

MP attributes backends **bit32** blobs boolean  
buffers builders caches **callback** callbacks  
catcodes characters chemistry commands  
containers context converters **coroutine**  
ctxrunner **debug** dir dircodes directives  
document documentdata environment **epdf**  
experiments ffi figures **file** **fio** floats **font**  
fonts functions global graphics **gzip** **img**  
interactions interfaces **io** job **lang** languages  
layouts **lfs** libraries lmx logs lpdf **lpeg** **ltn12**  
**lua** luatex lxml **math** mathematics **md5** metapost  
**mime** moduledata modules mp **mplib** noads **node**  
nodes number objects **os** **package** pagebuilders  
parametersets **pdf** pdfscanner physics  
publications regimes resolvers sandbox scripts  
set sio **socket** sorters statistics **status**  
storage streams **string** structures **table** **tex**  
texconditionals **texconfig** texconstants texifs  
**texio** texitdefined texmodes texsystemmodes  
thirddata **token** tokens tracers trackers  
typesetters **unicode** url userdata utf8  
utilities vf visualizers xml **zip** **zlib**

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

# global (alias: \_G)

FFISUPPORTED	function	documentdata	table
INITEXMODE	boolean	dofile	function
LUAMAJORVERSION	number	done	boolean
LUAMINORVERSION	number	environment	table
LUATEXCOREVERSION	number	epdf	table
LUATEXENGINE	string	error	function
LUATEXFUNCTIONALITY	number	experiments	table
LUATEXVERSION	number	ffi	table
LUAVERSION	number	ffilib	function
MP	table	figures	table
_LUAVERSION	number	file	table
arg	table	fio	table
assert	function	floats	table
attributes	table	font	table
backends	table	fonts	table
bit32	table	frozen	boolean
blobs	table	functions	table
blockrequire	function	getmetatable	function
boolean	table	getpos	function
buffers	table	getvpos	function
builders	table	global	table
caches	table	grammar_parsed_text_one_noop	userdata
callback	table	grammar_parsed_text_one_yes	userdata
callbacks	table	grammar_parsed_text_two_noop	userdata
catcodes	table	grammar_parsed_text_two_yes	userdata
characters	table	grammar_unparsed_text_noop	userdata
checkimage	function	grammar_unparsed_text_yes	userdata
chemistry	table	graphics	table
collectgarbage	function	gregorian_to_jalali	function
commands	table	gzip	table
containers	table	img	table
context	function	inspect	function
converters	table	interactions	table
coroutine	table	interfaces	table
ctxrunner	table	io	table
debug	table	ipairs	function
dimen	function	jalali_to_gregorian	function
dir	table	job	table
dircodes	data table	lang	table
directives	table	languages	table
document	table	last	number

layouts	table	rawlen	function
lfs	table	rawset	function
libraries	table	regimes	table
lmx	table	require	function
load	function	required	function
loadfile	function	requireswiglib	function
loadstring	function	resolvers	table
logs	table	ruledspace	function
lpdf	table	sandbox	table
lpeg	table	scripts	table
ltn12	table	select	function
lua	table	set	table
luatex	table	setinspector	function
lxml	table	setmetatable	function
math	table	sio	table
mathematics	table	socket	table
md5	table	sorters	table
metapost	table	statistics	table
mime	table	status	table
module	function	storage	table
moduledata	table	streams	table
modules	table	string	table
mp	function	structures	table
mplib	table	swiglib	function
next	function	table	table
noads	table	tex	table
node	table	texconditionals	data table
nodes	table	texconfig	table
number	table	texconstants	data table
objects	table	texifs	data table
optionalrequire	function	texio	table
os	table	texisdefined	function
package	table	texmodes	data table
pagebuilders	table	texsystemmodes	data table
pairs	function	thirddata	table
parametersets	table	toboolean	function
pcall	function	token	table
pdf	table	tokens	table
pdfscanner	table	tonumber	function
physics	table	tostring	function
print	function	tracers	table
publications	table	trackers	table
rawequal	function	type	function
rawget	function	typesetters	table

<b>unicode</b>	table	<b>v</b>	number
<b>unpack</b>	function	<b>vf</b>	table
<b>url</b>	table	<b>visualizers</b>	table
<b>userdata</b>	table	<b>xml</b>	table
<b>utf</b>	table	<b>xpcall</b>	function
<b>utf8</b>	table	<b>zip</b>	table
<b>utilities</b>	table	<b>zlib</b>	table

# attributes (context)

**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 definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- F forcedmodel
- F forcesupport
- F formatcolor
- F formatgray
- F getpagecolormodel
- F gray
- F graytohsv
- F handler
- F hsvtorgb
- F hsvtorgb
- F iccprofile
- F isblack
- 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 rgbtorgb
- F rgbtohsv
- N selector
- F setlist
- F setmodel
- F setpagecolormodel
- D sets
- F spec
- F spot
- F spotcolorname
- F spotcolorparent
- F spotcolorvalue
- B supported
- F toattributes
- F transparencycomponents
- B triggering
- F usecolors
- D valid
- F value
- D values
- B weightgray

**define**    function

**effects**    table

- N attribute
- D data
- F enable

F handler		N darken	
F register		N difference	
D registered		N exclusion	
D values		N hardlight	
<b>handlers</b>	table	N hue	
<b>list</b>	data table	N lighten	
<b>markasoverload</b>	function	N luminosity	
<b>names</b>	data table	N multiply	
<b>negatives</b>	table	N none	
N attribute		N normal	
D data		N overlay	
F enable		N saturation	
F handler		N screen	
F register		N softlight	
D registered		N none	
F set		F register	
<b>numbers</b>	data table	D registered	
<b>ofnode</b>	function	B supported	
<b>private</b>	function	F toattribute	
<b>public</b>	function	B triggering	
<b>restore</b>	function	F value	
<b>save</b>	function	D values	
<b>showcurrent</b>	function	<b>unsetvalue</b>	number
<b>states</b>	table	<b>viewerlayers</b>	table
F disabletriggering		N attribute	
F enabletriggering		F cleanup	
F finalize		D data	
F initialize		F define	
F process		F definedlayoutcomponent	
F selective		F enable	
F stacked		F forcesupport	
F stacker		F handler	
<b>system</b>	function	B hasorder	
<b>tooverloads</b>	function	D listwise	
<b>transparencies</b>	table	F register	
N attribute		D registered	
D data		F resolve_begin	
F enable		F resolve_end	
F forcesupport		F resolve_reset	
F handler		F resolve_step	
T names		D scopes	
N color		F setfeatures	
N colorburn		F start	
N colordodge		F stop	

B supported

D values

# backends (context)

## **codeinjections** table

F boxresourcedimensions  
F registerboxresource  
F restoreboxresource

## **current** string

## **defaults** table

T codeinjections  
F gethpos  
F getmatrix  
F getpos  
F getvpos  
F hasmatrix  
T nodeinjections  
T registrations  
D tables

## **included** table

B context  
B date  
B id  
B metadata  
B pdf

## **install** function

## **nodeinjections** table

F restore  
F save  
F transform

## **nothing** function

## **pdf** table

T codeinjections  
F addbookmarks  
F analyzenormalsymbol  
F analyzesymbol  
F attachmentid  
F clonefield  
F definefield  
F definefieldset  
F defineviewerlayer  
F embedfile  
F enabletags  
F exportformdata  
F fieldsurrounding

F getbookmarks  
F getdefaultfieldvalue  
F getfieldcategory  
F getfieldset  
F getformatoption  
F gethpos  
F getinfo  
F getmatrix  
F getoutputfilename  
F getpos  
F getpreviewfigure  
F getvpos  
F hasmatrix  
F insertrenderingwindow  
F mergebookmarks  
F mergecomments  
F mergefields  
F mergereferences  
F mergeviewerlayers  
F prerollreference  
F presetsymbol  
F presetsymbollist  
F processrendering  
F registerdocumentcloseaction  
F registerdocumentopenaction  
F registeredsymbol  
F registerpagecloseaction  
F registerpageopenaction  
F registersymbol  
F setfieldcalculationset  
F setfigurealternative  
F setfigurecolorspace  
F setfiguremask  
F setformat  
F setformsmethod  
F setpagetransition  
F setupcanvas  
F setupidentity  
F setxmpfile  
F startlayer  
F startunicodetoactualtext



F startunicodetoactualtextdirect	F negative
F stoplayer	F overprint
F stopunicodetoactualtext	F positive
F stopunicodetoactualtextdirect	F reference
F supportedformats	F rgbcolor
F unicodetoactualtext	F spotcolor
F useviewerlayer	F startlayer
F validfield	F startstackedlayer
F validfieldcategory	F stoplayer
F validfieldset	F stopstackedlayer
S comment	F transparency
T nodeinjections	F typesetfield
F addtags	T registrations
F annotation	F cmykindexcolor
F attachfile	F cmykspotcolor
F changestackedlayer	F getspotcolorreference
F cmykcolor	F grayindexcolor
F comment	F grayspotcolor
F destination	F rgbindexcolor
F effect	F rgbspotcolor
F graycolor	F spotcolorname
F injectbitmap	F transparency
F insertmovie	T tables
F insertsound	D vfspecials
F insertswf	<b>registrations</b> table
F insertu3d	<b>tables</b> table
F knockout	<b>timestamp</b> function

## bit32 (basic lua)

**arshift** function

**band** function

**bnot** function

**bor** function

**btest** function

**bxor** function

**extract** function

**lrotate** function

**lshift** function

**replace** function

**rrotate** function

**rshift** function

## blobs (context)

<b>append</b>	function
<b>dimensions</b>	function
<b>dispose</b>	function
<b>new</b>	function
<b>pack</b>	function
<b>strdp</b>	function
<b>strhd</b>	function

<b>strht</b>	function
<b>strwd</b>	function
<b>tohpack</b>	function
<b>tonodes</b>	function
<b>tovpack</b>	function
<b>write</b>	function

## boolean (context)

**tocontext** function

**tonumber** function

# buffers (context)

<b>append</b>	function	<b>F</b> hassomecontent	
<b>assign</b>	function	<b>F</b> next	
<b>collectcontent</b>	function	<b>F</b> place	
<b>erase</b>	function	<b>F</b> reset	
<b>exists</b>	function	<b>F</b> save	
<b>getcontent</b>	function	<b>prepend</b>	function
<b>getlines</b>	function	<b>raw</b>	function
<b>loadcontent</b>	function	<b>run</b>	function
<b>parallel</b>	table	<b>undent</b>	function
<b>F</b> define			

# builders (context)

## kernel table

- F hyphenation
- F kerning
- F ligaturing
- F mlist\_to\_hlist
- T originals
  - F hyphenate
  - F kerning
  - F ligaturing

## 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 kepttogether
- 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

- F analyze

- D categories

- F collapsevbox

- T data

- D map

- D skip

- D snapmethods

- F definesnapmethod

- B fixed

- F forcestrutdepth

- F pagehandler

- F setmap

- F setskip

- F snapbox

- F synchronizepage

- F tocategories

- F tocategory

- F vboxhandler

## cache (context)

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

## callback (basic tex)

**find**      function  
**list**      function

**register** overloaded function



# callbacks (context)

<b>freeze</b>	function	B insert_local_par
<b>known</b>	function	B kerning
<b>list</b>	data table	B ligaturing
<b>pop</b>	function	B linebreak_filter
<b>push</b>	function	B mlist_to_hlist
<b>register</b>	function	B open_read_file
<b>report</b>	function	B post_linebreak_filter
<b>supported</b>	table	B pre_dump
B append_to_vlist_filter		B pre_linebreak_filter
B build_page_insert		B pre_output_filter
B buildpage_filter		B process_input_buffer
B call_edit		B process_jobname
B contribute_filter		B process_output_buffer
B define_font		B process_rule
B find_cidmap_file		B read_cidmap_file
B find_data_file		B read_data_file
B find_enc_file		B read_enc_file
B find_font_file		B read_font_file
B find_format_file		B read_map_file
B find_image_file		B read_opentype_file
B find_map_file		B read_pk_file
B find_opentype_file		B read_truetype_file
B find_output_file		B read_type1_file
B find_pk_file		B read_vf_file
B find_read_file		B show_error_hook
B find_truetype_file		B show_error_message
B find_type1_file		B show_lua_error_hook
B find_vf_file		B show_warning_message
B find_write_file		B start_file
B finish_pdffile		B start_page_number
B finish_pdfpage		B start_run
B finish_synctex		B stop_file
B glyph_not_found		B stop_page_number
B glyph_stream_provider		B stop_run
B hpack_filter		B vpack_filter
B hpack_quality		B vpack_quality
B hyphenate		B wrapup_run

## catcodes (context)

**names** data table

**numbers** data table

**register** function

# characters (context)

<b>activeoffset</b>	number	T anudatta	
<b>adobename</b>	function	T before_half	
<b>bidirectional</b>	data table	T before_main	
<b>blockrange</b>	function	T before_postscript	
<b>blocks</b>	data table	T before_subscript	
<b>casemap</b>	table	T below_mark	
<b>categories</b>	data table	T consonant	
<b>category</b>	function	T dependent_vowel	
<b>categorytags</b>	data table	T halant	
<b>classifiers</b>	table	T independent_vowel	
<b>collapsed</b>	data table	T nukta	
<b>contextname</b>	function	T post_mark	
<b>csletters</b>	data table	T pre_mark	
<b>data</b>	data table	T ra	
<b>decomposed</b>	data table	T stress_tone_mark	
<b>description</b>	function	T twopart_mark	
<b>descriptions</b>	data table	T vowel_modifier	
<b>detailltags</b>	data table	<b>initialize</b>	function
<b>directions</b>	table	<b>is_character</b>	data table
<b>emoji</b>	table	<b>is_command</b>	data table
F compact		<b>is_letter</b>	data table
F known		<b>is_mark</b>	data table
F resolve		<b>is_punctuation</b>	data table
<b>emojized</b>	function	<b>is_spacing</b>	data table
<b>encodes</b>	data table	<b>lcchars</b>	data table
<b>entities</b>	data table	<b>lccode</b>	function
<b>fallbacks</b>	data table	<b>lccodes</b>	data table
<b>filters</b>	data table	<b>lettered</b>	function
<b>fractions</b>	table	<b>lhash</b>	data table
<b>fromnumber</b>	function	<b>linebreaks</b>	data table
<b>fschars</b>	data table	<b>lower</b>	function
<b>fscodes</b>	data table	<b>mathlists</b>	data table
<b>getrange</b>	function	<b>mirrors</b>	table
<b>graphemes</b>	data table	<b>otfscripts</b>	data table
<b>hangul</b>	data table	<b>private</b>	table
<b>indicgroups</b>	table	<b>ranges</b>	data table
T above_mark		<b>registerentities</b>	function
T after_half		<b>remap_hangul_syllable</b>	function
T after_main		<b>setactivecatcodes</b>	function
T after_postscript		<b>setlettercatcodes</b>	function
T after_subscript		<b>shape</b>	function

<b>shaped</b>	function	D accentmapping	
<b>shash</b>	data table	D commandmapping	
<b>shchars</b>	data table	F defineaccents	
<b>shcodes</b>	data table	F safechar	
<b>showstring</b>	function	F toutf	
<b>specialchars</b>	data table	F toutfpattern	
<b>specials</b>	data table	<b>textclasses</b>	table
<b>splits</b>	table	<b>tonumber</b>	function
T char		<b>ucchars</b>	data table
T compat		<b>uccode</b>	function
<b>subscripts</b>	table	<b>uccodes</b>	data table
<b>superscripts</b>	table	<b>uhash</b>	data table
<b>synonyms</b>	data table	<b>unicodechar</b>	function
<b>tex</b>	table	<b>upper</b>	function

## chemistry (context)

<b>component</b>	function
<b>define</b>	function
<b>definitions</b>	data table
<b>format</b>	string
<b>inlinechemical</b>	function
<b>instance</b>	string
<b>method</b>	string

<b>molecule</b>	function
<b>moleculeparser</b>	userdata
<b>start</b>	function
<b>stop</b>	function
<b>structures</b>	number
<b>undefine</b>	function

## containers (context)

**cleannname** function  
**content** function  
**define** function  
**is\_usable** function

**is\_valid** function  
**read** function  
**usecache** boolean  
**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	hexstringtonumber	function
Alphabetic	function	hour	function
Alphabetic:es	function	i	function
Alphabetic:ru	function	isleapyear	function
Alphabetic:sl	function	lchexnumber	function
Character	function	lchexnumbers	function
Characters	function	leapyear	function
I	function	lower	function
KA	function	max	function
KR	function	maxchrs	function
R	function	minute	function
RK	function	month	function
Romannumerals	function	nicenumber	function
Russiannumerals	function	nofdays	function
Sloveniannumerals	function	number	function
Spanishnumerals	function	numbers	function
Word	function	octnumber	function
Words	function	octstringtonumber	function
a	function	ordinal	function
a:es	function	r	function
a:ru	function	rawcharacter	function
a:sl	function	romannumerals	function
abjadnodotnumerals	function	russiannumerals	function
abjadnumerals	function	second	function
alphabetic	function	sequences	data table
alphabetic:es	function	settime	function
alphabetic:ru	function	sloveniannumerals	function
alphabetic:sl	function	spaceddigits	function
character	function	spanishnumerals	function
characters	function	textime	function
chineseallnumerals	function	toabjad	function
chinesecapnumerals	function	tochinese	function
chinesenumerals	function	toroman	function
chr	function	totime	function
chrs	function	uchexnumber	function
cn	function	uchexnumbers	function
cn-a	function	upper	function

