

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

# ConTeXt LMTX

# global (alias: \_G)

CONTEXTLMTXMODE	number	getscriptstatus	function
FFISUPPORTED	boolean	global	table
INITEXMODE	boolean	graphics	table
LUAMAJORVERSION	number	grid_to_mp	function
LUAMINORVERSION	number	gzip	table
LUATEXENGINE	string	images	table
LUATEXFORMATID	number	inspect	function
LUATEXFUNCTIONALITY	number	interactions	table
LUATEXVERSION	number	interfaces	table
LUAVERSION	number	io	table
MP	function	ipairs	function
arg	table	job	table
assert	function	language	table
attributes	table	languages	table
backends	table	layouts	table
basexx	table	lfs	table
bit32	table	libraries	table
blobs	table	lmx	table
blockrequire	function	load	function
boolean	table	loadfile	function
buffers	table	loadstring	function
builders	table	logs	table
caches	table	lpdf	table
callback	table	lpeg	table
callbacks	table	lua	table
catcodes	table	luatex	table
characters	table	lxml	table
checkimage	function	math	table
chemistry	table	mathematics	table
collectgarbage	function	md5	table
commands	table	metapost	table
containers	table	mime	table
context	function	moduledata	table
converters	table	modules	table
coroutine	table	mp	function
createmask	function	mplib	table
ctxrunner	table	next	function
data	table	noads	table
debug	table	node	table
dimen	function	nodes	table
dir	table	number	table
directives	table	objects	table
document	table	optional	table
documentdata	table	optionalrequire	function
dofile	function	os	table
drivers	table	package	table
environment	table	pagebuilders	table
error	function	pairs	function
experiments	table	parametersets	table
figures	table	pcall	function
file	table	pdf	table
fio	table	pdfdecode	table
floats	table	pdfe	table
flushfontchar	function	physics	table
flushsimplerule	function	pngdecode	table
flushspecialrule	function	poporientation	function
font	table	print	function
fonts	table	publications	table
functions	table	pushorientation	function
getmetatable	function	rawequal	function
getpos	function	rawget	function

rawlen	function	texifs	data table
rawset	function	texio	table
readarray	function	texisdefined	data table
regimes	table	texmodes	data table
require	function	texsystemmodes	data table
required	function	thirddata	table
resolvers	table	toboollean	function
ruledspace	function	todecimal	function
sandbox	table	token	table
scanarray	function	tokens	table
scanhash	function	tonumber	function
scripts	table	tostring	function
select	function	tracers	table
set	table	trackers	table
setinspector	function	type	function
setmetatable	function	typesetters	table
sha2	table	unpack	function
shipbox_ref_h	number	updaters	table
shipbox_ref_v	number	url	table
sio	table	userdata	table
socket	table	utf	table
sorters	table	utf8	table
statistics	table	utilities	table
status	table	visualizers	table
storage	table	warn	function
streams	table	xcomplex	table
string	table	xdecimal	table
structures	table	xmath	table
table	table	xml	table
tex	table	xpcall	function
texconditionals	data table	xzip	table
texconfig	table	zip	table
texconstants	data table	zlib	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 defineprocesscolordirect  
  F definesimplegray  
  F definespotcolor  
  F definetransparency  
  F enable  
  F filter  
  N forced  
  F forcedmodel  
  F forcesupport  
  F formatcolor  
  F formatgray  
  F getpagecolormodel  
  F gray  
  F graytohsv  
  F handler  
  T helpers  
    F complement  
    F inbetween  
    F justone  
  F hsvtogray  
  F hsvtorgb  
  F hwbtorgb  
  F iccprofile  
  F isblack  
  N main  
  S model  
  D models  
  F mpcolor  
  F mpnamedcolor  
  F mpoptions  
  F namedcolorattributes  
  N none  
  F popset  
  F processcolorcomponents  
  F pushset  
  F register  
  D registered  
  F registerspotcolor  
    F rgb  
    F rgbtocmyk  
    F rgbtogray  
    F rgbtohsv  
    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  
  F register  
  D registered  
  D values  
**handlers** table  
**list** data table  
**markasoverload** function  
**names** data table  
**negatives** table  
  N attribute  
  D data  
  F enable  
  F handler  
  F register  
  D registered  
  F set  
**numbers** data table  
**ofnode** function  
**private** function  
**public** function  
**restore** function  
**save** function  
**showcurrent** function  
**states** table  
  F disabletriggering  
  F enabletriggering  
  F finalize  
  F initialize  
  F process  
  F selective  
  F stacked  
  F stacker  
**system** function

<b>tooverloads</b>	function	F toattribute
<b>transparencies</b>	table	B triggering
N attribute		F value
D data		D values
F enable		<b>unsetvalue</b> number
F forcesupport		<b>viewerlayers</b> table
F handler		N attribute
T names		F cleanup
N color		D data
N colorburn		F define
N colordodge		F definedlayoutcomponent
N darken		F enable
N difference		F forcesupport
N exclusion		F handler
N hardlight		B hasorder
N hue		D listwise
N lighten		F register
N luminosity		D registered
N multiply		F resolve_begin
N none		F resolve_end
N normal		F resolve_reset
N overlay		F resolve_step
N saturation		D scopes
N screen		F setfeatures
N softlight		F start
N none		F stop
F register		B supported
D registered		D values
B supported		

# backends (context)

<b>closeout</b>	function	F newimage
<b>codeinjections</b>	table	F prerollreference
F boxresourcedimensions		F presetsymbol
F registerboxresource		F presetsymbollist
F restoreboxresource		F processrendering
<b>current</b>	string	F registeredocumentcloseaction
<b>defaults</b>	table	F registeredocumentopenaction
T codeinjections		F registeredsymbol
F getpagedimensions		F registerpagecloseaction
F getpageorigin		F registerpageopenaction
F lmtxmode		F registersymbol
F setpagedimensions		F scanimage
F setpageorigin		F setattachmentsupport
T nodeinjections		F setfieldcalculationset
T registrations		F setfigurealternative
D tables		F setfigurecolorspace
<b>getcallbackstate</b>	function	F setfiguremask
<b>included</b>	table	F setformat
B context		F setformsmethod
B date		F setpagetransition
B id		F settaggingsupport
B metadata		F setupcanvas
B pdf		F setupidentity
<b>install</b>	function	F setxmpfile
<b>latelua</b>	function	F startlayer
<b>nodeinjections</b>	table	F startunicodetoactualtext
<b>nothing</b>	function	F startunicodetoactualtextdirect
<b>openout</b>	function	F stoplayer
<b>pdf</b>	table	F stopunicodetoactualtext
T codeinjections		F stopunicodetoactualtextdirect
F addbookmarks		F supportedformats
F analyzenormalsymbol		F unicodetoactualtext
F analyzesymbol		F useviewerlayer
F attachmentid		F validfield
F bitmap		F validfieldcategory
F clonefield		F validfieldset
F copyimage		F wrapimage
F definefield		S comment
F definefieldset		T nodeinjections
F defineviewerlayer		F addtags
F embedfile		F annotation
F embedimage		F attachfile
F enabletags		F changestackedlayer
F exportformdata		F cmykcolor
F fieldsurrounding		F comment
F flushmergelayer		F destination
F getbookmarks		F effect
F getdefaultfieldvalue		F graycolor
F getfieldcategory		F injectbitmap
F getfieldset		F insertmovie
F getformatoption		F insertsound
F getidentityvariable		F insertswf
F getinfo		F insertu3d
F getpreviewfigure		F knockout
F insertrenderingwindow		F negative
F maptag		F overprint
F mergebookmarks		F positive
F mergecomments		F reference
F mergefields		F rgbcolor
F mergereferences		F spotcolor
F mergeviewerlayers		F startlayer

F startstackedlayer	F rgbindexcolor
F stoplayer	F rgbspotcolor
F stopstackedlayer	F spotcolorname
F transparency	F transparency
F typesetfield	T tables
T registrations	D vfspecials
F cmykindexcolor	<b>registrations</b> table
F cmykspotcolor	<b>tables</b> table
F getspotcolorreference	<b>timestamp</b> function
F grayindexcolor	<b>writeout</b> function
F grayspotcolor	

## basexx (extra lua)

**decode16** function  
**decode64** function  
**decode85** function  
**decodeLZW** function  
**decodeRL** function

**encode16** function  
**encode64** function  
**encode85** function  
**encodeLZW** function  
**encodeRL** function

## bit32 (basic lua)

<b>arshift</b> function	<b>extract</b> function
<b>band</b> function	<b>lrotate</b> function
<b>bnot</b> function	<b>lshift</b> function
<b>bor</b> function	<b>replace</b> function
<b>btest</b> function	<b>rrotate</b> function
<b>bxor</b> function	<b>rshift</b> function

## blobs (context)

**append**    function  
**dimensions** function  
**dispose**    function  
**new**        function  
**pack**        function  
**strdp**      function  
**strhd**      function

**strht**      function  
**strwd**      function  
**tohpack**    function  
**tonodes**    function  
**tovpack**    function  
**write**       function

**boolean** (*context*)

**tocontext** function  
**tonumber** function

## buffers (context)

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

# builders (context)

**checksidefloat** function  
**kernel** table  
F hyphenating  
F hyphenation  
F kerning  
F ligaturing  
F mlist\_to\_hlist  
**paragraphs** table  
T constructors  
N attribute  
F define  
F disable  
F enable  
F handler  
T methods  
F basic  
F default  
F hpack  
F oneline  
D names  
D numbers  
F set  
F start  
F stop  
T expansion  
F trace  
F keeptogether  
F registertogether  
T solutions  
T splitters  
F define  
F optimize  
T registered  
F reset  
F set  
F split  
F start  
F stop  
F tag

**profiling** table  
F add  
F distance  
F fixedprofile  
F get  
F list  
F pagehandler  
F profilebox  
F set  
**vspacing** table  
F analyze  
D categories  
F checkstrutdepth  
F collapsevbox  
T data  
D map  
D skip  
D snapmethods  
F definesnapmethod  
B fixed  
F forcepageflush  
F forcestrutdepth  
F getnofpreviouslines  
F inject  
F injectdisable  
F injectpenalty  
F injectskip  
F pagehandler  
F pageoverflow  
F popatsame  
F pushatsame  
F setmap  
F setskip  
F snapbox  
F synchronizepage  
F tocATEGORIES  
F tocATEGORY  
F vboxhandler

## caches (context)

<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>savecontent</b>	function
<b>defaults</b>	table	<b>savedata</b>	function
<b>getfirstreadablefile</b>	function	<b>setfirstwritablefile</b>	function
<b>getreadablepaths</b>	function	<b>setluanames</b>	function
<b>getwritablepath</b>	function	<b>treehash</b>	function
<b>hashed</b>	function	<b>usedpaths</b>	function
<b>is_writable</b>	function		

## callback (basic tex)

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

**register** overloaded function  
**usage**    function

## callbacks (context)

<b>freeze</b>	function	B intercept_lua_error
<b>functions</b>	table	B intercept_tex_error
F	process_rule	B kerning
F	start_page_number	B ligaturing
F	stop_page_number	B linebreak_filter
<b>known</b>	function	B make_extensible
<b>list</b>	data table	B mlist_to_hlist
<b>pop</b>	function	B open_data_file
<b>push</b>	function	B post_linebreak_filter
<b>register</b>	function	B pre_dump
<b>report</b>	function	B pre_linebreak_filter
<b>supported</b>	table	B pre_output_filter
B	append_to_vlist_filter	B process_jobname
B	begin_paragraph	B show_error_message
B	build_page_insert	B show_lua_call
B	buildpage_filter	B show_warning_message
B	contribute_filter	B show_whatsit
B	define_font	B start_file
B	find_format_file	B start_run
B	find_log_file	B stop_file
B	handle_overload	B stop_run
B	hpack_filter	B trace_memory
B	hpack_quality	B vpack_filter
B	hyphenate	B vpack_quality
B	insert_par	B wrapup_run

## catcodes (context)

<b>names</b>	data table	<b>register function</b>
<b>numbers</b>	data table	

# characters (context)

activeoffset	number	T twopart_mark
adobename	function	T vowel_modifier
bidi	data table	<b>initialize</b> function
blockrange	function	<b>is_character</b> data table
blocks	data table	<b>is_command</b> data table
casemap	table	<b>is_letter</b> data table
categories	data table	<b>is_mark</b> data table
category	function	<b>is_punctuation</b> data table
categorytags	data table	<b>is_spacing</b> data table
classifiers	table	<b>is_symbol</b> data table
collapsed	data table	<b>lcchars</b> data table
contextname	function	<b>lccode</b> function
csletters	data table	<b>lccodes</b> data table
data	data table	<b>lettered</b> function
decomposed	data table	<b>lhash</b> data table
description	function	<b>linebreaks</b> data table
descriptions	data table	<b>lower</b> function
detailtags	data table	<b>mathlists</b> data table
directions	table	<b>mirrors</b> table
emoji	table	<b>otfscripts</b> data table
F compact		<b>private</b> table
F known		<b>ranges</b> data table
F resolve		<b>registerentities</b> function
emojized	function	<b>remap_hangul_syllabe</b> function
encodes	data table	<b>setactivecatcodes</b> function
entities	data table	<b>setlettercatcodes</b> function
fallbacks	data table	<b>shape</b> function
filters	data table	<b>shaped</b> function
fractions	table	<b>shash</b> data table
fromnumber	function	<b>shchars</b> data table
fschars	data table	<b>shcodes</b> data table
fscodes	data table	<b>showstring</b> function
getrange	function	<b>specialchars</b> data table
graphemes	data table	<b>specials</b> data table
hangul	data table	<b>splits</b> table
indicgroups	table	T char
T above_mark		T compat
T after_half		<b>subscripts</b> table
T after_main		<b>superscripts</b> table
T after_postscript		<b>synonyms</b> data table
T after_subscript		<b>tex</b> table
T anudatta		D accentmapping
T before_half		D commandmapping
T before_main		F defineaccents
T before_postscript		F safechar
T before_subscript		F toutf
T below_mark		F toutfpattern
T consonant		<b>textclasses</b> table
T dependent_vowel		<b>tonumber</b> function
T halant		<b>ucchars</b> data table
T independent_vowel		<b>uccode</b> function
T nukta		<b>uccodes</b> data table
T post_mark		<b>uhash</b> data table
T pre_mark		<b>unicodechar</b> function
T ra		<b>upper</b> function
T stress_tone_mark		

## chemistry (context)

**component** function  
**define** function  
**definitions** data table  
**format** string  
**inlinechemical** function  
**instance** string

**method** string  
**molecule** function  
**moleculeparser** userdata  
**start** function  
**stop** function  
**undefine** function

## containers (context)

<b>cleanname</b> function	<b>is_valid</b> function
<b>content</b> function	<b>read</b> function
<b>define</b> function	<b>usecache</b> boolean
<b>is_usable</b> function	<b>write</b> function

## converters (context)

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

## coroutine (basic lua)

**close**      function  
**create**     function  
**isyieldable** function  
**resume**    function

**running**    function  
**status**      function  
**wrap**        function  
**yield**        function

## ctxrunner (context)

**load** function  
**preparedfile** function

**preffiles** data table  
**resolve** function

## data (context)

<b>action</b>	function	<b>prerolled</b> string
<b>depth</b>	number	<b>width</b> number
<b>height</b>	number	

## debug (basic lua)

<b>getinfo</b>	function	<b>traceback</b>	function
<b>sethook</b>	function		

## dir (context)

**collectpattern** function  
**current** function  
**expandname** function  
**found** function  
**glob** function  
**globdirs** function  
**globfiles** function

**globpattern** function  
**ls** function  
**makedirs** function  
**mkdirs** function  
**pop** function  
**push** function

## directives (context)

**data** data table  
**default** function  
**disable** function  
**done** table  
**enable** function  
**list** function

**name** string  
**register** function  
**report** function  
**reset** function  
**show** function  
**value** function

## document (context)

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

## documentdata (context)

**variable** function

# drivers (context)

<b>convert</b>	function	F finalize
<b>converters</b>	table	F initialize
F engine		F outputfilename
F lmtx		F prepare
<b>enable</b>	function	F wrapup
<b>getpos</b>	function	T flushers
<b>getpos</b>	function	F character
<b>getpos</b>	function	F rule
<b>getvpos</b>	function	F simplerule
<b>helpers</b>	table	F specialrule
F tomatrix		F updatefontstate
<b>install</b>	function	S name
<b>instances</b>	table	T mps
T default		T actions
T actions		F cleanup
F convert		F convert
F outputfilename		F finalize
T flushers		F initialize
S name		F outputfilename
T empty		F prepare
T actions		F wrapup
F convert		T flushers
F prepare		F character
T flushers		F rule
S name		F simplerule
T js		F specialrule
T actions		F updatefontstate
F cleanup		S name
F convert		T none
F finalize		T actions
F initialize		T flushers
F outputfilename		S name
F prepare		T pdf
F wrapup		T actions
T flushers		F cleanup
F character		F convert
F rule		F finalize
F simplerule		F initialize
F specialrule		F outputfilename
F updatefontstate		F prepare
S name		F wrapup
T json		T flushers
T actions		F character
F cleanup		F fontchar
F convert		F group
F finalize		F image
F initialize		F literal
F outputfilename		F poporientation
F prepare		F pushorientation
F wrapup		F restore
T flushers		F rule
F character		F save
F rule		F setmatrix
F simplerule		F simplerule
F specialrule		F specialrule
F updatefontstate		F updatefontstate
S name		S name
T lua		<b>lmtxversion</b> number
T actions		<b>outputfilename</b> function
F cleanup		<b>report</b> function
F convert		

