

MP attributes backends **bit32** blobs boolean  
buffers builders caches **callback** callbacks  
catcodes characters chemistry commands  
containers context converters **coroutine**  
ctxrunner **debug** dir dircodes directives  
document documentdata drivers environment  
experiments ffi figures **file** **fio** floats **font**  
fonts functions global graphics **gzip** **img**  
interactions interfaces **io** job **lang** languages  
layouts **lfs** libraries lmx logs lpdf **lpeg** **ltn12**  
**lua** luatex lxml **math** mathematics **md5** metapost  
**mime** moduledata modules mp **mplib** noads **node**  
nodes number objects **os** **package** pagebuilders  
parametersets **pdf** pdfc pdfscanner physics  
publications regimes resolvers sandbox scripts  
set sha2 sio **socket** sorters statistics **status**  
storage streams **string** structures **table** **tex**  
texconditionals **texconfig** texconstants texifs  
**texio** texitdefined texmodes texsystemmodes  
thirddata **token** tokens tracers trackers  
typesetters **unicode** updaters url userdata utf8  
utilities vf visualizers xml **zip** **zlib**

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

# global (alias: \_G)

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

lfs	table	rawlen	function
libraries	table	rawset	function
lmx	table	readarray	function
load	function	regimes	table
loadfile	function	require	function
loadstring	function	required	function
logs	table	requireswiglib	function
lpdf	table	resolvers	table
lpeg	table	ruledspace	function
ltn12	table	sandbox	table
lua	table	scripts	table
luatex	table	select	function
lxml	table	set	table
math	table	setinspector	function
mathematics	table	setmetatable	function
md5	table	sha2	table
metapost	table	sio	table
mime	table	socket	table
module	function	sorters	table
moduledata	table	statistics	table
modules	table	status	table
mp	function	storage	table
mplib	table	streams	table
next	function	string	table
noads	table	structures	table
node	table	swiglib	function
nodes	table	table	table
number	table	tex	table
objects	table	texconditionals	data table
optionalrequire	function	texconfig	table
os	table	texconstants	data table
package	table	texifs	data table
pagebuilders	table	texio	table
pairs	function	texisdefined	data table
parametersets	table	texmodes	data table
pcall	function	texsystemmodes	data table
pdf	table	thirddata	table
pdfe	table	toboolean	function
pdfscanner	table	token	table
physics	table	tokens	table
print	function	tonumber	function
publications	table	tostring	function
rawequal	function	tracers	table
rawget	function	trackers	table

<b>type</b>	function	<b>utf8</b>	table
<b>typesetters</b>	table	<b>utilities</b>	table
<b>unicode</b>	table	<b>vf</b>	table
<b>unpack</b>	function	<b>visualizers</b>	table
<b>updaters</b>	table	<b>xml</b>	table
<b>url</b>	table	<b>xpcall</b>	function
<b>userdata</b>	table	<b>zip</b>	table
<b>utf</b>	table	<b>zlib</b>	table

# attributes (context)

**applyoverloads**    function

**colorintents**    table

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

**colors**    table

- N attribute
- F cmyk
- F cmyktogray
- F cmyktorgb
- F colorcomponents
- D counts
- B couple
- F currentmodel
- F currentnamedmodel
- D data
- N default
- F defineintermediatecolor
- F definemultitonecolor
- F defineprocesscolor
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- N forced
- F forcedmodel
- F forcesupport
- F formatcolor
- F formatgray
- F getpagecolormodel
- F gray
- F graytohsv
- F handler
- F hsvtorgay
- F hsvtorgb
- F iccprofile
- F isblack

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

F stop

D values

B supported

# backends (context)

## **codeinjections** table

F boxresourcedimensions  
F registerboxresource  
F restoreboxresource

## **current** string

## **defaults** table

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

## **included** table

B context  
B date  
B id  
B metadata  
B pdf

## **install** function

## **nodeinjections** table

F restore  
F save  
F transform

## **nothing** function

## **pdf** table

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

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



- F stopunicodetoactualtextdirect
- F supportedformats
- F unicodetoactualtext
- F useviewerlayer
- F validfield
- F validfieldcategory
- F validfieldset
- S comment
- T nodeinjections
  - F addtags
  - F annotation
  - F attachfile
  - F changestackedlayer
  - F cmykcolor
  - F comment
  - F destination
  - F effect
  - F graycolor
  - F injectbitmap
  - F insertmovie
  - F insertsound
  - F insertswf
  - F insertu3d
  - F knockout
  - F negative
  - F overprint

- F positive
- F reference
- F rgbcolor
- F spotcolor
- F startlayer
- F startstackedlayer
- F stoplayer
- F stopstackedlayer
- F transparency
- F typesetfield
- T registrations
  - F cmykindexcolor
  - F cmykspotcolor
  - F getspotcolorreference
  - F grayindexcolor
  - F grayspotcolor
  - F rgbindexcolor
  - F rgbspotcolor
  - F spotcolorname
  - F transparency

- T tables

- D vfspecials

<b>registrations</b>	table
<b>tables</b>	table
<b>timestamp</b>	function

## bit32 (basic lua)

**arshift** function

**band** function

**bnot** function

**bor** function

**btest** function

**bxor** function

**extract** function

**lrotate** function

**lshift** function

**replace** function

**rrotate** function

**rshift** function

## blobs (context)

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

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

## boolean (context)

**tocontext** function

**tonumber** function

# buffers (context)

<b>append</b>	function	F define	
<b>assign</b>	function	F hassomecontent	
<b>collectcontent</b>	function	F next	
<b>erase</b>	function	F place	
<b>exists</b>	function	F reset	
<b>get</b>	function	F save	
<b>getcontent</b>	function	<b>prepend</b>	function
<b>getlines</b>	function	<b>raw</b>	function
<b>gettexbuffer</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 hyphenation
- F kerning
- F ligaturing
- F mlist\_to\_hlist
- T originals
  - F hyphenate
  - F kerning
  - F ligaturing

**paragraphs**       table

- T constructors
- N attribute
- F define
- F disable
- F enable
- F handler
- T methods
  - F basic
  - F default
  - F hpack
  - F oneline
- D names
- D numbers
- F set
- F start
- F stop
- T expansion
  - F trace
- F kepttogether
- F registertogether
- T solutions
  - T splitters
    - F define
    - F optimize
  - T registered
  - F reset

- F set
- F split
- F start
- F stop

F tag

**profiling**            table

- F add
- F distance
- F fixedprofile
- F get
- F list
- F pagehandler
- F profilebox
- F set

**vspacing**            table

- F analyze
- D categories
- F collapsevbox
- T data
  - D map
  - D skip
  - D snapmethods
- F definesnapmethod
- B fixed
- F forcepageflush
- F forcestrutdepth
- F getnofpreviouslines
- F pagehandler
- F pageoverflow
- F setmap
- F setskip
- F snapbox
- F synchronizepage
- F tocategories
- F tocategory
- F vboxhandler

