

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

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

# global (alias: \_G)

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

last_pdf	number	pdfdecode	table
layouts	table	pdfe	table
lfs	table	physics	table
libraries	table	pngdecode	table
lmx	table	popleaderlevel	function
load	function	posit	table
loaders	data table	potrace	table
loadfile	function	potracefrompng	function
loadstring	function	print	function
logs	table	profilelines	function
longestcommon	function	publications	table
lpdf	table	pushleaderlevel	function
lpeg	table	qrcodegen	table
lua	table	rawequal	function
luac	table	rawget	function
luatex	table	rawlen	function
lxml	table	rawset	function
math	table	recolor	function
mathematics	table	regimes	table
mathshapekern	function	require	function
md5	table	resolvers	table
metapost	table	ruledspace	function
mime	table	sandbox	table
moduledata	table	scripts	table
modules	table	select	function
mp	function	serial	table
mplib	table	set	table
next	function	setinspector	function
noads	table	setmathparameters	function
node	table	setmetatable	function
nodes	table	sha2	table
number	table	shipbox_ref_h	number
objects	table	shipbox_ref_v	number
optional	table	sio	table
optionalrequire	function	socket	table
os	table	sorters	table
p_number_p	userdata	sparse	table
p_number_u	userdata	statistics	table
package	table	status	table
pagebuilders	table	storage	table
pairs	function	streams	table
parametersets	table	string	table
pcall	function	structures	table
pdf	table	table	table

<b>tex</b>	table	<b>unpack</b>	function
<b>texconditionals</b>	data table	<b>updaters</b>	table
<b>texconfig</b>	table	<b>url</b>	table
<b>texconstants</b>	data table	<b>userdata</b>	table
<b>texifs</b>	data table	<b>utf</b>	table
<b>texio</b>	table	<b>utf8</b>	table
<b>texisdefined</b>	data table	<b>utilities</b>	table
<b>texmodes</b>	data table	<b>vector</b>	table
<b>texsystemmodes</b>	data table	<b>visualizers</b>	table
<b>thirddata</b>	table	<b>warn</b>	function
<b>toboollean</b>	function	<b>width</b>	number
<b>todecimal</b>	function	<b>xcomplex</b>	table
<b>token</b>	table	<b>xdecimal</b>	table
<b>tokens</b>	table	<b>xmath</b>	table
<b>tonumber</b>	function	<b>xml</b>	table
<b>tostring</b>	function	<b>xpcall</b>	function
<b>tracers</b>	table	<b>xshift</b>	number
<b>trackers</b>	table	<b>xzip</b>	table
<b>type</b>	function	<b>zip</b>	table
<b>typesetters</b>	table	<b>zlib</b>	table

## aes (extra lua)

**decode** function  
**encode** function

**random** function

# attributes (context)

## alternates table

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

## applyoverloads function

## checkvalues function

## colorintents table

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

## colors table

- N attribute
- F cmyk
- F cmyktogray
- F cmyktorgb
- F colorcomponents
- D counts
- B couple
- F currentmodel
- F currentnamedmodel
- D data
- N default
- F defineintermediatecolor
- F definemultitonecolor
- F defineprocesscolor
- F defineprocesscolordirect
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- N forced
- F forcedmodel
- F forcesupport

- F formatcolor
- F formatgray
- F formatluminance
- F formatluminanceratio
- F getpagecolormodel
- F gray
- F graytohsb
- F handler
- T helpers
  - F complement
  - F inbetween
  - F justone
- F hsvtogray
- F hsvtorgb
- F hwbtorgb
- F iccprofile
- F isblack
- F labtolch
- F labtorgb
- F labtoxyz
- F lchtolab
- F lchtorgb
- N main
- S model
- D models
- F mpcolor
- F mpnamedcolor
- F mpoptions
- F namedcolorattributes
- N none
- F popset
- F processcolorcomponents
- F pushset
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbbytes
- F rgbtocmyk
- F rgbtogray
- F rgbtohsb