## environment (context)

<b>argument</b>	function	<b>luofile</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>luatexfunctionality</b>	number
<b>definefilefallback</b>	function	<b>luatexversion</b>	number
<b>definefilesynonym</b>	function	<b>maxnofruns</b>	number
<b>engineflags</b>	data table	<b>oldhome</b>	string
<b>filename</b>	string	<b>originalarguments</b>	data table
<b>filenames</b>	table	<b>outputfilename</b>	string
<b>files</b>	table	<b>ownbin</b>	string
<b>filesynonyms</b>	data table	<b>ownmain</b>	string
<b>forcedruns</b>	number	<b>ownname</b>	string
<b>getargument</b>	function	<b>ownpath</b>	string
<b>homedir</b>	string	<b>prerollrun</b>	boolean
<b>initex</b>	boolean	<b>rawarguments</b>	data table
<b>initexmode</b>	boolean	<b>reconstructcommandline</b>	function
<b>initializearguments</b>	function	<b>relativepath</b>	function
<b>initializefilenames</b>	function	<b>setargument</b>	function
<b>inputfilebarename</b>	string	<b>splitarguments</b>	function
<b>inputfilename</b>	string	<b>suffix</b>	string
<b>inputfilesuffix</b>	string	<b>texfile</b>	function
<b>jobfullname</b>	string	<b>texmfos</b>	string
<b>jobfilename</b>	string	<b>texos</b>	string
<b>jobfilesuffix</b>	string	<b>texroot</b>	string
<b>jobname</b>	string	<b>truefilename</b>	function
<b>kindofrun</b>	number	<b>useluamodule</b>	function
<b>lmtxmode</b>	number	<b>usemodules</b>	function
<b>loadexamodes</b>	function	<b>validengines</b>	data table
<b>loadluofile</b>	function	<b>version</b>	string

## experiments (context)

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

## figures (context)

<b>applyratio</b>	function	B media
<b>badname</b>	function	B none
<b>bases</b>	data table	B trim
<b>bitmapimage</b>	function	F totable
<b>boxnumber</b>	number	T types
<b>cachepaths</b>	data table	N jbig2
<b>check</b>	function	N jp2
<b>checkers</b>	data table	N jpg
<b>converters</b>	data table	N memstream
<b>current</b>	function	N none
<b>defaultdepth</b>	number	N pdf
<b>defaultheight</b>	number	N png
<b>defaultsearch</b>	boolean	N stream
<b>defaultwidth</b>	number	F wrap
<b>done</b>	function	<b>include</b> function
<b>dummy</b>	function	<b>includers</b> data table
<b>existers</b>	data table	<b>initialize</b> function
<b>exists</b>	function	<b>loaded</b> data table
<b>formats</b>	data table	<b>localpaths</b> data table
<b>found</b>	data table	<b>magics</b> data table
<b>get</b>	function	<b>mergegoodies</b> function
<b>getinfo</b>	function	<b>nofmissing</b> number
<b>getpdfinfo</b>	function	<b>nofprocessed</b> number
<b>getrealpage</b>	function	<b>order</b> data table
<b>guess</b>	function	<b>paths</b> data table
<b>guessfromstring</b>	function	<b>patterns</b> data table
<b>hash</b>	function	<b>pop</b> function
<b>identifiers</b>	data table	<b>preferquality</b> boolean
<b>identify</b>	function	<b>programs</b> data table
<b>images</b>	table	<b>push</b> function
F check		<b>registerpattern</b> function
F checksize		<b>registerresource</b> function
F copy		<b>registersuffix</b> function
F create		<b>remappers</b> data table
F embed		<b>resources</b> data table
T keys		<b>scale</b> function
F print		<b>set</b> function
F scan		<b>setlookups</b> function
F serialize		<b>setmemstream</b> function
T sizes		<b>setorder</b> function
B art		<b>setpaths</b> function
B bleed		<b>suffixes</b> data table
B crop		<b>used</b> data table

## file (basic lua)

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

## fio (extra lua)

<b>getposition</b>	function	<b>readinteger2le</b>	function
<b>read2dot14</b>	function	<b>readinteger3</b>	function
<b>readbytes</b>	function	<b>readinteger3le</b>	function
<b>readbytetable</b>	function	<b>readinteger4</b>	function
<b>readcardinal1</b>	function	<b>readinteger4le</b>	function
<b>readcardinal1le</b>	function	<b>readintegertable</b>	function
<b>readcardinal2</b>	function	<b>readline</b>	function
<b>readcardinal2le</b>	function	<b>setposition</b>	function
<b>readcardinal3</b>	function	<b>skipposition</b>	function
<b>readcardinal3le</b>	function	<b>writecardinal1</b>	function
<b>readcardinal4</b>	function	<b>writecardinal1le</b>	function
<b>readcardinal4le</b>	function	<b>writecardinal2</b>	function
<b>readcardinaltable</b>	function	<b>writecardinal2le</b>	function
<b>readfixed2</b>	function	<b>writecardinal3</b>	function
<b>readfixed4</b>	function	<b>writecardinal3le</b>	function
<b>readinteger1</b>	function	<b>writecardinal4</b>	function
<b>readinteger1le</b>	function	<b>writecardinal4le</b>	function
<b>readinteger2</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>setfont</b>	function
<b>getfont</b>	function	<b>setfontdimen</b>	function
<b>getfontdimen</b>	function		

# fonts (context)

<b>analyzers</b>	table	F register F report F register F report T tfm F apply F patch T patches
D features		
D initializers		
D methods		
F setstate		
D states		
B useunicodemarks		
<b>checkers</b>	table	F register F report F register F register T patches
F getmissing		
F missing		
F placeholder		
<b>cid</b>	table	F register N factor T features
F getmap		
F loadfile		
<b>collections</b>	table	D afm D otf D tfm F finalize B fixprotrusion F getfeatureaction F getmathparameter F getprivate T handlers
F checkenabled		
F clonevector		
F define		
T definitions		
F found		
F prepare		
F process		
F registermain		
F report		
F reset		
T vectors		
<b>constructors</b>	table	D cache D features F getkern T helpdata D bothkerned D leftkerned D ligatures D rightkerned D texligatures F load T readers F getinfo F loadfont F loadshapes F setfeatures B syncspace N version
F addcharacters		
F addcoreunicodes		
B addtounicode		
F aftercopyingcharacters		
F applymanipulators		
F assignmathparameters		
B autocleanup		
F beforecopyingcharacters		
D cache		
B cacheintex		
F calculatescale		
F checkedfeatures		
F checkedfilename		
F cleanutable		
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 stepkey		
F dataset		

```

F datasetpositionprocessor
S defaultbasealternate
S defaultnodealternate
D features
F featuresinitializer
F featuresprocessor
F getactualtext
F getalternate
F getgsub
F getkern
F getmultiple
F getstreamhash
F getsubstitution
T handlers
F devanagari_remove_joiners
F devanagari_reorder_matras
F devanagari_reorder_pre_base_reordering_consonants
F devanagari_reorder_reph
F gpos_context
F gpos_contextchain
F gpos_cursive
F gpos_mark2base
F gpos_mark2ligature
F gpos_mark2mark
F gpos_pair
F gpos_single
F gsub_alternate
F gsub_context
F gsub_contextchain
F gsub_ligature
F gsub_multiple
F gsub_reversecontextchain
F gsub_single
F trigger_space_kerns
T helpers
F blockligatures
F pardirstate
F txtdirstate
F load
F loadoutlinedata
F loadstreamdata
F modeinitializer
D mpscache
D pdfcache
F plugininitializer
F pluginprocessor
T plugins
D pngcache
B pngenabled
T readers
F addunicodetable
F avar
F cbdt
F cbcl
F cff
F cff2
F cffcheck
Tcffencoder
F checkhash
F cmap
F colr
F compact
F cpal
F ebdt
F eblc
F ebsc
F expand
F extend
F fvar
F gdef
F getcomponents
F getinfo
F glyf
F gpos
T gposhandlers
F chainedcontext
F context
F cursive
F extension
F marktobase
F marktoligature
F marktomark
F pair
F single
F gsub
T gsubhandlers
F alternate
F chainedcontext
F context
F extension
F ligature
F multiple
F reversechainedcontextsingle
F single
F gvar
F head
T helpers
F axistofactors
F cleanname
F getaxisscale
F getfactors
F getscales
F gotodataitable
F normalizedaxis
T normalizedaxishash
F readvariationdata
F reportskippeabletable
F setvariabledata
F hhea
F hmtx
F hvar
F kern
F loadfont
F loadshapes
F loca
F math
F maxp
F mvar
F name
F os/2
F pack
F parsecharstrings
F post
F registerextender
F rehash
F sbix
F stat
T streamreader

```

F close	F vhea
F getposition	F vmtx
F getsize	F vorg
F look	F vvar
F open	F woff2otf
F read2dot14	F registerpalette
F readbyte	F registerplugin
F readbytes	F reorderlookups
F readbytetable	F scriptandlanguage
F readcardinal	F setdynamics
F readcardinal1	F setfeatures
F readcardinal1le	T statistics
F readcardinal2	D usedfeatures
F readcardinal2le	D svgcache
F readcardinal3	B svgenabled
F readcardinal3le	T tables
F readcardinal4	D baselines
F readcardinal4le	D features
F readcardinaltable	D featuretypes
F readchar	D languages
F readfixed2	D scripts
F readfixed4	N version
F readinteger	T pfb
F readinteger1	F loadvector
F readinteger1le	T tfm
F readinteger2	D cache
F readinteger2le	D features
F readinteger3	N maxnestingdepth
F readinteger3le	N maxnestingsize
F readinteger4	T readers
F readinteger4le	F loadpk
F readintegertable	F loadtfm
F readsignedbyte	F loadtfmvf
F readstring	F loadvf
F readtag	F pktopdf
F setposition	F showpk
F size	F reencode
F skip	F setfeatures
F skiplong	N version
F skipposition	T vf
F skipshort	T combinations
F writebyte	F combine
F writecardinal1	T combiner
F writecardinal1le	D commands
F writecardinal2	D helpers
F writecardinal2le	D math
F writecardinal3	D predefined
F writecardinal3le	N version
F writecardinal4	D whatever
F writecardinal4le	F hashfeatures
F writeinteger1	F hashinstance
F writeinteger1le	T hashmethods
F writeinteger2	F normal
F writeinteger2le	F virtual
F writeinteger3	F initializefeatures
F writeinteger3le	T keys
F writeinteger4	T characters
F writeinteger4le	T descriptions
F writestring	T parameters
F stripdundant	S ascender
F svg	S descender
N tableversion	S designsize
F unifymissing	T expansion
F unpack	S auto

S shrink	F resetfeature
S step	B resolvevirtualtoo
S stretch	F scale
S extendfactor	F scaled
S factor	F setfactor
S hfactor	F setfeature
S mathsize	F setmathparameter
S mode	F setname
T protrusion	B sharefonts
S auto	F trytosharefont
S quad	N version
S scaledpoints	<b>current</b> function
S scriptpercentage	<b>currentid</b> function
S scripts scriptpercentage	<b>definers</b> table
S size	F addlookup
S slantfactor	F analyze
S slantperpoint	F applypostprocessors
T spacing	F checkedmode
S extra	F checkedscript
S shrink	S defaultlookup
S stretch	F define
S width	F getspecification
S units	F internal
S vfactor	F loadfont
S width	F makespecification
S xheight	T methods
T properties	F install
S autoitalicamount	D variants
S cidinfo	F read
T effect	F register
S ddelta	F registered
S effect	F registersplit
S factor	F resetnullfont
S hdelta	F resolve
S hfactor	T resolvers
S vfactor	F file
S wdelta	F name
S width	F spec
S embedding	<b>definetypeface</b> function
S encodingbytes	<b>dropins</b> table
S filename	F clone
S finalized	F nextid
S fontname	F provide
S format	F registerglyph
S fullname	F registerglyphs
S hasitalics	F swap
S hasmath	<b>encodings</b> table
S mathitalics	T agl
S mode	D ctxtcodes
S name	D extras
S nostackmath	D names
S psname	D synonyms
S textitalics	D unicodes
S virtualized	D cache
D loadedfonts	F is_known
S namemode	D known
N noffontsloaded	F load
N nofsharedfonts	F make_unicode_vector
N nofsharedhashes	D math
N nofsharedvectors	N version
N privateoffset	<b>enhanceid</b> function
D privateslots	<b>expansions</b> data table
F readanddefine	<b>formats</b> data table
F registerfeature	<b>getalternate</b> function

<b>getindices</b>	function	D resources
<b>getkern</b>	function	T setdynamics
<b>getmultiple</b>	function	T shapes
<b>getsubstitution</b>	function	D spaces
<b>getters</b>	table	D spacings
		T streams
		D unicodes
		D variants
		D xheights
		<b>helpers</b> table
		F addextraprivate
		F addprivate
		F appendcommands
		F appendcommandtable
		F checkflags
		F checkmerge
		F checksteps
		F collectanchors
		D commands
		F descriptontoslot
		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 newprivateslot
		F prependcommands
		F prependcommandtable
		F privateslot
		F setdigitwidth
		F splitfontpattern
		F tochar
		<b>infofont</b> function
		<b>iterators</b> table
		F characters
		F descriptions
		F glyphs
		<b>loggers</b> table
		F add_placeholders
		D category_to_placeholder
		F format
		F onetimemessage
		F register
		F reportdefinedfonts
		F reportusedfeatures
		<b>mappings</b> table
		F addtounicode
		F fromunicode16
		F loadfile
		F loadline
		F makenameparser
		D overloads
		F reset

F tounicode	F fallback
F tounicode16	D fallbacks
F tounicode16sequence	F features
<b>metapost</b>	<b>table</b>
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>	<b>table</b>
D cache	F registerfiles
B inline	F registerfontalternative
N version	F registerfontfamily
<b>names</b>	<b>data table</b>
<b>nulldata</b>	<b>data table</b>
<b>privateoffsets</b>	<b>table</b>
B keepnames	F textfallback
N mathbase	F typeface
N mathtextrabase	F typescript
N textbase	F userdata
N textrabase	<b>specifiers</b> <b>table</b>
<b>protrusions</b>	<b>data table</b>
<b>readers</b>	<b>table</b>
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 off	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>	<b>function</b>
<b>select</b>	<b>table</b>
D alternatives	<b>symbols</b> <b>table</b>
F bodyfont	T emoji
D data	F checked
F default	F resolved
D defaults	F uselibrary
F definefallbackfamily	<b>tables</b> <b>table</b>
F definefontfamily	D data
F definefontfamilypreset	F savefont
D extras	F saveoriginal
	<b>tracers</b> <b>table</b>
	<b>treatments</b> <b>table</b>
	F applyfixes
	D data
	S filename
	F ignoredfile
	F report
	F trace
	<b>typefaces</b> <b>table</b>

## functions (context)

**dummy** function

# graphics (context)

**backgrounds** table

F fetchmultipar

F pair

F path

F point

**bitmaps** table

F flush

F new

F placeholder

F tocontext

**identifiers** table

F bitmap

F jp2

F jpg

F png

**identify** function

## gzip (extra lua)

**compress** function  
**compressed** function  
**decompress** function

**load** function  
**save** function  
**suffix** function

## images (context)

```
check      function
checkszie function
copy       function
create     function
embed      function
keys       table
print      function
scan       function
serialize  function
sizes      table

B art
B bleed
B crop
B media

B none
B trim
totable   function
types     table
N jbig2
N jp2
N jpg
N memstream
N none
N pdf
N png
N stream

wrap      function
```

# interactions (context)

<b>attachments</b> data table	D functions
<b>fields</b> table	D preambles
F clone	F setpreamble
F define	F storecode
F defineset	F storepreamble
F insert	F usepreamblenow
<b>general</b> table	F usescripts
F getidentity	
F setupidentity	
<b>help</b> table	
F collect	
F reference	
F register	
<b>javascripts</b> table	
F addtopreamble	
F code	
D codes	
F flushpreambles	
	<b>linkedlists</b> data table
	<b>pages</b> table
	F setpagetransition
	F setupcanvas
	<b>references</b> table
	F setclosedocument
	F setclosepage
	F setopendocument
	F setopenpage
	<b>renderings</b> data table
	<b>soundclips</b> data table

## interfaces (context)

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

## io (basic lua)

<b>ask</b>	function	<b>output</b>	overloaded function
<b>bytes</b>	function	<b>pathseparator</b>	string
<b>characters</b>	function	<b>popen</b>	overloaded function
<b>close</b>	function	<b>read</b>	function
<b>copydata</b>	function	<b>readall</b>	function
<b>exists</b>	function	<b>readnumber</b>	function
<b>fileseparator</b>	string	<b>readstring</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>newreader</b>	function	<b>type</b>	function
<b>noflines</b>	function	<b>write</b>	function
<b>open</b>	overloaded function		