## cache (context)

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

## callback (basic tex)

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

**register** overloaded function



# callbacks (context)

**freeze** function

**functions** table

F process\_rule

F start\_page\_number

F stop\_page\_number

**known** function

**list** data table

**pop** function

**push** function

**register** function

**report** function

**supported** table

B append\_to\_vlist\_filter

B build\_page\_insert

B buildpage\_filter

B call\_edit

B contribute\_filter

B define\_font

B find\_cidmap\_file

B find\_data\_file

B find\_enc\_file

B find\_font\_file

B find\_format\_file

B find\_image\_file

B find\_map\_file

B find\_opentype\_file

B find\_output\_file

B find\_pk\_file

B find\_read\_file

B find\_truetype\_file

B find\_typed1\_file

B find\_vf\_file

B find\_write\_file

B finish\_pdf\_file

B finish\_pdfpage

B finish\_synctex

B font\_descriptor\_objnum\_provider

B glyph\_not\_found

B glyph\_stream\_provider

B hpack\_filter

B hpack\_quality

B hyphenate

B insert\_local\_par

B kerning

B ligaturing

B linebreak\_filter

B mlist\_to\_hlist

B new\_graf

B open\_read\_file

B page\_objnum\_provider

B post\_linebreak\_filter

B pre\_dump

B pre\_linebreak\_filter

B pre\_output\_filter

B process\_input\_buffer

B process\_jobname

B process\_output\_buffer

B process\_rule

B read\_cidmap\_file

B read\_data\_file

B read\_enc\_file

B read\_font\_file

B read\_map\_file

B read\_opentype\_file

B read\_pk\_file

B read\_truetype\_file

B read\_typed1\_file

B read\_vf\_file

B show\_error\_hook

B show\_error\_message

B show\_lua\_error\_hook

B show\_warning\_message

B start\_file

B start\_page\_number

B start\_run

B stop\_file

B stop\_page\_number

B stop\_run

B vpack\_filter

B vpack\_quality

B wrapup\_run

## catcodes (context)

**names** data table

**numbers** data table

**register** function

# characters (context)

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

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

## chemistry (context)

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

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

## containers (context)

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

**is\_valid** function  
**read** function  
**usecache** boolean  
**write** function

## converters (context)

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

**verbose**

D data

F translate

**weekday**

table

function

**word**

**words**

**year**

function

function

function



## coroutine (basic lua)

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

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

# ctxrunner (context)

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

## debug (basic lua)

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

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

## dir (context)

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

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

## directives (context)

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

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

# document (context)

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

# drivers (context)

<b>convert</b>	function		F character
<b>install</b>	function		F rule
<b>instances</b>	table		S name
T lua		T pdf	
T actions		T actions	
F fetch		F finalize	
F finalize		F initialize	
F initialize		F updatefontstate	
F reset		F wrapup	
T flushers		T flushers	
F character		F character	
F rule		F latelua	
S name		F pdfliteral	
T mps		F pdfrestore	
T actions		F pdfsave	
F fetch		F pdfsetmatrix	
F finalize		F rule	
F initialize		S name	
F reset		<b>prepare</b>	function
T flushers		<b>wrapup</b>	function

## environment (context)

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



## experiments (context)

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

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

# figures (context)

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

## file (basic lua)

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

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

## fio (extra lua)

<b>checkpermission</b>	function
<b>getposition</b>	function
<b>read2dot14</b>	function
<b>readbytes</b>	function
<b>readbytetable</b>	function
<b>readcardinal1</b>	function
<b>readcardinal2</b>	function
<b>readcardinal3</b>	function
<b>readcardinal4</b>	function
<b>readcardinaltable</b>	function
<b>readfixed2</b>	function

<b>readfixed4</b>	function
<b>readinteger1</b>	function
<b>readinteger2</b>	function
<b>readinteger3</b>	function
<b>readinteger4</b>	function
<b>readintegertable</b>	function
<b>readline</b>	function
<b>recordfilename</b>	function
<b>setposition</b>	function
<b>skipposition</b>	function

# floats (context)

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

## font (basic tex)

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

# fonts (context)

<b>analyzers</b>	table	
D features		F currentfonthasfeature
D initializers		D designsizes
D methods		D dontembed
F setstate		F enhanceparameters
D states		T enhancers
B useunicodemarks		T afm
		F apply
<b>checkers</b>	table	F patch
F getmissing		T patches
F missing		F register
F placeholder		F report
<b>cid</b>	table	F register
F getmap		F report
F loadfile		T otf
<b>collections</b>	table	F addfeature
F checkenabled		F apply
F clonevector		F enhance
F define		F patch
T definitions		T patches
F found		F register
F prepare		F report
F process		F register
F registermain		F report
F report		T tfm
F reset		F apply
T vectors		F patch
<b>constructors</b>	table	T patches
F addcharacters		F register
F addcoreunicodes		F report
F aftercopyingcharacters		F register
F applymanipulators		F report
F assignmathparameters		N factor
B autocleanup		T features
F beforecopyingcharacters		D afm
D cache		D otf
B cacheintex		D tfm
F calculatescale		F finalize
F checkedfeatures		F getfeatureaction
F checkedfilename		F getmathparameter
F cleanupable		F getprivate
F collectprocessors		T handlers

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



F cff	F getaxisscale
F cff2	F getfactors
F cffcheck	F getscales
F checkhash	F gotodatatable
F cmap	F normalizedaxis
F colr	T normalizedaxisishash
F compact	F readvariationdata
F cpal	F reportskippedtable
F ebdt	F setvariabledata
F eblc	F hhea
F ebsc	F hmtx
F expand	F hvar
F extend	F kern
F fvar	F loadfont
F gdef	F loadshapes
F getcomponents	F loca
F getinfo	F math
F glyf	F maxp
F gpos	F mvar
T gposhandlers	F name
F chainedcontext	F os/2
F context	F pack
F cursive	F parsecharstrings
F extension	F post
F marktobase	F registerextender
F marktoligature	F rehash
F marktomark	F sbix
F pair	F stat
F single	T streamreader
F gsub	F close
T gsubhandlers	F getposition
F alternate	F getsize
F chainedcontext	F look
F context	F open
F extension	F read2dot14
F ligature	F readbyte
F multiple	F readbytes
F reversechainedcontextsingle	F readbytetable
F single	F readcardinal
F gvar	F readcardinal1
F head	F readcardinal2
T helpers	F readcardinal2le
F axistofactors	F readcardinal3
F cleanname	F readcardinal3le

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

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

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

- definetypeface**      function
- encodings**            table

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

- enhanceid**            function
- expansions**          data table
- formats**            data table
- getalternate**        function

- getkern**              function
- getmultiple**        function
- getsubstitution**    function
- getters**            table

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

- goodies**            table

- D colorschemes
- T data
  - T dejavu-math
    - S author
    - S comment
    - S copyright
  - B initialized
  - T mathematics
    - T alternates
    - T dotless
      - S comment
      - S feature
      - N value

- T kerns
  - S name
  - S version
- T schola-math
  - S author
  - S comment
  - S copyright
  - B initialized
  - T mathematics
    - T alternates
    - T dotless
      - S comment
      - S feature
      - N value
- T kerns
  - S name
  - S version

D	designsizes		F	checkflags	
D	filenames		F	checkmerge	
F	getcompositions		F	checksteps	
T	list		F	collectanchors	
F	load		D	commands	
F	prepare_features		F	descriptiontoslot	
F	register		F	dimenfactor	
F	registerpostprocessor		F	expandglyph	
F	report		T	extraprivates	
T	suffixes		F	fontpatternhassize	
<b>handlers</b>	table		F	getcoloredglyphs	
<b>hashes</b>	table		F	getdigitwidth	
D	characters		F	getinstancespec	
D	classes		F	getparameters	
D	csnames		F	getprivatecharornode	
D	descriptions		F	getprivatenode	
D	dynamics		F	getprivates	
D	emwidths		F	getprivateslot	
D	exheights		F	hasprivate	
D	extensibles		F	indextoslot	
D	features		F	name	
D	identifiers		F	nametoslot	
D	italics		F	prependcommands	
D	lastmathids		F	privateslot	
D	marks		F	setdigitwidth	
D	modes		F	splitfontpattern	
D	originals		F	tochar	
D	parameters		<b>infofont</b>	function	
T	processes		<b>iterators</b>	table	
D	properties		F	characters	
D	quads		F	descriptions	
D	resources		F	glyphs	
T	setdynamics		<b>loggers</b>	table	
T	shapes		F	add_placeholders	
D	spaces		D	category_to_placeholder	
D	spacings		F	format	
T	streams		F	onetimemessage	
D	unicodes		F	register	
D	variants		F	reportdefinedfonts	
D	xheights		F	reportusedfeatures	
<b>helpers</b>	table		<b>mappings</b>	table	
F	addextraprivate		F	addtounicode	
F	addprivate		F	fromunicode16	
F	appendcommands		F	loadfile	