**verbose**

D data

F translate

**weekday**

table

function

**word**

**words**

**year**

function

function

function



## coroutine (basic lua)

<b>create</b>	function
<b>isyieldable</b>	function
<b>resume</b>	function
<b>running</b>	function

<b>status</b>	function
<b>wrap</b>	function
<b>yield</b>	function

# ctxrunner (context)

<b>load</b>	function	<b>prepfiles</b>	data table
<b>preparedfile</b>	function	<b>resolve</b>	function

## debug (basic lua)

<b>debug</b>	function
<b>gethook</b>	function
<b>getinfo</b>	function
<b>getlocal</b>	function
<b>getmetatable</b>	function
<b>getregistry</b>	function
<b>getupvalue</b>	function
<b>getuservalue</b>	function

<b>sethook</b>	function
<b>setlocal</b>	function
<b>setmetatable</b>	function
<b>setupvalue</b>	function
<b>setuservalue</b>	function
<b>traceback</b>	function
<b>upvalueid</b>	function
<b>upvaluejoin</b>	function

## dir (context)

<b>collectpattern</b>	function
<b>current</b>	function
<b>expandname</b>	function
<b>found</b>	function
<b>glob</b>	function
<b>globdirs</b>	function
<b>globfiles</b>	function

<b>globpattern</b>	function
<b>ls</b>	function
<b>makedirs</b>	function
<b>mkdirs</b>	function
<b>pop</b>	function
<b>push</b>	function

## directives (context)

<b>data</b>	data table
<b>default</b>	function
<b>disable</b>	function
<b>done</b>	table
<b>enable</b>	function
<b>list</b>	function

<b>name</b>	string
<b>register</b>	function
<b>report</b>	function
<b>reset</b>	function
<b>show</b>	function
<b>value</b>	function

# document (context)

<b>arguments</b>	data table		D modes	
<b>files</b>	table		D modules	
<b>functions</b>	table	<b>setargument</b>		function
<b>getargument</b>	function	<b>setcommandline</b>		function
<b>getfilename</b>	function	<b>setdefaultargument</b>		function
<b>options</b>	table	<b>setenvironments</b>		function
T commandline		<b>setfilename</b>		function
D environments		<b>setfilenames</b>		function
D modes		<b>setmodes</b>		function
D modules		<b>setmodules</b>		function
T ctxfile		<b>variables</b>		data table
D environments				

## environment (context)

<b>argument</b>	function	<b>luafile</b>	function
<b>arguments</b>	data table	<b>luafilechunk</b>	function
<b>basicengines</b>	data table	<b>luatexengine</b>	string
<b>currentrun</b>	number	<b>luatexfuncitonality</b>	number
<b>default_texmfcnf</b>	string	<b>luatexversion</b>	number
<b>definefilefallback</b>	function	<b>maxnofruns</b>	number
<b>definefilesynonym</b>	function	<b>originalarguments</b>	data table
<b>engineflags</b>	data table	<b>outputfilename</b>	string
<b>filename</b>	string	<b>ownbin</b>	string
<b>files</b>	table	<b>ownmain</b>	string
<b>filesynonyms</b>	data table	<b>ownname</b>	string
<b>forcedruns</b>	number	<b>ownpath</b>	string
<b>getargument</b>	function	<b>prerollrun</b>	boolean
<b>homedir</b>	string	<b>rawarguments</b>	data table
<b>initex</b>	boolean	<b>reconstructcommandline</b>	function
<b>initexmode</b>	boolean	<b>relativepath</b>	function
<b>initializearguments</b>	function	<b>setargument</b>	function
<b>initializefilenames</b>	function	<b>splitarguments</b>	function
<b>inputfilebarename</b>	string	<b>suffix</b>	string
<b>inputfilename</b>	string	<b>texfile</b>	function
<b>inputfilesuffix</b>	string	<b>texmfos</b>	string
<b>jobfilefullname</b>	string	<b>texos</b>	string
<b>jobfilename</b>	string	<b>texroot</b>	string
<b>jobfilesuffix</b>	string	<b>truefilename</b>	function
<b>jobname</b>	string	<b>uselua module</b>	function
<b>kindofrun</b>	number	<b>usemodules</b>	function
<b>loadexamodes</b>	function	<b>validengines</b>	data table
<b>loadluafile</b>	function	<b>version</b>	string

# epdf (extra tex)

<b>AttributeOwner_Type</b>	function	<b>open</b>	overloaded function
<b>Attribute_Type</b>	function	<b>openMemStream</b>	function
<b>Object_Type</b>	function	<b>type</b>	function
<b>StructElement_Type</b>	function		



## experiments (context)

<b>data</b>	data table
<b>default</b>	function
<b>disable</b>	function
<b>enable</b>	function
<b>list</b>	function
<b>name</b>	string

<b>register</b>	function
<b>report</b>	function
<b>reset</b>	function
<b>show</b>	function
<b>value</b>	function

# figures (context)

<b>applyratio</b>	function	<b>F node</b>	
<b>badname</b>	function	<b>F ofindex</b>	
<b>bases</b>	data table	<b>F package</b>	
<b>bitmapimage</b>	function	<b>F print</b>	
<b>boxnumber</b>	number	<b>F scan</b>	
<b>cachepaths</b>	data table	<b>F serialize</b>	
<b>check</b>	function	<b>F tonode</b>	
<b>checkers</b>	data table	<b>F totable</b>	
<b>converters</b>	data table	<b>F types</b>	
<b>current</b>	function	<b>F write</b>	
<b>defaultdepth</b>	number	<b>include</b>	function
<b>defaultheight</b>	number	<b>includers</b>	data table
<b>defaultsearch</b>	boolean	<b>initialize</b>	function
<b>defaultwidth</b>	number	<b>loaded</b>	data table
<b>done</b>	function	<b>localpaths</b>	data table
<b>dummy</b>	function	<b>magics</b>	data table
<b>exists</b>	data table	<b>mergegoodies</b>	function
<b>exists</b>	function	<b>nofmissing</b>	number
<b>formats</b>	data table	<b>nofprocessed</b>	number
<b>found</b>	data table	<b>order</b>	data table
<b>get</b>	function	<b>paths</b>	data table
<b>getinfo</b>	function	<b>patterns</b>	data table
<b>getpdfinfo</b>	function	<b>pop</b>	function
<b>getrealpage</b>	function	<b>preferquality</b>	boolean
<b>guess</b>	function	<b>programs</b>	data table
<b>hash</b>	function	<b>push</b>	function
<b>identifiers</b>	data table	<b>registerpattern</b>	function
<b>identify</b>	function	<b>registerresource</b>	function
<b>images</b>	table	<b>registersuffix</b>	function
<b>F boxes</b>		<b>resources</b>	data table
<b>F check</b>		<b>scale</b>	function
<b>F checksize</b>		<b>set</b>	function
<b>F clone</b>		<b>setlookups</b>	function
<b>F copy</b>		<b>setmemstream</b>	function
<b>F immediatewrite</b>		<b>setorder</b>	function
<b>F immediatewriteobject</b>		<b>setpaths</b>	function
<b>F keys</b>		<b>suffixes</b>	data table
<b>F new</b>		<b>used</b>	data table

## file (basic lua)

<b>addsuffix</b>	function
<b>basename</b>	function
<b>checksum</b>	function
<b>collapsepath</b>	function
<b>copy</b>	function
<b>dirname</b>	function
<b>expandname</b>	function
<b>extname</b>	function
<b>is_qualified_path</b>	function
<b>is_readable</b>	function
<b>is_rootbased_path</b>	function
<b>is_writable</b>	function
<b>isreadable</b>	function
<b>iswritable</b>	function
<b>join</b>	function
<b>joinpath</b>	function
<b>loadchecksum</b>	function
<b>nameonly</b>	function
<b>nametotable</b>	function
<b>needs Updating</b>	function

<b>needsupdating</b>	function
<b>pathpart</b>	function
<b>readdata</b>	function
<b>removesuffix</b>	function
<b>replacesuffix</b>	function
<b>reslash</b>	function
<b>robustname</b>	function
<b>savechecksum</b>	function
<b>savedata</b>	function
<b>size</b>	function
<b>splitbase</b>	function
<b>splitname</b>	function
<b>splitpath</b>	function
<b>strip</b>	function
<b>suffix</b>	function
<b>suffixes</b>	function
<b>suffixesonly</b>	function
<b>suffixonly</b>	function
<b>syncmtimes</b>	function
<b>withinbase</b>	function

## fio (extra lua)

<b>checkpermission</b>	function	<b>readfixed4</b>	function
<b>getposition</b>	function	<b>readinteger1</b>	function
<b>read2dot14</b>	function	<b>readinteger2</b>	function
<b>readbytes</b>	function	<b>readinteger3</b>	function
<b>readbytetable</b>	function	<b>readinteger4</b>	function
<b>readcardinal1</b>	function	<b>readline</b>	function
<b>readcardinal2</b>	function	<b>recordfilename</b>	function
<b>readcardinal3</b>	function	<b>setposition</b>	function
<b>readcardinal4</b>	function	<b>skipposition</b>	function
<b>readfixed2</b>	function		

# floats (context)

<b>analysemethod</b>	function	<b>nofstacked</b>	function
<b>checkedpagefloat</b>	function	<b>pop</b>	function
<b>collect</b>	function	<b>push</b>	function
<b>consult</b>	function	<b>resave</b>	function
<b>flush</b>	function	<b>save</b>	function
<b>getvariable</b>	function	<b>stacked</b>	function
<b>hasstacked</b>	function		

## font (basic tex)

<b>addcharacters</b>	function	<b>id</b>	function
<b>current</b>	function	<b>max</b>	function
<b>define</b>	function	<b>nextid</b>	function
<b>each</b>	function	<b>read_tfm</b>	function
<b>fonts</b>	table	<b>read_vf</b>	function
<b>frozen</b>	function	<b>setexpansion</b>	function
<b>getfont</b>	overloaded function	<b>setfont</b>	function

# fonts (context)

## **analyzers**      table

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

## **checkers**      table

- F getmissing
- 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 registermain
- F report
- F reset
- T vectors

## **constructors**      table

- F addcharacters
- F addcoreunicodes
- F aftercopyingcharacters
- F applymanipulators
- F assignmathparameters
- B autocleanup
- F beforecopyingcharacters
- D cache
- B cacheintex
- F calculatescale
- F checkedfeatures
- F checkedfilename
- F cleanupable
- F collectprocessors

- F currentfonthasfeature

- D designsizes

- D dontembed

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



F cff	F getaxisscale
F cff2	F getfactors
F cffcheck	F getscales
F checkhash	F gotodatatable
F cmap	F normalizedaxis
F colr	T normalizedaxisishash
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 gvar	F readcardinal1
F head	F readcardinal2
T helpers	F readcardinal2le
F axistofactors	F readcardinal3
F cleanname	F readcardinal3le

F readcardinal4	F setfeatures
F readcardinal4le	T statistics
F readchar	D usedfeatures
F readfixed2	F storepdfdata
F readfixed4	T svg
F readinteger	F filterglyph
F readinteger1	F topdf
F readinteger2	D svgcache
F readinteger2le	B svgenabled
F readinteger3	T tables
F readinteger3le	D baselines
F readinteger4	D features
F readinteger4le	D featuretypes
F readsignedbyte	D languages
F readstring	D scripts
F readtag	N version
F setposition	T pfb
F size	F loadvector
F skip	T tfm
F skiplong	F addtounicode
F skipposition	D features
F skipshort	N maxnestingdepth
F writebyte	N maxnestingsize
F writecardinal2	F reencode
F writecardinal4	F setfeatures
F writestring	N version
F svg	T vf
N tableversion	T combinations
F unifymissing	F combine
F unpack	T combiner
F vhea	D commands
F vmtx	D helpers
F vorg	D math
F vvar	D predefined
F woff2otf	N version
F registerpalette	D whatever
F registerplugin	F hashfeatures
F reorderlookups	F hashinstance
T sbix	T hashmethods
F topdf	F normal
D sbixcache	F virtual
B sbixenabled	F initializefeatures
F scriptandlanguage	T keys
F setdynamics	T characters

T descriptions	S width	
T parameters	S embedding	
S ascender	S encodingbytes	
S descender	S filename	
S designsize	S finalized	
T expansion	S fontname	
S auto	S format	
S shrink	S fullname	
S step	S hasitalics	
S stretch	S hasmath	
S extendfactor	S mathitalics	
S factor	S mode	
S hfactor	S name	
S mathsize	S noglyphnames	
S mode	S nostackmath	
T protrusion	S psname	
S auto	S textitalics	
S quad	S virtualized	
S scaledpoints	D loadedfonts	
S scriptpercentage	S namemode	
S scriptscriptpercentage	N noffontsloaded	
S size	N nofsharedfonts	
S slantfactor	N nofsharedhashes	
S slantperpoint	N nofsharedvectors	
T spacing	N privateoffset	
S extra	D privateslots	
S shrink	F readanddefine	
S stretch	F registerfeature	
S width	F resetfeature	
S units	B resolvevirtualtoo	
S vfactor	F scale	
S width	F scaled	
S xheight	F setfactor	
T properties	F setfeature	
S autoitalicamount	F setmathparameter	
S cidinfo	F setname	
T effect	B sharefonts	
S ddelta	F trytosharefont	
S effect	N version	
S factor	<b>current</b>	function
S hdelta	<b>currentid</b>	function
S hfactor	<b>definers</b>	table
S vfactor	F addlookup	
S wdelta	F analyze	

- F applypostprocessors
- F checkedmode
- F checkedscript
- F current
- S defaultlookup
- F define
- F getspecification
- F internal
- F loadfont
- F makespecification
- T methods
  - F install
  - D variants
- F read
- F register
- F registered
- F registersplit
- F resetnullfont
- F resolve
- T resolvers
  - F file
  - F name
  - F spec

**definetypeface** function

**encodings** table

- T agl
  - D ctxcodes
  - D extras
  - D names
  - D synonyms
  - D unicodes
- D cache
- F is\_known
- D known
- F load
- F make\_unicode\_vector
- D math
- N version

**enhanceid** function

**expansions** data table

**formats** data table

**getalternate** function

**getkern** function

**getmultiple** function

**getsubstitution** function

**getters** table

- T alternate
  - F opentype
- T kern
  - F opentype
- F type1
- T multiple
  - F opentype
- T substitution
  - F opentype

**goodies** table

- D colorschemes
- T data
  - T dejavu-math
    - S author
    - S comment
    - S copyright
  - B initialized
  - T mathematics
    - T alternates
      - T dotless
        - S comment
        - S feature
        - N value
- T kerns
  - S name
  - S version
- T schola-math
  - S author
  - S comment
  - S copyright
  - B initialized
  - T mathematics
    - T alternates
      - T dotless
        - S comment
        - S feature
        - N value
- T kerns
  - S name
  - S version
- D designsizes
- D filenames

- F getcompositions
- T list
- F load
- F prepare\_features
- F register
- F registerpostprocessor
- F report
- T suffixes
- handlers**                   table
- hashes**                   table
- D characters
- D classes
- D csnames
- D descriptions
- D dynamics
- D emwidths
- D exheights
- D extensibles
- D features
- D identifiers
- D italics
- D lastmathids
- D marks
- D modes
- D originals
- D parameters
- T processes
- D properties
- D quads
- D resources
- T setdynamics
- T shapes
- D spaces
- D spacings
- T streams
- D unicones
- D variants
- D xheights
- helpers**                   table
- F addextraprivate
- F addprivate
- F appendcommands
- F checkflags
- F checkmerge

- F checksteps
- D commands
- F descriptiontoslot
- F dimenfactor
- F expandglyph
- T extraprivates
- F fontpatternhassize
- F getcoloredglyphs
- F getdigitwidth
- F getinstancespec
- F getparameters
- F getprivatecharornode
- F getprivatenode
- F getprivates
- F getprivateslot
- F hasprivate
- F indextoslot
- F name
- F nametoslot
- F prependcommands
- F setdigitwidth
- F splitfontpattern
- F tochar
- infofont**                   function
- iterators**                table
- F characters
- F descriptions
- F glyphs
- loggers**                   table
- F add\_placeholders
- D category\_to\_placeholder
- F format
- F onetimemessage
- F register
- F reportdefinedfonts
- F reportusedfeatures
- mappings**                table
- F addtounicode
- F fromunicode16
- F loadfile
- F loadline
- F makenameparser
- D overloads
- F reset