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

N overlay		F definedlayoutcomponent
N saturation		F enable
N screen		F forcesupport
N softlight		F handler
N none		B hasorder
F register		D listwise
D registered		F register
B supported		D registered
F toattribute		F resolve_begin
B triggering		F resolve_end
F value		F resolve_reset
D values		F resolve_step
<b>unsetvalue</b>	number	D scopes
<b>values</b>	data table	F setfeatures
<b>viewerlayers</b>	table	F setup
N attribute		F start
F cleanup		F stop
D data		B supported
F define		D values



# backends (context)

**closeout** function

**codeinjections** table

F registerboxresource

F registerfont

F restoreboxresource

**current** string

**defaults** table

T codeinjections

F prerollreference

F setautoprefix

F vfstartcolor

F vfstopcolor

T nodeinjections

F cmykcolor

F destination

F graycolor

F injectknockout

F injectoverprint

F reference

F rgbcolor

F spotcolor

F transparency

T registrations

F transparency

D tables

**getcallbackstate** function

**included** table

B context

B date

B id

B metadata

B pdf

**initialize** function

**latelua** function

**nodeinjections** table

**nothing** function

**openout** function

**registered** table

T pdf

T codeinjections

F addbookmarks

F analyzenormalsymbol

F analyzesymbol

F attachmentid

F bitmap

F clonefield

F copyimage

F defaultprofile

F definefield

F definefieldset

F defineviewerlayer

F discardpages

F embedfile

F embedimage

F enabletags

F exportformdata

F fieldsurrounding

F flushmergelayer

F getbookmarks

F getboxresourcebox

F getdefaultfieldvalue

F getfieldcategory

F getfieldset

F getformatoption

F getinfo

F getlinkstructureparent

F getreferencestructureobject

F getrefobj

F insertrenderingwindow

F jp2

F jpg

F maptag

F mergebookmarks

F mergecomments

F mergefields

F mergereferences

F mergerenditions

F mergeviewerlayers

F newimage

F png

F prerollreference

F presetsymbol

F presetsymbollist  
F processrendering  
F registerdocumentcloseaction  
F registerdocumentopenaction  
F registeredsymbol  
F registerfiguremask  
F registerfigurerange  
F registerpagecloseaction  
F registerpageopenaction  
F registerpattern  
F registersymbol  
F ruleactionbox  
F ruleactiondraw  
F ruleactionfill  
F ruleactionmp  
F ruleactionstroke  
F saveboxresource  
F scanimage  
F setattachmentsupport  
F setautoprefix  
F setencryption  
F setfieldcalculationset  
F setfigurecolorspace  
F setfiguremask  
F setformat  
F setformsmethod  
F setjobcomment  
F setpagetransition  
F settaggingsupport  
F setupviewerlayer  
F setuserdata  
F setxmpfile  
F startactualtext  
F startalternativetext  
F startlayer  
F startunicodetoactualtext  
F startunicodetoactualtextdirect  
F stopactualtext  
F stopalternativetext  
F stoplayer  
F stopunicodetoactualtext  
F stopunicodetoactualtextdirect  
F supportedformats  
F uncodetoactualtext

F useviewerlayer  
F validcompactor  
F validfield  
F validfieldcategory  
F validfieldset  
F vfstartcolor  
F vfstopcolor  
F wrapimage  
S name  
T nodeinjections  
F addtags  
F annotation  
F attachfile  
F changestackedlayer  
F cmykcolor  
F comment  
F destination  
F effect  
F getboxresourcedimensions  
F graycolor  
F injectbitmap  
F insertu3d  
F knockout  
F negative  
F overprint  
F positive  
F reference  
F rgbcolor  
F spotcolor  
F startalternate  
F startlayer  
F startstackedlayer  
F stopalternate  
F stoplayer  
F stopstackedlayer  
F transparency  
F typesetfield  
F useboxresource  
T registrations  
F cmykindexcolor  
F cmykspotcolor  
F getspotcolorreference  
F grayindexcolor  
F grayspotcolor