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

D data  
F savefont  
F saveoriginal

**tracers**            table

**treatments**       table

F applyfixes

D data  
S filename  
F ignoredfile  
F report  
F trace

**typefaces**            table

# functions (context)

**dummy** function



# graphics (context)

**backgrounds** table

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

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

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

## img (basic tex)

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

# interactions (context)

**attachments** data table

**fields** table

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

**general** table

- F getidentity
- F setupidentity

**help** table

- F collect
- F reference
- F register

**javascripts** table

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

D functions

D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

**linkedslists** data table

**pages** table

- F setpagetransition
- F setupcanvas

**references** table

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

**renderings** data table

**soundclips** data table

# interfaces (context)

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

F define

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

## io (basic lua)

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

# job (context)

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

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



## lang (basic tex)

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

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

# languages (context)

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

T enablers

F load

B enables

T methods

F found

N threshold

# layouts (context)

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

## lfs (extra lua)

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

# libraries (context)

**basiclua** data table

**basictex** data table

**builtin** data table

**extralua** data table

**extratex** data table

**functions** data table

**globals** data table

# lmx (context)

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

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

# logs (context)

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



# lpdf (context)

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

<b>docstring</b>	function
<b>epdf</b>	table
F contenttotext	
F expanded	
F getpagecontent	
F getstructure	
T image	
F close	
F copy	
F open	
F query	
F load	
F plugin	
T resolvers	
F destinations	
F embeddedfiles	
F javascripts	
F layers	
F pages	
F structure	
F widgets	
F unload	
<b>escaped</b>	function
<b>finalizedocument</b>	function
<b>finalizefonts</b>	function
<b>finalizepage</b>	function
<b>finishtransparencycode</b>	function
<b>flags</b>	table
T annotations	
N AutoView	
N Hidden	
N Invisible	
N Locked	
N LockedContents	
N NoRotate	
N NoView	
N NoZoom	
N Print	
N Printable	
N ReadOnly	
N ToggleNoView	

N auto  
 N hidden  
 N printable  
 T widgets  
 N Comb  
 N CommitOnSelChange  
 N DoNotScroll  
 N DoNotSpellCheck  
 N Edit  
 N FileSelect  
 N MultiLine  
 N NoExport  
 N NoToggleToOff  
 N Password  
 N PopUp  
 N PushButton  
 N Radio  
 N RadiosInUnison  
 N ReadOnly  
 N Required  
 N RichText  
 N Sort  
 N file  
 N fixed  
 N nocheck  
 N protected  
 N readonly  
 N required  
 N sorted  
 N unavailable

**flushobject** function  
**flushstreamfileobject** function  
**flushstreamobject** function  
**formats** data table  
**frombytes** function  
**fromeight** function  
**frompdfdoc** function  
**fromsixteen** function  
**getcompression** function  
**gethpos** function  
**getmetadata** function  
**getpageproperties** function  
**getpos** function  
**getversion** function

**getvpos** function  
**graycode** function  
**id** function  
**includechar** function  
**includefont** function  
**injectxmpinfo** function  
**insertxmpinfo** function  
**layerreference** function  
**limited** function  
**linearshade** function  
**literal** function  
**majorversion** function  
**minorversion** function  
**nametree** function  
**nofpages** function  
**null** function  
**number** function  
**objectcompresslevel** function  
**pagereference** function  
**patternstream** function  
**pdfcolor** function  
**pdftimestamp** function  
**permitdetail** function  
**print** function  
**protectresources** boolean  
**rectangle** function  
**reference** function  
**registerannotation** function  
**registerdestination** function  
**registerdocumentfinalizer** function  
**registerfont** function  
**registerpagefinalizer** function  
**registerpattern** function  
**reserveobject** function  
**rgbcode** function  
**rotationcm** function  
**setcompression** function  
**setdates** function  
**settime** function  
**settrailerid** function  
**setversion** function  
**shareobject** function  
**shareobjectreference** function  
**spotcode** function

<b>stream</b>	function	<b>transparencycode</b>	function
<b>string</b>	function	<b>transparencygroups</b>	table
<b>toeight</b>	function	B none	
<b>topdfdoc</b>	function	<b>transparencyvalue</b>	function
<b>tosixteen</b>	function	<b>unicode</b>	function
<b>transparency</b>	function	<b>verbose</b>	function

## lpeg (basic lua)

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

# ltn12 (extra lua)

<b>BLOCKSIZE</b>	number		F null
<b>filter</b>	overloaded table		F simplify
		F chain	F table
		F cycle	
<b>pump</b>	overloaded table		<b>source</b> overloaded table
		F all	F cat
		F step	F chain
<b>report</b>	function		F empty
<b>sink</b>	overloaded table		F error
		F chain	F file
		F error	F rewind
		F file	F simplify
			F string

# lua (basic tex)

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

# luatex (context)

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

# lxml (context)

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



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

F add

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

## math (basic lua)

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

# mathematics (context)

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

## md5 (extra lua)

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

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

# metapost (context)

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

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

## mime (extra lua)

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

## mp (context)

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



F boolean		<b>isarray</b>	function
F flush		<b>isobject</b>	function
F fprint		<b>mf_blob_add</b>	function
F integer		<b>mf_blob_dimensions</b>	function
F number		<b>mf_blob_index</b>	function
F numeric		<b>mf_blob_new</b>	function
F pair		<b>mf_blob_raw_content</b>	function
F pairpoints		<b>mf_blob_raw_dimensions</b>	function
F path		<b>mf_blob_raw_reset</b>	function
F pathpoints		<b>mf_blob_raw_toutf</b>	function
F points		<b>mf_blob_raw_wipe</b>	function
F print		<b>mf_blob_size</b>	function
F quadruple		<b>mf_blob_width</b>	function
F quadruplepoints		<b>mf_default_color_model</b>	function
F quoted		<b>mf_external_figure</b>	function
F size		<b>mf_finish_saving_data</b>	function
F triplet		<b>mf_formatted_text</b>	function
F tripletpoints		<b>mf_get_outline_text</b>	function
F vprint		<b>mf_graphic_text</b>	function
<b>boolean</b>	function	<b>mf_inject_blob</b>	function
<b>cleaned</b>	function	<b>mf_made_text</b>	function
<b>dataset</b>	function	<b>mf_named_color</b>	function
<b>datasets</b>	function	<b>mf_outline_text</b>	function
F load		<b>mf_path_left</b>	function
<b>dimension</b>	function	<b>mf_path_length</b>	function
<b>disposehash</b>	function	<b>mf_path_point</b>	function
<b>flush</b>	function	<b>mf_path_reset</b>	function
<b>format</b>	function	<b>mf_path_right</b>	function
<b>formatted</b>	function	<b>mf_save_data</b>	function
<b>fprint</b>	function	<b>mf_some_text</b>	function
<b>fromhash</b>	function	<b>mf_start_saving_data</b>	function
<b>get</b>	table	<b>mf_stop_saving_data</b>	function
F boolean		<b>mf_tb_dimensions</b>	function
F number		<b>mf_tt_dimensions</b>	function
F numeric		<b>mf_tt_initialize</b>	function
F path		<b>mode</b>	function
F string		<b>n</b>	function
<b>getcount</b>	function	<b>newhash</b>	function
<b>getdimen</b>	function	<b>number</b>	function
<b>getmacro</b>	function	<b>numeric</b>	function
<b>gettoks</b>	function	<b>pair</b>	function
<b>graphformat</b>	function	<b>pairpoints</b>	function
<b>inhash</b>	function	<b>path</b>	function
<b>integer</b>	function	<b>pathleft</b>	function