F tounicode		D extras	
F tounicode16		F fallback	
F tounicode16sequence		D fallbacks	
<b>metapost</b>	table	F features	
F boundingbox		F filefallback	
F boxtomp		F fontdata	
F draw		F fontfallback	
F fill		F fontsynonym	
F maxbounds		F goodies	
F output		F mathfallback	
F paths		D methods	
F widthline		D presets	
F zeroline		F registerfallback	
<b>mp</b>	table	F registerfiles	
D cache		F registerfontalternative	
B inline		F registerfontfamily	
N version		F textfallback	
<b>names</b>	data table	F typeface	
<b>nulldata</b>	data table	F typescript	
<b>protrusions</b>	data table	F userdata	
<b>readers</b>	table	<b>specifiers</b>	table
F afm		D contextmerged	
F check_lua		F contextnumber	
F check_tfm		D contextnumbers	
F lua		D contextsetups	
F ofm		F contexttostring	
F opentype		F definecontext	
F otf		F mergecontext	
F pfb		F presetcontext	
D sequence		F registercontext	
F tfm		F showcontext	
F ttc		F splitcontext	
F ttf		D synonyms	
F woff		D variants	
<b>reserveid</b>	function	<b>symbols</b>	table
<b>select</b>	table	T emoji	
D alternatives		F checked	
F bodyfont		F resolved	
D data		F uselibrary	
F default		<b>tables</b>	table
D defaults		D data	
F definefallbackfamily		F savefont	
F definefontfamily		F saveoriginal	
F definefontfamilypreset		<b>tracers</b>	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

## gzip (extra lua)

**close**    function  
**lines**    function  
**load**    function

**open**    function  
**save**    function  
**suffix** function

## img (basic tex)

<b>boxes</b>	function	<b>ofindex</b>	function
<b>check</b>	function	<b>package</b>	function
<b>checksize</b>	function	<b>print</b>	function
<b>clone</b>	function	<b>scan</b>	function
<b>copy</b>	function	<b>serialize</b>	function
<b>immediatewrite</b>	function	<b>tonode</b>	function
<b>immediatewriteobject</b>	function	<b>totable</b>	function
<b>keys</b>	function	<b>types</b>	function
<b>new</b>	function	<b>write</b>	function
<b>node</b>	function		

# interactions (context)

**attachments** data table

**fields** table

- F clone
- F define
- F defineset
- F insert

**general** table

- F getidentity
- F setupidentity

**help** table

- F collect
- F reference
- F register

**javascripts** table

- F addtopreamble
- F code
- D codes
- F flushpreambles

D functions

D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

**linkedslists** data table

**pages** table

- F setpagetransition
- F setupcanvas

**references** table

- F setcloseddocument
- F setclosepage
- F setopendocument
- F setopenpage

**renderings** data table

**soundclips** data table

# interfaces (context)

<b>_</b>	data table
<b>addvalidkeys</b>	function
<b>cachedsetups</b>	data table
<b>cachedsetup</b>	function
<b>checkedspecification</b>	function
<b>complete</b>	data table
<b>constants</b>	data table
<b>corenamespaces</b>	data table
<b>currentinterface</b>	string
<b>currentresponse</b>	string
<b>definecommand</b>	function
<b>defined</b>	function
<b>doifelsemessage</b>	function
<b>elements</b>	data table
<b>formats</b>	data table
<b>getcheckedparameters</b>	function
<b>getmessage</b>	function
<b>getnamespace</b>	function
<b>getsetupstring</b>	function
<b>hashedsetups</b>	data table
<b>implement</b>	function
<b>interfacedcommand</b>	function
<b>interfaces</b>	table
<b>invalidkey</b>	function
<b>message</b>	function
<b>namespaces</b>	table

F define

<b>F list</b>	
<b>registernamespace</b>	function
<b>registerscanner</b>	function
<b>scanners</b>	data table
<b>setconstant</b>	function
<b>setcount</b>	function
<b>setdimen</b>	function
<b>setelement</b>	function
<b>setformat</b>	function
<b>setmacro</b>	function
<b>setmessage</b>	function
<b>setmessages</b>	function
<b>settranslation</b>	function
<b>setupstrings</b>	data table
<b>setuserinterface</b>	function
<b>setvalidkeys</b>	function
<b>setvariable</b>	function
<b>showmessage</b>	function
<b>storedscanners</b>	data table
<b>strings</b>	table
<b>syntax</b>	data table
<b>tolist</b>	function
<b>translations</b>	data table
<b>usednamespaces</b>	data table
<b>variables</b>	data table
<b>writestatus</b>	function

## io (basic lua)

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

# job (context)

<b>comment</b>	function	F check	
<b>datasets</b>	table	D collected	
D collected		F count	
F extend		F define	
F getdata		F find	
F setdata		F first	
D tobesaved		F get	
<b>disablesave</b>	function	F getcollected	
<b>embedded</b>	table	F getdata	
D collected		F getfield	
D tobesaved		F gettobesaved	
<b>fileobjreferences</b>	table	F inlist	
D collected		F last	
D tobesaved		F list	
<b>files</b>	table	F save	
D collected		F savetagged	
F context		D tobesaved	
B forcerun		<b>positions</b>	table
F run		F b_column	
D tobesaved		F b_region	
<b>getrandomseed</b>	function	F c	
<b>initialize</b>	function	D collected	
<b>load</b>	function	F column	
<b>loadother</b>	function	F copy	
<b>objects</b>	table	F depth	
D collected		F e_column	
F get		F e_region	
F number		F enhance	
F page		F extra	
F save		T free	
F set		F get	
D tobesaved		F getreserved	
<b>pack</b>	boolean	F gettobesaved	
<b>packversion</b>	number	F hangafter	
<b>pagestates</b>	table	F hangindent	
D collected		F height	
F extend		F hsize	
F realpage		F leftskip	
F setstate		F lowerleft	
D tobesaved		F lowerright	
<b>passes</b>	table	F markregionbox	

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



## lang (basic tex)

<b>clean</b>	function
<b>clear_hyphenation</b>	function
<b>clear_patterns</b>	function
<b>exceptions</b>	function
<b>gethjcode</b>	function
<b>hyphenate</b>	function
<b>hyphenation</b>	function
<b>hyphenationmin</b>	function

<b>id</b>	function
<b>new</b>	function
<b>patterns</b>	function
<b>postexhyphenchar</b>	function
<b>posthyphenchar</b>	function
<b>preexhyphenchar</b>	function
<b>prehyphenchar</b>	function
<b>sethjcode</b>	function

# languages (context)

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

T enablers

F load

B enables

T methods

F found

N threshold

# layouts (context)

<b>status</b>	table	F leftorrightpageaction
	F isleftpage	

## lfs (extra lua)

<b>attributes</b>	overloaded function	<b>mkdir</b>	overloaded function
<b>chdir</b>	overloaded function	<b>mkdirs</b>	function
<b>currentdir</b>	function	<b>readlink</b>	overloaded function
<b>dir</b>	overloaded function	<b>rmdir</b>	overloaded function
<b>isdir</b>	overloaded function	<b>setmode</b>	overloaded function
<b>isfile</b>	overloaded function	<b>shortname</b>	overloaded function
<b>isfound</b>	function	<b>symlinkattributes</b>	overloaded function
<b>link</b>	overloaded function	<b>touch</b>	overloaded function
<b>lock</b>	function	<b>unlock</b>	function
<b>lock_dir</b>	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)

<b>color</b>	function
<b>convert</b>	function
<b>convertfile</b>	function
<b>convertstring</b>	function
<b>einject</b>	function
<b>eprint</b>	function
<b>escape</b>	function
<b>finalized</b>	function
<b>finject</b>	function
<b>fprint</b>	function
<b>get</b>	function
<b>getvariables</b>	function
<b>htmfile</b>	function
<b>html</b>	table
F a	
F td	
F th	
<b>include</b>	function
<b>inherited</b>	table
S color-background-four	
S color-background-one	
S color-background-three	
S color-background-two	
S title	
<b>initialize</b>	function
<b>inject</b>	function
<b>lmxfile</b>	function

<b>loadedfile</b>	function
<b>make</b>	function
<b>new</b>	function
<b>overloaderror</b>	function
<b>popupfile</b>	function
<b>print</b>	function
<b>pv</b>	function
<b>report</b>	function
<b>reset</b>	function
<b>result</b>	function
<b>set</b>	function
<b>show</b>	function
<b>showdebuginfo</b>	function
<b>showerror</b>	function
<b>stripcss</b>	function
<b>tv</b>	function
<b>type</b>	function
<b>urlescape</b>	function
<b>variable</b>	function
<b>variables</b>	table
S color-background-blue	
S color-background-body	
S color-background-green	
S color-background-main	
S color-background-purple	
S color-background-yellow	
S title-default	

# logs (context)

<b>application</b>	function	<b>reportlines</b>	function
<b>categories</b>	function	<b>setformats</b>	function
<b>direct</b>	function	<b>setformatters</b>	function
<b>disable</b>	function	<b>setlogfile</b>	function
<b>enable</b>	function	<b>setmessenger</b>	function
<b>exporters</b>	table	<b>setprocessor</b>	function
<b>extendbanner</b>	function	<b>setprogram</b>	function
<b>finalactions</b>	function	<b>settarget</b>	function
<b>flush</b>	function	<b>settimedlog</b>	function
<b>help</b>	function	<b>settranslations</b>	function
<b>loggingerrors</b>	function	<b>show</b>	function
<b>messenger</b>	function	<b>show_close</b>	function
<b>new</b>	function	<b>show_load</b>	function
<b>newline</b>	function	<b>show_open</b>	function
<b>poptarget</b>	function	<b>simple</b>	function
<b>pushtarget</b>	function	<b>simpleline</b>	function
<b>registerfinalactions</b>	function	<b>simplelines</b>	function
<b>report</b>	function	<b>start_page_number</b>	function
<b>reportbanner</b>	function	<b>starterrorlogging</b>	function
<b>reported</b>	function	<b>startfilelogging</b>	function
<b>reporter</b>	function	<b>status</b>	function
<b>reporters</b>	table	<b>stop_page_number</b>	function
F banner		<b>stoperrorlogging</b>	function
F export		<b>stopfilelogging</b>	function
F help		<b>subdirect</b>	function
F info		<b>subreport</b>	function
F lines		<b>system</b>	function
F version		<b>texerrormessage</b>	function
<b>reportline</b>	function	<b>writer</b>	function



# lpdf (context)

<b>action</b>	function
<b>adddocumentcolorspace</b>	function
<b>adddocumenttextgstate</b>	function
<b>adddocumentpattern</b>	function
<b>adddocumentshade</b>	function
<b>addtocatalog</b>	function
<b>addtoinfo</b>	function
<b>addtonames</b>	function
<b>addtopageattributes</b>	function
<b>addtopageresources</b>	function
<b>addtopagesattributes</b>	function
<b>addxmpinfo</b>	function
<b>annotationspecification</b>	function
<b>array</b>	function
<b>boolean</b>	function
<b>border</b>	function
<b>checkedkey</b>	function
<b>checkedvalue</b>	function
<b>circularshade</b>	function
<b>cmykcode</b>	function
<b>collectedresources</b>	function
<b>color</b>	function
<b>colorspace</b>	function
<b>colorspaceconstants</b>	data table
<b>colorspec</b>	function
<b>colorvalue</b>	function
<b>colorvalues</b>	function
<b>compresslevel</b>	function
<b>constant</b>	function
<b>copyarray</b>	function
<b>copyboolean</b>	function
<b>copyconstant</b>	function
<b>copydictionary</b>	function
<b>copyfloat</b>	function
<b>copyinteger</b>	function
<b>copynumber</b>	function
<b>copystring</b>	function
<b>copyunicode</b>	function
<b>delayedobject</b>	function
<b>destinationspecification</b>	function
<b>dictionary</b>	function

<b>docstring</b>	function
<b>epdf</b>	table

- F contenttotext
- F expand
- F expanded
- F getpagecontent
- F getstructure
- F load
- F unload

<b>escaped</b>	function
<b>finalizeddocument</b>	function
<b>finalizepage</b>	function
<b>finishtransparencycode</b>	function
<b>flags</b>	table

- T annotations
- N AutoView
- N Hidden
- N Invisible
- N Locked
- N LockedContents
- N NoRotate
- N NoView
- N NoZoom
- N Print
- N Printable
- N ReadOnly
- N ToggleNoView
- N auto
- N hidden
- N printable
- T widgets
- N Comb
- N CommitOnSelChange
- N DoNotScroll
- N DoNotSpellCheck
- N Edit
- N FileSelect
- N MultiLine
- N NoExport
- N NoToggleToOff
- N Password

N PopUp		<b>null</b>	function
N PushButton		<b>number</b>	function
N Radio		<b>objectcompresslevel</b>	function
N RadiosInUnison		<b>pagereference</b>	function
N ReadOnly		<b>patternstream</b>	function
N Required		<b>pdfcolor</b>	function
N RichText		<b>pdftimestamp</b>	function
N Sort		<b>permitdetail</b>	function
N file		<b>protectresources</b>	boolean
N fixed		<b>rectangle</b>	function
N nocheck		<b>reference</b>	function
N protected		<b>registerannotation</b>	function
N readonly		<b>registerdestination</b>	function
N required		<b>registerdocumentfinalizer</b>	function
N sorted		<b>registerpagefinalizer</b>	function
N unavailable		<b>registerpattern</b>	function
<b>flushobject</b>	function	<b>reserveobject</b>	function
<b>flushstreamfileobject</b>	function	<b>rgbcode</b>	function
<b>flushstreamobject</b>	function	<b>rotationcm</b>	function
<b>formats</b>	data table	<b>setcompression</b>	function
<b>frompdfdoc</b>	function	<b>setdates</b>	function
<b>fromsixteen</b>	function	<b>settime</b>	function
<b>getcompression</b>	function	<b>settrailerid</b>	function
<b>gethpos</b>	function	<b>setversion</b>	function
<b>getmatrix</b>	function	<b>shareobject</b>	function
<b>getmetadata</b>	function	<b>shareobjectreference</b>	function
<b>getpos</b>	function	<b>spotcode</b>	function
<b>getversion</b>	function	<b>stream</b>	function
<b>getvpos</b>	function	<b>string</b>	function
<b>graycode</b>	function	<b>toeight</b>	function
<b>hasmatrix</b>	function	<b>topdfdoc</b>	function
<b>id</b>	function	<b>tosixteen</b>	function
<b>injectxmpinfo</b>	function	<b>transform</b>	function
<b>insertxmpinfo</b>	function	<b>transparency</b>	function
<b>layerreference</b>	function	<b>transparencycode</b>	function
<b>limited</b>	function	<b>transparencygroups</b>	table
<b>linearshade</b>	function	<b>B none</b>	
<b>majorversion</b>	function	<b>transparencyvalue</b>	function
<b>minorversion</b>	function	<b>unicode</b>	function
<b>nametree</b>	function	<b>verbose</b>	function

## lpeg (basic lua)

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

# ltn12 (extra lua)

**BLOCKSIZE**    number

**filter**        table

    F chain

    F cycle

**pump**          table

    F all

    F step

**sink**           table

    F chain

    F error

    F file

    F null

    F simplify

    F table

**source**        table

    F cat

    F chain

    F empty

    F error

    F file

    F rewind

    F simplify

    F string

# lua (basic tex)

<b>bytecode</b>	table	F loaded	
<b>bytedata</b>	data table	F required	
<b>bytdone</b>	table	F reset	
B page-cst		F resolvestring	
		F resolving	
<b>collectgarbage</b>	function	<b>mask</b>	string
<b>delay</b>	function	<b>messages</b>	data table
<b>finalize</b>	function	<b>name</b>	table
<b>firstbytecode</b>	number	<b>newtable</b>	function
<b>flush</b>	function	<b>numbers</b>	data table
<b>flushdelayed</b>	function	<b>registercode</b>	function
<b>get_functions_table</b>	function	<b>registeredcodes</b>	function
<b>getbytecode</b>	function	<b>registerfinalizer</b>	function
<b>getcalllevel</b>	function	<b>registername</b>	function
<b>getluaname</b>	function	<b>setbytecode</b>	function
<b>getstacktop</b>	function	<b>setluaname</b>	function
<b>lastbytecode</b>	number	<b>startupfile</b>	string
<b>macros</b>	table	<b>version</b>	string
B enabled			