F `rgbindexcolor`  
F `rgbspotcolor`  
F `spotcolorname`  
F `transparency`  
T `tables`

<b>registrations</b>	table
<b>setencryption</b>	function
<b>tables</b>	table
<b>writeout</b>	function

## basexx (extra lua)

**decode16**    function

**decode64**    function

**decode85**    function

**decodeLZW**   function

**decodeRL**    function

**encode16**    function

**encode64**    function

**encode85**    function

**encodeLZW**   function

**encodeRL**    function

## bit32 (context)

<b>arshift</b>	function
<b>band</b>	function
<b>bnot</b>	function
<b>bor</b>	function
<b>btest</b>	function
<b>bxor</b>	function

<b>extract</b>	function
<b>lrotate</b>	function
<b>lshift</b>	function
<b>replace</b>	function
<b>rrotate</b>	function
<b>rshift</b>	function

## blobs (context)

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

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

## boolean (context)

**tocontext** function

**tonumber** function

## buffers (context)

<b>append</b>	function
<b>assign</b>	function
<b>collectcontent</b>	function
<b>empty</b>	function
<b>erase</b>	function
<b>exists</b>	function
<b>get</b>	function
<b>getcontent</b>	function
<b>getctxlua</b>	function
<b>getlines</b>	function
<b>getmkvi</b>	function
<b>gettex</b>	function
<b>loadcontent</b>	function

<b>parallel</b>	table
F define	
F hassomecontent	
F next	
F place	
F reset	
F save	
<b>prepend</b>	function
<b>raw</b>	function
<b>run</b>	function
<b>samplefile</b>	function
<b>splitsamplefile</b>	function
<b>undent</b>	function



# builders (context)

<b>checkparcontext</b>	function	F start	
<b>checksidefloat</b>	function	F stop	
<b>hpack</b>	table	F tag	
F qualityactions			<b>parpassidentifier</b> function
F report			<b>passnames</b> data table
F show			<b>profiling</b> table
<b>kernel</b>	table	F add	
F collapsing		F adddrivers	
F hyphenating		F boxlinehandler	
F kerning		F distance	
F ligaturing		F fixedprofile	
F mlisttohlist		F get	
<b>paragraphs</b>	table	F getrivers	
T constructors		F list	
N attribute		F pagehandler	
F define		F pagelinehandler	
F disable		F profilebox	
F enable		F profilelines	
F handler		F set	
T methods		F setlines	
F basic		<b>registerpaspasscallback</b> function	
F default		<b>vpack</b> table	
F hpack		F qualityactions	
F oneline		F report	
D names		<b>vspacing</b> table	
D numbers		D categories	
F set		F checkstrutdepth	
F start		F collapsevbox	
F stop		T data	
T expansion		D map	
F trace		D skip	
F kepttogether		D snapmethods	
F registertogether		F definesnapmethod	
T solutions		B fixed	
T splitters		F flushcontributions	
F define		F forcepageflush	
F optimize		F forcestrutdepth	
T registered		F getnofpreviouslines	
F reset		F inject	
F set		F injectdisable	
F split		F injectpenalty	

F injectskip  
F interceptsamepagecontent  
F pagehandler  
F pageoverflow  
F popatsame  
F pushatsame  
F setmap

F setskip  
F snapbox  
F synchronizepage  
F tocategories  
F tocategory  
F vboxhandler

## cache (context)

<b>base</b>	string	<b>loadcontent</b>	function
<b>collapsecontent</b>	function	<b>loaddata</b>	function
<b>configfiles</b>	function	<b>more</b>	string
<b>contentstate</b>	function	<b>savecontent</b>	function
<b>defaults</b>	table	<b>savadata</b>	function
<b>getfirstreadablefile</b>	function	<b>setfirstwritablefile</b>	function
<b>getreadablepaths</b>	function	<b>setluanames</b>	function
<b>getwritablepath</b>	function	<b>treehash</b>	function
<b>hashed</b>	function	<b>usedpaths</b>	function
<b>is_writable</b>	function		