<b>pathlength</b>	function	<b>print</b>	function
<b>pathpoint</b>	function	<b>processingmode</b>	function
<b>pathpoints</b>	function	<b>quadruple</b>	function
<b>pathreset</b>	function	<b>quadruplepoints</b>	function
<b>pathright</b>	function	<b>quoted</b>	function
<b>place_buffermake</b>	function	<b>report</b>	function
<b>place_buffersize</b>	function	<b>set</b>	table
<b>place_bufferslot</b>	function	F path	
<b>place_bufferwipe</b>	function	<b>setcount</b>	function
<b>points</b>	function	<b>setdimen</b>	function
<b>positionanchor</b>	function	<b>setmacro</b>	function
<b>positionbox</b>	function	<b>settoks</b>	function
<b>positioncurve</b>	function	<b>size</b>	function
<b>positionpage</b>	function	<b>systemmode</b>	function
<b>positionpath</b>	function	<b>texstr</b>	function
<b>positionpxy</b>	function	<b>texvar</b>	function
<b>positionregion</b>	function	<b>tohash</b>	function
<b>positionwhd</b>	function	<b>triplet</b>	function
<b>positionxy</b>	function	<b>tripletpoints</b>	function
<b>prefix</b>	function	<b>vprint</b>	function

## mplib (extra tex)

<b>char_depth</b>	function	<b>get_number</b>	function
<b>char_height</b>	function	<b>get_numeric</b>	function
<b>char_width</b>	function	<b>get_path</b>	function
<b>execute</b>	function	<b>get_string</b>	function
<b>fields</b>	function	<b>new</b>	overloaded function
<b>finder</b>	function	<b>pen_info</b>	function
<b>finders</b>	table	<b>preprocessed</b>	function
F file		<b>solve_path</b>	function
F mpstemplate		<b>statistics</b>	function
<b>finish</b>	function	<b>version</b>	function
<b>get_boolean</b>	function		

# noads (context)

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

## node (basic tex)

<b>check_discretionaries</b>	function	F getglue
<b>check_discretionary</b>	function	F getheight
<b>copy</b>	function	F getid
<b>copy_list</b>	function	F getkern
<b>count</b>	function	F getlang
<b>current_attr</b>	function	F getleader
<b>dimensions</b>	function	F getlist
<b>direct</b>	table	F getnext
F check_discretionaries		F getnucleus
F check_discretionary		F getoffsets
F copy		F getpenalty
F copy_list		F getprev
F count		F getproperty
F current_attr		F getshift
F dimensions		F getsub
F effective_glue		F getsubtype
F end_of_math		F getsup
F find_attribute		F getwhd
F first_glyph		F getwidth
F flatten_discretionaries		F has_attribute
F flush_list		F has_field
F flush_node		F has_glyph
F flush_properties_table		F hpack
F free		F insert_after
F get_attribute		F insert_before
F get_properties_table		F is_char
F get_synctex_fields		F is_direct
F getattributelist		F is_glyph
F getboth		F is_node
F getbox		F is_zero_glue
F getchar		F kerning
F getcomponents		F last_node
F getdata		F length
F getdepth		F ligaturing
F getdir		F new
F getdirection		F prepend_prevdepth
F getdisc		F protect_glyph
F getexpansion		F protect_glyphs
F getfam		F protrusion_skippable
F getfield		F rangedimensions
F getfont		F remove

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

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

## nodes (context)

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



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

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

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

F shrink	F setattributes
F special	F setattrlist
F stretch	F setboth
F subbox	F setbox
F sublist	F setboxglue
F temp	F setchar
F textdir	F setcomponents
F usage	F setdata
F userattributes	F setdepth
T userids	F setdir
N margins.inline	F setdirection
N property	F setdisc
N splitters.one	F setdiscretionary
N splitters.two	F setexpansion
F userlist	F setfam
F userlua	F setfield
F usernumber	F setfont
F userrule	F setglue
F userstring	F setheight
F usertokens	F setkern
F vlist	F setlang
F wordboundary	F setlanguage
F prepend	F setleader
F processranges	F setlink
F processwords	F setlist
F protect_glyph	F setnext
F protect_glyphs	F setnucleus
F protrusion_skipable	F setoffsets
F rangedimensions	F setpenalty
F rawprop	F setprev
F reference	F setprop
F rehpack	F setshift
F remove	F setsplit
F repackhlist	F setsub
F replace	F setsubtype
F rightmarginwidth	F setup
T rules	F setsurround
F userrule	F setunsetattributes
F set_attribute	F setvalue
F set_components	F setvisual
F set_synctex_fields	F setvisuals
F setattr	F setwhd
F setattribute	F setwidth
F setattributelist	F slide

- F somepenalty
- F somespace
- F splitbox
- F striprange
- F tail
- F take\_components
- F takeattr
- F takebox
- F takelist
- F theprop
- F tonode
- F tonodes
- F tonut
- F tosequence
- F toString
- F tracedslide
- F traverse
- F traverse\_char
- F traverse\_glyph
- F traverse\_id
- F traverse\_list
- T traversers
  - F boundary
  - F char
  - F dir
  - F disc
  - F glue
  - F glyph
  - F hlist
  - F list
  - F next
  - F node
  - F vlist
  - F whatsit
- T typesetters
  - F tohbox
  - F tohpack
  - F tonodes
  - F tovbox
  - F tovpack
- F unprotect\_glyph
- F unprotect\_glyphs
- F unset\_attribute
- F unsetattribute

- F unsetattributes
- F untracedslide
- F use\_components
- F usedlist
- F uses\_font
- F vianodes
- F vianuts
- F vpack
- F write

**packlist**  
**pardir\_is\_equal**  
**pardir\_is\_opposite**  
**pardir\_is\_parallel**  
**partextdir\_is\_equal**  
**pdfliteralvalues**  
**penaltycodes**  
**plugindata**

- F finalizer
- F initializer
- S name
- T namespace
  - N attribute
  - D data
  - F enable
  - F handler
  - F register
  - D registered
  - D values
- F processor

**points**  
**pool**

- F baselineskip
- F cleanup
- F glyph
- F hlist
- F kern
- F latelua
- F lineskip
- F pdfdirectliteral
- F pdforiginliteral
- F pdfrestore
- F pdfsave
- F pdfsetmatrix
- F register