# luatex (context)

<b>cleanuptempfiles</b>	function	F enable
<b>currentfile</b>	function	F finish
<b>registerdumpactions</b>	function	F pause
<b>registerpageactions</b>	function	F registerdisabler
<b>registerstartactions</b>	function	F registerenabler
<b>registerstopactions</b>	function	F resetfilename
<b>registertempfile</b>	function	F resume
<b>starttime</b>	number	F setfilename
<b>synctex</b>	table	F setup
F blockfilename		F start
F collect		F stop
F disable		F wrapup

# lxml (context)

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

<b>register</b>	function
<b>registerentity</b>	function
<b>removesetup</b>	function
<b>resetcdata</b>	function
<b>resetsetups</b>	function
<b>resolvedentity</b>	function
<b>root</b>	function
<b>save</b>	function
<b>serialize</b>	function
<b>setaction</b>	function
<b>setatt</b>	function
<b>setattribute</b>	function
<b>setcdata</b>	function
<b>setcommandtonone</b>	function
<b>setcommandtotext</b>	function
<b>setpar</b>	function
<b>setparam</b>	function
<b>setparameter</b>	function
<b>setsetup</b>	function
<b>snippet</b>	function
<b>sorters</b>	table

F add

F compare	
F flush	
F reset	
F show	
F sort	
<b>splitid</b>	function
<b>startraw</b>	function
<b>startunesescaped</b>	function
<b>stopraw</b>	function
<b>stopunesescaped</b>	function
<b>store</b>	function
<b>strip</b>	function
<b>stripped</b>	function
<b>tag</b>	function
<b>text</b>	function
<b>tobuffer</b>	function
<b>tofile</b>	function
<b>toparameters</b>	function
<b>toverbatim</b>	function
<b>verbatim</b>	function
<b>withindex</b>	function
<b>xmltexhandler</b>	data table



## math (basic lua)

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

# mathematics (context)

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

## md5 (extra lua)

<b>HEX</b>	function
<b>crypt</b>	function
<b>dec</b>	function
<b>decrypt</b>	function
<b>exor</b>	function

<b>hex</b>	function
<b>sum</b>	function
<b>sumHEXA</b>	overloaded function
<b>sumhexa</b>	overloaded function

# metapost (context)

<b>analyzeplugins</b>	function	<b>getjobdata</b>	function
<b>checkformat</b>	function	<b>getstatistics</b>	function
<b>checktexts</b>	function	<b>gettext</b>	function
<b>cm</b>	function	<b>graphic</b>	function
<b>collapse</b>	boolean	<b>graphic_base_pass</b>	function
<b>colorinitializer</b>	function	<b>initializescriptrunner</b>	function
<b>comment</b>	function	<b>installplugin</b>	function
<b>convert</b>	function	<b>instance</b>	function
<b>defaultformat</b>	string	<b>intermediate</b>	table
<b>defaultinstance</b>	string	T actions	
<b>defaultmethod</b>	string	F makempy	
<b>directrun</b>	function	<b>lastlog</b>	string
<b>escaped</b>	function	<b>load</b>	function
<b>exectime</b>	table	<b>makempy</b>	table
<b>extensiondata</b>	data table	N nofconverted	
<b>filterclippath</b>	function	F processgraphics	
<b>flush</b>	function	F registerfile	
<b>flushers</b>	table	<b>maketext</b>	function
T pdf		<b>metafun</b>	table
F comment		F interpolate	
F flushfigure		F topath	
F startfigure		<b>method</b>	number
F stopfigure		<b>mptopdf</b>	table
F textfigure		F convertmptopdf	
<b>flushliteral</b>	function	N nofconverted	
<b>flushnormalpath</b>	function	<b>n</b>	number
<b>flushreset</b>	function	<b>nofscriptruns</b>	function
<b>fonts</b>	table	<b>nvformat</b>	function
F define		<b>optimize</b>	boolean
T flusher		<b>parse</b>	function
F flushfigure		<b>pdf literals</b>	function
F startfigure		<b>pluginactions</b>	function
F stopfigure		<b>popvariable</b>	function
N instances		<b>popvariables</b>	function
F process		<b>process</b>	function
<b>format</b>	function	<b>processplugins</b>	function
<b>format_number</b>	function	<b>processspecial</b>	function
<b>format_string</b>	function	<b>properties</b>	table
<b>formatnumber</b>	function	<b>pushvariable</b>	function
<b>getclippath</b>	function	<b>pushvariables</b>	function
<b>getextensions</b>	function	<b>quickanddirty</b>	function

<b>reducetogray</b>	boolean	<b>sxsy</b>	function
<b>reporterror</b>	function	<b>tex</b>	table
<b>reset</b>	function	F get	
<b>resetlastlog</b>	function	F reset	
<b>resetplugins</b>	function	F set	
<b>runscript</b>	function	F setfrombuffer	
<b>scripterror</b>	function	<b>texerrors</b>	boolean
<b>setextensions</b>	function	<b>texexp</b>	function
<b>setoutercolor</b>	function	<b>texttextsdata</b>	function
<b>settext</b>	function	<b>theclippath</b>	function
<b>setvariable</b>	function	<b>tographic</b>	function
<b>showlog</b>	boolean	<b>totable</b>	function
<b>simple</b>	function	<b>unload</b>	function
<b>startgraphic</b>	function	<b>untagvariable</b>	function
<b>stopgraphic</b>	function	<b>variables</b>	table
<b>svformat</b>	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

**stuff** function

**unb64** function

**unqp** function

**wrap** function

**wrapt** table

F base64

F default

F quoted-printable

F text

**wrp** function

## mp (context)

<b>BackSpace</b>	function	<b>OuterMarginDistance</b>	function
<b>BaselineSkip</b>	function	<b>OuterMarginWidth</b>	function
<b>BodyFontSize</b>	function	<b>OverlayDepth</b>	function
<b>BottomDistance</b>	function	<b>OverlayHeight</b>	function
<b>BottomHeight</b>	function	<b>OverlayLineWidth</b>	function
<b>BottomSpace</b>	function	<b>OverlayOffset</b>	function
<b>CurrentColumn</b>	function	<b>OverlayWidth</b>	function
<b>CurrentHeight</b>	function	<b>PageDepth</b>	function
<b>CurrentWidth</b>	function	<b>PageFraction</b>	function
<b>CutSpace</b>	function	<b>PageNumber</b>	function
<b>EmWidth</b>	function	<b>PageOffset</b>	function
<b>ExHeight</b>	function	<b>PaperBleed</b>	function
<b>FooterDistance</b>	function	<b>PaperHeight</b>	function
<b>FooterHeight</b>	function	<b>PaperWidth</b>	function
<b>HSize</b>	function	<b>PrintPaperHeight</b>	function
<b>HeaderDistance</b>	function	<b>PrintPaperWidth</b>	function
<b>HeaderHeight</b>	function	<b>RealPageNumber</b>	function
<b>InPageBody</b>	function	<b>RightEdgeDistance</b>	function
<b>InnerEdgeDistance</b>	function	<b>RightEdgeWidth</b>	function
<b>InnerEdgeWidth</b>	function	<b>RightMarginDistance</b>	function
<b>InnerMarginDistance</b>	function	<b>RightMarginWidth</b>	function
<b>InnerMarginWidth</b>	function	<b>SpineWidth</b>	function
<b>LastPageNumber</b>	function	<b>StrutDepth</b>	function
<b>LayoutColumnDistance</b>	function	<b>StrutHeight</b>	function
<b>LayoutColumnWidth</b>	function	<b>SubPageNumber</b>	function
<b>LayoutColumns</b>	function	<b>TextHeight</b>	function
<b>LeftEdgeDistance</b>	function	<b>TextWidth</b>	function
<b>LeftEdgeWidth</b>	function	<b>TopDistance</b>	function
<b>LeftMarginDistance</b>	function	<b>TopHeight</b>	function
<b>LeftMarginWidth</b>	function	<b>TopSkip</b>	function
<b>LineHeight</b>	function	<b>TopSpace</b>	function
<b>MakeupHeight</b>	function	<b>VSize</b>	function
<b>MakeupWidth</b>	function	<b>_f_</b>	function
<b>NumberOfColumns</b>	function	<b>_get_count_</b>	function
<b>NumberOfPages</b>	function	<b>_get_dimen_</b>	function
<b>NumberOfSubPages</b>	function	<b>_get_toks_</b>	function
<b>NamedColor</b>	function	<b>_set_count_</b>	function
<b>OnOddPage</b>	function	<b>_set_dimen_</b>	function
<b>OnRightPage</b>	function	<b>_set_toks_</b>	function
<b>OuterEdgeDistance</b>	function	<b>blob_add</b>	function
<b>OuterEdgeWidth</b>	function	<b>blob_dimensions</b>	function

<b>blob_index</b>	function	<b>numeric</b>	function
<b>blob_inject</b>	function	<b>pair</b>	function
<b>blob_new</b>	function	<b>pairpoints</b>	function
<b>blob_raw_content</b>	function	<b>path</b>	function
<b>blob_raw_dimensions</b>	function	<b>pathpoints</b>	function
<b>blob_raw_reset</b>	function	<b>points</b>	function
<b>blob_raw_toutf</b>	function	<b>positionanchor</b>	function
<b>blob_raw_wipe</b>	function	<b>positionbox</b>	function
<b>blob_size</b>	function	<b>positioncurve</b>	function
<b>blob_width</b>	function	<b>positionpage</b>	function
<b>boolean</b>	function	<b>positionpath</b>	function
<b>dataset</b>	function	<b>positionpxy</b>	function
<b>datasets</b>	table	<b>positionregion</b>	function
F load		<b>positionwhd</b>	function
<b>defaultcolormodel</b>	function	<b>positionxy</b>	function
<b>dimension</b>	function	<b>prefix</b>	function
<b>disposehash</b>	function	<b>print</b>	function
<b>disposestore</b>	function	<b>processingmode</b>	function
<b>finish_saving_data</b>	function	<b>quadruple</b>	function
<b>format</b>	function	<b>quadruplepoints</b>	function
<b>formatted</b>	function	<b>quoted</b>	function
<b>fprint</b>	function	<b>report</b>	function
<b>fromstore</b>	function	<b>save_data</b>	function
<b>get</b>	table	<b>setcount</b>	function
F boolean		<b>setdimen</b>	function
F number		<b>settoks</b>	function
F numeric		<b>size</b>	function
F string		<b>start_saving_data</b>	function
<b>get_outline_text</b>	function	<b>stop_saving_data</b>	function
<b>getcount</b>	function	<b>systemmode</b>	function
<b>getdimen</b>	function	<b>tb_dimensions</b>	function
<b>gettoks</b>	function	<b>texstr</b>	function
<b>graphformat</b>	function	<b>texvar</b>	function
<b>inhash</b>	function	<b>tohash</b>	function
<b>integer</b>	function	<b>tostore</b>	function
<b>isarray</b>	function	<b>triplet</b>	function
<b>mode</b>	function	<b>tripletpoints</b>	function
<b>n</b>	function	<b>tt_dimensions</b>	function
<b>newhash</b>	function	<b>tt_initialize</b>	function
<b>newstore</b>	function	<b>vprint</b>	function



## mplib (extra tex)

<b>fields</b>	function	<b>get_numeric</b>	function
<b>finder</b>	function	<b>get_string</b>	function
<b>finders</b>	table	<b>new</b>	overloaded function
F file		<b>pen_info</b>	function
F mpstemplate		<b>preprocessed</b>	function
<b>get_boolean</b>	function	<b>version</b>	function
<b>get_number</b>	function		

# noads (context)

<b>handlers</b>	table		F render
F align			F resize
F alternates			F showtree
F autofences			F tags
F classes			F unscript
F collapse			F variants
F domains		<b>process</b>	function
F families		<b>processnested</b>	function
F fixscripts		<b>processors</b>	table
F italics			F mlist_to_hlist
F kernpairs			T unscript
F makeup		<b>processouter</b>	function
F relocate			

## node (basic tex)

<b>check_discretionaries</b>	function
<b>check_discretionary</b>	function
<b>copy</b>	function
<b>copy_list</b>	function
<b>count</b>	function
<b>current_attr</b>	function
<b>dimensions</b>	function
<b>direct</b>	table

- F check\_discretionaries
- F check\_discretionary
- F copy
- F copy\_list
- F count
- F current\_attr
- F dimensions
- F effective\_glue
- F end\_of\_math
- F find\_attribute
- F first\_glyph
- F flatten\_discretionaries
- F flush\_list
- F flush\_node
- F flush\_properties\_table
- F free
- F get\_attribute
- F get\_properties\_table
- F get\_synctex\_fields
- F getattributelist
- F getboth
- F getbox
- F getchar
- F getcomponents
- F getdepth
- F getdir
- F getdirection
- F getdisc
- F getfam
- F getfield
- F getfont
- F getglue
- F getheight

- F getid
- F getkern
- F getlang
- F getleader
- F getlist
- F getnext
- F getnucleus
- F getoffsets
- F getpenalty
- F getprev
- F getproperty
- F getshift
- F getsub
- F getsubtype
- F getsup
- F getwhd
- F getwidth
- F has\_attribute
- F has\_field
- F has\_glyph
- F hpack
- F insert\_after
- F insert\_before
- F is\_char
- F is\_direct
- F is\_glyph
- F is\_node
- F is\_zero\_glue
- F kerning
- F last\_node
- F length
- F ligaturing
- F new
- F protect\_glyph
- F protect\_glyphs
- F protrusion\_skippable
- F rangedimensions
- F remove
- F set\_attribute
- F set\_properties\_mode
- F set\_synctex\_fields

F setattributelist	F uses_font	
F setboth	F vpack	
F setbox	F write	
F setchar	<b>effective_glue</b>	function
F setcomponents	<b>end_of_math</b>	function
F setdepth	<b>family_font</b>	function
F setdir	<b>fields</b>	function
F setdirection	<b>find_attribute</b>	function
F setdisc	<b>first_glyph</b>	function
F setfam	<b>fix_node_lists</b>	function
F setfield	<b>flatten_discretionaries</b>	function
F setfont	<b>flush_list</b>	function
F setglue	<b>flush_node</b>	function
F setheight	<b>flush_properties_table</b>	function
F setkern	<b>free</b>	function
F setlang	<b>get_attribute</b>	function
F setleader	<b>get_properties_table</b>	function
F setlink	<b>getboth</b>	function
F setlist	<b>getchar</b>	function
F setnext	<b>getdisc</b>	function
F setnucleus	<b>getfield</b>	function
F setoffsets	<b>getfont</b>	function
F setpenalty	<b>getglue</b>	function
F setprev	<b>getid</b>	function
F setproperty	<b>getleader</b>	function
F setshift	<b>getlist</b>	function
F setsplit	<b>getnext</b>	function
F setsub	<b>getprev</b>	function
F setsubtype	<b>getproperty</b>	function
F setup	<b>getsubtype</b>	function
F setwhd	<b>getwhd</b>	function
F setwidth	<b>has_attribute</b>	function
F slide	<b>has_field</b>	function
F tail	<b>has_glyph</b>	function
F todirect	<b>hpack</b>	function
F tonode	<b>id</b>	function
F tostring	<b>insert_after</b>	function
F traverse	<b>insert_before</b>	function
F traverse_char	<b>is_char</b>	function
F traverse_id	<b>is_glyph</b>	function
F unprotect_glyph	<b>is_node</b>	function
F unprotect_glyphs	<b>is_zero_glue</b>	function
F unset_attribute	<b>kerning</b>	function
F usedlist	<b>last_node</b>	function

<b>length</b>	function	<b>subtype</b>	function
<b>ligaturing</b>	function	<b>subtypes</b>	function
<b>mlist_to_hlist</b>	function	<b>tail</b>	function
<b>new</b>	function	<b>tostring</b>	function
<b>next</b>	function	<b>traverse</b>	function
<b>prev</b>	function	<b>traverse_char</b>	function
<b>protect_glyph</b>	function	<b>traverse_id</b>	function
<b>protect_glyphs</b>	function	<b>type</b>	function
<b>protrusion_skippable</b>	function	<b>types</b>	function
<b>rangedimensions</b>	function	<b>unprotect_glyph</b>	function
<b>remove</b>	function	<b>unprotect_glyphs</b>	function
<b>set_attribute</b>	function	<b>unset_attribute</b>	function
<b>set_properties_mode</b>	function	<b>usedlist</b>	function
<b>setfield</b>	function	<b>uses_font</b>	function
<b>setglue</b>	function	<b>values</b>	function
<b>setproperty</b>	function	<b>vpack</b>	function
<b>setwhd</b>	function	<b>whatsits</b>	function
<b>slide</b>	function	<b>write</b>	function