## callback (basic tex)

<b>find</b>	function	<b>list</b>	function
<b>getindex</b>	function	<b>names</b>	function
<b>getoptions</b>	function	<b>register</b>	overloaded function
<b>getoptionvalues</b>	function	<b>setoptions</b>	function
<b>getstate</b>	function	<b>setstate</b>	function
<b>getstatevalues</b>	function	<b>testonly</b>	function
<b>known</b>	function	<b>usage</b>	function

# callbacks (context)

<b>freeze</b>	function	N local_box
<b>functions</b>	table	N make_extensible
F start_page_number		N math_rule
F stop_page_number		N missing_character
<b>getcomment</b>	function	N mlist_to_hlist
<b>getstates</b>	function	N open_data_file
<b>known</b>	function	N packed_vbox
<b>list</b>	table	N paragraph_context
N alignment		N paragraph_pass
N append_adjust		N post_linebreak
N append_line		N pre_dump
N append_migrate		N pre_linebreak
N append_to_vlist		N pre_output
N balance_boundary		N process_character
N balance_check		N process_jobname
N balance_insert		N quality_font
N begin_paragraph		N register_extensible
N buildpage		N show_build
N define_font		N show_error_message
N find_format_file		N show_loners
N find_log_file		N show_lua_call
N get_attribute		N show_vsplitt
N get_math_dictionary		N show_warning_message
N get_noad_class		N show_whatsit
N glyph_run		N start_file
N handle_overload		N start_run
N handle_uinsert		N stop_file
N handle_uleader		N stop_run
N hpack		N tail_append
N hpack_quality		N test_only
N hyphenate		N trace_memory
N insert_distance		N vpack
N insert_par		N vpack_quality
N intercept_lua_error		N wrapup_run
N intercept_tex_error		
N italic_correction		<b>names</b> table
N kerning		<b>optimizer</b> function
N ligaturing		<b>optionbits</b> table
N linebreak		<b>optioncodes</b> table
N linebreak_check		N direct
N linebreak_quality		N trace
		<b>pop</b> function

<b>push</b>	function	N fundamental
<b>register</b>	function	N private
<b>report</b>	function	N selective
<b>statebits</b>	table	N set
<b>statecodes</b>	table	N touched
N disabled		N tracing
N frozen		

## catcodes (context)

**names** data table

**numbers** data table

**register** function

# characters (context)

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



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

## chemistry (context)

<b>component</b>	function	<b>method</b>	string
<b>define</b>	function	<b>molecule</b>	function
<b>definitions</b>	data table	<b>moleculeparser</b>	userdata
<b>format</b>	string	<b>start</b>	function
<b>inlinechemical</b>	function	<b>stop</b>	function
<b>instance</b>	string	<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)

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

**uchexnumber**  
**uchexnumbers**  
**upper**  
**verbose**

D data

function  
function  
function  
table

F translate

**weekday**  
**word**  
**words**

function  
function  
function

## coroutine (basic lua)

<b>close</b>	function
<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)

**getinfo**    function

**sethook**    function

**traceback**   function



## dir (context)

<b>collectpattern</b>	function
<b>current</b>	function
<b>expandlink</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
<b>values</b>	function

# document (context)

<b>arguments</b>	data table	<b>pdf_cleanup_procsets</b>	function
<b>files</b>	table	<b>pdf_identify_content</b>	function
<b>functions</b>	table	<b>pdf_serialize_content</b>	function
<b>getargument</b>	function	<b>pdf_strip_content</b>	function
<b>getfilename</b>	function	<b>pdf_strip_page</b>	function
<b>options</b>	table	<b>setargument</b>	function
T cmdline		<b>setcommandline</b>	function
D environments		<b>setdefaultargument</b>	function
D modes		<b>setenvironments</b>	function
D modules		<b>setfilename</b>	function
T ctxfile		<b>setfilenames</b>	function
D environments		<b>setmodes</b>	function
D modes		<b>setmodules</b>	function
D modules		<b>variables</b>	data table
<b>pdf_cleanup_cidsets</b>	function		