# job (context)

<b>comment</b>	function	F savetagged
<b>datasets</b>	table	D tobesaved
D collected		
F extend		
F getdata		
F setdata		
D tobesaved		
<b>disablesave</b>	function	F column
<b>embedded</b>	table	F columnofpos
D collected		
D tobesaved		
<b>fileobjreferences</b>	table	F copy
D collected		
D tobesaved		
<b>files</b>	table	F depth
D collected		
F context		
B forcerun		
F run		
D tobesaved		
<b>getrandomseed</b>	function	F e_column
<b>initialize</b>	function	F e_region
<b>load</b>	function	F enhance
<b>loadother</b>	function	F extra
<b>objects</b>	table	F get
D collected		
F get		
F number		
F page		
F save		
F set		
D tobesaved		
<b>pack</b>	boolean	F getfree
<b>packversion</b>	number	F gethpos
<b>pagestates</b>	table	F getpos
D collected		
F countervalue		
F extend		
F realpage		
F realpageorder		
F setstate		
D tobesaved		
<b>parwrappers</b>	table	F getreserved
D collected		
D tobesaved		
<b>passes</b>	table	F getrpos
F check		
D collected		
F count		
F define		
F find		
F first		
F get		
F getcollected		
F getdata		
F getfield		
F gettobesaved		
F inlist		
F last		
F list		
F save		
		<b>register</b> function
		<b>save</b> function

<b>structure</b>	table	D collected
		F getchecksum
T components		F makechecksum
T tobesaved		F restore
T branches		F save
S name		F setchecksum
S type		D tobesaved
<b>variables</b>	table	<b>version</b> number
		D checksums

## language (basic tex)

<b>clean</b>	function	<b>id</b>	function
<b>clear_hyphenation</b>	function	<b>new</b>	function
<b>clear_patterns</b>	function	<b>patterns</b>	function
<b>current</b>	function	<b>postexhyphenchar</b>	function
<b>gethjcode</b>	function	<b>posthyphenchar</b>	function
<b>has_language</b>	function	<b>preexhyphenchar</b>	function
<b>hyphenate</b>	function	<b>prehyphenchar</b>	function
<b>hyphenation</b>	function		
<b>hyphenationmin</b>	function	<b>sethjcode</b>	function

# languages (context)

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

## layouts (context)

**status** table  
F isleftpage

F leftorrightpageaction

## lfs (extra lua)

<b>attributes</b>	overloaded function	<b>iswriteablefile</b> function
<b>chdir</b>	overloaded function	<b>link</b> overloaded function
<b>currentdir</b>	function	<b>mkdir</b> overloaded function
<b>dir</b>	overloaded function	<b>mkdirs</b> function
<b>isdir</b>	overloaded function	<b>modification</b> function
<b>isfile</b>	overloaded function	<b>readlink</b> function
<b>isfound</b>	function	<b>rmdir</b> overloaded function
<b>isreadabledir</b>	function	<b>setexecutable</b> function
<b>isreadablefile</b>	function	<b>symlink</b> function
<b>iswriteabledir</b>	function	<b>touch</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>loadedfile</b>	function
<b>convert</b>	function	<b>make</b>	function
<b>convertfile</b>	function	<b>new</b>	function
<b>convertstring</b>	function	<b>overloaderror</b>	function
<b>inject</b>	function	<b>popupfile</b>	function
<b>eprint</b>	function	<b>print</b>	function
<b>escape</b>	function	<b>pv</b>	function
<b>finalized</b>	function	<b>report</b>	function
<b>finject</b>	function	<b>reset</b>	function
<b>fprint</b>	function	<b>result</b>	function
<b>get</b>	function	<b>set</b>	function
<b>getvariables</b>	function	<b>show</b>	function
<b>htmfile</b>	function	<b>showdebuginfo</b>	function
<b>html</b>	table	<b>showerror</b>	function
	F a	<b>stripcss</b>	function
	F td	<b>tv</b>	function
	F th	<b>type</b>	function
<b>include</b>	function	<b>urlescape</b>	function
<b>inherited</b>	table	<b>variable</b>	function
	S color-background-four	<b>variables</b>	table
	S color-background-one		S color-background-blue
	S color-background-three		S color-background-body
	S color-background-two		S color-background-green
	S title		S color-background-main
<b>initialize</b>	function		S color-background-purple
<b>inject</b>	function		S color-background-yellow
<b>lmxfile</b>	function		S title-default

## logs (context)

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

# lpdf (context)

<b>action</b>	function	F embeddedfiles
<b>adddocumentcolorspace</b>	function	F javascripts
<b>adddocumenttextgstate</b>	function	F layers
<b>adddocumentpattern</b>	function	F pages
<b>adddocumentshade</b>	function	F structure
<b>addtocatalog</b>	function	F widgets
<b>addtoinfo</b>	function	F stripcontent
<b>addtonames</b>	function	F unload
<b>addtopageattributes</b>	function	<b>escaped</b> function
<b>addtopageresources</b>	function	<b>finalizedocument</b> function
<b>addtopagesattributes</b>	function	<b>finalizefonts</b> function
<b>addxmpinfo</b>	function	<b>finalizepage</b> function
<b>annotationspecification</b>	function	<b>finishtransparencycode</b> function
<b>array</b>	function	<b>flags</b> table
<b>attachmentsymbols</b>	function	T annotations
<b>boolean</b>	function	N AutoView
<b>border</b>	function	N Hidden
<b>checkedkey</b>	function	N Invisible
<b>checkedvalue</b>	function	N Locked
<b>circularshade</b>	function	N LockedContents
<b>cmykcode</b>	function	N NoRotate
<b>collectedresources</b>	function	N NoView
<b>color</b>	function	N NoZoom
<b>colorspace</b>	function	N Print
<b>colorspaceconstants</b>	data table	N Printable
<b>colorspec</b>	function	N ReadOnly
<b>colorvalue</b>	function	N ToggleNoView
<b>colorvalues</b>	function	N auto
<b>commentsymbols</b>	function	N hidden
<b>compresslevel</b>	function	N printable
<b>constant</b>	function	T widgets
<b>copyarray</b>	function	N Comb
<b>copyboolean</b>	function	N CommitOnSelChange
<b>copyconstant</b>	function	N DoNotScroll
<b>copydictionary</b>	function	N DoNotSpellCheck
<b>copyfloat</b>	function	N Edit
<b>copyinteger</b>	function	N FileSelect
<b>copynumber</b>	function	N MultiLine
<b>copystring</b>	function	N NoExport
<b>copyunicode</b>	function	N NoToggleToOff
<b>delayedobject</b>	function	N Password
<b>destinationspecification</b>	function	N PopUp
<b>dictionary</b>	function	N PushButton
<b>docstring</b>	function	N Radio
<b>epdf</b>	table	N RadiosInUnison
	F analyzefonts	N ReadOnly
	F contenttotext	N Required
	F expanded	N RichText
	F getpagecontent	N Sort
	F getstructure	N file
	T image	N fixed
	F close	N nocheck
	F copy	N protected
	F new	N readonly
	F open	N required
	F query	N sorted
	F load	N unavailable
	F parsecontent	<b>flushfonts</b> function
	F plugin	<b>flushgroup</b> function
	T resolvers	<b>flushobject</b> function
	F destinations	<b>flushstreamfileobject</b> function

<b>flushstreamobject</b>	function	<b>pdfcolor</b>	function
<b>formats</b>	data table	<b>pdftimestamp</b>	function
<b>frombytes</b>	function	<b>permitdetail</b>	function
<b>fromeight</b>	function	<b>print</b>	function
<b>frompdfdoc</b>	function	<b>procset</b>	function
<b>fromsixteen</b>	function	<b>protectresources</b>	boolean
<b>getcatalog</b>	function	<b>rectangle</b>	function
<b>getcompression</b>	function	<b>reference</b>	function
<b>getfontname</b>	function	<b>registerannotation</b>	function
<b>getfontobjnumber</b>	function	<b>registerdestination</b>	function
<b>getinfo</b>	function	<b>registerdocumentfinalizer</b>	function
<b>getmapentry</b>	function	<b>registerfont</b>	function
<b>getmetadata</b>	function	<b>registerpagefinalizer</b>	function
<b>getnofpages</b>	function	<b>registerpattern</b>	function
<b>getpageproperties</b>	function	<b>reserveobject</b>	function
<b>getpagetags</b>	function	<b>rgbcode</b>	function
<b>getversion</b>	function	<b>rotationcm</b>	function
<b>getxformname</b>	function	<b>setcompression</b>	function
<b>graycode</b>	function	<b>setdates</b>	function
<b>id</b>	function	<b>setmapfile</b>	function
<b>immediateobj</b>	function	<b>setmapline</b>	function
<b>includechar</b>	function	<b>setomitcharset</b>	function
<b>includecharlist</b>	function	<b>setomitcidset</b>	function
<b>includefont</b>	function	<b>setpageorder</b>	function
<b>includeimage</b>	function	<b>setpagetag</b>	function
<b>injectors</b>	table	<b>setsuppressooptionalinfo</b>	function
	F bitmap	<b>settime</b>	function
	F jp2	<b>settrailerid</b>	function
	F jpg	<b>setversion</b>	function
	F png	<b>shareobject</b>	function
<b>injectxmpinfo</b>	function	<b>shareobjectreference</b>	function
<b>insertxmpinfo</b>	function	<b>spotcode</b>	function
<b>layerreference</b>	function	<b>stream</b>	function
<b>limited</b>	function	<b>string</b>	function
<b>linearshade</b>	function	<b>toeight</b>	function
<b>literal</b>	function	<b>topdfdoc</b>	function
<b>majorversion</b>	function	<b>tosixteen</b>	function
<b>makenametree</b>	function	<b>transparency</b>	function
<b>minorversion</b>	function	<b>transparencycode</b>	function
<b>nofpages</b>	function	<b>transparencygroups</b>	table
<b>null</b>	function		B none
<b>number</b>	function	<b>transparencyvalue</b>	function
<b>obj</b>	function	<b>unicode</b>	function
<b>objectcompresslevel</b>	function	<b>usedcharacters</b>	table
<b>pagerefERENCE</b>	function	<b>verbose</b>	function
<b>patternstream</b>	function	<b>vfimage</b>	function

## lpeg (basic lua)

B	function	<b>firstofssplit</b>	function
C	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
P	function	<b>ptree</b>	function
R	function	<b>replacer</b>	function
S	function	<b>secondofssplit</b>	function
UP	function	<b>setmaxstack</b>	function
UR	function	<b>setutfcasers</b>	function
US	function	<b>split</b>	function
V	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		

## lua (basic tex)

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

## luatex (context)

<b>abort</b>	function	F finish
<b>cleanup</b>	function	F pause
<b>cleanuptempfiles</b>	function	F popline
<b>currentfile</b>	function	F pushline
<b>registerdumpactions</b>	function	F registerdisabler
<b>registerpageactions</b>	function	F registerenabler
<b>registerstartactions</b>	function	F resetfilename
<b>registerstopactions</b>	function	F resume
<b>register tempfile</b>	function	F setfilename
<b>starttime</b>	number	F setup
<b>synctex</b>	table	F start
		F stop
		F wrapup
		<b>wrapup</b> function

# lxml (context)

<b>addindex</b>	function	<b>load</b>	function
<b>all</b>	function	<b>loadbuffer</b>	function
<b>applyfunction</b>	function	<b>loaddata</b>	function
<b>applyselectors</b>	function	<b>loaded</b>	table
<b>att</b>	function	<b>main</b>	function
<b>attribute</b>	function	<b>match</b>	function
<b>badirclusions</b>	function	<b>name</b>	function
<b>chainattribute</b>	function	<b>namespace</b>	function
<b>checkindex</b>	function	<b>nonspace</b>	function
<b>collected</b>	function	<b>par</b>	function
<b>command</b>	function	<b>param</b>	function
<b>concat</b>	function	<b>parameter</b>	function
<b>concatrange</b>	function	<b>path</b>	function
<b>content</b>	function	<b>popmatch</b>	function
<b>context</b>	function	<b>pos</b>	function
<b>convert</b>	function	<b>position</b>	function
<b>count</b>	function	<b>pure</b>	function
<b>delete</b>	function	<b>pushmatch</b>	function
<b>depth</b>	function	<b>raw</b>	function
<b>direct</b>	function	<b>rawroot</b>	function
<b>directives</b>	table	<b>rawtex</b>	function
F after		<b>refatt</b>	function
F before		<b>register</b>	function
F handle		<b>registerentity</b>	function
F load		<b>removesetup</b>	function
F setup		<b>replace</b>	function
<b>displayverbatim</b>	function	<b>resetcdata</b>	function
<b>doif</b>	function	<b>resetsetups</b>	function
<b>doifelse</b>	function	<b>resolvedentity</b>	function
<b>doifelseempty</b>	function	<b>root</b>	function
<b>doifelsestext</b>	function	<b>save</b>	function
<b>doifempty</b>	function	<b>serialize</b>	function
<b>doifnot</b>	function	<b>setaction</b>	function
<b>doifnotempty</b>	function	<b>setatt</b>	function
<b>doifnottext</b>	function	<b>setattribute</b>	function
<b>doiftext</b>	function	<b>setcdata</b>	function
<b>element</b>	function	<b>setcommandtonone</b>	function
<b>elements</b>	function	<b>setcommandtotext</b>	function
<b>entities</b>	data table	<b>setpar</b>	function
<b>filter</b>	function	<b>setparam</b>	function
<b>filterlist</b>	function	<b>setParameter</b>	function
<b>first</b>	function	<b>setup</b>	function
<b>flush</b>	function	<b>snippet</b>	function
<b>flushlinewise</b>	function	<b>sorters</b>	table
<b>flushsetups</b>	function	F add	
<b>flushspacewise</b>	function	F compare	
<b>get_id</b>	function	F flush	
<b>getid</b>	function	F reset	
<b>getindex</b>	function	F show	
<b>id</b>	function	F sort	
<b>idsplitter</b>	userdata	<b>splitid</b>	function
<b>include</b>	function	<b>startraw</b>	function
<b>inclusion</b>	function	<b>startunescape</b>	function
<b>inclusions</b>	function	<b>stopraw</b>	function
<b>index</b>	function	<b>stopunescape</b>	function
<b>inlineverbatim</b>	function	<b>store</b>	function
<b>installsetup</b>	function	<b>strip</b>	function
<b>last</b>	function	<b>stripped</b>	function
<b>lastatt</b>	function	<b>tag</b>	function
<b>lastmatch</b>	function	<b>text</b>	function
<b>lastpar</b>	function	<b>tobuffer</b>	function

**tofile** function  
**toparameters** function  
**tovverbatim** function

**verbatim** function  
**withindex** function  
**xmltexhandler** data table

## math (basic lua)

<b>abs</b>	function	<b>min</b>	function
<b>acos</b>	function	<b>mininteger</b>	number
<b>asin</b>	function	<b>mod</b>	function
<b>atan</b>	function	<b>modf</b>	function
<b>atan2</b>	function	<b>odd</b>	function
<b>ceil</b>	function	<b>pi</b>	number
<b>ceiling</b>	function	<b>pow</b>	function
<b>cos</b>	function	<b>rad</b>	function
<b>cosd</b>	function	<b>random</b>	overloaded function
<b>cosh</b>	function	<b>randomseed</b>	function
<b>deg</b>	function	<b>round</b>	function
<b>div</b>	function	<b>setrandomseedi</b>	function
<b>even</b>	function	<b>sin</b>	function
<b>exp</b>	function	<b>sind</b>	function
<b>floor</b>	function	<b>sinh</b>	function
<b>fmod</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
<b>maxinteger</b>	number		

# mathematics (context)

<b>addfallbacks</b>	function	<b>mapremap</b>	data table
<b>alphabets</b>	data table	<b>overloaddimensions</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)

**HEX**    function  
**dec**    function  
**hex**    function

**sum**    function  
**sumHEXA** function  
**sumhexa** function

# metapost (context)

<b>checkformat</b>	function	N secondarybinary
<b>cm</b>	function	N secondarydef
<b>codes</b>	table	N semicolon
N addto		N setbounds
N ampersand		N shipout
N and		N show
N assignment		N skip
N atleast		N slash
N begingroup		N special
N btex		N step
N capsule		N stop
N colon		N str
N comma		N string
N controls		N tag
N curl		N tension
N cycle		N tertiarybinary
N declare		N tertiarydef
N def		N thingstoadd
N definedmacro		N to
N delimiters		N unary
N endgroup		N undefinedcs
N equals		N until
N etex		N void
N everyjob		N with
N exitif		N within
N expandafter		N write
N fi_or_else		<b>colorinitializer</b> function
N if		<b>comment</b> function
N input		<b>convert</b> function
N interim		<b>currentmpx</b> function
N internal		<b>currentmpxstatus</b> function
N iteration		<b>defaultformat</b> string
N join		<b>defaultinstance</b> string
N leftbrace		<b>defaultmethod</b> string
N leftbracket		<b>directrun</b> function
N leftdelimiter		<b>escaped</b> function
N let		<b>execetime</b> table
N macrospecial		<b>extensiondata</b> data table
N maketext		<b>filterclippath</b> function
N message		<b>flush</b> function
N mode		<b>flushers</b> table
N newinternal		T pdf
N nullary		F comment
N numeric		F flushfigure
N of		F startfigure
N ofbinary		F stopfigure
N outertag		F textfigure
N parametertype		<b>flushliteral</b> function
N plus_or_minus		<b>flushnormalpath</b> function
N primarybinary		<b>flushreset</b> function
N primarydef		<b>fonts</b> table
N randomseed		F define
N relax		T flusher
N repeat_loop		F flushfigure
N rightbrace		F startfigure
N rightbracket		F stopfigure
N rightdelimiter		N instances
N runscript		F process
N save		<b>format_number</b> function
N scantokens		<b>format_string</b> function
N scope		<b>formatnumber</b> function