## nodes (context)

<b>accentcodes</b>	data table	<b>disccodes</b>	data table
<b>aligned</b>	function	<b>discretionarycodes</b>	data table
<b>append</b>	function	<b>effective_glue</b>	function
<b>apply</b>	function	<b>end_of_math</b>	function
<b>applyvisuals</b>	function	<b>fencecodes</b>	data table
<b>astable</b>	function	<b>fields</b>	function
<b>basepoints</b>	function	<b>fillcodes</b>	data table
<b>boundarycodes</b>	data table	<b>find_attribute</b>	function
<b>boxes</b>	table	<b>first_glyph</b>	function
F dimensions		<b>firstcharacter</b>	function
F direct		<b>firstcharinbox</b>	function
F found		<b>firstdirinbox</b>	function
F reset		<b>firstglyph</b>	function
F restore		<b>flush</b>	function
F save		<b>flush_list</b>	function
<b>builders</b>	table	<b>flush_node</b>	function
F buildpage_filter		<b>free</b>	function
F vpack_filter		<b>fullhpack</b>	function
<b>check_discretionaries</b>	function	<b>getattr</b>	function
<b>codes</b>	data table	<b>getattribute</b>	function
<b>concat</b>	function	<b>getbox</b>	function
<b>copy</b>	function	<b>getchar</b>	function
<b>copy_list</b>	function	<b>getdisc</b>	function
<b>copy_node</b>	function	<b>getfield</b>	function
<b>count</b>	function	<b>getfont</b>	function
<b>countall</b>	function	<b>getglue</b>	function
<b>current_attr</b>	function	<b>getid</b>	function
<b>delete</b>	function	<b>getleader</b>	function
<b>destinations</b>	table	<b>getlist</b>	function
N attribute		<b>getnext</b>	function
T done		<b>getprev</b>	function
F handler		<b>getsubtype</b>	function
T stack		<b>getwhd</b>	function
<b>dimensionfields</b>	data table	<b>gluecodes</b>	data table
<b>dimensions</b>	function	<b>gluevalues</b>	data table
<b>dir_is_pop</b>	data table	<b>glyphcodes</b>	data table
<b>dir_negation</b>	data table	<b>glyphdir_is_equal</b>	data table
<b>dircodes</b>	data table	<b>glyphdir_is_opposite</b>	data table
<b>directioncodes</b>	data table	<b>glyphdir_is_orthogonal</b>	data table
<b>directionvalues</b>	data table	<b>handlers</b>	table
<b>dirvalues</b>	data table	F accessibility	

F backgrounds		<b>installattributehandler</b>	function
F backgroundspage		<b>is_char</b>	function
F backgroundsvbox		<b>is_direct</b>	function
F characters		<b>is_display_math</b>	function
F checkforleaks		<b>is_glyph</b>	function
F checkglyphs		<b>is_mirrored</b>	data table
F cleanupbox		<b>is_node</b>	function
F cleanuppage		<b>is_nut</b>	function
F export		<b>is_rotated</b>	data table
F finalize		<b>is_zero_glue</b>	function
F flatten		<b>ischar</b>	function
F flattenline		<b>isglyph</b>	function
F migrate		<b>kerncodes</b>	data table
F protectglyphs		<b>kerning</b>	function
F stripping		<b>keys</b>	table
F textbackgrounds		T whatsit	
F unprotectglyphs		<b>last_node</b>	function
<b>has_attribute</b>	function	<b>leadercodes</b>	data table
<b>has_field</b>	function	<b>leftmarginwidth</b>	function
<b>has_glyph</b>	function	<b>length</b>	function
<b>hpack</b>	function	<b>ligaturing</b>	function
<b>idstostring</b>	function	<b>linefillers</b>	table
<b>ignorablefields</b>	data table	D data	
<b>injections</b>	table	F define	
F copy		F enable	
F getligaindex		F filler	
F getthreshold		F handler	
F handler		<b>lines</b>	table
F installgetspaceboth		T boxed	
F installnewkern		F register	
F isspace		F setup	
F keepcounts		F stage_one	
F reset		F stage_two	
F resetcounts		D data	
F setcursive		F finalize	
F setkern		F number	
F setligaindex		N scratchbox	
F setmark		<b>link</b>	function
F setmove		<b>linked</b>	function
F setposition		<b>list</b>	function
F setspacekerns		<b>listablefields</b>	data table
<b>insert_after</b>	function	<b>listcodes</b>	data table
<b>insert_before</b>	function	<b>listtutf</b>	function
<b>insert_list_after</b>	function	<b>literalvalues</b>	data table

<b>load</b>	function	F find_attribute
<b>locate</b>	function	F first_glyph
<b>margincodes</b>	data table	F firstcharacter
<b>marginkerncodes</b>	data table	F firstcharinbox
<b>markers</b>	table	F firstglyph
F get		F flush
<b>mathcodes</b>	data table	F flush_list
<b>maxboxwidth</b>	function	F flush_node
<b>mlist_to_hlist</b>	function	F free
<b>new</b>	function	F fullhpack
<b>noadcodes</b>	data table	F get_components
<b>noadoptions</b>	table	F get_synctex_fields
N axis		F getattr
N exact		F getattribute
N left		F getattributelist
N middle		F getattrlist
N no_axis		F getboth
N right		F getbox
N set		F getboxglue
N unused_1		F getchar
N unused_2		F getcomponents
<b>nodecodes</b>	data table	F getdepth
<b>nopts</b>	function	F getdir
<b>nuts</b>	table	F getdirection
F append		F getdisc
F apply		F getdiscretionary
F applyvisuals		F getfam
F check_discretionaries		F getfield
F concat		F getfont
F copy		F getglue
F copy_list		F getheight
F copy_no_components		F getid
F copy_node		F getkern
F copy_only_glyphs		F getlang
F copy_properties		F getlanguage
F copyvisual		F getleader
F count		F getlist
F count_components		F getnext
F countall		F getnucleus
F current_attr		F getoffsets
F delete		F getpenalty
F dimensions		F getprev
F effective_glue		F getprop
F end_of_math		F getshift



F getsub	F emptyrule
F getsubtype	F fence
F getsup	F fontkern
F getsurround	F fraction
F getwhd	F glue
F getwidth	F gluespec
F has_attribute	F glyph
F has_field	F hlist
F has_glyph	F italicern
F hpack	F kern
F insert_after	F latelua
F insert_before	F lateluafunction
F insert_list_after	F leader
F is_char	F leftmarginkern
F is_direct	F leftskip
F is_display_math	F lineskip
F is_glyph	F mathchar
F is_node	F mathtextchar
F is_nut	F negatedglue
F is_zero_glue	F noad
F ischar	F pdfannotation
F isdone	F pdfdestination
F isglyph	F pdfdirectliteral
F kerning	F pdfliteral
F last_node	F pdforiginliteral
F leftmarginwidth	F pdfpageliteral
F length	F pdfrawliteral
F ligaturing	F pdfrestore
F link	F pdfsave
F linked	F pdfsetmatrix
F locate	F penalty
F mlist_to_hlist	F radical
F nestedtracedslide	F register
F new	F rightmarginkern
T pool	F rightskip
F accent	F rule
F baselineskip	F shrink
F boundary	F special
F choice	F stretch
F cleanup	F subbox
F delim	F sublist
F delimiter	F temp
F direction	F textdir
F disc	F usage

F userattributes	F setdisc
T userids	F setdiscretionary
N margins.inline	F setfam
N property	F setfield
N splitters.one	F setfont
N splitters.two	F setglue
F userlist	F setheight
F userlua	F setkern
F usernumber	F setlang
F userrule	F setlanguage
F userstring	F setleader
F usertokens	F setlink
F vlist	F setlist
F wordboundary	F setnext
F prepend	F setnucleus
F protect_glyph	F setoffsets
F protect_glyphs	F setpenalty
F protrusion_skippable	F setprev
F rangedimensions	F setprop
F rawprop	F setshift
F reference	F setsplit
F rehpack	F setsub
F remove	F setsubtype
F repackhlist	F setup
F replace	F setsurround
F rightmarginwidth	F setunsetattributes
T rules	F setvisual
F userrule	F setvisuals
F set_attribute	F setwhd
F set_components	F setwidth
F set_synctex_fields	F slide
F setattr	F somepenalty
F setattribute	F somespace
F setattributelist	F splitbox
F setattributes	F tail
F setattrlist	F take_components
F setboth	F takeattr
F setbox	F takebox
F setboxglue	F takelist
F setchar	F theprop
F setcomponents	F tonode
F setdepth	F tonodes
F setdir	F tonut
F setdirection	F tosequence

F tostring  
 F tracedslide  
 F traverse  
 F traverse\_char  
 F traverse\_id  
 T typesetters  
   F tohbox  
   F tohpack  
   F tonodes  
   F tovbox  
   F tovpack  
 F unprotect\_glyph  
 F unprotect\_glyphs  
 F unset\_attribute  
 F unsetattribute  
 F unsetattributes  
 F untracedslide  
 F use\_components  
 F usedlist  
 F uses\_font  
 F vianodes  
 F vianuts  
 F vpack  
 F write  
**packlist**  
**pardir\_is\_equal**  
**pardir\_is\_opposite**  
**pardir\_is\_parallel**  
**partextdir\_is\_equal**  
**pdfliteralvalues**  
**penaltycodes**  
**plugindata**  
   F finalizer  
   F initializer  
   S name  
   T namespace  
   N attribute  
   D data  
   F enable  
   F handler  
   F register  
   D registered  
   D values  
   F processor

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

**points**  
**pool**  
   F baselineskip  
   F cleanup  
   F glyph  
   F hlist  
   F kern  
   F latelua  
   F lineskip  
   F pdfdirectliteral  
   F pdforiginliteral  
   F pdfrestore  
   F pdfsave  
   F pdfsetmatrix  
   F register  
   F rule  
   F special  
   F usage  
   F usernumber  
   F vlist

**prepend**  
**print**  
**processors**

  F contribute\_filter  
   B enabled  
   F hpack\_filter  
   F post\_linebreak\_filter  
   F pre\_linebreak\_filter  
   F tracer

**processranges**  
**processwords**  
**properties**

  T actions  
   F delayed  
   F fdelayed  
   F immediate  
   F attach  
   T data  
   F delayed

**protect\_glyph**  
**protect\_glyphs**  
**protrusion\_skippable**  
**pts**  
**radicalcodes**

function  
 table

function  
 function  
 table

function  
 function  
 table

function  
 function  
 function  
 function  
 data table

<b>rangedimensions</b>	function	<b>shifts</b>	table
<b>reference</b>	function	D data	
<b>references</b>	table	F define	
N attribute		F enable	
T done		F handler	
F handler		<b>show</b>	function
T stack		<b>showboxes</b>	function
<b>reheap</b>	function	<b>showcodes</b>	function
<b>remove</b>	function	<b>showlist</b>	function
<b>repackhlist</b>	function	<b>showsimplelist</b>	function
<b>replace</b>	function	<b>skipcodes</b>	data table
<b>report</b>	function	<b>skipvalues</b>	data table
<b>rightmarginwidth</b>	function	<b>slide</b>	function
<b>rulecodes</b>	data table	<b>snapshots</b>	table
<b>rules</b>	table	F getparameters	
D data		F getsamples	
F define		F resetsamples	
F enable		F takesample	
F handler		<b>somepenalty</b>	function
T ruleactions		<b>somespace</b>	function
F box		<b>splitbox</b>	function
F draw		<b>stripdiscretionaries</b>	function
F fill		<b>stripping</b>	table
F mp		T glyphs	
F stroke		F set	
F userrule		<b>striprange</b>	function
<b>save</b>	function	<b>tail</b>	function
<b>serialize</b>	function	<b>takeattr</b>	function
<b>serializebox</b>	function	<b>takebox</b>	function
<b>set_attribute</b>	function	<b>tasks</b>	table
<b>setattr</b>	function	F actions	
<b>setattribute</b>	function	F appendaction	
<b>setattributes</b>	function	F disableaction	
<b>setboth</b>	function	F disablegroup	
<b>setbox</b>	function	F enableaction	
<b>setboxtonaturalwd</b>	function	F enablegroup	
<b>setfield</b>	function	F freeze	
<b>setglue</b>	function	F freezegroup	
<b>setlink</b>	function	F new	
<b>setlist</b>	function	F prependaction	
<b>setnext</b>	function	F removeaction	
<b>setprev</b>	function	F replaceaction	
<b>setunsetattributes</b>	function	F restart	
<b>setwhd</b>	function	F setaction	

F showactions		F rule	
F table		F resetproperties	
<b>texmdir_is_equal</b>	data table	F rule	
<b>texmdir_is_is</b>	data table	F setlist	
<b>texmdir_is_opposite</b>	data table	F setproperties	
<b>texmdir_is_parallel</b>	data table	F start	
<b>tobasepoints</b>	function	T steppers	
<b>tocentimeters</b>	function	F check	
<b>tociceros</b>	function	F codes	
<b>todidots</b>	function	F features	
<b>todimen</b>	function	F font	
<b>toinches</b>	function	F glyphs	
<b>tomillimeters</b>	function	F message	
<b>tonewciceros</b>	function	F messages	
<b>tonewdidots</b>	function	F nofsteps	
<b>tonode</b>	function	F register	
<b>tonodes</b>	function	F reset	
<b>tonut</b>	function	F start	
<b>topicsas</b>	function	F stop	
<b>topoints</b>	function	F stop	
<b>toscaledpoints</b>	function	T transparencies	
<b>tosequence</b>	function	F reset	
<b>tostring</b>	function	F set	
<b>totable</b>	function	F setlist	
<b>totree</b>	function	<b>traverse</b>	function
<b>toutf</b>	function	<b>traverse_char</b>	function
<b>tracers</b>	table	<b>traverse_id</b>	function
		<b>typesetters</b>	table
T characters		F hbox	
F collect		F hpack	
F equal		F tohbox	
F start		F tohpack	
F string		F tonodes	
F unicodes		F to vbox	
T colors		F to vpack	
F reset		F vpack	
F set		<b>unprotect_glyph</b>	function
F setlist		<b>unprotect_glyphs</b>	function
F fontchar		<b>unset_attribute</b>	function
T frequencies		<b>unsetattribute</b>	function
F register		<b>unsetattributes</b>	function
T pool		<b>usedlist</b>	function
T nodes		<b>usercodes</b>	data table
F rule		<b>vianodes</b>	function
T nuts			

**vianuts**  
**visualizebox**  
**visualizers**  
    F attribute  
    T attributes  
    F box  
    F handler  
    F markfonts

function  
function  
table

    F setfont  
    F setlayer  
    F setruledglyph  
    F setvisual

**vpack**  
**whatcodes**  
**whatsitcodes**  
**write**

function  
data table  
data table  
function

## number (context)

	function
<b>basepoints</b>	function
<b>bytetodecimal</b>	function
<b>compactfloat</b>	function
<b>decimaltobyte</b>	function
<b>dimenfactors</b>	data table
<b>formatted</b>	function
<b>formattedfloat</b>	function
<b>maxdimen</b>	number
<b>nopts</b>	function
<b>percent</b>	function
<b>points</b>	function
<b>pts</b>	function
<b>signed</b>	function
<b>sparseexponent</b>	function
<b>splitdimen</b>	function
<b>tobasepoints</b>	function
<b>tobitstring</b>	function

<b>tocentimeters</b>	function
<b>tociceros</b>	function
<b>tocontext</b>	function
<b>todidots</b>	function
<b>todimen</b>	function
<b>toevenhex</b>	function
<b>toinches</b>	function
<b>tomillimeters</b>	function
<b>tonewciceros</b>	function
<b>tonewdidots</b>	function
<b>tonumberf</b>	function
<b>tonumberg</b>	function
<b>topicas</b>	function
<b>topoints</b>	function
<b>toscaled</b>	function
<b>toscaledpoints</b>	function
<b>valid</b>	function

# objects (context)

<b>data</b>	table	<b>page</b>	function
<b>dimensions</b>	function	<b>reference</b>	function
<b>found</b>	function	<b>register</b>	function
<b>n</b>	number	<b>restore</b>	function



## os (basic lua)

<b>__getenv__</b>	function	<b>remove</b>	overloaded function
<b>__setenv__</b>	function	<b>rename</b>	overloaded function
<b>binsuffix</b>	string	<b>resolvers</b>	table
<b>binsuffixes</b>	table	<b>F bits</b>	
<b>clock</b>	function	<b>resultof</b>	function
<b>converttime</b>	function	<b>runtime</b>	function
<b>date</b>	function	<b>selfdir</b>	string
<b>difftime</b>	function	<b>setenv</b>	overloaded function
<b>env</b>	data table	<b>setlocale</b>	overloaded function
<b>exec</b>	overloaded function	<b>sleep</b>	function
<b>execute</b>	overloaded function	<b>spawn</b>	overloaded function
<b>exit</b>	function	<b>time</b>	function
<b>fulltime</b>	function	<b>times</b>	function
<b>getenv</b>	overloaded function	<b>timezone</b>	function
<b>gettimeofday</b>	function	<b>tmpdir</b>	function
<b>isleapyear</b>	function	<b>tmpname</b>	function
<b>launch</b>	function	<b>today</b>	function
<b>libsuffix</b>	string	<b>type</b>	string
<b>localtime</b>	function	<b>uname</b>	function
<b>name</b>	string	<b>uuid</b>	function
<b>newline</b>	string	<b>validdatetime</b>	function
<b>nofdays</b>	function	<b>weekday</b>	function
<b>now</b>	function	<b>where</b>	function
<b>pipeto</b>	function	<b>which</b>	function
<b>platform</b>	string		