# documentdata (context)

**variable** function

# drivers (context)

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

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

## environment (context)

<b>argument</b>	function	<b>luafilechunk</b>	function
<b>arguments</b>	data table	<b>luatexengine</b>	string
<b>basicengines</b>	data table	<b>luatexfunctionality</b>	number
<b>currentrun</b>	number	<b>luatexverbose</b>	string
<b>definefilefallback</b>	function	<b>luatexversion</b>	number
<b>definefilesynonym</b>	function	<b>maxnofruns</b>	number
<b>engineflags</b>	data table	<b>oldhome</b>	string
<b>filename</b>	string	<b>originalarguments</b>	data table
<b>filenames</b>	table	<b>outputfilename</b>	string
<b>files</b>	table	<b>ownbin</b>	string
<b>filesynonyms</b>	data table	<b>ownmain</b>	string
<b>forcedruns</b>	number	<b>ownname</b>	string
<b>getargument</b>	function	<b>ownpath</b>	string
<b>globfiles</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>kindofrun</b>	number	<b>uselua module</b>	function
<b>lmtxmode</b>	number	<b>usemodules</b>	function
<b>loadexamodes</b>	function	<b>validengines</b>	data table
<b>loadluafile</b>	function	<b>version</b>	string
<b>luafile</b>	function		

# experiments (context)

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



# figures (context)

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

<b>remappers</b>	data table	<b>setlookups</b>	function
<b>resources</b>	data table	<b>setorder</b>	function
<b>scale</b>	function	<b>setpaths</b>	function
<b>set</b>	function	<b>suffixes</b>	data table
<b>setconversion</b>	function	<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>getposition</b>	function
<b>read2dot14</b>	function
<b>readbytes</b>	function
<b>readbytetable</b>	function
<b>readcardinal1</b>	function
<b>readcardinal1le</b>	function
<b>readcardinal2</b>	function
<b>readcardinal2le</b>	function
<b>readcardinal3</b>	function
<b>readcardinal3le</b>	function
<b>readcardinal4</b>	function
<b>readcardinal4le</b>	function
<b>readcardinaltable</b>	function
<b>readcline</b>	function
<b>readcstring</b>	function
<b>readfixed2</b>	function
<b>readfixed4</b>	function
<b>readinteger1</b>	function

<b>readinteger1le</b>	function
<b>readinteger2</b>	function
<b>readinteger2le</b>	function
<b>readinteger3</b>	function
<b>readinteger3le</b>	function
<b>readinteger4</b>	function
<b>readinteger4le</b>	function
<b>readintegertable</b>	function
<b>setposition</b>	function
<b>skipposition</b>	function
<b>writecardinal1</b>	function
<b>writecardinal1le</b>	function
<b>writecardinal2</b>	function
<b>writecardinal2le</b>	function
<b>writecardinal3</b>	function
<b>writecardinal3le</b>	function
<b>writecardinal4</b>	function
<b>writecardinal4le</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>getmathspec</b>	function
<b>addquality</b>	function	<b>getparameterfields</b>	function
<b>current</b>	function	<b>gettextcharacterfields</b>	function
<b>define</b>	function	<b>id</b>	function
<b>getfont</b>	function	<b>max</b>	function
<b>getfontdimen</b>	function	<b>nextid</b>	function
<b>getfontfields</b>	function	<b>setfont</b>	function
<b>getfontspec</b>	function	<b>setfontdimen</b>	function
<b>getmathcharacterfields</b>	function	<b>xscaled</b>	function
<b>getmathindex</b>	function	<b>yscaled</b>	function