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

function  
 table

F rule		F enable	
F special		F handler	
F usage		T ruleactions	
F usernumber		F box	
F vlist		F draw	
<b>prepend</b>	function	F fill	
<b>print</b>	function	F mp	
<b>processors</b>	table	F stroke	
F contribute_filter		F userrule	
B enabled		<b>save</b>	function
F hpack_filter		<b>serialize</b>	function
F post_linebreak_filter		<b>serializebox</b>	function
F pre_linebreak_filter		<b>set_attribute</b>	function
F tracer		<b>setattr</b>	function
<b>properties</b>	table	<b>setattribute</b>	function
T actions		<b>setattributes</b>	function
F delayed		<b>setboth</b>	function
F fdelayed		<b>setbox</b>	function
F immediate		<b>setboxtonaturalwd</b>	function
F attach		<b>setfield</b>	function
T data		<b>setglue</b>	function
F delayed		<b>setlink</b>	function
<b>protect_glyph</b>	function	<b>setlist</b>	function
<b>protect_glyphs</b>	function	<b>setnext</b>	function
<b>protrusion_skipppable</b>	function	<b>setprev</b>	function
<b>pts</b>	function	<b>setunsetattributes</b>	function
<b>radicalcodes</b>	data table	<b>setwhd</b>	function
<b>rangedimensions</b>	function	<b>shifts</b>	table
<b>reference</b>	function	D data	
<b>references</b>	table	F define	
N attribute		F enable	
T done		F handler	
F handler		<b>show</b>	function
T stack		<b>showboxes</b>	function
<b>rehpack</b>	function	<b>showcodes</b>	function
<b>remove</b>	function	<b>showlist</b>	function
<b>repackhlist</b>	function	<b>showsimplelist</b>	function
<b>replace</b>	function	<b>skipcodes</b>	data table
<b>report</b>	function	<b>skipvalues</b>	data table
<b>rightmarginwidth</b>	function	<b>slide</b>	function
<b>rulecodes</b>	data table	<b>snapshots</b>	table
<b>rules</b>	table	F getparameters	
D data		F getsamples	
F define		F resetsamples	

<code>F takesample</code>		<code>tonut</code>	function
<code>somepenalty</code>	function	<code>topicas</code>	function
<code>somespace</code>	function	<code>topoints</code>	function
<code>splitbox</code>	function	<code>toscaledpoints</code>	function
<code>stripdiscretionaries</code>	function	<code>tosequence</code>	function
<code>stripping</code>	table	<code>tostring</code>	function
<code>T glyphs</code>		<code>totable</code>	function
<code>F set</code>		<code>totree</code>	function
<code>subtypes</code>	data table	<code>toutf</code>	function
<code>tail</code>	function	<code>tracers</code>	table
<code>takeattr</code>	function	<code>T characters</code>	
<code>takebox</code>	function	<code>F collect</code>	
<code>tasks</code>	table	<code>F equal</code>	
<code>F actions</code>		<code>F start</code>	
<code>F appendaction</code>		<code>F string</code>	
<code>F disableaction</code>		<code>F unicodes</code>	
<code>F disablegroup</code>		<code>T colors</code>	
<code>F enableaction</code>		<code>F reset</code>	
<code>F enablegroup</code>		<code>F set</code>	
<code>F freeze</code>		<code>F setlist</code>	
<code>F freezegroup</code>		<code>F fontchar</code>	
<code>F new</code>		<code>T frequencies</code>	
<code>F prependaction</code>		<code>F register</code>	
<code>F removeaction</code>		<code>T pool</code>	
<code>F replaceaction</code>		<code>T nodes</code>	
<code>F restart</code>		<code>F rule</code>	
<code>F setaction</code>		<code>T nuts</code>	
<code>F showactions</code>		<code>F rule</code>	
<code>F table</code>		<code>F resetproperties</code>	
<code>texmdir_is_equal</code>	data table	<code>F rule</code>	
<code>texmdir_is_is</code>	data table	<code>F setlist</code>	
<code>texmdir_is_opposite</code>	data table	<code>F setproperties</code>	
<code>texmdir_is_parallel</code>	data table	<code>F start</code>	
<code>tobasepoints</code>	function	<code>T steppers</code>	
<code>tocentimeters</code>	function	<code>F check</code>	
<code>tociceros</code>	function	<code>F codes</code>	
<code>todidots</code>	function	<code>F features</code>	
<code>todimen</code>	function	<code>F font</code>	
<code>toinches</code>	function	<code>F glyphs</code>	
<code>tomillimeters</code>	function	<code>F message</code>	
<code>tonewciceros</code>	function	<code>F messages</code>	
<code>tonewdidots</code>	function	<code>F nofsteps</code>	
<code>tonode</code>	function	<code>F register</code>	
<code>tonodes</code>	function	<code>F reset</code>	

F start		<b>unprotect_glyph</b>	function
F stop		<b>unprotect_glyphs</b>	function
F stop		<b>unset_attribute</b>	function
T transparencies		<b>unsetattribute</b>	function
F reset		<b>unsetattributes</b>	function
F set		<b>usedlist</b>	function
F setlist		<b>usercodes</b>	data table
<b>traverse</b>	function	<b>uses_font</b>	function
<b>traverse_char</b>	function	<b>vianodes</b>	function
<b>traverse_glyph</b>	function	<b>vianuts</b>	function
<b>traverse_id</b>	function	<b>visualizebox</b>	function
<b>traverse_list</b>	function	<b>visualizers</b>	table
<b>traversers</b>	table	F attribute	
F char		T attributes	
F glyph		F box	
F list		F handler	
F node		F markfonts	
<b>typesetters</b>	table	F register	
F hbox		F setfont	
F hpack		F setlayer	
F tohbox		F setruledglyph	
F tohpack		F setvisual	
F tonodes		<b>vpack</b>	function
F toinbox		<b>whatcodes</b>	data table
F tovpack		<b>whatsitcodes</b>	data table
F vpack		<b>write</b>	function



## number (context)

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

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

# objects (context)

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

## os (basic lua)

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

## package (basic lua)

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

# pagebuilders (context)

## columnsets      table

- F add
- F block
- F check
- F currentcolumn
- F define
- F finishflush
- F flushareas
- F flushcolumn
- F flushrest
- F goto
- F noto
- F prepareflush
- F put
- F registerarea
- F reset
- F setarea

- F sethsize
- F sethspace
- F setlines
- F setproperties
- F setstart
- F setvsize

## injections      table

- F flushafter
- F flushbefore
- F save

## mixedcolumns      table

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

## pdf (basic tex)

<b>disablecommand</b>	function	<b>getthreadmargin</b>	function
<b>fontname</b>	function	<b>gettrailer</b>	function
<b>fontobjnum</b>	function	<b>gettrailerid</b>	function
<b>fontsize</b>	function	<b>getvpos</b>	function
<b>getcatalg</b>	function	<b>getxformattributes</b>	function
<b>getcompresslevel</b>	function	<b>getxformmargin</b>	function
<b>getcreationdate</b>	function	<b>getxformname</b>	function
<b>getdecimaldigits</b>	function	<b>getxformresources</b>	function
<b>getdestmargin</b>	function	<b>hasmatrix</b>	function
<b>getfontname</b>	function	<b>immediateobj</b>	function
<b>getfontobjnum</b>	function	<b>includechar</b>	function
<b>getfontsize</b>	function	<b>includefont</b>	function
<b>getgentounicode</b>	function	<b>includeimage</b>	function
<b>gethpos</b>	function	<b>mapfile</b>	function
<b>getignoreunknownimages</b>	function	<b>mapline</b>	function
<b>getimageresolution</b>	function	<b>maxobjnum</b>	function
<b>getinclusionerrorlevel</b>	function	<b>newcolorstack</b>	function
<b>getinfo</b>	function	<b>obj</b>	function
<b>getlastannot</b>	function	<b>objtype</b>	function
<b>getlastlink</b>	function	<b>pageref</b>	function
<b>getlastobj</b>	function	<b>print</b>	function
<b>getlinkmargin</b>	function	<b>refobj</b>	function
<b>getmajorversion</b>	function	<b>registerannot</b>	overloaded function
<b>getmatrix</b>	function	<b>reserveobj</b>	function
<b>getmaxobjnum</b>	function	<b>setcatalg</b>	overloaded function
<b>getminorversion</b>	function	<b>setcompresslevel</b>	function
<b>getnames</b>	function	<b>setdecimaldigits</b>	function
<b>getnofobjects</b>	function	<b>setdestmargin</b>	function
<b>getobjcompresslevel</b>	function	<b>setfontattributes</b>	function
<b>getobjtype</b>	function	<b>setforcefile</b>	function
<b>getomitcidset</b>	function	<b>setgentounicode</b>	function
<b>getorigin</b>	function	<b>setignoreunknownimages</b>	function
<b>getpageattributes</b>	function	<b>setimageresolution</b>	function
<b>getpageref</b>	function	<b>setinclusionerrorlevel</b>	function
<b>getpageresources</b>	function	<b>setinfo</b>	overloaded function
<b>getpagesattributes</b>	function	<b>setlinkmargin</b>	function
<b>getpkresolution</b>	function	<b>setmajorversion</b>	function
<b>getpos</b>	function	<b>setminorversion</b>	function
<b>getrecompress</b>	function	<b>setnames</b>	overloaded function
<b>getretval</b>	function	<b>setobjcompresslevel</b>	function
<b>getsuppressoptionalinfo</b>	function	<b>setomitcidset</b>	function