## package (basic lua)

<b>config</b>	string	<b>luapaths</b>	function
<b>cpath</b>	string	<b>path</b>	overloaded string
<b>extralibpath</b>	function	<b>poplibpath</b>	function
<b>extralibpaths</b>	function	<b>popluapath</b>	function
<b>extralupath</b>	function	<b>preload</b>	table
<b>extralupaths</b>	function	<b>pushlibpath</b>	function
<b>helpers</b>	table	<b>pushluapath</b>	function
<b>libpaths</b>	function	<b>searchers</b>	table
<b>loaded</b>	table	<b>searchpath</b>	function
<b>loaders</b>	table	<b>seeall</b>	function
<b>loadlib</b>	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 sethspace
- 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)

<b>disablecommand</b>	function	<b>hasmatrix</b>	function
<b>fontname</b>	function	<b>immediateobj</b>	function
<b>fontobjnum</b>	function	<b>mapfile</b>	function
<b>fontsize</b>	function	<b>mapline</b>	function
<b>getcatalg</b>	function	<b>maxobjnum</b>	function
<b>getcompresslevel</b>	function	<b>newcolorstack</b>	function
<b>getcreationdate</b>	function	<b>obj</b>	function
<b>getdecimaldigits</b>	function	<b>objtype</b>	function
<b>getdestmargin</b>	function	<b>pageref</b>	function
<b>getgentounicode</b>	function	<b>print</b>	function
<b>gethpos</b>	function	<b>refobj</b>	function
<b>getignoreunknownimages</b>	function	<b>registerannot</b>	overloaded function
<b>getimageresolution</b>	function	<b>reserveobj</b>	function
<b>getinclusionerrorlevel</b>	function	<b>setcatalg</b>	overloaded function
<b>getinfo</b>	function	<b>setcompresslevel</b>	function
<b>getlastannot</b>	function	<b>setdecimaldigits</b>	function
<b>getlastlink</b>	function	<b>setdestmargin</b>	function
<b>getlastobj</b>	function	<b>setfontattributes</b>	function
<b>getlinkmargin</b>	function	<b>setgentounicode</b>	function
<b>getmajorversion</b>	function	<b>setignoreunknownimages</b>	function
<b>getmatrix</b>	function	<b>setimageresolution</b>	function
<b>getminorversion</b>	function	<b>setinclusionerrorlevel</b>	function
<b>getnames</b>	function	<b>setinfo</b>	overloaded function
<b>getobjcompresslevel</b>	function	<b>setlinkmargin</b>	function
<b>getomitcidset</b>	function	<b>setmajorversion</b>	function
<b>getorigin</b>	function	<b>setminorversion</b>	function
<b>getpageattributes</b>	function	<b>setnames</b>	overloaded function
<b>getpageresources</b>	function	<b>setobjcompresslevel</b>	function
<b>getpagesattributes</b>	function	<b>setomitcidset</b>	function
<b>getpkresolution</b>	function	<b>setorigin</b>	function
<b>getpos</b>	function	<b>setpageattributes</b>	overloaded function
<b>getretval</b>	function	<b>setpageresources</b>	overloaded function
<b>getsuppressoptionalinfo</b>	function	<b>setpagesattributes</b>	overloaded function
<b>getthreadmargin</b>	function	<b>setpkresolution</b>	function
<b>gettrailer</b>	function	<b>setsuppressoptionalinfo</b>	function
<b>gettrailerid</b>	function	<b>setthreadmargin</b>	function
<b>getversion</b>	function	<b>settrailer</b>	overloaded function
<b>getvpos</b>	function	<b>settrailerid</b>	overloaded function
<b>getxformattributes</b>	function	<b>setxformattributes</b>	function
<b>getxformmargin</b>	function	<b>setxformmargin</b>	function
<b>getxformresources</b>	function		

**setxformresources**

function

**xformname**

function

# pdfscanner (context)

**scan** function

# physics (context)

**units** table

F registerunit

D tables

# publications (context)

<b>addtexentry</b>	function	<b>converttoxml</b>	function
<b>analyze</b>	function	<b>currentspecification</b>	table
<b>anywhere</b>	function	S author	
<b>authorcache</b>	data table	T categories	
<b>authorcollapsers</b>	data table	T article	
<b>authorhashers</b>	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	
<b>authormap</b>	data table	S number	
<b>authortoregister</b>	function	S pages	
<b>casters</b>	table	S title	
F author		S volume	
F keyword		S year	
F pagenumber		T optional	
F range		T required	
<b>checkeddataset</b>	function	T sets	
<b>citevariants</b>	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	
<b>collected</b>	data table	S volume	
<b>components</b>	table	S year	
F author		T optional	
<b>concatstate</b>	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	<b>datasets</b>	table
S subtitle	<b>detailed</b>	table
S title	<b>endnotes_to_btx</b>	function
S year	<b>enhancer</b>	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	<b>enhancers</b>	table
S author	F details	
S institution	F order	
S organization	F suffixes	
S subtitle	<b>finder</b>	function
S title	<b>firstofrange</b>	function
S year	<b>found</b>	function
T optional	<b>get</b>	function
T required	<b>getcasted</b>	function
T sets	<b>getdetail</b>	function
T authors	<b>getdirect</b>	function
T virtual	<b>getfaster</b>	function
S comment	<b>getfield</b>	function
S copyright	<b>getfuzzy</b>	function
T fields	<b>getindex</b>	function
S name	<b>inspectors</b>	data table
T types	<b>journals</b>	table
S author	F abbreviated	
S editor	F add	
S keywords	F expanded	
S number	F load	
S page	F save	

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

**tracers**

table

F showdatasetauthors  
F showdatasetcompleteness  
F showdatasetfields  
F showentry  
F showfields  
F showhashedauthors  
F showtables  
F showvariants

**typesetters**

table

F author

F string

**usedataset**

function

**usedentries**

function

**writers**

table

F author

F keyword

F pagenumber

F range

## regimes (context)

<b>backmapping</b>	data table
<b>cleanup</b>	function
<b>disable</b>	function
<b>enable</b>	function
<b>fromregime</b>	function
<b>list</b>	function

<b>mapping</b>	data table
<b>pop</b>	function
<b>process</b>	function
<b>push</b>	function
<b>toregime</b>	function
<b>translate</b>	function

## resolvers (context)

<b>allprefixes</b>	function	<b>findpath</b>	function
<b>appendhash</b>	function	<b>findtexfile</b>	function
<b>automount</b>	function	<b>findwildcardfile</b>	function
<b>automounted</b>	table	<b>findwildcardfiles</b>	function
<b>booleanvariable</b>	function	<b>formatofsuffix</b>	function
<b>cacheversion</b>	string	<b>formatofvariable</b>	function
<b>checkedvariable</b>	function	<b>formats</b>	data table
<b>cleanedpathlist</b>	function	<b>foundintree</b>	function
<b>cleanpath</b>	function	<b>foundintrees</b>	function
<b>cleanpathlist</b>	function	<b>generators</b>	data table
<b>concatinators</b>	data table	<b>get_from_content</b>	function
<b>configbanner</b>	string	<b>getenv</b>	function
<b>configurationfiles</b>	function	<b>getextrapaths</b>	function
<b>criticalvars</b>	data table	<b>getfilehashes</b>	function
<b>dangerous</b>	data table	<b>gethashes</b>	function
<b>datastate</b>	function	<b>getownpath</b>	function
<b>defaultsuffixes</b>	table	<b>getreadfilename</b>	function
<b>dowithfilesandreport</b>	function	<b>hashers</b>	data table
<b>dowithfilesintree</b>	function	<b>homedir</b>	string
<b>dowithpath</b>	function	<b>initialized</b>	function
<b>dowithvariable</b>	function	<b>inputstack</b>	table
<b>env</b>	function	<b>installinputfilehandler</b>	function
<b>executers</b>	table	<b>installinputlinehandler</b>	function
<b>expandbraces</b>	function	<b>jobpath</b>	function
<b>expandedpathfromlist</b>	function	<b>jobs</b>	table
<b>expandedpathlist</b>	function	F currentcomponent	
<b>expandedpathlistfromvariable</b>	function	F currentenvironment	
<b>expandpath</b>	function	F currentproduct	
<b>expandpathfromvariable</b>	function	F currentproject	
<b>expansion</b>	function	F justacomponent	
<b>extendtexmfvariable</b>	function	D processors	
<b>filtered_from_content</b>	function	F productcomponent	
<b>find_file</b>	function	F usefile	
<b>find_files</b>	function	<b>joinpath</b>	function
<b>findbinfile</b>	function	<b>knownvariables</b>	function
<b>findctxfile</b>	function	<b>load</b>	function
<b>finders</b>	data table	<b>loadbinfile</b>	function
<b>findfile</b>	function	<b>loaders</b>	data table
<b>findfiles</b>	function	<b>loadlua lib</b>	function
<b>findgivenfile</b>	function	<b>loadtexfile</b>	function
<b>findgivenfiles</b>	function	<b>loadtime</b>	function

<b>locateformat</b>	function	<b>savers</b>	data table
<b>locators</b>	data table	<b>scandata</b>	function
<b>luacnffallback</b>	string	<b>scanfiles</b>	function
<b>luacnfname</b>	string	<b>schemes</b>	table
<b>luacnfspec</b>	string	T cleaners	
<b>luacnfstate</b>	string	F md5	
<b>macros</b>	table	F none	
F convertfile		F strip	
F decodecomment		F cleanname	
F enablecomment		F fetchstring	
F encodecomment		F fetchtable	
F preprocessed		F install	
F processmk		<b>setdynamic</b>	function
F processmkvi		<b>setenv</b>	function
F version		<b>setmemstream</b>	function
<b>maxreadlevel</b>	number	<b>showpath</b>	function
<b>methodhandler</b>	function	<b>simplescanfiles</b>	function
<b>openbinfile</b>	function	<b>splitconfigurationpath</b>	function
<b>openers</b>	data table	<b>splitexpansions</b>	function
<b>openfile</b>	function	<b>splitmethod</b>	function
<b>opentexfile</b>	function	<b>splitpath</b>	function
<b>ownpath</b>	string	<b>stackpath</b>	function
<b>popextrapath</b>	function	<b>starttiming</b>	function
<b>poppath</b>	function	<b>stoptiming</b>	function
<b>prefixes</b>	data table	<b>suffixes</b>	data table
<b>prependhash</b>	function	<b>suffixmap</b>	data table
<b>pushextrapath</b>	function	<b>suffixofformat</b>	function
<b>pushpath</b>	function	<b>texdatablob</b>	function
<b>registerextrapath</b>	function	<b>toppath</b>	function
<b>registerfile</b>	function	<b>unexpandedpath</b>	function
<b>registerfilehash</b>	function	<b>unexpandedpathlist</b>	function
<b>registerintrees</b>	function	<b>unresolve</b>	function
<b>registermethod</b>	function	<b>updaterelations</b>	function
<b>registerzipfile</b>	function	<b>updatescript</b>	function
<b>relations</b>	data table	<b>uselibrary</b>	function
<b>renew</b>	function	<b>usertypes</b>	data table
<b>renewcache</b>	function	<b>usezipfile</b>	function
<b>repath</b>	function	<b>validatedpath</b>	function
<b>reset</b>	function	<b>variable</b>	function
<b>resetextrapaths</b>	function	<b>variableofformat</b>	function
<b>resetmemstream</b>	function	<b>variableofformatorsuffix</b>	function
<b>resetresolve</b>	function	<b>wildcardpattern</b>	function
<b>resolve</b>	function		

## sandbox (context)

<b>disablelibraries</b>	function
<b>disablerunners</b>	function
<b>enable</b>	function
<b>filehandlerone</b>	function
<b>filehandlertwo</b>	function
<b>finalizer</b>	function
<b>getrunner</b>	function
<b>initializer</b>	function
<b>iohandler</b>	function
<b>logcalls</b>	function
<b>logfiles</b>	function
<b>original</b>	function
<b>overload</b>	function

<b>possiblepath</b>	function
<b>redefine</b>	function
<b>register</b>	function
<b>registerbinary</b>	function
<b>registerlibrary</b>	function
<b>registerroot</b>	function
<b>registerrunner</b>	function
<b>report</b>	function
<b>setfilenamelogger</b>	function
<b>setlogger</b>	function
<b>setreporter</b>	function
<b>settrace</b>	function
<b>validfilename</b>	function

# scripts (context)

<b>autofontfeature</b>	table	N inter_char_stretch_factor
F disable		N inter_word_stretch_factor
F enable		<b>handlers</b>
F handler		data table
<b>categorytonumber</b>	data table	<b>hash</b>
<b>colors</b>	data table	table
<b>decomposehangul</b>	function	<b>injectors</b>
<b>defaults</b>	table	data table
N inter_char_half_shrink_factor		<b>installdataset</b>
N inter_char_half_stretch_factor		function
N inter_char_hangul_penalty		<b>installmethod</b>
N inter_char_quarter_shrink_factor		function
N inter_char_quarter_stretch_factor		<b>numbertocategory</b>
N inter_char_shrink_factor		data table
		<b>numbertodataset</b>
		data table
		<b>numbertohandler</b>
		data table
		<b>reset</b>
		function
		<b>set</b>
		function
		<b>splitters</b>
		data table



## set (context)

**contains**    function

**create**     function

**tolist**     function

**tonumber**   function

**totable**    function

## sio (context)

<b>read2dot14</b>	function
<b>readbytes</b>	function
<b>readbytetable</b>	function
<b>readcardinal1</b>	function
<b>readcardinal2</b>	function
<b>readcardinal3</b>	function
<b>readcardinal4</b>	function

<b>readfixed2</b>	function
<b>readfixed4</b>	function
<b>readinteger1</b>	function
<b>readinteger2</b>	function
<b>readinteger3</b>	function
<b>readinteger4</b>	function

# socket (extra lua)

<b>BLOCKSIZE</b>	number	S cc
<b>_DATAGRAMSIZE</b>	number	S comments
<b>_DEBUG</b>	boolean	S connection
<b>_SETSIZE</b>	number	S content-description
<b>_SOCKETINVALID</b>	number	S content-disposition
<b>bind</b>	function	S content-encoding
<b>choose</b>	function	S content-id
<b>connect</b>	function	S content-language
<b>connect4</b>	function	S content-length
<b>connect6</b>	function	S content-location
<b>dns</b>	table	S content-md5
F getaddrinfo		S content-range
F gethostname		S content-transfer-encoding
F getnameinfo		S content-type
F tohostname		S cookie
F toip		S date
<b>ftp</b>	table	S diagnostic-code
S PASSWORD		S dsn-gateway
N TIMEOUT		S etag
S USER		S expect
F command		S expires
F genericform		S final-log-id
F get		S final-recipient
F open		S from
F put		S host
<b>gettime</b>	function	S if-match
<b>headers</b>	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 proxy-authenticate	F b64	
S proxy-authorization	F decode	
S range	T decodet	
S received	F base64	
S received-from-mta	F quoted-printable	
S references	F dot	
S referer	F encode	
S remote-mta	T encodet	
S reply-to	F base64	
S reporting-mta	F quoted-printable	
S resent-bcc	F eol	
S resent-cc	F normalize	
S resent-date	F qp	
S resent-from	F qpwrp	
S resent-message-id	F stuff	
S resent-reply-to	F unb64	
S resent-sender	F unqp	
S resent-to	F wrap	
S retry-after	T wrapt	
S return-path	F base64	
S sender	F default	
S server	F quoted-printable	
S smtp-remote-recipient	F text	
S status	F wrp	
S subject	<b>newtry</b>	function
S te	<b>protect</b>	function
S to	<b>select</b>	function
S trailer	<b>sink</b>	function
S transfer-encoding	<b>sinkt</b>	table
S upgrade	F close-when-done	
S user-agent	F default	
S vary	F http-chunked	
S via	F keep-open	
S warning	<b>skip</b>	function
S will-retry-until	<b>sleep</b>	function
S www-authenticate	<b>smtp</b>	table
S x-mailer	S DOMAIN	
<b>http</b>	N PORT	
N TIMEOUT	S SERVER	
S USERAGENT	N TIMEOUT	
F genericform	S ZONE	
F open	F message	
F request	F open	
<b>mime</b>	F send	
table		