# fonts (context)

<b>analyzers</b>	table	F beforepassingfonttotex
D features		D cache
D initializers		F calculatescale
D methods		F checkedfeatures
F setstate		F checkedfilename
D states		F collectprocessors
B useunicodemarks		F currentfonthasfeature
<b>callbacks</b>	table	D designsizes
F compile		F enhanceparameters
F devirtualize		T enhancers
<b>checkers</b>	table	T afm
F getmissing		F apply
D mapping		F patch
F missing		T patches
F placeholder		F register
<b>cid</b>	table	F report
F getmap		F register
F loadfile		F report
<b>collections</b>	table	T otf
F checkenabled		F addfeature
F clonevector		F apply
F define		F enhance
T definitions		F patch
F direct		T patches
F found		F register
F prepare		F report
F process		F register
F register		F report
F registermain		T tfm
F report		F apply
F reset		F patch
T rscales		T patches
T vectors		F register
<b>constructors</b>	table	F report
F addcharacters		F register
F addcoreunicodes		F report
F aftercopyingcharacters		N factor
F applyfinalizers		T features
F applymanipulators		D afm
F assignmathparameters		D otf
F beforecopyingcharacters		D tfm

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



D pdfcache	T gsubhandlers
F plugininitializer	F alternate
F pluginprocessor	F chainedcontext
T plugins	F context
T text	F extension
D pngcache	F ligature
B pngenabled	F multiple
T readers	F reversechainedcontextsingle
F addunicodetable	F single
F avar	F gvar
F cbdt	F head
F cblc	T helpers
F cff	F axistofactors
F cff2	F cleanname
T cffencoder	F getaxisscale
F checkhash	F getfactors
F cmap	F getscales
F colr	F gotodatatable
F compact	F normalizedaxis
F condense	T normalizedaxisishash
F cpal	F readvariationdata
F dsig	F reportskippedtable
F ebdt	F setvariabledata
F eblc	F hhea
F ebsc	F hmtx
F expand	F hvar
F extend	F kern
F fvar	F loadfont
F gdef	F loadshapes
F getcomponents	F loca
F getinfo	F math
F glyf	F maxp
F gpos	F mvar
T gposhandlers	F name
F chainedcontext	F os/2
F context	F pack
F cursive	F parsecharstrings
F extension	F post
F marktobase	F potracetocff
F marktoligature	F registerextender
F marktomark	F rehash
F pair	F sbix
F single	F stat
F gsub	T streamreader

F close	F writecardinal1
F getposition	F writecardinal1le
F getsizes	F writecardinal2
F look	F writecardinal2le
F open	F writecardinal3
F read2dot14	F writecardinal3le
F readbyte	F writecardinal4
F readbytes	F writecardinal4le
F readbytetable	F writeinteger1
F readcardinal	F writeinteger1le
F readcardinal1	F writeinteger2
F readcardinal1le	F writeinteger2le
F readcardinal2	F writeinteger3
F readcardinal2le	F writeinteger3le
F readcardinal3	F writeinteger4
F readcardinal3le	F writeinteger4le
F readcardinal4	F writestring
F readcardinal4le	F stripredundant
F readcardinaltable	F svg
F readchar	N tableversion
F readcline	F unifymissing
F readcstring	F unpack
F readfixed2	F vhea
F readfixed4	F vmtx
F readinteger	F vorg
F readinteger1	F vvar
F readinteger1le	F woff2otf
F readinteger2	F registerpalette
F readinteger2le	F registerplugin
F readinteger3	F reorderlookups
F readinteger3le	F scriptandlanguage
F readinteger4	F setdynamics
F readinteger4le	F setfeatures
F readintegertable	T statistics
F readsignedbyte	D usedfeatures
F readstring	D svgcache
F readtag	B svgenabled
F setposition	T tables
F size	D baselines
F skip	D features
F skiplong	D featuretypes
F skipposition	D languages
F skipshort	D scripts
F writebyte	F texthandler