<b>setorigin</b>	function	<b>setthreadmargin</b>	function
<b>setpageattributes</b>	overloaded function	<b>settrailer</b>	overloaded function
<b>setpageresources</b>	overloaded function	<b>settrailerid</b>	overloaded function
<b>setpagesattributes</b>	overloaded function	<b>setxformattributes</b>	function
<b>setpkresolution</b>	function	<b>setxformmargin</b>	function
<b>setrecompress</b>	function	<b>setxformresources</b>	function
<b>suppressoptionalinfo</b>	function	<b>xformname</b>	function

## pdf (context)

<b>arraytotable</b>	function	<b>getnofpages</b>	function
<b>close</b>	function	<b>getnumber</b>	function
<b>closestream</b>	function	<b>getpage</b>	function
<b>dictionarytotable</b>	function	<b>getpages</b>	function
<b>encryptioncodes</b>	data table	<b>getsize</b>	function
<b>getarray</b>	function	<b>getstatus</b>	function
<b>getboolean</b>	function	<b>getstream</b>	function
<b>getbox</b>	function	<b>getstring</b>	function
<b>getcatalag</b>	function	<b>gettrailer</b>	function
<b>getdictionary</b>	function	<b>getversion</b>	function
<b>getfromarray</b>	function	<b>new</b>	function
<b>getfromdictionary</b>	function	<b>objectcodes</b>	data table
<b>getfromreference</b>	function	<b>open</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



# pdfscanner (context)

**scan** function

# physics (context)

**units** table

F registerunit

D tables

# publications (context)

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

T sets	S pages	
T author	S volume	
T editionset	S version	
T virtual	D virtual	
T demo-a	T virtualfields	
S category	B authornum	
T extra	B authoryear	
T fields	B authoryears	
S author	B num	
S institution	B suffix	
S organization	<b>datasets</b>	table
S subtitle	<b>detailed</b>	table
S title	<b>endnotes_to_btx</b>	function
S year	<b>enhancer</b>	table
T optional	S arguments	
T required	T askip	
T sets	B dirty	
T author	T gskip	
T virtual	T kind	
T demo-b	T list	
S category	T system	
T extra	T order	
T fields	N steps	
S author	<b>enhancers</b>	table
S institution	F details	
S organization	F order	
S subtitle	F suffixes	
S title	<b>finder</b>	function
S year	<b>firstofrange</b>	function
T optional	<b>found</b>	function
T required	<b>get</b>	function
T sets	<b>getcasted</b>	function
T authors	<b>getdetail</b>	function
T virtual	<b>getdirect</b>	function
S comment	<b>getfaster</b>	function
S copyright	<b>getfield</b>	function
T fields	<b>getfuzzy</b>	function
S name	<b>getindex</b>	function
T types	<b>inspectors</b>	data table
S author	<b>journals</b>	table
S editor	F abbreviated	
S keywords	F add	
S number	F expanded	
S page	F load	

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

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

## regimes (context)

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

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

# resolvers (context)

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



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

## sandbox (context)

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

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

# scripts (context)

**autofontfeature**      table

    F disable

    F enable

    F handler

**categorytonumber**   data table

**colors**              data table

**decomposehangul**    function

**defaults**            table

    N inter\_char\_half\_shrink\_factor

    N inter\_char\_half\_stretch\_factor

    N inter\_char\_hangul\_penalty

    N inter\_char\_quarter\_shrink\_factor

    N inter\_char\_quarter\_stretch\_factor

    N inter\_char\_shrink\_factor

    N inter\_char\_stretch\_factor

    N inter\_word\_stretch\_factor

**handlers**            data table

**hash**                table

**injectors**           data table

**inserters**          table

    F nobreakspace\_after

    F nobreakspace\_before

    F space\_after

    F space\_before

    F zerowidthspace\_after

    F zerowidthspace\_before

**installdataset**      function

**installmethod**      function

**numbertocategory**   data table

**numbertodataset**    data table

**numbertohandler**    data table

**reset**                function

**set**                  function

**splitters**           data table

## set (context)

**contains**    function

**create**     function

**tolist**     function

**tonumber**   function

**totable**    function

## sha2 (context)

**digest256** function

**digest384** function

**digest512** function

## sio (context)

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

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

# socket (extra lua)

<b>BLOCKSIZE</b>	number	S cc
<b>_DATAGRAMSIZE</b>	number	S comments
<b>_DEBUG</b>	boolean	S connection
<b>_SETSIZE</b>	number	S content-description
<b>_SOCKETINVALID</b>	number	S content-disposition
<b>bind</b>	overloaded function	S content-encoding
<b>choose</b>	overloaded function	S content-id
<b>connect</b>	function	S content-language
<b>connect4</b>	overloaded function	S content-length
<b>connect6</b>	overloaded function	S content-location
<b>dns</b>	table	S content-md5
F getaddrinfo		S content-range
F gethostname		S content-transfer-encoding
F getnameinfo		S content-type
F tohostname		S cookie
F toip		S date
<b>ftp</b>	table	S diagnostic-code
S PASSWORD		S dsn-gateway
N TIMEOUT		S etag
S USER		S expect
F command		S expires
F genericform		S final-log-id
F get		S final-recipient
F open		S from
F put		S host
<b>gettime</b>	function	S if-match
<b>headers</b>	overloaded table	S if-modified-since
T canonic		S if-none-match
S accept		S if-range
S accept-charset		S if-unmodified-since
S accept-encoding		S in-reply-to
S accept-language		S keywords
S accept-ranges		S last-attempt-date
S action		S last-modified
S age		S location
S allow		S max-forwards
S alternate-recipient		S message-id
S arrival-date		S mime-version
S authorization		S original-envelope-id
S bcc		S original-recipient
S cache-control		S pragma