<b>getclippath</b>	function	<b>setparameterset</b>	function
<b>getextensions</b>	function	<b>settext</b>	function
<b>getextradata</b>	function	<b>setvariable</b>	function
<b>getjobdata</b>	function	<b>showlog</b>	boolean
<b>getparameter</b>	function	<b>showvgpage</b>	function
<b>getparameterset</b>	function	<b>simple</b>	function
<b>getstatistics</b>	function	<b>splitprescript</b>	function
<b>gettext</b>	function	<b>startgraphic</b>	function
<b>graphic</b>	function	<b>startsvghashing</b>	function
<b>graphic_base_pass</b>	function	<b>stopgraphic</b>	function
<b>includesvgbuffer</b>	function	<b>stopsvghashing</b>	function
<b>includesvgfile</b>	function	<b>svformat</b>	function
<b>installplugin</b>	function	<b>svgcolorremapper</b>	function
<b>isobject</b>	function	<b>svgglyptomp</b>	function
<b>lastlog</b>	string	<b>svgshapestomp</b>	function
<b>load</b>	function	<b>svgshapestopdf</b>	function
<b>maketext</b>	function	<b>svgsplitcolor</b>	function
<b>metafun</b>	table	<b>svgtomp</b>	function
F interpolate		<b>svgtopdf</b>	function
F topath		<b>sxsy</b>	function
<b>mptopdf</b>	table	<b>tex</b>	table
F convertmpstopdf		F get	
N nofconverted		F reset	
<b>n</b>	number	F set	
<b>nofruns</b>	number	F setfrombuffer	
<b>nofscriptruns</b>	function	<b>texerrors</b>	boolean
<b>nvformat</b>	function	<b>texexp</b>	function
<b>pdfliterals</b>	function	<b>theclippath</b>	function
<b>pluginactions</b>	function	<b>tographic</b>	function
<b>popformat</b>	function	<b>totable</b>	function
<b>popscriptrunner</b>	function	<b>types</b>	table
<b>popvariable</b>	function	N boolean	
<b>popvariables</b>	function	N cmykcolor	
<b>preparetexttextsdata</b>	function	N color	
<b>process</b>	function	N dependent	
<b>processing</b>	function	N independent	
<b>processplugins</b>	function	N known	
<b>processspecial</b>	function	N numeric	
<b>properties</b>	table	N pair	
<b>pushformat</b>	function	N path	
<b>pushscriptrunner</b>	function	N pen	
<b>pushvariable</b>	function	N picture	
<b>pushvariables</b>	function	N protodependent	
<b>reducetogray</b>	boolean	N string	
<b>registerscript</b>	function	N structured	
<b>remappedtext</b>	function	N suffixedmacro	
<b>remaptext</b>	function	N tokenlist	
<b>reporterror</b>	function	N transform	
<b>reportsvgfonts</b>	function	N unknownboolean	
<b>reset</b>	function	N unknownpath	
<b>resetlastlog</b>	function	N unknownpen	
<b>resetplugins</b>	function	N unknownpicture	
<b>run</b>	function	N unknownstring	
<b>runscript</b>	function	N unsuffixedmacro	
<b>scanparameters</b>	function	N vacuous	
<b>scripterror</b>	function	<b>typesvgpage</b>	function
<b>scriptindex</b>	function	<b>unload</b>	function
<b>setextensions</b>	function	<b>untagvariable</b>	function
<b>setoutercolor</b>	function	<b>variables</b>	table

## mime (extra lua)

<b>b64</b>	function	<b>qpwrp</b>	function
<b>decode</b>	function	<b>report</b>	function
<b>decodet</b>	table	<b>stuff</b>	function
	F base64	<b>unb64</b>	function
	F quoted-printable	<b>unqp</b>	function
<b>dot</b>	function	<b>wrap</b>	function
<b>encode</b>	function	<b>wrapt</b>	table
<b>encodet</b>	table		F base64
	F base64		F default
	F quoted-printable		F quoted-printable
<b>eol</b>	function		F text
<b>normalize</b>	function	<b>wrp</b>	function
<b>qp</b>	function		

# mp (context)

<u>get_count</u>	function	<b>getcount</b>	function
<u>get_dimen</u>	function	<b>getdimen</b>	function
<u>get_macro</u>	function	<b>getmacro</b>	function
<u>get_toks</u>	function	<b>gettoks</b>	function
<u>set_count</u>	function	<b>graphformat</b>	function
<u>set_dimen</u>	function	<b>inhash</b>	function
<u>set_macro</u>	function	<b>inject</b>	function
<u>set_toks</u>	function	F boolean	
<b>autoinject</b>	function	F cmykcolor	
<b>aux</b>	table	F color	
F boolean		F integer	
F color		F number	
F direct		F numeric	
F direct1		F pair	
F direct2		F path	
F direct3		F string	
F direct4		F transform	
F draw		F whatever	
F fill			
F flush		<b>integer</b>	function
F fprintf		<b>isarray</b>	function
F integer		<b>isobject</b>	function
F number		<b>lmt_color_functions</b>	table
F numeric		F shade	
F pair		F step	
F pairpoints		<b>lmt_contours_bitmap_get</b>	function
F path		<b>lmt_contours_bitmap_set</b>	function
F pathpoints		<b>lmt_contours_cleanup</b>	function
F points		<b>lmt_contours_color</b>	function
F print		<b>lmt_contours_edge_get_band</b>	function
F quadruple		<b>lmt_contours_edge_get_cell</b>	function
F quadrupolepoints		<b>lmt_contours_edge_paths</b>	function
F quoted		<b>lmt_contours_edge_set</b>	function
F size		<b>lmt_contours_edge_set_by_band</b>	function
F string		<b>lmt_contours_edge_set_by_cell</b>	function
F transform		<b>lmt_contours_format</b>	function
F triplet		<b>lmt_contours_function</b>	function
F tripletpoints		<b>lmt_contours_maxmean</b>	function
F vprint		<b>lmt_contours_maxz</b>	function
<b>boolean</b>	function	<b>lmt_contours_minmean</b>	function
<b>cleaned</b>	function	<b>lmt_contours_minz</b>	function
<b>color</b>	function	<b>lmt_contours_novalues</b>	function
<b>dataset</b>	function	<b>lmt_contours_nx</b>	function
<b>datasets</b>	function	<b>lmt_contours_ny</b>	function
F load		<b>lmt_contours_range</b>	function
<b>dimension</b>	function	<b>lmt_contours_shade_paths</b>	function
<b>direct</b>	function	<b>lmt_contours_shade_set</b>	function
<b>direct1</b>	function	<b>lmt_contours_shape_paths</b>	function
<b>direct2</b>	function	<b>lmt_contours_start</b>	function
<b>direct3</b>	function	<b>lmt_contours_stop</b>	function
<b>direct4</b>	function	<b>lmt_contours_value</b>	function
<b>disposehash</b>	function	<b>lmt_contours_xrange</b>	function
<b>draw</b>	function	<b>lmt_contours_yrange</b>	function
<b>fill</b>	function	<b>lmt_do_remaptext</b>	function
<b>flatten</b>	function	<b>lmt_function_x</b>	function
<b>flush</b>	function	<b>lmt_mesh_set</b>	function
<b>format</b>	function	<b>lmt_mesh_update</b>	function
<b>formatted</b>	function	<b>lmt_poisson_generate</b>	function
<b>fprintf</b>	function	<b>lmt_register_glyph</b>	function
<b>fromhash</b>	function	<b>lmt_register_glyphs</b>	function
<b>get</b>	table	<b>lmt_surface_do</b>	function
		<b>lmt_svg_include</b>	function

<b>mf_blob_add</b>	function	<b>positionregion</b>	function
<b>mf_blob_dimensions</b>	function	<b>positionwhd</b>	function
<b>mf_blob_index</b>	function	<b>positionxy</b>	function
<b>mf_blob_new</b>	function	<b>prefix</b>	function
<b>mf_blob_raw_content</b>	function	<b>print</b>	function
<b>mf_blob_raw_dimensions</b>	function	<b>processingmode</b>	function
<b>mf_blob_raw_reset</b>	function	<b>quadruple</b>	function
<b>mf_blob_raw_toutf</b>	function	<b>quadruplepoints</b>	function
<b>mf_blob_raw_wipe</b>	function	<b>quoted</b>	function
<b>mf_blob_size</b>	function	<b>report</b>	function
<b>mf_blob_width</b>	function	<b>scan</b>	table
<b>mf_external_figure</b>	function	F boolean	
<b>mf_finish_saving_data</b>	function	F cmykcolor	
<b>mf_formatted_text</b>	function	F color	
<b>mf_get_outline_text</b>	function	F expression	
<b>mf_graphic_text</b>	function	F integer	
<b>mf_inject_blob</b>	function	F next	
<b>mf_made_text</b>	function	F number	
<b>mf_map_move</b>	function	F numeric	
<b>mf_map_text</b>	function	F pair	
<b>mf_named_color</b>	function	F path	
<b>mf_outline_text</b>	function	F pen	
<b>mf_save_data</b>	function	F string	
<b>mf_script_index</b>	function	F symbol	
<b>mf_some_text</b>	function	F token	
<b>mf_start_saving_data</b>	function	F transform	
<b>mf_stop_saving_data</b>	function	<b>set</b>	table
<b>mf_tb_dimensions</b>	function	<b>setcount</b>	function
<b>mf_tt_dimensions</b>	function	<b>setdimen</b>	function
<b>mf_tt_initialize</b>	function	<b>setmacro</b>	function
<b>mode</b>	function	<b>settoks</b>	function
<b>n</b>	function	<b>size</b>	function
<b>newhash</b>	function	<b>solve</b>	function
<b>number</b>	function	<b>string</b>	function
<b>numeric</b>	function	<b>systememode</b>	function
<b>pair</b>	function	<b>texstr</b>	function
<b>pairpoints</b>	function	<b>textextanchor</b>	function
<b>path</b>	function	<b>texvar</b>	function
<b>pathpoints</b>	function	<b>tohash</b>	function
<b>points</b>	function	<b>transform</b>	function
<b>positionanchor</b>	function	<b>triplet</b>	function
<b>positionbox</b>	function	<b>tripletpoints</b>	function
<b>positioncurve</b>	function	<b>utflen</b>	function
<b>positionpage</b>	function	<b>utfsub</b>	function
<b>positionpath</b>	function	<b>vprint</b>	function
<b>positionpxy</b>	function		

## mplib (extra tex)

<b>execute</b>	function	<b>inject_transform</b> function
<b>finder</b>	function	<b>inject_whatever</b> function
<b>finders</b>	table	<b>new</b> overloaded function
F file		<b>pen_info</b> function
F mpstemplate		<b>realtimelogging</b> boolean
<b>finish</b>	function	<b>scan_boolean</b> function
<b>getcallbackstate</b>	function	<b>scan_cmykcolor</b> function
<b>getcodes</b>	function	<b>scan_color</b> function
<b>getfields</b>	function	<b>scan_expression</b> function
<b>getstates</b>	function	<b>scan_integer</b> function
<b>getstatistics</b>	function	<b>scan_next</b> function
<b>getstatus</b>	function	<b>scan_number</b> function
<b>gettype</b>	function	<b>scan_numeric</b> function
<b>gettotypes</b>	function	<b>scan_pair</b> function
<b>inject_boolean</b>	function	<b>scan_path</b> function
<b>inject_cmykcolor</b>	function	<b>scan_pen</b> function
<b>inject_color</b>	function	<b>scan_string</b> function
<b>inject_integer</b>	function	<b>scan_symbol</b> function
<b>inject_number</b>	function	<b>scan_token</b> function
<b>inject_numeric</b>	function	<b>scan_transform</b> function
<b>inject_pair</b>	function	<b>solve_path</b> function
<b>inject_path</b>	function	<b>version</b> function
<b>inject_string</b>	function	

## noads (context)

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

## node (basic tex)

<b>check_discretionaries</b>	function	F getpenalty
<b>check_discretionary</b>	function	F getpost
<b>copy</b>	function	F getpre
<b>copy_list</b>	function	F getprev
<b>count</b>	function	F getproperty
<b>current_attributes</b>	function	F getreplace
<b>dimensions</b>	function	F getscript
<b>direct</b>	table	F getshift
F check_discretionaries		F getstate
F check_discretionary		F getsub
F copy		F getsubpre
F copy_list		F getsubtype
F copy_only		F getsup
F count		F getsuppre
F current_attributes		F gettotal
F dimensions		F getwhd
F effective_glue		F getwidth
F end_of_math		F has_attribute
F exchange		F has_dimensions
F find_attribute		F has_field
F find_attribute_range		F has_glyph
F find_node		F has_glyph_option
F first_glyph		F hpack
F flatten_discretionaries		F hyphenating
F flush_list		F ignore_math_skip
F flush_node		F insert_after
F free		F insert_before
F get_attribute		F is_char
F get_attributes		F is_direct
F get_properties_table		F is_glyph
F get_synctex_fields		F is_node
F getattributelist		F is_valid
F getboth		F is_zero_glue
F getbox		F kerning
F getchar		F last_node
F getdata		F length
F getdepth		F ligaturing
F getdirection		F make_extensible
F getdisc		F migrate
F getexpansion		F mlist_to_hlist
F getfam		F naturalwidth
F getfield		F new
F getfont		F protect_glyph
F getglue		F protect_glyphs
F getglyphdata		F protrusion_skippable
F getglyphdimensions		F rangedimensions
F getheight		F remove
F getid		F reverse
F getindex		F set_attribute
F getkern		F set_attributes
F getkerndimension		F set_synctex_fields
F getlanguage		F setattributelist
F getleader		F setboth
F getlist		F setbox
F getnext		F setchar
F getnormalizedline		F setdata
F getnucleus		F setdepth
F getoffsets		F setdirection
F getoptns		F setdisc
F getoptions		F setexpansion
F getorientation		F setfam
F getparstate		

F setfield	find_attribute	function
F setfont	first_glyph	function
F setglue	flatten_discretionaries	function
F setglyphdata	flush_list	function
F setheight	flush_node	function
F setindex	free	function
F setkern	get_attribute	function
F setlanguage	get_glue	function
F setleader	get_properties_table	function
F setlink	getfield	function
F setlist	getproperty	function
F setnext	has_attribute	function
F setnucleus	has_field	function
F setoffsetsets	has_glyph	function
F setoptions	hpack	function
F setorientation	hyphenating	function
F setpenalty	id	function
F setpost	insert_after	function
F setpre	insert_before	function
F setprev	instock	function
F setproperty	inuse	function
F setreplace	is_node	function
F setscript	is_zero_glue	function
F setshift	kerning	function
F setsplit	last_node	function
F setstate	length	function
F setsub	ligaturing	function
F setsubpre	make_extensible	function
F setsubtype	mlist_to_hlist	function
F setsup	new	function
F setsuppre	optimize_unset_attribute	function
F settotal	protect_glyph	function
F setwhd	protect_glyphs	function
F setwidth	protrusion_skippable	function
F slide	rangedimensions	function
F start_of_par	remove	function
F tail	set_attribute	function
F todirect	set_glue	function
F tonode	setfield	function
F tostring	setProperty	function
F tovaliddirect	slide	function
F traverse	subtypes	function
F traverse_char	tail	function
F traverse_content	tostring	function
F traverse_glyph	traverse	function
F traverse_id	traverse_char	function
F traverse_list	traverse_glyph	function
F type	traverse_id	function
F unprotect_glyph	traverse_list	function
F unprotect_glyphs	type	function
F unset_attribute	types	function
F usedlist	unprotect_glyph	function
F uses_font	unprotect_glyphs	function
F vertical_break	unset_attribute	function
F vpack	usedlist	function
F write	uses_font	function
<b>effective_glue</b>	values	function
<b>end_of_math</b>	vpack	function
<b>family_font</b>	write	function
<b>fields</b>		

## nodes (context)

accentcodes	data table	getboth	function
aligned	function	getbox	function
append	function	getchar	function
apply	function	getfield	function
applyvisuals	function	getfont	function
astable	function	getid	function
basepoints	function	getleader	function
boundarycodes	data table	getlist	function
boxes	table	getnext	function
F dimensions		getprev	function
F direct		getsubtype	function
F found		gluecodes	data table
F reset		glyphcodes	data table
F restore		handlers	table
F save			
F savenode		F accessibility	
builders	table	F backgrounds	
F buildpage_filter		F backgroundpage	
F vpack_filter		F backgroundsbox	
check_discretionaries	function	F characters	
concat	function	F checkglyphs	
copy	function	F checkparcounter	
copy_list	function	F cleanupbox	
copy_node	function	F cleanuppage	
count	function	F export	
countall	function	F finalizebox	
current_attributes	function	F flatten	
delete	function	F flattenline	
destinations	table	F migrate	
N attribute		F protectglyphs	
T done		F stripping	
F handler		F textbackgrounds	
T stack		F unprotectglyphs	
dimensions	function	has_attribute	function
dircodes	data table	has_field	function
directioncodes	data table	has_glyph	function
directionvalues	data table	hpack	function
dirvalues	data table	hyphenating	function
disccodes	data table	idsandsubtypes	function
discretionarycodes	data table	idstostring	function
effective_glue	function	injections	table
end_of_math	function		
fencecodes	data table	F copy	
fields	function	F getligaindex	
fieldtypes	table	F getthreshold	
fillcodes	data table	F handler	
fillvalues	data table	F installgetspaceboth	
find_attribute	function	F installnewkern	
first_glyph	function	F isspace	
firstcharacter	function	F keepcounts	
firstcharinbox	function	F reset	
firstdirinbox	function	F resetcounts	
firstglyph	function	F setcursive	
flatten_discretionaries	function	F set kern	
flush	function	F setligaindex	
flush_list	function	F setmark	
flush_node	function	F setmove	
free	function	F setposition	
fullhpack	function	F setspacekerns	
getattr	function	insert_after	function
setattrattribute	function	insert_before	function
		insert_list_after	function
		installattributehandler	function

