nice                                   F migratetable
  T striplinepatterns                      F removevalue
  U collapse                               F replacevalue
  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 gunzipfile
  F tabtospace                             F hash
  T tracers                                F list
tables            table                    F open
  F accesstable                            F unzip
  F definedtable                           F unzipdir
  F definetable                            F zipdir
  F encapsulate
```

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
__add	function
__div	function
__eq	function
__index	table

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

__mul	function
__name	string

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

xdecimal (extra lua)

__add	function
__band	function
__bor	function
__bxor	function
__div	function
__eq	function
__idiv	function
__index	table

    F __add
    F __band
    F __bor
    F __bxor
    F __div
    F __eq
    F __idiv
    T __index
      F __add
      F __band
      F __bor
      F __bxor
      F __div
      F __eq
      F __idiv
      F __le
      F __lt
      F __mod
      F __mul
      S __name
      F __pow
      F __shl
      F __shr
      F __sub
      F __tostring
      F __unm
      F abs
      F band
      F bor
      F bxor
      F conj
      F copy
      F exp

F getprecision
F ln
F log
F max
F min
F minus
F new
F plus
F pow
F rotate
F setprecision
F shift
F sqrt
F tonumber
F tostring
F trim
F __le
F __lt
F __mod
F __mul
S __name
F __pow
F __shl
F __shr
F __sub
F __tostring
F __unm
F abs
F band
F bor
F bxor
F conj
F copy
F exp
F getprecision
F ln
F log
F max
F min
F minus
F new

F	plus		**bor**	function
F	pow		**bxor**	function
F	rotate		**conj**	function
F	setprecision		**copy**	function
F	shift		**exp**	function
F	sqrt		**getprecision**	function
F	tonumber		**ln**	function
F	tostring		**log**	function
F	trim		**max**	function
__le	function		**min**	function
__lt	function		**minus**	function
__mod	function		**new**	function
__mul	function		**plus**	function
__name	string		**pow**	function
__pow	function		**rotate**	function
__shl	function		**setprecision**	function
__shr	function		**shift**	function
__sub	function		**sqrt**	function
__tostring	function		**tonumber**	function
__unm	function		**tostring**	function
abs	function		**trim**	function
band	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 fontspecification
addspecialcode	function		F mappedstylevalue
after	function		F padding
all	function		F size
applylpath	function		F style
applyselector	function		F stylevalue
assign	function		F todimension
attribute	function		F variant
badinclusions	function		F weight
before	function	**defaulthandlers**	table
body	function		D file
builtinentities	table		D parsedxml
B amp			D string
B apos			D tex
B gt			D texline
B lt			D texspace
B quot			D verbose
cdata	function	**defaultprotocol**	string
cdatatotext	function	**delete**	function
checkbom	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	**expressions**	table
content	function		F attribute
convert	function		F boolean
copy	function		F child
count	function		F contains
cprint	function		F count
css	table		F error
F applyselector			F find
F colorspecification			F hasclass
F dimension			F idstring
F family			F lower

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

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

s >		**tocdata**	function
s \		**toelement**	function
s {		**tostring**	function
s |		**totable**	function
s }		**toxml**	function
s ~		**tprint**	function
specialhandler	table	**traverse**	function
sprint	function	**unescaped**	function
string	function	**unescapedentitylpeg**	userdata
strip	function	**unprivatized**	function
~~**strip_whitespace**~~	~~function~~	**unspecialized**	function
stripelement	function	**wipe**	function
stripleadingspaces	function	**withelement**	function
table	function	**withelements**	function
text	function	**wrap**	function
textonly	function	**xmlns**	table
texttocdata	function		

xzip (extra lua)

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

zip (extra lua)

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

zlib (extra lua)

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