S proxy-authenticate		F request	
S proxy-authorization		<b>mime</b>	table
S range		F b64	
S received		F decode	
S received-from-mta		T decodet	
S references		F base64	
S referer		F quoted-printable	
S remote-mta		F dot	
S reply-to		F encode	
S reporting-mta		T encodet	
S resent-bcc		F base64	
S resent-cc		F quoted-printable	
S resent-date		F eol	
S resent-from		F normalize	
S resent-message-id		F qp	
S resent-reply-to		F qpwrp	
S resent-sender		F report	
S resent-to		F stuff	
S retry-after		F unb64	
S return-path		F unqp	
S sender		F wrap	
S server		T wrapt	
S smtp-remote-recipient		F base64	
S status		F default	
S subject		F quoted-printable	
S te		F text	
S to		F wrp	
S trailer		<b>newtry</b>	function
S transfer-encoding		<b>protect</b>	function
S upgrade		<b>report</b>	function
S user-agent		<b>select</b>	function
S vary		<b>sink</b>	overloaded function
S via		<b>sinkt</b>	overloaded table
S warning		F close-when-done	
S will-retry-until		F default	
S www-authenticate		F http-chunked	
S x-mailer		F keep-open	
F lower		<b>skip</b>	function
F normalize		<b>sleep</b>	function
<b>http</b>	overloaded table	<b>smtp</b>	table
N TIMEOUT		S DOMAIN	
S USERAGENT		N PORT	
F genericform		S SERVER	
F open		N TIMEOUT	



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

# sorters (context)

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

## statistics (context)

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

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

## status (basic tex)

**list** function

**resetmessages** function

**setexitcode** function

# storage (context)

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

## streams (context)

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

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

## string (basic lua)

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

# structures (context)

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



## inserts

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

## table

## itemgroups

## table

## lists

## table

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

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

## marks

## table

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

## notes

## table

F check\_spacing  
F checkpagechange  
F define  
F doifonsamepageasprevious  
F get  
F getdeltapage  
F getinternal  
F getn  
F getstate  
F hascontent  
F internal  
F internalid  
F listindex

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

- F set
- F setandgetattribute
- F setcomponent
- F setinternalreference
- F setlinkmethod
- F setnextinternal
- F setnextorder
- F setreferencerealpage
- D specials
- F splitcomponent
- F splitprefix
- F splitreference
- F synchronizepage
- T testrunners
  - F inner
  - F special
  - F special operation
  - F special operation with arguments
- T testspecials
  - F deltapage
  - F i
  - F internal
  - F page
  - F realpage
  - F section
  - F userpage
- D tobereferred
- D tobesaved
- D tracedpages
- T urls
  - T data
  - F define
  - F found
  - F get
  - F untex
- D usedinternals
- D usedviews
- F valid

## registers

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

## table

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

## sections

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

## table

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

F setupexport

F setuserproperties

D specifications

F start

F stop

F strip

D taglist

T usewithcare

T images

## table (basic lua)

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

## tex (basic tex)

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

<b>number</b>	function	<b>setnest</b>	function
<b>primitives</b>	function	<b>setsfcode</b>	function
<b>print</b>	function	<b>setskip</b>	function
<b>prtcategories</b>	number	<b>settoks</b>	function
<b>resetparagraph</b>	function	<b>setuccode</b>	function
<b>romannumeral</b>	function	<b>sfcode</b>	table
<b>round</b>	function	<b>shipout</b>	function
<b>run</b>	function	<b>show_context</b>	function
<b>runtoks</b>	function	<b>skip</b>	table
<b>saveboxresource</b>	function	<b>sp</b>	function
<b>scale</b>	function	<b>splitbox</b>	function
<b>scantoks</b>	function	<b>sprint</b>	function
<b>set</b>	function	<b>systemmodes</b>	data table
<b>set_synctex_line</b>	function	<b>takebox</b>	function
<b>set_synctex_mode</b>	function	<b>texcategories</b>	number
<b>set_synctex_no_files</b>	function	<b>toks</b>	table
<b>set_synctex_tag</b>	function	<b>tpacategories</b>	number
<b>setattribute</b>	function	<b>tpbcategories</b>	number
<b>setbox</b>	function	<b>tprint</b>	function
<b>setcategory</b>	function	<b>trackers</b>	data table
<b>setcount</b>	function	<b>triggerbuildpage</b>	function
<b>setdelcode</b>	function	<b>txtcategories</b>	number
<b>setdimen</b>	function	<b>type</b>	function
<b>setglue</b>	function	<b>uccode</b>	table
<b>setlcode</b>	function	<b>uniform_rand</b>	function
<b>setlist</b>	function	<b>uniformdeviate</b>	function
<b>setmath</b>	function	<b>uprint</b>	function
<b>setmathcode</b>	function	<b>useboxresource</b>	function
<b>setmuglue</b>	function	<b>vrbcategories</b>	number
<b>setmuskip</b>	function	<b>write</b>	function



## texconfig (basic tex)

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

## texio (basic tex)

**closeinput** function

**setescape** function

**write** function

**write\_nl** function

## token (basic tex)

<b>biggest_char</b>	function	<b>put_next</b>	function
<b>command_id</b>	function	<b>scan_argument</b>	function
<b>commands</b>	function	<b>scan_code</b>	function
<b>create</b>	function	<b>scan_csname</b>	function
<b>expand</b>	function	<b>scan_dimen</b>	function
<b>get_active</b>	function	<b>scan_float</b>	function
<b>get_cmdname</b>	function	<b>scan_glue</b>	function
<b>get_command</b>	function	<b>scan_int</b>	function
<b>get_csname</b>	function	<b>scan_keyword</b>	function
<b>get_expandable</b>	function	<b>scan_keyword_cs</b>	function
<b>get_id</b>	function	<b>scan_list</b>	function
<b>get_index</b>	function	<b>scan_real</b>	function
<b>get_macro</b>	function	<b>scan_string</b>	function
<b>get_meaning</b>	function	<b>scan_token</b>	function
<b>get_mode</b>	function	<b>scan_toks</b>	function
<b>get_next</b>	function	<b>scan_word</b>	function
<b>get_protected</b>	function	<b>set_char</b>	function
<b>get_tok</b>	function	<b>set_lua</b>	function
<b>is_defined</b>	function	<b>set_macro</b>	function
<b>is_token</b>	function	<b>type</b>	function
<b>new</b>	function		

# tokens (context)

<b>astable</b>	function	U loadfoundtypescriptfile
<b>bgroup</b>	userdata	U resetctxscanner
<b>bits</b>	table	U rlap
N active		U scratchcounter
N alignment		U scratchdimen
N begingroup		U scratchmuskip
N character		U scratchskip
N close		U scratchtoken
N comment		U secondoftwoarguments
N endgroup		U setfalsevalue
N endoffline		U setsectionblock
N escape		U setupsystem
N ignore		U startcolumns
N invalid		U starttabulate
N letter		U starttitle
N mathshift		U startxtitle
N open		U stopcolumns
N other		U stoptabulate
N parameter		U stoptitle
N space		U stopxtitle
N subscript		U texsetup
N superscript		
N whitespace		
<b>cache</b>	table	<b>collectors</b> table
U NC		T data
U NR		F defaultwords
U bf		F dowithwords
U color		F flush
U colordefalc		F install
U colordefflc		F register
U colordefflt		T registered
U colordefrlt		F show
U dofinishreference		F test
U dostarttext		<b>commands</b> data table
U finishjob		<b>compile</b> function
U firstofoneargument		<b>constant</b> function
U firstoftwoarguments		<b>converters</b> table
U gobbleoneargument		S toboolean
U goto		S todimen
U iftrue		S toglue
U input		S tonumber
		S tostring
		<b>create</b> function

**defined** function  
**egroup** userdata  
**getters** table  
 F box  
 F count  
 F dimen  
 F glue  
 F macro  
 F meaning  
 F skip  
 F token  
**hbox** userdata  
**isdefined** function  
**istoken** function  
**letter** function  
**letters** function  
**new** function  
**other** function  
**pickup** function  
**presets** table

T 1 string  
 T 2 strings  
 T 3 strings  
 T 4 strings  
 T 5 strings  
 T 6 strings  
 T 7 strings  
 T 8 strings  
**printlist** function  
**scanners** table