<b>is_direct</b>	function	F concat
<b>is_display_math</b>	function	F copy
<b>is_node</b>	function	F copy_list
<b>is_nut</b>	function	F copy_no_components
<b>is_zero_glue</b>	function	F copy_node
<b>kerncodes</b>	data table	F copy_only
<b>kerning</b>	function	F copy_only_glyphs
<b>keys</b>	table	F copy_properties
	T whatsit	F copyvisual
<b>last_node</b>	function	F count
<b>leftmarginwidth</b>	function	F count_components
<b>length</b>	function	F countall
<b>ligaturing</b>	function	F current_attributes
<b>linefillers</b>	table	F delete
	D data	F dimensions
	F define	F dirdimensions
	F enable	F effective_glue
	F filler	F end_of_math
	F handler	F exchange
<b>lines</b>	table	F find_attribute
	T boxed	F first_glyph
	F register	F firstcharacter
	F setup	F firstcharinbox
	F stage_one	F firstglyph
	F stage_two	F flatten_discretionaries
	D data	F flush
	F finalize	F flush_list
	F number	F flush_node
	N scratchbox	F free
<b>link</b>	function	F fullhpack
<b>linked</b>	function	F get_components
<b>list</b>	function	F getattr
<b>listcodes</b>	data table	F getattribute
<b>listtoutf</b>	function	F getattributelist
<b>literalvalues</b>	data table	F getatrrlist
<b>load</b>	function	F getattrs
<b>locate</b>	function	F getboth
<b>markers</b>	table	F getbox
	F get	F getboxglue
<b>mathcodes</b>	data table	F getchar
<b>maxboxwidth</b>	function	F getcomponents
<b>migrations</b>	table	F getdata
	F setinserts	F getdepth
	F setmarks	F getdirection
<b>mlist_to_hlist</b>	function	F getdisc
<b>new</b>	function	F getdiscretionary
<b>noadcodes</b>	data table	F getexpansion
<b>noadoptions</b>	table	F getfam
	N axis	F getfield
	N exact	F getfont
	N left	F getglue
	N middle	F getglyphdata
	N no_axis	F getglyphdimensions
	N right	F getheight
	N set	F getid
	N unused_1	F getkern
	N unused_2	F getkerndimension
<b>nodecodes</b>	data table	F getlang
<b>nopts</b>	function	F getlanguage
<b>nuts</b>	table	F getleader
	F append	F getlist
	F apply	F getnext
	F applyvisuals	F getnormalizedline
	F check_discretionaries	F getnucleus

F getoffsets	F fence
F getoptions	F fontkern
F getorientation	F fraction
F getpenalty	F glue
F getpost	F glucspec
F getpre	F glyph
F getprev	F hlist
F getprop	F indentskip
F getreplace	F italic kern
F getruledata	F kern
F getscript	F latelua
F getshift	F leader
F getstate	F lefthangskip
F getsub	F leftmarginkern
F getsubpre	F leftskip
F getsubtype	F lineskip
F getsup	F literal
F getsuppre	F mathchar
F getsurround	F mathtextchar
F getsynctexfields	F negatedglue
F gettotal	F noad
F getvalue	F originliteral
F getwhd	F outlinerule
F getwidth	F pageliteral
F has_attribute	F penalty
F has_dimensions	F radical
F has_field	F rawliteral
F has_glyph	F register
F hpack	F restore
F hyphenating	F righthangskip
F insert_after	F rightmarginkern
F insert_before	F rightskip
F insert_list_after	F rule
F is_display_math	F save
F is_node	F savepos
F is_nut	F setmatrix
F is_zero_glue	F shrink
F ischar	F stock
F isdone	F stretch
F isglyph	F subbox
F kerning	F submlist
F last_node	F temp
F leftmarginwidth	F usage
F length	T userids
F ligaturing	N margins.inline
F link	N splitters.one
F linked	N splitters.two
F locate	F usernode
F migrate	F userrule
F mlist_to_hlist	F vlist
F nestedtracedslide	F wordboundary
F new	F prepend
T pool	F processranges
F accent	F processwords
F baselineskip	F protect_glyph
F boundary	F protect_glyphs
F choice	F protrusion_skippable
F cleanup	F rangedimensions
F delim	F rawprop
F delimiter	F reference
F direction	F rehpack
F directliteral	F remove
F disc	F repacklist
F emptyrule	F replace

F reverse	F setsynctexfields
F rightmarginwidth	F setunsetattributes
T rules	F setvalue
T ruleactions	F setvisual
F box	F setvisuals
F draw	F setwhd
F fill	F setwidth
F mp	F slide
F stroke	F somepenalty
F userrule	F somespace
F set_attribute	F splitbox
F set_components	F start_of_par
F setattrr	F striprange
F setattrtribute	F tail
F setattrrlist	F takeattr
F setattrributes	F takebox
F setattrrlist	F takelist
F setattrrs	F theprop
F setboth	F tonode
F setbox	F tonodes
F setboxglue	F tonut
F setchar	F tosequence
F setcomponents	F tostring
F setdata	F tracedslide
F setdepth	F traverse
F setdirection	F traverse_char
F setdisc	F traverse_content
F setdiscretionary	F traverse_glyph
F setexpansion	F traverse_id
F setfam	F traverse_list
F setfield	T traversers
F setfont	F boundary
F setglue	F char
F setglyphdata	F content
F setheight	F dir
F setkern	F disc
F setlang	F glue
F setlanguage	F glyph
F setleader	F hlist
F setlink	F list
F setlist	F next
F setnext	F node
F setnucleus	F vlist
F setoffsets	F whatsit
F setoptions	T typesetters
F setorientation	F tohbox
F setparproperty	F tohpack
F setpenalty	F tonodes
F setpost	F tovbox
F setpre	F tovpack
F setprev	F unprotect_glyph
F setprop	F unprotect_glyphs
F setreplace	F unset_attribute
F setruledata	F unsetattribute
F setscript	F unsetattributes
F setshift	F untracedslide
F setsplit	F usedlist
F setstate	F uses_font
F setsub	F vianodes
F setsuppre	F vianuts
F setsubtype	F vpack
F setup	F write
F setsuppre	<b>packlist</b>
F setsurround	<b>parcodes</b>
	function
	data table

<b>penaltycodes</b>	data table	<b>rulenames</b>	data table
<b>plugindata</b>	table	<b>rules</b>	table
F finalizer		D data	
F initializer		F define	
S name		F enable	
T namespace		F handler	
N attribute		F userrule	
D data		<b>save</b>	function
F enable		<b>serialize</b>	function
F handler		<b>serializebox</b>	function
F register		<b>set_attribute</b>	function
D registered		<b>setattr</b>	function
D values		<b>setattribute</b>	function
F processor		<b>setattributes</b>	function
<b>points</b>	function	<b>setboth</b>	function
<b>pool</b>	table	<b>setbox</b>	function
F baselineskip		<b>setboxtonaturalwd</b>	function
F cleanup		<b>setchar</b>	function
F directliteral		<b>setfield</b>	function
F glyph		<b>setfont</b>	function
F hlist		<b>setleader</b>	function
F latelua		<b>setlink</b>	function
F lineskip		<b>setlist</b>	function
F literal		<b>setnext</b>	function
F originliteral		<b>setprev</b>	function
F register		<b>setunsetattributes</b>	function
F restore		<b>shifts</b>	table
F rule		D data	
F save		F define	
F savepos		F enable	
F setmatrix		F handler	
F special		<b>show</b>	function
F stock		<b>showboxes</b>	function
F usage		<b>showlist</b>	function
F vlist		<b>showsimplelist</b>	function
<b>prepend</b>	function	<b>skipcodes</b>	data table
<b>print</b>	function	<b>slide</b>	function
<b>processors</b>	table	<b>snapshots</b>	table
F contribute_filter		F getsamples	
B enabled		F resetsamples	
F hpack_filter		F takesample	
F post_linebreak_filter		<b>someweight</b>	function
F pre_linebreak_filter		<b>somespace</b>	function
F tracer		<b>splitbox</b>	function
<b>properties</b>	table	<b>start_of_par</b>	function
T data		<b>stripdiscretionaries</b>	function
<b>protect_glyph</b>	function	<b>stripping</b>	table
<b>protect_glyphs</b>	function	T glyphs	
<b>protrusion_skippable</b>	function	F set	
<b>pts</b>	function	<b>subtypes</b>	data table
<b>radicalcodes</b>	data table	<b>tail</b>	function
<b>rangedimensions</b>	function	<b>takeattr</b>	function
<b>reference</b>	function	<b>takebox</b>	function
<b>references</b>	table	<b>tasks</b>	table
N attribute		F actions	
T done		F appendaction	
F handler		F disableaction	
T stack		F disablegroup	
<b>repack</b>	function	F enableaction	
<b>remove</b>	function	F enablegroup	
<b>repackhlist</b>	function	F freeze	
<b>replace</b>	function	F freezegroup	
<b>report</b>	function	F new	
<b>rightmarginwidth</b>	function	F prependaction	

F removeaction		F messages
F replaceaction		F nofsteps
F restart		F register
F setaction		F reset
F showactions		F start
F table		F stop
<b>tobasepoints</b>	function	F stop
<b>tocentimeters</b>	function	T transparencies
<b>tociceros</b>	function	F reset
<b>todidots</b>	function	F set
<b>todimen</b>	function	F setlist
<b>toinches</b>	function	<b>traverse</b> function
<b>tomillimeters</b>	function	<b>traverse_char</b> function
<b>tonode</b>	function	<b>traverse_glyph</b> function
<b>tonodes</b>	function	<b>traverse_id</b> function
<b>tonut</b>	function	<b>traverse_list</b> function
<b>topics</b>	function	<b>traversers</b> table
<b>topoints</b>	function	F char
<b>toscaledpoints</b>	function	F glyph
<b>tosequence</b>	function	F list
<b>tostring</b>	function	F node
<b>totable</b>	function	<b>typesetters</b> table
<b>totree</b>	function	F hbox
<b>toutf</b>	function	F hpack
<b>tracers</b>	table	F tohbox
		F tohpack
T characters		F tonodes
F collect		F tovbox
F equal		F tovpack
F start		F vpack
F string		<b>unprotect_glyph</b> function
F unicodes		<b>unprotect_glyphs</b> function
T colors		<b>unset_attribute</b> function
F reset		<b>unsetattribute</b> function
F set		<b>unsetattributes</b> function
F setlist		<b>usedlist</b> function
F directions		<b>usercodes</b> data table
F fontchar		<b>uses_font</b> function
T frequencies		<b>vianodes</b> function
F register		<b>vianuts</b> function
T pool		<b>visualizebox</b> function
T nodes		<b>visualizers</b> table
F rule		F attribute
T nuts		T attributes
F rule		F box
F resetproperties		F handler
F rule		F markfonts
F setlist		F register
F setproperties		F setfont
F start		F setlayer
T steppers		F setruledglyph
F check		F setvisual
F codes		<b>vpack</b> function
F features		<b>whatcodes</b> data table
F font		<b>whatsitcodes</b> data table
F glyphs		<b>write</b> function
F message		

## number (context)

```
basepoints      function
bytetodecimal function
compactfloat   function
decimaltobyte function
dimenfactors   data table
formatted       function
formattedfloat function
idiv           function
maxdimen       number
npts            function
percent         function
points          function
pts              function
signed          function
sparseexponent function
splitdimen     function
to16dot16      function
```

```
tobasepoints   function
tobitstring    function
tocentimeters  function
tociceros      function
tocontext       function
todidots       function
todimen        function
toevenhex      function
toinches        function
tomillimeters  function
tonumberf      function
tonumberg      function
topicas         function
topoints        function
toscaled        function
toscaledpoints function
valid           function
```

## objects (context)

**data**        table  
**dimensions** function  
**found**        function  
**n**            number

**page**        function  
**reference** function  
**register**    function  
**restore**     function

## optional (context)

<b>curl</b>	table	F reset F escape F fetch F getversion F initialize F unescape
<b>ghostscript</b>	table	F execute F initialize
<b>graphicsmagick</b>	table	F execute F initialize
<b>kpse</b>	table	F expand_braces F expand_path F expand_var F find_file F find_files F get_file_types F initialize F readable_file F set_program_name F var_value
<b>loaded</b>	table	
<b>mujs</b>	table	F dofile F execute F initialize
		F reset F setclosefile F setconsole F setfindfile F setopenfile F setreadfile F setseekfile
		<b>mysql</b> table F close F execute F getmessage F initialize F open
		<b>postgress</b> table F close F execute F getmessage F initialize F open
		<b>sqlite</b> table F close F execute F getmessage F initialize F open
		<b>zint</b> table F execute F initialize