<b>source</b>	function	<b>try</b>	function
<b>sourcet</b>	table	<b>udp</b>	function
F by-length		<b>udp4</b>	function
F default		<b>udp6</b>	function
F http-chunked		<b>url</b>	table
F until-closed		F absolute	
<b>tcp</b>	function	F build	
<b>tcp4</b>	function	F build_path	
<b>tcp6</b>	function	F escape	
<b>tp</b>	table	F parse	
N TIMEOUT		F parse_path	
F connect		F unescape	

# sorters (context)

<b>basicsorter</b>	function	B pm	
<b>comparers</b>	table	B uc	
F basic		B zc	
<b>constants</b>	table	B zm	
S defaultdigits		<b>definitions</b>	data table
S defaultlanguage		<b>firstofsplit</b>	function
S defaultmethod		<b>packch</b>	function
N digitmaximum		<b>packuc</b>	function
N digitoffset		<b>replacementlist</b>	function
N ignoredoffset		<b>setlanguage</b>	function
N replacementoffset		<b>sort</b>	function
T validmethods		<b>splitters</b>	table
B ch		F utf	
B mc		<b>strip</b>	function
B mm		<b>tracers</b>	data table
B pc		<b>update</b>	function

## statistics (context)

<b>callbacks</b>	function
<b>checkfmtstatus</b>	function
<b>currenttime</b>	function
<b>elapsed</b>	function
<b>elapsedindeed</b>	function
<b>elapsedseconds</b>	function
<b>elapsedtime</b>	function
<b>enable</b>	boolean
<b>formatruntime</b>	function
<b>hastiming</b>	function
<b>memused</b>	function

<b>register</b>	function
<b>resettiming</b>	function
<b>runtime</b>	function
<b>savefmtstatus</b>	function
<b>show</b>	function
<b>starttiming</b>	function
<b>stoptiming</b>	function
<b>threshold</b>	number
<b>timed</b>	function
<b>tracefunction</b>	function

## status (basic tex)

**list**                    function

**resetmessages**    function

**setexitcode**        function



# storage (context)

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

## streams (context)

<b>collect</b>	function
<b>disable</b>	function
<b>enable</b>	function
<b>flush</b>	function
<b>initialize</b>	function

<b>push</b>	function
<b>start</b>	function
<b>stop</b>	function
<b>synchronize</b>	function

## string (basic lua)

<b>autodouble</b>	function	<b>quote</b>	function
<b>autosingle</b>	function	<b>quoted</b>	function
<b>booleanstring</b>	function	<b>rep</b>	function
<b>byte</b>	function	<b>replacenewlines</b>	function
<b>bytepairs</b>	function	<b>reverse</b>	function
<b>bytes</b>	function	<b>split</b>	function
<b>bytetable</b>	function	<b>splitlines</b>	function
<b>char</b>	function	<b>splitup</b>	function
<b>characterpairs</b>	function	<b>strip</b>	function
<b>characters</b>	function	<b>sub</b>	function
<b>checkedsplit</b>	function	<b>tformat</b>	function
<b>collapsespaces</b>	function	<b>toHEX</b>	function
<b>containsws</b>	function	<b>toboollean</b>	function
<b>count</b>	function	<b>tobytes</b>	function
<b>dump</b>	function	<b>tocontext</b>	function
<b>escapedpattern</b>	function	<b>todec</b>	function
<b>explode</b>	function	<b>todimen</b>	function
<b>find</b>	function	<b>tohex</b>	function
<b>format</b>	function	<b>tonodes</b>	function
<b>formatter</b>	function	<b>topattern</b>	function
<b>formatters</b>	function	<b>totable</b>	function
<b>fullstrip</b>	function	<b>toutf</b>	function
<b>gmatch</b>	function	<b>tracedchar</b>	function
<b>gsub</b>	function	<b>tracedchars</b>	table
<b>is_boolean</b>	function	<b>unpack</b>	function
<b>is_empty</b>	function	<b>unquote</b>	function
<b>itself</b>	function	<b>unquoted</b>	function
<b>len</b>	function	<b>upper</b>	function
<b>limit</b>	function	<b>utfcharacter</b>	function
<b>longtostring</b>	function	<b>utfcharacters</b>	function
<b>lower</b>	function	<b>utflength</b>	function
<b>match</b>	function	<b>utfpadd</b>	function
<b>nospaces</b>	function	<b>utfpadding</b>	function
<b>nspaces</b>	table	<b>utfvalue</b>	function
<b>optionalquoted</b>	function	<b>utfvalues</b>	function
<b>pack</b>	function	<b>valid</b>	function
<b>packsize</b>	function		

# structures (context)

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

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

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

- F set
- F setandgetattribute
- F setcomponent
- F setinternalreference
- F setlinkmethod
- F setnextinternal
- F setnextorder
- F setreferencerealpage
- D specials
- F splitcomponent
- F splitprefix
- F splitreference
- F synchronizepage
- T testrunners
  - F inner
  - F special
  - F special operation
  - F special operation with arguments

## T testspecials

- F deltapage
- F i
- F internal
- F page
- F realpage
- F section
- F userpage

## D tobereferred

## D tobesaved

## D tracedpages

## T urls

- T data
- F define
- F found
- F get
- F untex

## D usedinternals

## D usedviews

## F valid

## registers

## table

- F analyze
- D collected
- F compare
- F define
- F enhance

- F extend
- F filter
- F filtercollected
- F finalize
- F findinternal
- F flush
- F get
- F prepare
- F process
- F setmethod
- F sort
- F store
- D tobesaved
- F unique
- F userdata

## sections

## table

- F autodepth
- F cct
- D collected
- F current
- F currentblock
- F currentid
- F currentlevel
- F currentsectionindex
- F depthnumber
- F finddata
- F findnumber
- F fullnumber
- F getcurrentlevel
- F getlevel
- F getnumber
- F internalreference
- D levelmap
- D levels
- F load
- F matchingtilldepth
- F numberatdepth
- F numbers
- F popblock
- F prefixedconverted
- F pushblock
- F register
- D registered
- F reportstructure

F save		F resetused	
T sectionblockdata		F sort	
T bodypart		F synonym	
S bookmark		D tobesaved	
F set		<b>tags</b>	<b>table</b>
F setblock		F elementtag	
F setchecker		F finishexport	
F setentry		F getid	
F setinitialblock		F getmetadata	
F setlevel		F handler	
F setnumber		F initializeexport	
F structuredata		D labels	
F title		F last	
D tobesaved		F lastinchain	
F typesetnumber		F locatedtag	
F userdata		T patterns	
B verbose		U splitter	
<b>sets</b>	<b>table</b>	D properties	
F define		F registermetadata	
F get		F restart	
F getall		F setaspect	
D setlist		F setattributefield	
<b>specials</b>	<b>table</b>	F setcombination	
D collected		F setconstruct	
F retrieve		F setfigure	
F store		F setfloat	
D tobesaved		F sethighlight	
<b>synonyms</b>	<b>table</b>	F setitem	
F analyzed		F setitemgroup	
D collected		F setlist	
F compare		F setnotation	
F define		F setnotationsymbol	
F filter		F setproperty	
F finalize		F setregister	
F flush		F setsorting	
F isshown		F setsynonym	
F isused		F settablecell	
F meaning		F settabletecell	
F prepare		F settagdelimitedsymbol	
F process		F settagsubsentencesymbol	
F register		F setupexport	
F registershown		F setuserproperties	
F registerused		D specifications	
F resetshown		F start	



F stop

T usewithcare

F strip

T images

D taglist

## table (basic lua)

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

## tex (basic tex)

<b>attribute</b>	table	<b>getmuglue</b>	function
<b>badness</b>	function	<b>getmuskip</b>	function
<b>box</b>	table	<b>getnest</b>	function
<b>catcode</b>	table	<b>getpagestate</b>	function
<b>conditionals</b>	data table	<b>getsfcode</b>	function
<b>constants</b>	data table	<b>getskip</b>	function
<b>count</b>	table	<b>gettoks</b>	function
<b>cprint</b>	function	<b>getuccode</b>	function
<b>ctdcatcodes</b>	number	<b>glue</b>	table
<b>ctxcatcodes</b>	number	<b>hashtokens</b>	function
<b>definefont</b>	function	<b>ifs</b>	data table
<b>delcode</b>	table	<b>inimatcodes</b>	number
<b>dimen</b>	table	<b>init_rand</b>	function
<b>directives</b>	data table	<b>isattribute</b>	function
<b>enableprimitives</b>	function	<b>isbox</b>	function
<b>error</b>	function	<b>iscount</b>	overloaded function
<b>extraprimitives</b>	function	<b>isdefined</b>	function
<b>finish</b>	function	<b>isdimen</b>	overloaded function
<b>fontidentifier</b>	function	<b>ismuskip</b>	overloaded function
<b>fontname</b>	function	<b>isskip</b>	overloaded function
<b>force_synctex_line</b>	function	<b>istoken</b>	function
<b>force_synctex_tag</b>	function	<b>istoks</b>	function
<b>fprint</b>	function	<b>lccode</b>	table
<b>get</b>	function	<b>linebreak</b>	function
<b>get_synctex_line</b>	function	<b>lists</b>	table
<b>get_synctex_mode</b>	function	<b>lua_math_random</b>	function
<b>get_synctex_tag</b>	function	<b>lua_math_randomseed</b>	function
<b>getattribute</b>	function	<b>luacatcodes</b>	number
<b>getbox</b>	function	<b>mathcode</b>	table
<b>getboxresourcedimensions</b>	function	<b>modes</b>	data table
<b>getcatcode</b>	function	<b>muglue</b>	table
<b>getcount</b>	function	<b>muskip</b>	table
<b>getdelcode</b>	function	<b>nest</b>	table
<b>getdelcodes</b>	function	<b>nilcatcodes</b>	number
<b>getdimen</b>	function	<b>normal_rand</b>	function
<b>getglue</b>	function	<b>notcatcodes</b>	number
<b>getlccode</b>	function	<b>number</b>	function
<b>getlist</b>	function	<b>primitives</b>	function
<b>getmath</b>	function	<b>print</b>	function
<b>getmathcode</b>	function	<b>prtcacodes</b>	number
<b>getmathcodes</b>	function	<b>resetparagraph</b>	function

<b>romannumeral</b>	function	<b>settoks</b>	function
<b>round</b>	function	<b>setuccode</b>	function
<b>run</b>	function	<b>sfcode</b>	table
<b>saveboxresource</b>	function	<b>shipout</b>	function
<b>scale</b>	function	<b>show_context</b>	function
<b>scantoks</b>	function	<b>skip</b>	table
<b>set</b>	function	<b>sp</b>	function
<b>set_synctex_line</b>	function	<b>splitbox</b>	function
<b>set_synctex_mode</b>	function	<b>sprint</b>	function
<b>set_synctex_no_files</b>	function	<b>systemmodes</b>	data table
<b>set_synctex_tag</b>	function	<b>takebox</b>	function
<b>setattribute</b>	function	<b>texcatcodes</b>	number
<b>setbox</b>	function	<b>toks</b>	table
<b>setcatcode</b>	function	<b>tpacatcodes</b>	number
<b>setcount</b>	function	<b>tpbcatcodes</b>	number
<b>setdelcode</b>	function	<b>tprint</b>	function
<b>setdimen</b>	function	<b>trackers</b>	data table
<b>setglue</b>	function	<b>triggerbuildpage</b>	function
<b>setlccode</b>	function	<b>txtcatcodes</b>	number
<b>setlist</b>	function	<b>type</b>	function
<b>setmath</b>	function	<b>uccode</b>	table
<b>setmathcode</b>	function	<b>uniform_rand</b>	function
<b>setmuglue</b>	function	<b>uniformdeviate</b>	function
<b>setmuskip</b>	function	<b>uprint</b>	function
<b>setnest</b>	function	<b>useboxresource</b>	function
<b>setsfcode</b>	function	<b>vrbcacodes</b>	number
<b>setskip</b>	function	<b>write</b>	function

## texconfig (basic tex)

<b>error_line</b>	number	<b>max_print_line</b>	number
<b>expand_depth</b>	number	<b>max_strings</b>	number
<b>formatname</b>	string	<b>nest_size</b>	number
<b>half_error_line</b>	number	<b>param_size</b>	number
<b>hash_extra</b>	number	<b>save_size</b>	number
<b>init</b>	overloaded function	<b>shell_escape</b>	string
<b>kpse_init</b>	boolean	<b>stack_size</b>	overloaded number
<b>max_in_open</b>	number		

## texio (basic tex)

**closeinput** function

**setescape** function

**write** function

**write\_nl** function

## token (basic tex)

<b>create</b>	function	<b>scan_argument</b>	function
<b>get_active</b>	function	<b>scan_code</b>	function
<b>get_cmdname</b>	function	<b>scan_csname</b>	function
<b>get_command</b>	function	<b>scan_dimen</b>	function
<b>get_csname</b>	function	<b>scan_glue</b>	function
<b>get_expandable</b>	function	<b>scan_int</b>	function
<b>get_id</b>	function	<b>scan_keyword</b>	function
<b>get_index</b>	function	<b>scan_keyword_cs</b>	function
<b>get_macro</b>	function	<b>scan_string</b>	function
<b>get_meaning</b>	function	<b>scan_token</b>	function
<b>get_mode</b>	function	<b>scan_toks</b>	function
<b>get_next</b>	function	<b>scan_word</b>	function
<b>get_protected</b>	function	<b>set_char</b>	function
<b>get_tok</b>	function	<b>set_macro</b>	function
<b>is_token</b>	function	<b>type</b>	function
<b>put_next</b>	function		

# tokens (context)

**astable**      function  
**bgroup**      userdata  
**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

**collectors** table

T data  
F defaultwords  
F dowithwords  
F flush  
F install  
F register  
T registered  
F show  
F test

**compile**      function

**constant**    function

**converters** table

S toboolean  
S todimen  
S toglue  
S tonumber  
S tostring

**defined**      function  
**egroup**      userdata  
**getters**      table

F box  
F count  
F dimen  
F glue  
F macro  
F meaning  
F skip  
F token

**hbox**        userdata

**istoken**      function

**letter**       function

**letters**      function

**other**        function

**pickup**      function

**presets**      table

T 1 string  
T 2 strings  
T 3 strings  
T 4 strings  
T 5 strings  
T 6 strings  
T 7 strings  
T 8 strings

**printlist**    function

**scanners**    table

F argument  
F boolean  
F code  
F conditional  
F count  
F csname  
F dimen  
F dimension  
F glue  
F integer  
F keyword  
F keywordcs  
F list



F lxmlid  
F number  
F scanclose  
F scanopen  
F skip  
F string  
F table  
F token  
F tokens  
F toks  
F word

## **setters**      table

F box  
F char  
F count  
F dimen  
F glue  
F macro  
F skip

## **shortcuts**    table

T bits  
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  
N close  
F inspect  
N open

F report  
F scanboolean  
F scanclose  
F scancode  
F scanconditional  
F scansname  
F scandimen  
F scandimension  
F scaninteger  
F scankeyword  
F scankeywordcs  
F scanlist  
T scanners  
F argument  
F boolean  
F code  
F conditional  
F count  
F csname  
F dimen  
F dimension  
F glue  
F integer  
F keyword  
F keywordcs  
F list  
F lxmlid  
F number  
F scanclose  
F scanopen  
F skip  
F string  
F table  
F token  
F tokens  
F toks  
F word  
F scannumber  
F scanopen  
F scanstring  
F scantable  
F scanword  
F toboolean  
F todimen

T tokens	F box	
F astable	F char	
U bgroup	F count	
T collectors	F dimen	
F defaultwords	F glue	
F dowithwords	F macro	
F flush	F skip	
F install	T shortcuts	
F register	N close	
F show	F inspect	
F test	N open	
F compile	F report	
F constant	F scanboolean	
T converters	F scanclose	
S toboolean	F scancode	
S todimen	F scanconditional	
S toglue	F scancsname	
S tonumber	F scandimen	
S tostring	F scandimension	
F defined	F scaninteger	
U egroup	F scankeyword	
T getters	F scankeywordcs	
F box	F scanlist	
F count	F scannumber	
F dimen	F scanopen	
F glue	F scanstring	
F macro	F scantable	
F meaning	F scanword	
F skip	F toboolean	
F token	F todimen	
U hbox	F tonumber	
F istoken	F tostring	
F letter	U vbox	
F letters	U vtop	
F other	F tonumber	
F pickup	F tostring	
T presets	<b>vbox</b>	userdata
F printlist	<b>vtop</b>	userdata
T setters		

# tracers (context)

<b>count</b>	function	<b>primitive</b>	function
<b>cs</b>	function	<b>printerror</b>	function
<b>dimen</b>	function	<b>printwarning</b>	function
<b>knownlist</b>	function	<b>showlines</b>	function
<b>lists</b>	table	<b>strings</b>	table
T context		S undefined	
T internals		<b>toks</b>	function
T scratch		<b>type</b>	function
<b>name</b>	function		