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

F lxmld  
 F number  
 F real  
 F scanclose  
 F scanopen  
 F skip  
 F string  
 F table  
 F token  
 F tokens  
 F toks  
 F word

**setters** table

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

**shortcuts** table

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

F inspect	F scantable
N open	F scanword
F report	F toboolean
F scanboolean	F todimen
F scanclose	T tokens
F scancode	F astable
F scanconditional	U bgroup
F scancsname	T cache
F scandimen	U NC
F scandimension	U NR
F scaninteger	U bf
F scankeyword	U color
F scankeywordcs	U colordefalc
F scanlist	U colordefflc
T scanners	U colordefflt
F argument	U colordefrlt
F boolean	U dofinishreference
F code	U dostarttext
F conditional	U finishjob
F count	U firstofoneargument
F csname	U firstoftwoarguments
F dimen	U gobbleoneargument
F dimension	U goto
F float	U iftrue
F glue	U input
F integer	U loadfoundtypescriptfile
F keyword	U resetctxscanner
F keywordcs	U rlap
F list	U scratchcounter
F lxmld	U scratchdimen
F number	U scratchmuskip
F real	U scratchskip
F scanclose	U scratchtoken
F scanopen	U secondoftwoarguments
F skip	U setfalsevalue
F string	U setsectionblock
F table	U setupsystem
F token	U startcolumns
F tokens	U starttabulate
F toks	U starttitle
F word	U startxtitle
F scannumber	U stopcolumns
F scanopen	U stoptabulate
F scanstring	U stoptitle

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

# tracers (context)

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



## trackers (context)

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

# typesetters (context)

## **alignments** table

F handler  
F set

## **breakpoints** table

F define  
F handler  
D mapping  
T methods  
T numbers  
F set  
F setreplacement

## **cases** table

T actions  
F handler  
F register  
F set

## **characteralign** table

F handler  
F resetcharacteralign  
F setcharacteralign

## **characters** table

F handler  
T methods  
F replacensp  
F replacenspaces

## **checkers** table

F handler  
F reset  
F set

## **cleaners** table

F handler  
F set

## **digits** table

T actions  
F handler  
F set

## **directions** table

F getfences  
F getglobal  
F getmethod  
F handler

T handlers  
F installhandler  
F processmath  
F set  
F setcolor  
F setmath  
F tomode

## **firstlines** table

T actions  
F default  
F line  
F word  
F handler  
F set

## **fontkerns** table

F handler

## **initials** table

T actions  
F default  
F addanchortoline  
F addtoline  
F calculatedelta  
F checkline  
F handler  
F moveinline  
F normalize  
F set

## **injectors** table

F check  
T list  
F mark  
F reset  
F set  
F show

## **italics** table

F enablemath  
F enabletext  
F forcevariant  
F handler  
F reset  
F set

## **kerns**                      table

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

## **manipulators**            table

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

## **margins**                      table

F finalhandler  
F globalhandler  
F localhandler  
F save

## **marksuspects**            function

## **paragraphs**              table

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

## **periodkerns**            table

D factors  
F handler  
D mapping  
F set

## **processors**                table

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

## **rubies**                      table

F attach  
F check

## **showsuspects**            function

## **spacings**                      table

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

F reset  
F set  
F setup

## **wrappers**                      table

F handler

## **xtables**                      table

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

# unicode (extra lua)

## ascii table

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

## grapheme table

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

## latin1 table

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

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

## toutf32string function

## utf8 table

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

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

## updaters (context)

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

## url (context)

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

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

## utf8 (context)

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

<b>codes</b>	function
<b>len</b>	function
<b>offset</b>	function



# utilities (context)

<b>debugger</b>	table		F size
F disable			F skip
F enable			F skiplong
F savestats			F skipposition
F showstats			F skipshort
F showtraceback			F writebyte
			F writecardinal2
			F writecardinal4
			F writestring
<b>files</b>	table	<b>formatters</b>	table
F close		F formatcolumns	
F getposition		F list	
F getsize		F stripzeros	
F look		<b>garbagecollector</b>	table
F open		F check	
F read2dot14		N criterium	
F readbyte		B enabled	
F readbytes		<b>lua</b>	table
F readbytetable		B alwaysstripcode	
F readcardinal		F checkmemory	
F readcardinal1		F compile	
F readcardinal2		F loadedluacode	
F readcardinal2le		F loadstring	
F readcardinal3		F loadstripped	
F readcardinal3le		N nofstrippedbytes	
F readcardinal4		N nofstrippedchunks	
F readcardinal4le		F registerfinalizer	
F readcardinaltable		B stripcode	
F readchar		T strippedchunks	
F readfixed2		F strippedloadstring	
F readfixed4		T suffixes	
F readinteger		S lua	
F readinteger1		S luc	
F readinteger2		S lui	
F readinteger2le		S luj	
F readinteger3		S luv	
F readinteger3le		S tma	
F readinteger4		S tmc	
F readinteger4le		S tua	
F readintegertable		S tuc	
F readsignedbyte		<b>packers</b>	table
F readstring			
F readtag			
F setposition			

- F hashed
- F new
- F pack
- F simplehashed
- F strip
- F unpack
- N version

**parsers**                      **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 min,max,fit,broad,auto
    - B auto
    - B broad
    - B fit
    - B max
    - B min
- T text,hidden,paper,page,leftpage,rightpage
  - B hidden
  - B leftpage
  - B page
  - B paper
  - B rightpage
  - B text
- F iterator
- F keq\_to\_hash
- 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 unittotex
- F unittotxml

**randomizer**                      **table**

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

**report**                      **function**  
**sequencers**                      **table**

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

F replaceaction		F readinteger1	
F setkind		F readinteger2	
F toString		F readinteger2le	
<b>setters</b>	<b>table</b>	F readinteger3	
F disable		F readinteger3le	
F enable		F readinteger4	
F initialize		F readinteger4le	
F list		F readintegertable	
F new		F readsignedbyte	
F register		F readstring	
F report		F setposition	
F reset		F size	
F show		F skip	
<b>stacker</b>	<b>table</b>	F skipbytes	
F new		F skiplong	
<b>storage</b>	<b>table</b>	F skipshort	
F allocate		<b>strings</b>	<b>table</b>
F checked		F collapsecrlf	
F mark		T formatters	
F marked		F add	
F setinitializer		F new	
F sparse		F newcollector	
<b>streams</b>	<b>table</b>	F newrepeater	
F close		F nice	
F getposition		T striplinepatterns	
F look		U collapse	
F open		U prune	
F read2dot14		U prune and collapse	
F read2dot4		U prune and no empty	
F readbyte		U retain	
F readbytes		U retain and collapse	
F readbytetable		U retain and no empty	
F readcardinal		F striplines	
F readcardinal1		F striplong	
F readcardinal2		F tabtospace	
F readcardinal2LE		T tracers	
F readcardinal3		<b>tables</b>	<b>table</b>
F readcardinal3le		F accesstable	
F readcardinal4		F definedtable	
F readcardinaltable		F definetable	
F readchar		F encapsulate	
F readfixed2		F insertaftervalue	
F readfixed4		F insertbeforevalue	
F readinteger		F migratetable	

F removevalue

F replacevalue

**templates**

table

F load

F replace

F replacer

F resolve

## vf (context)

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

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

## visualizers (context)

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

# xml (context)

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

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



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

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

## zip (extra lua)

**archives**

table

**close**

function

**closearchive**

function

**open**

overloaded function

**openarchive**

function

**openfile**

function

**registeredfiles**

table

**type**

function

## zlib (extra lua)

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

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