## os (basic lua)

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

## package (basic lua)

<b>config</b>	string	<b>loadlib</b>	function
<b>cpath</b>	string	<b>luapaths</b>	function
<b>extralibpath</b>	function	<b>path</b>	string
<b>extralibpaths</b>	function	<b>poplibpath</b>	function
<b>extraluapath</b>	function	<b>popluapath</b>	function
<b>extraluapaths</b>	function	<b>preload</b>	table
<b>helpers</b>	table	<b>pushlibpath</b>	function
<b>libpaths</b>	function	<b>pushluapath</b>	function
<b>loaded</b>	table	<b>searchers</b>	table
<b>loaders</b>	table	<b>searchpath</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 setsize
                                F sethspan
                                F setlines
                                F setproperties
                                F setstart
                                F setvsize
injections     table
  F flushafter
  F flushbefore
  F save
mixedcolumns   table
  F cleanup
  F finalize
  F getlist
  F getrest
  F getsplit
  F setsplit
```

## pdf (basic tex)

**immediateobj** function

## pdfe (extra tex)

<b>arraytotable</b>	function	<b>getnumber</b>	function
<b>close</b>	function	<b>getpage</b>	function
<b>closesstream</b>	function	<b>getpages</b>	function
<b>dictionarytotable</b>	function	<b>getsize</b>	function
<b>encryptioncodes</b>	data table	<b>getstatus</b>	function
<b>getarray</b>	function	<b>getstream</b>	function
<b>getboolean</b>	function	<b>getstring</b>	function
<b>getbox</b>	function	<b>gettrailer</b>	function
<b>getcatalog</b>	function	<b>getversion</b>	function
<b>getdictionary</b>	function	<b>new</b>	function
<b>getfromarray</b>	function	<b>objectcodes</b>	data table
<b>getfromdictionary</b>	function	<b>open</b>	function
<b>getfromreference</b>	function	<b>openfile</b>	function
<b>getfromstream</b>	function	<b>openstream</b>	function
<b>getinfo</b>	function	<b>pagestotable</b>	function
<b>getinteger</b>	function	<b>readfromstream</b>	function
<b>getmemoryusage</b>	function	<b>readwholestream</b>	function
<b>getname</b>	function	<b>type</b>	function
<b>getnofobjects</b>	function	<b>unencrypt</b>	function
<b>getnofpages</b>	function		

# physics (context)

**units** table  
F registerunit

D tables

## pngdecode (extra tex)

**applyfilter** function  
**expand** function  
**interlace** function

**splitmask** function  
**tocmyk** function

## publications (context)

<b>addtexentry</b>	function	T sets
<b>analyze</b>	function	T author
<b>anywhere</b>	function	T virtual
<b>authorcache</b>	data table	T book
<b>authorcollapsers</b>	data table	S category
<b>authorhashers</b>	table	T extra
F invertedshort		T fields
F normal		S address
F normalinverted		S author
F normalshort		S edition
F sequential		S editor
F sequentialshort		S keywords
F short		S note
<b>authormap</b>	data table	S number
<b>authortoregister</b>	function	S publisher
<b>casters</b>	table	S subtitle
F author		S title
F keyword		S volume
F pagenumber		S year
F range		T optional
<b>checkeddataset</b>	function	T required
<b>citevariants</b>	table	T sets
F author		T author
F authornum		T editionset
F authoryear		T virtual
F authoryears		T demo-a
F category		S category
F default		T extra
F entry		T fields
F index		S author
F keywords		S institution
F num		S organization
F page		S subtitle
F short		S title
F tag		S year
F textnum		T optional
F year		T required
<b>collected</b>	data table	T sets
<b>components</b>	table	T author
F author		T virtual
<b>concatstate</b>	function	T demo-b
<b>converttoxml</b>	function	S category
<b>currentspecification</b>	table	T extra
S author		T fields
T categories		S author
T article		S institution
S category		S organization
T extra		S subtitle
T fields		S title
S author		S year
S editor		T optional
S journal		T required
S keywords		T sets
S note		T authors
S number		T virtual
S pages		S comment
S title		S copyright
S volume		T fields
S year		S name
T optional		T types
T required		S author

S editor	F prepareentries
S keywords	F register
S number	F sameasprevious
S page	T sorters
S pages	F cite
S volume	F dataset
S version	F default
D virtual	F index
T virtualfields	F list
B authornum	F reference
B authoryear	F short
B authoryears	F used
B num	F uservariable
B suffix	
<b>datasets</b>	table
<b>detailed</b>	table
<b>endnotes_to_btx</b>	function
<b>enhancer</b>	table
S arguments	
T askip	<b>listvariants</b>
B dirty	table
T gskip	F default
T kind	F index
T list	F num
T system	F short
T order	F tag
N steps	
<b>enhancers</b>	table
F details	<b>load</b>
F order	function
F suffixes	<b>loadbibdata</b>
<b>finder</b>	function
<b>firstofrange</b>	function
<b>found</b>	function
<b>get</b>	function
<b>getcasted</b>	function
<b>getdetail</b>	function
<b>getdirect</b>	function
<b>getfaster</b>	function
<b>getfield</b>	function
<b>getfuzzy</b>	function
<b>getindex</b>	function
<b>inspectors</b>	data table
<b>journals</b>	table
F abbreviated	<b>loaddefinitionfile</b>
F add	function
F expanded	<b>loaders</b>
F load	table
F save	F bbl
<b>lastofrange</b>	function
<b>lists</b>	table
F collectentries	F bib
F combuinlist	F lua
F fetchentries	F refman
F filterall	F registercleaner
F flushcombi	F xml
F flushentry	
F flushtag	<b>loadreplacementfile</b>
T methods	function
F dataset	<b>new</b>
F force	function
F global	<b>okay</b>
F local	function
F nofregistered	<b>oneorange</b>
	function
	<b>parenttag</b>
	function
	<b>permitted</b>
	function
	<b>prerollcmdstring</b>
	function
	<b>refman_to_btx</b>
	function
	<b>resolvedname</b>
	function
	<b>save</b>
	function
	<b>savers</b>
	table
	F bib
	F lua
	F xml
	<b>search</b>
	function
	<b>setcategory</b>
	function
	<b>setspecification</b>
	function
	<b>singularorplural</b>
	function
	<b>sortedentries</b>
	function
	<b>sortmethods</b>
	table
	T authoryear
	T sequence
	<b>specifications</b>
	table
	T default
	S author
	S comment
	S copyright
	S name
	S version
	D virtual
	<b>splitauthor</b>
	function
	<b>splitoneauthor</b>
	function

<b>statistics</b>	table	F showdatasetfields F showentry F showfields F showhashedauthors F showtables F showvariants
N nofbytes		
Nnofdatasets		
Nnofdefinitions		
Nnofshortcuts		
<b>tables</b>	table	
D implicits		<b>typesetters</b> table
D origins		F author F string
D privates		<b>useddataset</b> function
D sets		<b>usedentries</b> function
D specials		<b>writers</b> table
D types		F author F keyword F pagenumber F range
D virtuals		
<b>tags</b>	function	
<b>tracers</b>	table	
F showdatasetauthors		
F showdatasetcompleteness		

## regimes (context)

**backmapping** data table  
**cleanup** function  
**disable** function  
**enable** function  
**fromregime** function  
**list** function

**mapping** data table  
**pop** function  
**process** function  
**push** function  
**toregime** function  
**translate** function

# resolvers (context)

allprefixes	function	installinputlinehandler	function
appendhash	function	jobpath	function
automount	function	jobs	table
booleanvariable	function	F currentcomponent	
cacheversion	string	F currentenvironment	
checkedvariable	function	F currentproduct	
cleanedpathlist	function	F currentproject	
cleanpath	function	F justacomponent	
cleanpathlist	function	D processors	
concatinators	data table	F productcomponent	
configbanner	string	F usefile	
configurationfiles	function	joinpath	function
dangerous	data table	knownvariables	function
datastate	function	libraries	table
defaultsuffixes	table	F optionalloaded	
dirstatus	function	F validoptional	
dowithfilesandreport	function	load	function
dowithfilesintree	function	loadbinfile	function
dowithpath	function	loaders	data table
dowithvariable	function	loadlualib	function
executers	table	loadtexfile	function
expandbraces	function	loadtime	function
expandedpathfromlist	function	locateformat	function
expandedpathlist	function	locators	data table
expandedpathlistfromvariable	function	luacnffallback	string
expandpath	function	luacnfname	string
expandpathfromvariable	function	luacnfspec	string
expansion	function	luacnfstate	string
extendtexmfvariable	function	macros	table
filtered_from_content	function	F convertfile	
find_file	function	F decodecomment	
find_files	function	F enablecomment	
findbinfile	function	F encodecomment	
findctxfile	function	F preprocessed	
finders	data table	F processmk	
findfile	function	F processmklx	
findfiles	function	F processmkvi	
findgivenfile	function	F version	
findgivenfiles	function	maxreadlevel	number
findlib	function	methodhandler	function
findpath	function	openbinfile	function
findtexfile	function	openers	data table
findwildcardfile	function	openfile	function
findwildcardfiles	function	opentexfile	function
formatofsuffix	function	ownpath	string
formatofvariable	function	popextrapath	function
formats	data table	popinputname	function
foundintree	function	poppath	function
foundintrees	function	prefixes	data table
generators	data table	prependhash	function
get_from_content	function	pushextrapath	function
getenv	function	pushinputname	function
getextrapaths	function	pushpath	function
getfilehashes	function	registerextrapath	function
gethashes	function	registerfile	function
gettownpath	function	registerfilehash	function
getreadfilename	function	registerintrees	function
hashers	data table	registermethod	function
omedir	string	registerzipfile	function
initialized	function	relations	data table
installinputfilehandler	function	renew	function

<b>renewcache</b>	function	<b>splitexpansions</b>	function
<b>repath</b>	function	<b>splitmethod</b>	function
<b>reset</b>	function	<b>splitpath</b>	function
<b>resetextrapaths</b>	function	<b>stackpath</b>	function
<b>resetmemstream</b>	function	<b>starttiming</b>	function
<b>resetresolve</b>	function	<b>stoptiming</b>	function
<b>resolve</b>	function	<b>suffixes</b>	data table
<b>savers</b>	data table	<b>suffixmap</b>	data table
<b>scandata</b>	function	<b>suffixofformat</b>	function
<b>scanfiles</b>	function	<b>texdatablob</b>	function
<b>schemes</b>	table	<b>toppath</b>	function
T cleaners		<b>unexpandedpath</b>	function
F md5		<b>unexpandedpathlist</b>	function
F none		<b>unresolve</b>	function
F strip		<b>updatrelations</b>	function
F cleanname		<b>updatescript</b>	function
F fetchstring		<b>uselibrary</b>	function
F fetchtable		<b>usertypes</b>	data table
F install		<b>usezipfile</b>	function
<b>setdynamic</b>	function	<b>validatedpath</b>	function
<b>setenv</b>	function	<b>variable</b>	function
<b>setmemstream</b>	function	<b>variableofformat</b>	function
<b>showpath</b>	function	<b>variableofformatorsuffix</b>	function
<b>simplescanfiles</b>	function	<b>wildcardpattern</b>	function
<b>splitconfigurationpath</b>	function		

## sandbox (context)

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

## scripts (context)

<b>autofontfeature</b> table	<b>handlers</b> data table
F disable	<b>hash</b> table
F enable	<b>injectors</b> data table
F handler	<b>inserters</b> table
<b>colors</b> data table	F nobreakspace_after
<b>decomposehangul</b> function	F nobreakspace_before
<b>defaults</b> table	F space_after
N inter_char_half_shrink_factor	F space_before
N inter_char_half_stretch_factor	F zerowidthspace_after
N inter_char_hangul_penalty	F zerowidthspace_before
N inter_char_quarter_shrink_factor	<b>installdataset</b> function
N inter_char_quarter_stretch_factor	<b>installmethod</b> function
N inter_char_shrink_factor	<b>numbertodataset</b> data table
N inter_char_stretch_factor	<b>numbertohandler</b> data table
N inter_word_stretch_factor	<b>reset</b> function
<b>getdata</b> function	<b>set</b> function
<b>getinjector</b> function	<b>setstatus</b> function
<b>getsplitter</b> function	<b>splitters</b> data table
<b>getstatus</b> function	

`set (context)`

`contains` function  
`create` function  
`tolist` function

`tonumber` function  
`totable` function

## sha2 (extra lua)

<b>HASH256</b>	function	<b>hash256</b>	function
<b>HASH384</b>	function	<b>hash384</b>	function
<b>HASH512</b>	function	<b>hash512</b>	function
<b>HEX256</b>	function	<b>hex256</b>	function
<b>HEX384</b>	function	<b>hex384</b>	function
<b>HEX512</b>	function	<b>hex512</b>	function
<b>digest256</b>	function	<b>sum256</b>	function
<b>digest384</b>	function	<b>sum384</b>	function
<b>digest512</b>	function	<b>sum512</b>	function

## sio (extra lua)

<b>read2dot14</b>	function	<b>readfixed2</b>	function
<b>readbytes</b>	function	<b>readfixed4</b>	function
<b>readbytetable</b>	function	<b>readinteger1</b>	function
<b>readcardinal1</b>	function	<b>readinteger1le</b>	function
<b>readcardinal1le</b>	function	<b>readinteger2</b>	function
<b>readcardinal2</b>	function	<b>readinteger2le</b>	function
<b>readcardinal2le</b>	function	<b>readinteger3</b>	function
<b>readcardinal3</b>	function	<b>readinteger3le</b>	function
<b>readcardinal3le</b>	function	<b>readinteger4</b>	function
<b>readcardinal4</b>	function	<b>readinteger4le</b>	function
<b>readcardinal4le</b>	function	<b>readintegerstable</b>	function
<b>readcardinaltable</b>	function		

# socket (extra lua)

<b>BLOCKSIZE</b>	number	S in-reply-to
<b>DATAGRAMSIZE</b>	number	S keywords
<b>SETSIZE</b>	number	S last-attempt-date
<b>SOCKETINVALID</b>	number	S last-modified
<b>bind</b>	function	S location
<b>choose</b>	function	S max-forwards
<b>connect</b>	function	S message-id
<b>connect4</b>	function	S mime-version
<b>connect6</b>	function	S original-envelope-id
<b>dns</b>	table	S original-recipient
F getaddrinfo		S pragma
F gethostname		S proxy-authenticate
F getnameinfo		S proxy-authorization
F tohostname		S range
F toip		S received
<b>gettime</b>	function	S received-from-mta
<b>headers</b>	table	S references
T canonic		S referer
S accept		S remote-mta
S accept-charset		S reply-to
S accept-encoding		S reporting-mta
S accept-language		S resent-bcc
S accept-ranges		S resent-cc
S action		S resent-date
S age		S resent-from
S allow		S resent-message-id
S alternate-recipient		S resent-reply-to
S arrival-date		S resent-sender
S authorization		S resent-to
S bcc		S retry-after
S cache-control		S return-path
S cc		S sender
S comments		S server
S connection		S smtp-remote-recipient
S content-description		S status
S content-disposition		S subject
S content-encoding		S te
S content-id		S to
S content-language		S trailer
S content-length		S transfer-encoding
S content-location		S upgrade
S content-md5		S user-agent
S content-range		S vary
S content-transfer-encoding		S via
S content-type		S warning
S cookie		S will-retry-until
S date		S www-authenticate
S diagnostic-code		S x-mailer
S dsn-gateway		F lower
S etag		F normalize
S expect		<b>http</b> table
S expires		N TIMEOUT
S final-log-id		S USERAGENT
S final-recipient		F genericform
S from		F open
S host		F request
S if-match		<b>newtry</b> function
S if-modified-since		<b>protect</b> function
S if-none-match		<b>report</b> function
S if-range		<b>select</b> function
S if-unmodified-since		<b>sink</b> function

**sinkt** table  
F close-when-done  
F default  
F http-chunked  
F keep-open  
**skip** function  
**sleep** function  
**source** function  
**sourcet** table  
F by-length  
F default  
F http-chunked  
F until-closed  
**tcp** function  
**tcp4** function  
**tcp6** function

**tp** table  
N TIMEOUT  
F connect  
**try** function  
**udp** function  
**udp4** function  
**udp6** function  
**url** table  
F absolute  
F build  
F build\_path  
F escape  
F parse  
F parse\_path  
F unescape

## sorters (context)

<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 digitsmaximum		<b>packuc</b> function
N digitoffsetset		<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)

**benchmarktimer** function  
**callbacks** function  
**checkfmtstatus** function  
**currenttime** function  
**elapsed** function  
**elapsedindeed** function  
**elapsedseconds** function  
**elapsedtime** function  
**enable** boolean  
**formatruntime** function  
**hastiming** function  
**memused** function

**register** function  
**resettiming** function  
**runtime** function  
**savefmtstatus** function  
**show** function  
**showmemory** function  
**showusage** function  
**starttiming** function  
**stoptiming** function  
**threshold** number  
**timed** function  
**tracefunction** function

## status (basic tex)

<b>getbufferstate</b>	function	<b>getmarksstate</b>	function
<b>getcallbackstate</b>	function	<b>getneststate</b>	function
<b>getconstants</b>	function	<b>getnodestate</b>	function
<b>geterrorlinestate</b>	function	<b>getparameterstate</b>	function
<b>geterrorstate</b>	function	<b>getpoolstate</b>	function
<b>getexpandstate</b>	function	<b>getreadstate</b>	function
<b>getextrastate</b>	function	<b>getsavestate</b>	function
<b>getfilestate</b>	function	<b>getsparsestate</b>	function
<b>getfontstate</b>	function	<b>getstringstate</b>	function
<b>gethalferrorlinestate</b>	function	<b>gettexstate</b>	function
<b>gethashstate</b>	function	<b>gettokenstate</b>	function
<b>getinputstate</b>	function	<b>getwarningstate</b>	function
<b>getlanguagestate</b>	function	<b>iocodes</b>	table
<b>getlookupstate</b>	function	<b>list</b>	function
<b>getluastate</b>	function	<b>resetmessages</b>	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>push</b>	function
<b>disable</b>	function	<b>start</b>	function
<b>enable</b>	function	<b>stop</b>	function
<b>flush</b>	function	<b>synchronize</b> function	
<b>initialize</b>	function		

## string (basic lua)

autodouble	function	packsize	function
autosingle	function	quote	function
booleanstring	function	quoted	function
byte	function	rep	function
bytelpairs	function	replacenewlines	function
bytes	function	reverse	function
bytetable	function	split	function
char	function	splitlines	function
characterpairs	function	splitup	function
characters	function	strip	function
checkedsplit	function	sub	function
collapsespaces	function	tformat	function
containsws	function	toHEX	function
count	function	toboolen	function
dawson	function	tobytes	function
dump	function	tocontext	function
erf	function	todec	function
erfc	function	todimen	function
erfcx	function	tohex	function
erfi	function	tonodes	function
escapedpattern	function	topattern	function
escapedquotes	function	totable	function
explode	function	tounicode16	function
f6	function	toutf	function
find	function	toutf32	function
format	function	toutf8	function
formatter	function	tracedchar	function
formatters	function	tracedchars	table
fullstrip	function	unpack	function
gmatch	function	unquote	function
gsub	function	unquoted	function
is_boolean	function	upper	function
is_empty	function	utfcharacter	function
itself	function	utfcharacters	function
len	function	utfcharactertable	function
limit	function	utflength	function
linetable	function	utfpadd	function
longtostring	function	utfpadding	function
lower	function	utfvalue	function
match	function	utfvalues	function
nospaces	function	utfvaluestable	function
nspaces	table	valid	function
optionalquoted	function	voigt	function
pack	function	voigt_hwhm	function

# structures (context)

<b>atlocation</b>	function	F way
<b>blocks</b>	table	<b>currentsectionnumber</b> function
D collected		<b>descriptions</b> table
F define		<b>documents</b> table
F print		D data
F save		F initialize
F select		F preset
F setstate		F reset
D states		<b>floats</b> table
D tobesaved		<b>formulas</b> table
F uservariable		<b>helpers</b> table
<b>bookmarks</b>	table	F analyze
T extras		F formulanumber
F get		F merged
F mergesections		F page
F register		F pageofinternal
F reset		F prefix
F tosections		F prefixlastpage
F finalize		F prefixpage
F flatten		F simplify
F installhandler		F title
F merge		F touserdata
S method		<b>inserts</b> table
F overload		D data
F place		F define
F register		F getdata
F setopened		F getlocation
F setup		F getname
<b>counters</b>	table	F getnumber
F add		F setlocation
F analyze		F setup
F check		D stored
D collected		<b>itemgroups</b> table
F compact		<b>lists</b> table
F converted		F addto
F currentvalue		F analyze
D data		B autoreorder
F define		D cached
F first		D collected
F get		F discard
F last		F enhance
F next		T enhancers
F prev		F filter
F previous		F formulanumber
F raw		F getresult
F record		F groupindex
F reset		F hasnumberdata
F restart		F haspagedata
F restore		F hastitledata
F save		F iscached
F set		D kinds
F setlevel		F label
F setoffset		F location
F setown		D names
F setstate		F number
F setvalue		D ordered
T specials		F page
F userpage		F popnesting
F subs		F prefix
D tobesaved		F prefixednumber
F value		F prefixedpage

F process	F is_odd
D pushed	F mark
F pushnesting	F marked
F realpage	N nofpages
F reordered	F number
T result	F on_right
F savedlistnumber	F save
F savedlistprefixednumber	D tobesaved
F savedlisttitle	F toranges
D sectionblocks	<b>references</b>
F sectionnumber	table
F size	F analyze
F title	F checkedfile
D tobesaved	F checkedfileorurl
F userdata	F checkedprogram
F uservalue	F checkedrealpage
<b>marks</b>	F checkedurl
	D collected
table	U componentsplitter
D data	F currentmetadata
F define	F currentorder
F exists	D currentset
F fetch	F define
F fetchallmarks	D defined
F fetched	D derived
F fetchonemark	F enhance
F fetchtwomarks	D executers
F get	F expandcurrent
F number	F export
F relate	T files
F reset	T data
F set	F define
F show	F found
F synchronize	F get
F title	F filter
T tracers	F filterdefault
F showtable	D filters
<b>notes</b>	D flaginternals
	F from
table	D functions
F check_spacing	F get
F checkpagechange	F getcurrentmetadata
F define	F getcurrentprefixspec
F doifonsamepageasprevious	F getinnermethod
F get	F getinternalcachedlistreference
F getdeltapage	F getinternallistreference
F getinternal	F getinternalreference
F getn	F getoutermethod
F getstate	D handlers
F hascontent	F identify
F internal	F import
F internalid	F inject
F listindex	F injectcurrentset
T numbers	S innermethod
F ordered	D internals
F postpone	F load
F resetpostponed	F loadpresets
F restore	F mark
F save	S outermethod
F setstate	D pages
D states	U prefixsplitter
F store	D productdata
<b>pages</b>	T programs
	T data
table	F define
F allmarked	
F analyze	
D collected	
F fraction	
F in_body	