## trackers (context)

<b>data</b>	data table	<b>name</b>	string
<b>default</b>	function	<b>register</b>	function
<b>disable</b>	function	<b>report</b>	function
<b>done</b>	table	<b>reset</b>	function
<b>dumphashtofile</b>	function	<b>savehash</b>	function
<b>enable</b>	function	<b>show</b>	function
<b>list</b>	function	<b>value</b>	function

# 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 replacensp  
F replacenspaces

## **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 normalize  
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

D factors  
F handler  
F keepligature  
B keptogether  
D mapping  
F set

## **manipulators**            table

F apply  
F applyspecification  
T methods  
F Word  
F Words  
F abbreviatedjournal  
F expandedjournal  
F lowercase  
F stripperperiod  
F uppercase  
T patterns  
U list  
U pair  
F splitspecification

## **margins**                      table

F finalhandler  
F globalhandler  
F localhandler  
F save

## **marksuspects**            function

## **paragraphs**              table

F addanchortoline  
F addtoline  
F calculatedelta  
F checkline  
F handler  
F moveinline  
F normalize  
F set

## **periodkerns**            table

D factors  
F handler  
D mapping  
F set

## **processors**                table

F apply  
F register  
F reset  
F split  
F startapply  
F stopapply  
F stripped  
F toString

## **rubies**                      table

F attach  
F check

## **showsuspects**            function

## **spacings**                      table

F define  
F handler  
D mapping  
T numbers  
T frenchpunctuation  
T characters  
S name  
N number

F reset  
F set  
F setup

## **wrappers**                      table

F handler

## **xtables**                      table

F cleanup  
F construct  
F create  
F finish\_row  
F flush  
F initialize\_construct  
F initialize\_reflow\_height  
F initialize\_reflow\_width  
F next\_row  
F reflow\_height  
F reflow\_width  
F set\_construct  
F set\_reflow\_height  
F set\_reflow\_width

# unicode (extra lua)

## ascii table

F byte  
F char  
F dump  
F find  
F format  
F gfind  
F gmatch  
F gsub  
F len  
F lower  
F match  
F rep  
F reverse  
F sub  
F upper

## grapheme table

F byte  
F char  
F dump  
F find  
F format  
F gfind  
F gmatch  
F gsub  
F len  
F lower  
F match  
F rep  
F reverse  
F sub  
F upper

## latin1 table

F byte  
F char  
F dump  
F find  
F format  
F gfind  
F gmatch  
F gsub

F len  
F lower  
F match  
F rep  
F reverse  
F sub  
F upper

## toutf32string function

## utf8 table

F byte  
F char  
F characters  
F chrln  
F count  
F dump  
F filetype  
F find  
F format  
F gfind  
F gmatch  
F gsub  
F is\_valid  
F len  
F length  
F lower  
F magic  
F match  
F remapper  
F rep  
F replacer  
F reverse  
F split  
F splitlines  
F sub  
F subtituter  
F tocodes  
F toeight  
F toentities  
F tostring  
F totable  
F upper

F ustring	F utf32_to_utf8_le_t
F utf16_to_utf8_be	F utf32_to_utf8_t
F utf16_to_utf8_be_t	F utf8_to_utf16
F utf16_to_utf8_le	F utf8_to_utf16_be
F utf16_to_utf8_le_t	F utf8_to_utf16_le
F utf16_to_utf8_t	F utf8_to_utf8_t
F utf32_to_utf8_be	F values
F utf32_to_utf8_be_t	F xstring
F utf32_to_utf8_le	



## url (context)

<b>addscheme</b>	function
<b>barepath</b>	function
<b>construct</b>	function
<b>decode</b>	function
<b>encode</b>	function
<b>escape</b>	function
<b>filename</b>	function

<b>hashed</b>	function
<b>hasscheme</b>	function
<b>query</b>	function
<b>split</b>	function
<b>toquery</b>	function
<b>unescape</b>	function
<b>unescapeget</b>	function

## utf8 (context)

<b>char</b>	function
<b>charpattern</b>	string
<b>codepoint</b>	function

<b>codes</b>	function
<b>len</b>	function
<b>offset</b>	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 readcardinal2  
F readcardinal2le  
F readcardinal3  
F readcardinal3le  
F readcardinal4  
F readcardinal4le  
F readchar  
F readfixed2  
F readfixed4  
F readinteger  
F readinteger1  
F readinteger2  
F readinteger2le  
F readinteger3  
F readinteger3le  
F readinteger4  
F readinteger4le  
F readsignedbyte  
F readstring  
F readtag  
F setposition  
F size  
F skip

F skiplong  
F skipposition  
F skipshort  
F writebyte  
F writecardinal2  
F writecardinal4  
F writestring

## **formatters** table

F formatcolumns  
F list  
F stripzeros

## **garbagecollector** table

F check  
N criterium  
B enabled

## **lua** table

B alwaysstripcode  
F checkmemory  
F compile  
F loadedluacode  
F loadstring  
F loadstripped  
N nofstrippedbytes  
N nofstrippedchunks  
F registerfinalizer  
B stripcode  
T strippedchunks  
F strippedloadstring  
T suffixes  
S lua  
S luc  
S lui  
S luj  
S luv  
S tma  
S tmc  
S tua  
S tuc

## **packers** table

F hashed  
F new

F pack	T modern-light,latin-modern-light-designsize,latin-modern-light
F simplehashed	B latin-modern-light
F strip	B latin-modern-light-designsize
F unpack	B modern-light
N version	T modern-mono,modern-base-mono
<b>parsers</b>	B modern-base-mono
	B modern-mono
F add_settings_to_array	T modern-variable,latin-modern-variable-designsize,latin-modern-variable
F arguments_to_table	B latin-modern-variable
F array_to_string	B latin-modern-variable-designsize
F csvsplitter	B modern-variable
F getparameters	T modernvariable,modern-variable
F groupedsplitat	B modern-variable
F hash_to_string	B modernvariable
T hashes	T modernvariablelight,modern-variable-light
T settings_to_set	B modern-variable-light
T min,max,fit,broad,auto	B modernvariablelight
B auto	T serif,sans,mono
B broad	B mono
B fit	B sans
B max	B serif
B min	T text,hidden,paper,page,leftpage,rightpage
T modern,latin-modern	B hidden
B latin-modern	B leftpage
B modern	B paper
T modern,latin-modern,modern-variable,latin-modern-variable,modern-variable-condensed,latin-modern-condensed	B rightpage
B latin-modern	B text
B latin-modern-condensed	F iterator
B latin-modern-variable	F keq_to_hash
B modern	F listitem
B modern-condensed	F make_settings_to_hash_pattern
B modern-variable	F mergehashes
T modern,latin-modern-designsize,latin-modern	F options_to_array
B latin-modern	F options_to_hash
B latin-modern-designsize	T patterns
B modern	U settings_to_array
T modern,modern-base	U settings_to_hash_a
B modern	U settings_to_hash_b
B modern-base	U settings_to_hash_c
T modern-condensed,latin-modern-condensed-designsize,latin-modern-condensed,latin-modern-light-condensed,latin-modern-light-condensed-designsize	U settings_to_hash_d
B latin-modern-condensed	U unittotex
B latin-modern-condensed-designsize	F process_stripped_settings
B latin-modern-light-condensed	F rfc4180splitter
B modern-condensed	
B modern-light-condensed	

- F runtime
- F settings\_to\_array
- F settings\_to\_array\_obey\_fences
- F settings\_to\_array\_with\_repeat
- F settings\_to\_hash
- F settings\_to\_hash\_colon\_too
- F settings\_to\_hash\_strict
- F settings\_to\_hash\_tolerant
- F settings\_to\_numbers
- F settings\_to\_set
- F simple\_hash\_to\_string
- F splitmethod
- F splitthousands
- F stepper
- F stripped\_settings\_to\_array
- F unittotex
- F unittoxml

## randomizer table

- F get
- F getnumber
- F getseed
- F popseed
- F pushseed
- F reuseseed
- F setseed
- F setseedi

## report function

## sequencers table

- F appendaction
- F appendgroup
- F compile
- F disableaction
- F disablegroup
- F enableaction
- F enablegroup
- D functions
- F localize
- F new
- F nodeprocessor
- F prependaction
- F prependgroup
- F removeaction
- F replaceaction
- F setkind

- F tostring

## setters table

- F disable
- F enable
- F initialize
- F list
- F new
- F register
- F report
- F reset
- F show

## stacker table

- F new

## storage table

- F allocate
- F checked
- F mark
- F marked
- F setinitializer
- F sparse

## streams table

- F close
- F getposition
- F look
- F open
- F read2dot14
- F read2dot4
- F readbyte
- F readbytes
- F readbytetable
- F readcardinal
- F readcardinal1
- F readcardinal2
- F readcardinal2LE
- F readcardinal3
- F readcardinal3le
- F readcardinal4
- F readchar
- F readfixed2
- F readfixed4
- F readinteger
- F readinteger1
- F readinteger2
- F readinteger2le

- F readinteger3
- F readinteger3le
- F readinteger4
- F readinteger4le
- F readsignedbyte
- F readstring
- F setposition
- F size
- F skip
- F skipbytes
- F skiplong
- F skipshort

**strings**                      table

- F collapsecrlf
- T formatters
  - F add
  - F new
- F newcollector
- F newrepeater
- F nice
- T striplinepatterns
  - U collapse
  - U prune
  - U prune and collapse

- U prune and no empty
- U retain
- U retain and collapse
- U retain and no empty
- F striplines
- F striplong
- F tabtospace
- T tracers

**tables**                      table

- F accesstable
- F definedtable
- F definetable
- F encapsulate
- F insertaftervalue
- F insertbeforevalue
- F migratetable
- F removevalue
- F replacevalue

**templates**                      table

- F load
- F replace
- F replacer
- F resolve

## vf (context)

<b>char</b>	function
<b>down</b>	function
<b>fontid</b>	function
<b>image</b>	function
<b>node</b>	function
<b>nop</b>	function

<b>pdf</b>	function
<b>pop</b>	function
<b>push</b>	function
<b>right</b>	function
<b>rule</b>	function
<b>special</b>	function

## visualizers (context)

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



# xml (context)

<b>addentitiesdoctype</b>	function	F padding	
<b>addspecialcode</b>	function	F stylevalue	
<b>after</b>	function	F todimension	
<b>all</b>	function	<b>defaulthandlers</b>	table
<b>applylpath</b>	function	D file	
<b>applyselector</b>	function	D parsedxml	
<b>assign</b>	function	D string	
<b>attribute</b>	function	D tex	
<b>badinclusions</b>	function	D texline	
<b>before</b>	function	D texspace	
<b>body</b>	function	D verbose	
<b>builtinentities</b>	table	<b>defaultprotocol</b>	string
B amp		<b>delete</b>	function
B apos		<b>delete_element</b>	function
B gt		<b>despecialized</b>	function
B lt		<b>each</b>	function
B quot		<b>each_element</b>	function
<b>cdata</b>	function	<b>elements</b>	function
<b>cdatatotext</b>	function	<b>elementtocdata</b>	function
<b>checkbom</b>	function	<b>empty</b>	function
<b>checkerror</b>	function	<b>entities</b>	data table
<b>checknamespace</b>	function	<b>erase</b>	function
<b>checkns</b>	function	<b>errorhandler</b>	function
<b>cleansed</b>	function	<b>escaped</b>	function
<b>collect</b>	function	<b>expressions</b>	table
<del><b>collect_elements</b></del>	<del>function</del>	F boolean	
<b>collect_tags</b>	function	F child	
<del><b>collect_texts</b></del>	<del>function</del>	F contains	
<b>collected</b>	function	F count	
<b>collecttexts</b>	function	F error	
<b>content</b>	function	F find	
<b>convert</b>	function	F hasclass	
<b>copy</b>	function	F idstring	
<b>count</b>	function	F lower	
<b>cprint</b>	function	F name	
<b>css</b>	table	F number	
F applyselector		F oneof	
F colorspecification		F print	
F dimension		F quit	
F fontspecification		F tag	
F mappedstylevalue		F text	

F undefined		F chainattribute	
F upper		F count	
<b>fillin</b>	function	F default	
<b>filter</b>	function	F elements	
<b>finalizers</b>	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 first		F texts	
F function		F upperall	
F index		<b>first</b>	function
F last		<b>found</b>	function
F lettered		<b>functions</b>	table
F lower		F classes	
F lowerall		F hasclass	
F match		<b>getbuffer</b>	function
F name		<b>gethandlers</b>	function
F param		<b>gethandlersfunction</b>	function
F parameter		<b>helpers</b>	table
F position		F recursetext	
F reverse		<b>include</b>	function
F stripped		<b>inclusion</b>	function
F tag		<b>inclusions</b>	function
F tags		<b>index</b>	function
F text		<b>inheritedconvert</b>	function
F upper		<b>inject</b>	function
F upperall		<b>inject_element</b>	function
F xml		<b>inject_element_after</b>	function
T xml		<b>inject_element_before</b>	function
F all		<b>injectafter</b>	function
F att		<b>injectbefore</b>	function
F attribute		<b>insert</b>	function
F attributes		<b>insert_element</b>	function
F cdata		<b>insert_element_after</b>	function

<b>insert_element_before</b>	function	<b>registerns</b>	function
<b>insertafter</b>	function	<b>reindex</b>	function
<b>insertbefore</b>	function	<b>remap_name</b>	function
<b>insertcdata</b>	function	<b>remap_namespace</b>	function
<b>insertcomment</b>	function	<b>remap_tag</b>	function
<b>inspect</b>	function	<b>remapname</b>	function
<b>is_valid</b>	function	<b>remapnamespace</b>	function
<b>kind</b>	function	<b>remaptag</b>	function
<b>last</b>	function	<b>rename</b>	function
<b>lastmatch</b>	function	<b>renamespace</b>	function
<b>load</b>	function	<b>reparseidentitylpeg</b>	userdata
<b>lpath</b>	function	<b>replace</b>	function
<b>lpathcached</b>	function	<b>replace_element</b>	function
<b>lpathcalls</b>	function	<b>resetinjectors</b>	function
<b>lshow</b>	function	<b>resolvns</b>	function
<b>makestandalone</b>	function	<b>root</b>	function
<b>match</b>	function	<b>save</b>	function
<b>name</b>	function	<b>selection</b>	function
<b>newhandlers</b>	function	<b>separate</b>	function
<b>nodesettostring</b>	function	<b>serialize</b>	function
<b>originalload</b>	function	<b>serializetotext</b>	function
<b>package</b>	function	<b>setcdata</b>	function
<b>parent</b>	function	<b>setcomment</b>	function
<b>parsedentitylpeg</b>	userdata	<b>sethandlersfunction</b>	function
<b>pihandlers</b>	table	<b>setinjectors</b>	function
F injector		<b>setProperty</b>	function
F tex		<b>settings</b>	function
<b>placeholders</b>	table	<b>specialcodes</b>	table
F unknown_any_entity		S "	
F unknown_dec_entity		S #	
F unknown_hex_entity		S \$	
<b>popmatch</b>	function	S %	
<b>position</b>	function	S &	
<b>privatecodes</b>	table	S '	
<b>privatetoken</b>	function	S <	
<b>process</b>	function	S >	
<b>process_attributes</b>	function	S \	
<b>process_elements</b>	function	S {	
<b>processattributes</b>	function	S	
<b>profiled</b>	table	S }	
<b>pure</b>	function	S ~	
<b>pushmatch</b>	function	<b>specialhandler</b>	table
<b>raw</b>	function	<b>sprint</b>	function
<b>registerentity</b>	function	<b>string</b>	function

<b>strip</b>	function	<b>toxml</b>	function
<b>strip_whitespace</b>	function	<b>tprint</b>	function
<b>stripelement</b>	function	<b>traverse</b>	function
<b>stripleadingspaces</b>	function	<b>unescaped</b>	function
<b>table</b>	function	<b>unescapedentitylpeg</b>	userdata
<b>text</b>	function	<b>unprivatized</b>	function
<b>textonly</b>	function	<b>unspecialized</b>	function
<b>texttocdata</b>	function	<b>withelement</b>	function
<b>tocdata</b>	function	<b>withelements</b>	function
<b>toelement</b>	function	<b>wrap</b>	function
<b>tostring</b>	function	<b>xmlns</b>	table
<b>totable</b>	function		

## zip (extra lua)

<b>archives</b>	table	<b>openarchive</b>	function
<b>close</b>	function	<b>openfile</b>	function
<b>closearchive</b>	function	<b>registeredfiles</b>	table
<b>open</b>	overloaded function	<b>type</b>	function

## zlib (extra lua)

<b>adler32</b>	function
<b>compress</b>	function
<b>compressobj</b>	function
<b>crc32</b>	function

<b>decompress</b>	function
<b>decompressobj</b>	function
<b>version</b>	function