```

F get
F realpageofpage
U referencesplitter
D referred
F referredpage
F registerfinalizer
F registerinitializer
F registerpage
F reset
D runners
F set
F setandgetattribute
F 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 tobereferrer
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
sections
    F autodepth
    F cct
    D collected
    F current
    F currentblock
    F currentid
    F currentlevel
    F currentsectioninde
    F depthnumber
    F finddata
    F findnumber
    F fullnumber
    F getcurrentlevel
    F getlevel
    F getnumber
    F internalreference
    D levelmap
    D levels
    F matchingtilldepth
    F numberatdepth
    F numbers
    F popblock
    F prefixedconverted
    F pushblock
    F register
    D registered
    F reportstructure
    F save
    T sectionblockdata
        T bodypart
            S bookmark
    F set
    F setblock
    F setchecker
    F setentry
    F setinitialblock
    F setlevel
    F setnumber
    F showstructure
    F structuredata
    F title
    D tobesaved
    F typesetnumber
    F userdata
    B verbose
sets
    F define
    F get
    F getall
    D setlist
specials
    D collected
    F retrieve
    F store
    D tobesaved
synonyms
    F analyzed
    D collected

```

F compare	F registerextradata
F define	F registermetadata
F filter	F restart
F finalize	F setaspect
F flush	F setattributehash
F isshown	F setcombination
F isused	F setconstruct
F meaning	F setfigure
F prepare	F setfloat
F process	F setformulacontent
F register	F sethighlight
F registershow	F setitem
F registerused	F setitemgroup
F resetshow	F setlist
F resetused	F setnotation
F sort	F setnotationsymbol
F synonym	F setparagraph
D tobesaved	F setproperty
<b>tags</b>	<b>table</b>
F current	F setpublication
F elementtag	F setregister
F finishexport	F setsorting
F getextradata	F setsynonym
F getid	F settablecell
F getmetadata	F settabulatecell
F gettablecell	F settagdelimitedsymbol
F gettabulatecell	F settagsubsentencesymbol
F handler	F setupexport
F initializeexport	F setuserproperties
D labels	D specifications
F last	F start
F lastinchain	F stop
F locatedtag	F strip
T patterns	D taglist
U splitter	T usewithcare
D properties	T images

## table (basic lua)

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

## tex (basic tex)

attribute	table	getlinedir	function
badness	function	getlist	function
box	table	getlocallevel	function
boxresources	table	getmark	function
F getbox		getmath	function
F getdimensions		getmathcode	function
F save		getmathcodes	function
F use		getmathdir	function
catcode	table	getmodevalues	function
chardef	function	getmuglue	function
conditionals	data table	getmuskip	function
constants	data table	getnest	function
count	table	getnormalizevalues	function
cprint	function	getoutputactive	function
ctdcatcodes	number	getpagestate	function
ctxcatcodes	number	getpardir	function
definefont	function	getsfcode	function
delcode	table	getskip	function
dimen	table	getsynctexline	function
directives	data table	getsynctexmode	function
enableprimitives	function	getsynctextag	function
error	function	gettextdir	function
experiments	data table	gettoks	function
extraprimitives	function	getuccode	function
fatalerror	function	glue	table
flagcodes	data table	glyphoptioncodes	data table
fontidentifier	function	groupcodes	data table
fontname	function	hashtokens	function
forcehmode	function	hyphenationcodes	data table
forcesynctexline	function	ifs	data table
forcesynctextag	function	inicatcodes	number
fprint	function	integerdef	function
frozenparcodes	data table	isattribute	function
get	function	isbox	function
getattribute	function	iscount	overloaded function
getbox	function	isdefined	function
getboxdir	function	isdimen	overloaded function
getboxresourcebox	function	isglue	function
getboxresourcedimensions	function	ismuglue	function
getcatcode	function	ismuskip	overloaded function
getcount	function	isprintable	function
getdelcode	function	isskip	overloaded function
getdelcodes	function	istoken	function
getdimen	function	istoks	function
geterrorvalues	function	lastnodetype	function
getflagvalues	function	lccode	table
getfontoffamily	function	linebreak	function
getfrozenparvalues	function	lists	table
getglue	function	luacatcodes	number
getglyphdata	function	magicconstants	table
getglyphoptionvalues	function		
getglyphscript	function	N maxdimen	
getglyphstate	function	N running	
getgroupvalues	function	N trueinch	
gethelptext	function	mathchardef	function
gethyphenationvalues	function	mathcode	table
getintegervalue	function	modelevels	table
getinteraction	function		
getiovalues	function	N horizontal	
getlargestusedmark	function	N math	
getlccode	function	N unset	
		N vertical	
		modes	data table

mprint	function	setmathcode	function
muglue	table	setmathdir	function
muskip	table	setmuglue	function
nest	table	setmuskip	function
nilcatcodes	number	setnest	function
notcatcodes	number	setpardir	function
number	function	setsfcode	function
poplocal	function	setskip	function
primitives	function	setsynctexline	function
print	function	setsynctexmode	function
prtcatcodes	number	setsynctextag	function
pushlocal	function	settextdir	function
quitlocal	function	settoks	function
quittoks	function	setuccode	function
resetparagraph	function	sfcodes	table
roman numeral	function	shipout	function
round	function	showcontext	function
runlocal	function	skip	table
runtoks	function	sp	function
saveboxresource	function	splitbox	function
scale	function	sprint	function
scantoks	function	systemmodes	data table
set	function	takebox	function
setAttribute	function	texcatcodes	number
setbox	function	toks	table
setboxdir	function	tonumber	function
setcatcode	function	toscaled	function
setcount	function	tpacatcodes	number
setdelcode	function	tpbcatcodes	number
setdimen	function	tprint	function
setglue	function	trackers	data table
setglyphdata	function	triggerbuildpage	function
setglyphscript	function	txtcatcodes	number
setglyphstate	function	type	function
setintegervalue	function	uccode	table
setinteraction	function	uprint	function
setlccode	function	useboxresource	function
setlinedir	function	vrbcatcodes	number
setlist	function	write	function
setmath	function		

## texconfig (basic tex)

<b>buffer_size</b>	number	<b>max_pool</b>	number
<b>error_line</b>	number	<b>max_print_line</b>	number
<b>expand_depth</b>	number	<b>max_strings</b>	number
<b>firstline</b>	string	<b>nest_size</b>	number
<b>formatname</b>	string	<b>node_size</b>	number
<b>function_size</b>	number	<b>param_size</b>	number
<b>half_error_line</b>	number	<b>properties_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>	number
<b>max_in_open</b>	number	<b>token_size</b>	number

## texio (basic tex)

**closeinput** function  
**terminal** function

**write** function  
**write\_nl** function

## token (basic tex)

accessors	table		
F active		<b>new</b>	function
F cmd		<b>peek_next</b>	function
F cmdchrcs		<b>peek_next_char</b>	function
F cmdname		<b>peek_next_expanded</b>	function
F command		<b>pop_macro</b>	function
F csname		<b>push_macro</b>	function
F expandable		<b>put_back</b>	function
F frozen		<b>put_next</b>	function
F index		<b>save_lua</b>	function
F name		<b>scan_argument</b>	function
F protected		<b>scan_box</b>	function
F range		<b>scan_cardinal</b>	function
<b>create</b>	function	<b>scan_char</b>	function
<b>expand</b>	function	<b>scan_cmdchr</b>	function
<b>expand_macro</b>	function	<b>scan_cmdchr_expanded</b>	function
<b>future_expand</b>	function	<b>scan_code</b>	function
<b>get_active</b>	function	<b>scan_csname</b>	function
<b>get_cmdchrcs</b>	function	<b>scan_delimited</b>	function
<b>get_cmdname</b>	function	<b>scan_dimen</b>	function
<b>get_command</b>	function	<b>scan_float</b>	function
<b>get_csname</b>	function	<b>scan_glue</b>	function
<b>get_cstoken</b>	function	<b>scan_integer</b>	function
<b>get_expandable</b>	function	<b>scan_key</b>	function
<b>get_fields</b>	function	<b>scan_keyword</b>	function
<b>get_flags</b>	function	<b>scan_keyword_cs</b>	function
<b>get_frozen</b>	function	<b>scan_letters</b>	function
<b>get_id</b>	function	<b>scan_luocardinal</b>	function
<b>get_immutable</b>	function	<b>scan_luainteger</b>	function
<b>get_index</b>	function	<b>scan_luanumber</b>	function
<b>get_instance</b>	function	<b>scan_next</b>	function
<b>get_integer</b>	function	<b>scan_next_char</b>	function
<b>get_macro</b>	function	<b>scan_next_expanded</b>	function
<b>get_meaning</b>	function	<b>scan_real</b>	function
<b>get_noaligned</b>	function	<b>scan_skip</b>	function
<b>get_permanent</b>	function	<b>scan_string</b>	function
<b>get_primitive</b>	function	<b>scan_token</b>	function
<b>get_protected</b>	function	<b>scan_token_code</b>	function
<b>get_range</b>	function	<b>scan_tokenlist</b>	function
<b>get_tok</b>	function	<b>scan_toks</b>	function
<b>get_tolerant</b>	function	<b>scan_value</b>	function
<b>getcommandid</b>	function	<b>scan_word</b>	function
<b>getcommandvalues</b>	function	<b>serialize</b>	function
<b>getfunctionvalues</b>	function	<b>set_char</b>	function
<b>getprimitives</b>	function	<b>set_integer</b>	function
<b>gobble</b>	function	<b>set_lua</b>	function
<b>gobble_dimen</b>	function	<b>set_macro</b>	function
<b>gobble_integer</b>	function	<b>skip_next</b>	function
<b>is_defined</b>	function	<b>skip_next_expanded</b>	function
<b>is_next_char</b>	function	<b>type</b>	function
<b>is_token</b>	function	<b>undefine_macro</b>	function

# tokens (context)

<b>astable</b> function	U <code>xmlw</code>
<b>bits</b> table	<b>commands</b> data table
N active	<b>compile</b> function
N alignment	<b>constant</b> function
N begingroup	<b>converters</b> table
N character	S <code>toboolen</code>
N close	S <code>todimen</code>
N comment	S <code>toglue</code>
N endgroup	S <code>tonumber</code>
N endofline	S <code>tostring</code>
N escape	<b>create</b> function
N ignore	<b>defined</b> function
N invalid	<b>flags</b> function
N letter	<b>getinteger</b> function
N mathshift	<b>getters</b> table
N open	F <code>box</code>
N other	F <code>count</code>
N parameter	F <code>cstoken</code>
N space	F <code>dimen</code>
N subscript	F <code>glue</code>
N superscript	F <code>macro</code>
N whitespace	F <code>meaning</code>
<b>cache</b> table	F <code>skip</code>
U NC	F <code>token</code>
U NR	<b>isdefined</b> function
U bf	<b>istoken</b> function
U color	<b>new</b> function
U colordefalc	<b>pickup</b> function
U colordefflc	<b>popmacro</b> function
U colordefflt	<b>presets</b> table
U colordefrlt	T 1 argument
U dofinishreference	T 1 string
U dostarttext	T 2 arguments
U finishjob	T 2 strings
U firstofoneargument	T 3 arguments
U firstoftwoarguments	T 3 strings
U gobbleoneargument	T 4 arguments
U goto	T 4 strings
U iftrue	T 5 strings
U input	T 6 strings
U loadfoundtypescriptfile	T 7 strings
U resetctxscanner	T 8 strings
U rlap	<b>pushmacro</b> function
U scratchcounter	<b>scanners</b> table
U scratchdimen	F <code>argument</code>
U scratchmuskip	F <code>argumentasis</code>
U scratchskip	F <code>array</code>
U scratchtoks	F <code>boolean</code>
U secondoftwoarguments	F <code>box</code>
U setfalsevalue	F <code>bracketed</code>
U setsectionblock	F <code>bracketedasis</code>
U setupsystem	F <code>cardinal</code>
U startcolumns	F <code>char</code>
U starttabulate	F <code>cmdchr</code>
U starttitle	F <code>cmdchexpanded</code>
U startxtitle	F <code>code</code>
U stopcolumns	F <code>conditional</code>
U stoptabulate	F <code>count</code>
U stoptitle	F <code>csname</code>
U stopxtitle	F <code>delimited</code>
U texsetup	F <code>dimen</code>

F dimension	N ignore
F float	N invalid
F glue	N letter
F glucspec	N mathshift
F gluevalues	N open
F hash	N other
F hbox	N parameter
F integer	N space
F ischar	N subscript
F key	N superscript
F keyword	N whitespace
F keywordcs	N close
F letters	F inspect
F list	N open
F luacardinal	F report
F luainteger	F scanargument
F luanumber	F scanargumentasis
F lxmllid	F scanarray
F next	F scanboolean
F nextexpanded	F scanbox
F number	F scanbracketed
F optional	F scanbracketedasis
F peek	F scandimensional
F peekchar	F scanclose
F peekexpanded	F scancode
F real	F scanconditional
F scanclose	F scancsname
F scanopen	F scandelimited
F skip	F scandimen
F skipexpanded	F scandimension
F string	F scanglue
F table	F scangluespec
F token	F scangluevalues
F tokencode	F scanhash
F tokenlist	F scanhbox
F tokens	F scaninteger
F toks	F scankeyword
F value	F scankeywordcs
F vbox	F scanletters
F verbatim	F scanlist
F vtop	T scanners
F whd	F argument
F word	F argumentasis
<b>setinteger</b> function	F array
<b>setters</b> table	F boolean
F box	F box
F char	F bracketed
F count	F bracketedasis
F dimen	F cardinal
F glue	F char
F lua	F cmdchr
F macro	F cmdchrexpanded
F skip	F code
<b>shortcuts</b> table	F conditional
T bits	F count
N active	F csname
N alignment	F delimited
N begingroup	F dimen
N character	F dimension
N close	F float
N comment	F glue
N endgroup	F glucspec
N endofline	F gluevalues
N escape	F hash

F hbox	U firstofoneargument
F integer	U firstoftwoarguments
F ischar	U gobbleoneargument
F key	U goto
F keyword	U iftrue
F keywordcs	U input
F letters	U loadfoundtypescriptfile
F list	U resetctxscanner
F luocardinal	U rlap
F luainteger	U scratchcounter
F luanumber	U scratchdimen
F lxmjid	U scratchmuskip
F next	U scratchskip
F nextexpanded	U scratchtoks
F number	U secondoftwoarguments
F optional	U setfalsevalue
F peek	U setsectionblock
F peekchar	U setupsystem
F peekexpanded	U startcolumns
F real	U starttabulate
F scanclose	U starttitle
F scanopen	U startxtitle
F skip	U stopcolumns
F skipexpanded	U stoptabulate
F string	U stopitle
F table	U stopxtitle
F token	U texsetup
F tokencode	U xmlw
F tokenlist	D commands
F tokens	F compile
F toks	F constant
F value	T converters
F vbox	S toboolean
F verbatim	S todimen
F vtop	S toglue
F whd	S tonumber
F word	S tostring
F scannumber	F create
F scanopen	F defined
F scanoptional	F flags
F scanstring	F getinteger
F scantable	T getters
F scantokenlist	F box
F scantoks	F count
F scanvbox	F cstoken
F scanverbatim	F dimen
F scanvtop	F glue
F scanword	F macro
F toboolean	F meaning
F todimen	F skip
T tokens	F token
F astable	F isdefined
T cache	F istoken
U NC	F new
U NR	F pickup
U bf	F popmacro
U color	T presets
U colordefalc	F pushmacro
U colordefflc	F setinteger
U colordefflt	T setters
U colordefrlt	F box
U dofinishreference	F char
U dostarttext	F count
U finishjob	F dimen

F glue	F scanhash
F lua	F scanhbox
F macro	F scaninteger
F skip	F scankeyword
T shortcuts	F scankeywords
N close	F scanletters
F inspect	F scanlist
N open	F scannumber
F report	F scanopen
F scanargument	F scanoptional
F scanargumentasis	F scanstring
F scanarray	F scantable
F scanboolean	F scantokenlist
F scanbox	F scantoks
F scanbracketed	F scanvbox
F scanbracketedasis	F scanverbatim
F scancardinal	F scanvtop
F scanclose	F scanword
F scancode	F toboolean
F scanconditional	F todimen
F scancsname	F tonumber
F scandelimited	F tostring
F scandimen	D values
F scandimension	F tonumber
F scanglue	F tostring
F scangluespec	<b>values</b> data table
F scangluevalues	

## 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)

<b>alignments</b>	table	F addtoline F calculatedelta F checkline F handler F moveinline F normalize F set
<b>breakpoints</b>	table	F define F handler D mapping T methods T numbers F set F setreplacement
<b>cases</b>	table	T actions F handler F register F set
<b>characteralign</b>	table	F handler F resetcharacteralign F setcharacteralign
<b>characters</b>	table	F handler T methods F replacenbsp F replacenbspaces
<b>checkers</b>	table	F handler F reset F set
<b>cleaners</b>	table	F handler F set
<b>digits</b>	table	T actions F handler F set
<b>directions</b>	table	F getfences F getglobal F getmethod F handler T handlers F installhandler F processmath F set F setcolor F setmath F tomode
<b>firstlines</b>	table	T actions F default F line F word F handler F set
<b>fontkerns</b>	table	F handler
<b>initials</b>	table	T actions F default F addanchortoline
		F addtoline F calculatedelta F checkline F handler F moveinline F normalize F set
	<b>injectors</b>	table
		F check T list F mark F reset F set F show
	<b>italics</b>	table
		F enablemath F enabletext F forcevariant F handler F reset F set
	<b>kerns</b>	table
		D factors F handler F keepligature D mapping F set
	<b>manipulators</b>	table
		F apply F applyspecification T methods F Word F Words F abbreviatedjournal F expandedjournal F lowercase F stripperson F uppercase T patterns U list U pair F splitspecification
	<b>margins</b>	table
		F finalhandler F globalhandler F localhandler F save
	<b>marksuspects</b>	function
	<b>paragraphs</b>	table
		F addanchortoline F addtoline F calculatedelta F checkline F handler F moveinline F normalize F set
	<b>periodkerns</b>	table
		D factors F handler D mapping

F set	N number
<b>processors</b> table	F reset
F apply	F set
F register	F setup
F reset	
F split	<b>wrappers</b> table
F startapply	F handler
F stopapply	
F stripped	<b>xtables</b> table
F tostring	F cleanup
<b>rubies</b> table	F construct
F attach	F create
F check	F finish_row
<b>showsuspects</b> function	F flush
<b>spacings</b> table	F initialize_construct
F define	F initialize_reflow_height
F handler	F initialize_reflow_width
D mapping	
T numbers	F next_row
T frenchpunctuation	F reflow_height
T characters	F reflow_width
S name	F set_construct
	F set_reflow_height
	F set_reflow_width

## updaters (context)

**apply** function  
**register** function

## url (context)

<b>addscheme</b>	function	<b>hashed</b>	function
<b>barepath</b>	function	<b>hasscheme</b>	function
<b>construct</b>	function	<b>query</b>	function
<b>decode</b>	function	<b>split</b>	function
<b>encode</b>	function	<b>toquery</b>	function
<b>escape</b>	function	<b>unescape</b>	function
<b>filename</b>	function	<b>unescapeget</b>	function

## utf8 (basic lua)

**char** function  
**charpattern** string  
**codepoint** function

**codes** function  
**len** function  
**offset** function

# utilities (context)

<b>debugger</b>	table	F writeinteger3 F writeinteger3le F writeinteger4 F writeinteger4le F writestring
		<b>formatters</b> table
		F formatcolumns F list F stripzeros
<b>files</b>	table	<b>garbagecollector</b> table
		F check N criterium B enabled
		<b>ghostscript</b> table
		F convert F statistics
		<b>graphicmagick</b> table
		F convert F statistics
		<b>graphicsmagick</b> table
		F convert F statistics
		<b>lua</b> table
		B alwaysstripcode F checkmemory F compile F loadedluacode F loadstring F loadstripped Nnofstrippedbytes Nnofstrippedchunks 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
		<b>packers</b> table
		F hashed F new F pack F simplehashed F strip F unpack N version
		<b>parsers</b> table
		F add_settings_to_array F arguments_to_table F array_to_string F csvsplitter F getparameters F groupedsplitat F hash_to_string

T hashes	
T settings_to_set	
T text,hidden,paper,page,leftpage,rightpage	
B hidden	F new
B leftpage	F nodeprocessor
B page	F prependaction
B paper	F prependgroup
B rightpage	F removeaction
B text	F replaceaction
F iterator	F setkind
F keq_to_hash	F tostring
F listitem	
F make_settings_to_hash_pattern	
F mergehashes	
F options_to_array	
F options_to_hash	
T patterns	
U settings_to_array	
U settings_to_hash_a	
U settings_to_hash_b	
U settings_to_hash_c	
U settings_to_hash_d	
U unittotex	
F process_stripped_settings	
F rfc4180splitter	
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 totime	
F unittotex	
F unittoxml	
<b>randomizer</b>	table
F get	
F getnumber	
F getseed	
F popseed	
F pushseed	
F reuseseed	
F setseed	
F setseedi	
<b>randomizers</b>	table
F poisson	
<b>sequencers</b>	table
F appendaction	
F appendgroup	
F compile	
F disableaction	
F disablegroup	
F enableaction	
F enablegroup	
D functions	
F localize	
<b>setters</b>	table
F disable	
F enable	
F initialize	
F list	
F new	
F register	
F report	
F reset	
F show	
<b>stacker</b>	table
F new	
<b>storage</b>	table
F allocate	
F checked	
F mark	
F marked	
F setinitializer	
F sparse	
<b>streams</b>	table
F close	
F getposition	
F getsize	
F getstring	
F look	
F open	
F openstring	
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 readcardinal4le	
F readcardinaltable	
F readchar	
F readfixed2	
F readfixed4	
F readinteger	
F readinteger1	
F readinteger2	
F readinteger2le	
F readinteger3	
F readinteger3le	
F readinteger4	
F readinteger4le	
F readintegertable	
F readsignedbyte	
F readstring	
F setposition	

F size		T tracers	
F skip		<b>tables</b>	table
F skipbytes		F accesstable	
F skiplong		F definedtable	
F skipshort		F definetable	
<b>strings</b>	table	F encapsulate	
F collapse		F insertaftervalue	
F collapsecrlf		F insertbeforevalue	
T formatters		F migratetable	
F add		F removevalue	
F new		F replacevalue	
F newcollector		<b>templates</b>	table
F newrepeater		F load	
F nice		F replace	
T striplinepatterns		F replacer	
U collapse		F resolve	
U prune		<b>zipfiles</b>	table
U prune and collapse		F close	
U prune and no empty		F found	
U prune and to space		F gunzipfile	
U retain		F hash	
U retain and collapse		F list	
U retain and no empty		F open	
F striplines		F unzip	
F striplong		F unzipdir	
F tabtospace		F zipdir	

## 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>registerescapeline</b>	function	<b>writespace</b>	function
<b>registerescapepattern</b>	function		

## xcomplex (extra lua)

I	function	F arg
_add	function	F asin
_div	function	F asinh
_eq	function	F atan
_index	table	F atanh
F I		F conj
F __add		F cos
F __div		F cosh
F __eq		F exp
T __index		F i
F I		F imag
F __add		F log
F __div		F new
F __eq		F pow
F __mul		F proj
S __name		F real
F __pow		F sin
F __sub		F sinh
F __tostring		F sqrt
F __unm		F tan
F abs		F tanh
F acos		F topair
F acosh		F tostring
F arg	function	_mul function
F asin		_name string
F asinh		_pow function
F atan		_sub function
F atanh		_tostring function
F conj		_unm function
F cos		abs function
F cosh		acos function
F exp		acosh function
F i		arg function
F imag		asin function
F log		asinh function
F new		atan function
F pow		atanh function
F proj		conj function
F real		cos function
F sin		cosh function
F sinh		exp function
F sqrt		i function
F tan		imag function
F tanh		log function
F topair		new function
F tostring		pow function
F __mul		proj function
S __name		real function
F __pow		sin function
F __sub		sinh function
F __tostring		sqrt function
F __unm		tan function
F abs		tanh function
F acos		topair function
F acosh		tostring function

## xdecimal (extra lua)

<u>__add</u>	function	F __sub
<u>__band</u>	function	F __tostring
<u>__bor</u>	function	F __unm
<u>__bxor</u>	function	F abs
<u>__div</u>	function	F band
<u>__eq</u>	function	F bor
<u>__index</u>	table	F bxor
F __add		F conj
F __band		F copy
F __bor		F exp
F __bxor		F getprecision
F __div		F ln
F __eq		F log
T __index		F max
F __add		F min
F __band		F minus
F __bor		F new
F __bxor		F plus
F __div		F pow
F __eq		F rotate
F __le		F setprecision
F __lt		F shift
F __mul		F sqrt
S __name		F tonumber
F __pow		F tostring
F __shl		F trim
F __shr		
F __sub		<u>__le</u> function
F __tostring		<u>__lt</u> function
F __unm		<u>__mul</u> function
F abs		<u>__name</u> string
F band		<u>__pow</u> function
F bor		<u>__shl</u> function
F bxor		<u>__shr</u> function
F conj		<u>__sub</u> function
F copy		<u>__tostring</u> function
F exp		<u>__unm</u> function
F getprecision		<u>abs</u> function
F ln		<u>band</u> function
F log		<u>bor</u> function
F max		<u>bxor</u> function
F min		<u>conj</u> function
F minus		<u>copy</u> function
F new		<u>exp</u> function
F plus		<u>getprecision</u> function
F pow		<u>ln</u> function
F rotate		<u>log</u> function
F setprecision		<u>max</u> function
F shift		<u>min</u> function
F sqrt		<u>minus</u> function
F tonumber		<u>new</u> function
F tostring		<u>plus</u> function
F trim		<u>pow</u> function
F __le		<u>rotate</u> function
F __lt		<u>setprecision</u> function
F __mul		<u>shift</u> function
S __name		<u>sqrt</u> function
F __pow		<u>tonumber</u> function
F __shl		<u>tostring</u> function
F __shr		<u>trim</u> function

## xmath (extra lua)

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

# xml (context)

<b>addentitiesdoctype</b>	function	<b>despecialized</b>	function
<b>addspecialcode</b>	function	<b>each</b>	function
<b>after</b>	function	<b>each_element</b>	function
<b>all</b>	function	<b>elements</b>	function
<b>applyxpath</b>	function	<b>elementtodata</b>	function
<b>applyselector</b>	function	<b>empty</b>	function
<b>assign</b>	function	<b>entities</b>	data table
<b>attribute</b>	function	<b>erase</b>	function
<b>bardinclusions</b>	function	<b>errorhandler</b>	function
<b>before</b>	function	<b>escaped</b>	function
<b>body</b>	function	<b>expressions</b>	table
<b>builtinentities</b>	table		
	B amp	F attribute	
	B apos	F boolean	
	B gt	F child	
	B lt	F contains	
	B quot	F count	
		F error	
<b>cdata</b>	function	F find	
<b>cdatatotext</b>	function	F hasclass	
<b>checkbox</b>	function	F idstring	
<b>checkerror</b>	function	F lower	
<b>checknamespace</b>	function	F name	
<b>checkns</b>	function	F number	
<b>cleansed</b>	function	F oneof	
<b>collect</b>	function	F print	
<b>collect_elements</b>	function	F quit	
<b>collect_tags</b>	function	F tag	
<b>collect_texts</b>	function	F text	
<b>collected</b>	function	F undefined	
<b>collecttexts</b>	function	F upper	
<b>compactelement</b>	function		
<b>content</b>	function	<b>fillin</b>	function
<b>convert</b>	function	<b>filter</b>	function
<b>copy</b>	function	<b>finalizers</b>	table
<b>count</b>	function		
<b>cprint</b>	function	F paragraphs	
<b>css</b>	table	T tex	
	F applyselector	F all	
	F colorspecification	F attribute	
	F dimension	F chainattribute	
	F family	F chainpath	
	F fontspecification	F command	
	F mappedstylevalue	F concat	
	F padding	F concatrange	
	F size	F context	
	F style	F count	
	F stylevalue	F ctxttext	
	F todimension	F default	
	F variant	F depth	
	F weight	F first	
<b>defaulthandlers</b>	table	F function	
	D file	F index	
	D parsedxml	F last	
	D string	F lettered	
	D tex	F lower	
	D texline	F lowerall	
	D texspace	F match	
	D verbose	F name	
<b>defaultprotocol</b>	string	F param	
<b>delete</b>	function	F parameter	
<b>delete_element</b>	function	F position	
		F reverse	
		F stripped	

F tag	function
F tags	function
F text	function
F upper	function
F upperall	function
F xml	function
T xml	function
F all	function
F att	function
F attribute	function
F attributes	function
F cdata	function
F chainattribute	function
F count	function
F default	function
F elements	function
F empty	function
F first	function
F function	function
F index	function
F last	function
F lowerall	function
F match	function
F name	function
F position	function
F reverse	function
F table	function
F tag	function
F tags	function
F text	function
F texts	function
F upperall	function
<b>first</b>	function
<b>found</b>	function
<b>functions</b>	table
F classes	
F hasclass	
<b>getbuffer</b>	function
<b>gethandlers</b>	function
<b>gethandlersfunction</b>	function
<b>helpers</b>	table
F recurse	
<b>include</b>	function
<b>inclusion</b>	function
<b>inclusions</b>	function
<b>index</b>	function
<b>inheritattributes</b>	function
<b>inheritedconvert</b>	function
<b>inject</b>	function
<b>inject_element</b>	function
<b>inject_element_after</b>	function
<b>inject_element_before</b>	function
<b>injectafter</b>	function
<b>injectbefore</b>	function
<b>insert</b>	function
<b>insert_element</b>	function
<b>insert_element_after</b>	function
<b>insert_element_before</b>	function
<b>insertafter</b>	function
<b>insertbefore</b>	function
<b>insertcdata</b>	function
<b>insertcomment</b>	function
<b>inspect</b>	function
<b>is_valid</b>	function
<b>kind</b>	function
<b>last</b>	function
<b>lastmatch</b>	function
<b>load</b>	function
<b>lpath</b>	function
<b>lpathcached</b>	function
<b>lpathcalls</b>	function
<b>lshow</b>	function
<b>makestandalone</b>	function
<b>match</b>	function
<b>name</b>	function
<b>newhandlers</b>	function
<b>nodesettoString</b>	function
<b>originalload</b>	function
<b>package</b>	function
<b>parent</b>	function
<b>parsedentitylppeg</b>	userdata
<b>pihandlers</b>	table
F injector	
F tex	
<b>placeholders</b>	table
F unknown_any_entity	
F unknown_dec_entity	
F unknown_hex_entity	
<b>popmatch</b>	function
<b>position</b>	function
<b>privatecodes</b>	table
<b>privatetoken</b>	function
<b>process</b>	function
<b>process_attributes</b>	function
<b>process_elements</b>	function
<b>processattributes</b>	function
<b>profiled</b>	table
<b>pure</b>	function
<b>pushmatch</b>	function
<b>raw</b>	function
<b>registerentity</b>	function
<b>registerns</b>	function
<b>reindex</b>	function
<b>remap_name</b>	function
<b>remap_namespace</b>	function
<b>remap_tag</b>	function
<b>remapname</b>	function
<b>remapnamespace</b>	function
<b>remaptag</b>	function
<b>rename</b>	function
<b>renamespace</b>	function
<b>reparsedentitylppeg</b>	userdata
<b>replace</b>	function
<b>replace_element</b>	function
<b>resetinjectors</b>	function
<b>resolvens</b>	function
<b>root</b>	function
<b>save</b>	function
<b>selection</b>	function
<b>separate</b>	function
<b>serialize</b>	function
<b>serializetotext</b>	function
<b>setcdata</b>	function
<b>setcomment</b>	function
<b>sethandlersfunction</b>	function
<b>setinjectors</b>	function
<b>setProperty</b>	function
<b>settings</b>	function

<b>specialcodes</b>	table	<b>table</b>	function
S "		<b>text</b>	function
S #		<b>textonly</b>	function
S \$		<b>texttocdata</b>	function
S %		<b>tocdata</b>	function
S &		<b>toelement</b>	function
S '		<b>toString</b>	function
S <		<b>toTable</b>	function
S >		<b>toXML</b>	function
S \		<b>tprint</b>	function
S {		<b>traverse</b>	function
S		<b>unescape</b>	function
S }		<b>unescapeIdentityLPEG</b>	userdata
S ~		<b>unprivatized</b>	function
<b>specialhandler</b>	table	<b>unspecialized</b>	function
<b>sprint</b>	function	<b>wipe</b>	function
<b>string</b>	function	<b>withElement</b>	function
<b>strip</b>	function	<b>withElements</b>	function
<b>strip whitespace</b>	function	<b>wrap</b>	function
<b>stripelement</b>	function	<b>xmlns</b>	table
<b>stripLeadingSpaces</b>	function		

## xzip (extra lua)

**adler32**    function  
**compress**    function  
**crc32**    function

**decompress** function  
**expandsize** function

## zip (extra lua)

**archives**      table  
**closearchive**      function

**openarchive**      function  
**registeredfiles** table

## zlib (extra lua)

<b>adler32</b>	function	<b>decompress</b> function
<b>compress</b>	function	<b>expandsize</b> function
<b>crc32</b>	function	