T vectors	F combine	
T arab	T combiner	
T gpos	D commands	
N curs	D helpers	
N kern	D math	
N mark	D predefined	
N mkmk	N version	
T gsub	D whatever	
N calt	F hashfeatures	
N ccmp	F hashinstance	
N cswh	T hashmethods	
N dlig	F normal	
N fina	F virtual	
N init	F initializefeatures	
N isol	D loadedfonts	
N liga	N noffontsloaded	
N medi	N nofsharedfonts	
N mset	N nofsharedhashes	
N rclt	N nofsharedvectors	
N rlig	N privateoffset	
N version	D privateslots	
T pfb	F readanddefine	
F filterencoding	F registerfeature	
F filtermetadata	F registerscriptset	
F loadvector	F resetfeature	
N version	B resolvevirtualtoo	
T tfm	F scale	
D cache	F scaled	
D features	F setfactor	
N maxnestingdepth	F setfeature	
N maxnestingsize	F setmathparameter	
T readers	F setname	
F loadpk	B sharefonts	
F loadtfm	F trytosharefont	
F loadtfmvf	N version	
F loadvf	<b>current</b>	function
F pktopdf	<b>currentid</b>	function
F potracetopdf	<b>definers</b>	table
F showpk	F addlookup	
F reencode	F analyze	
F setfeatures	F applypostprocessors	
N version	F checkedmode	
T vf	F checkedscript	
T combinations	S defaultlookup	

- F define
- F getspecification
- F internal
- F loadfont
- F makespecification
- T methods
  - F install
  - D variants
- F read
- F register
- F registered
- F registerfallbackfont
- F registersplit
- F resetnullfont
- F resolve
- T resolvers
  - F file
  - F name
  - F spec

**definetypface**      function

**dropins**            table

- F clone
- F getshape
- F getshapes
- F nextid
- F provide
- F registerglyph
- F registerglyphs
- F swap
- F swapone

**effects**            table

**encodings**        table

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

- enhanceid**            function
- expansions**        data table
- formats**            data table
- getalternate**        function
- getindices**        function
- getkern**            function
- getmultiple**        function
- getsubstitution**    function
- getters**            table

- T alternate
  - F opentype
- T kern
  - F opentype
  - F type1
  - F type3
- T multiple
  - F opentype
- T substitution
  - F opentype

**goodies**            table

- D colorschemes
- T data
  - T common-math.lfg
    - S author
    - S comment
    - S copyright
  - B initialized
  - T mathematics
  - T tweaks
- T presets
  - F addmathkerns
  - F braille
  - F eulertocalligraphic
  - F fallbacks
  - F moderntocalligraphic
  - F moveintegrals
  - F moveitalics
  - F pagellaradical
  - F rsfstoscript
  - F rsfsuprighttoscript
  - F scripttocalligraphic
  - F smallldigits
  - F wipeanchors
  - F wipeitalics

- F xitsarabic
- S name
- S version
- T dejavu-math
  - S author
  - S comment
  - S copyright
- B initialized
- T mathematics
  - T alternates
    - T dotless
      - S comment
      - S feature
      - N value
  - T bigslots
  - T parameters
    - N AccentBaseDepth
    - N AccentTopShiftUp
    - N DelimiterDisplayPercent
    - N DelimiterDisplayShortfall
    - N DelimiterPercent
    - N DelimiterShortfall
    - N DisplayOperatorMinHeight
    - N FlattenedAccentTopShiftUp
    - N FractionRuleThickness
    - S PrimeBaselineDropMax
    - S PrimeShiftUp
    - S PrimeShiftUpCramped
    - N SubscriptShiftDown
    - S SubscriptShiftDownWithSuperscript
    - N SuperscriptShiftUp
  - T tweaks
    - T aftercopying
- S name
- S version
- T dejavu-text
  - S author
  - S comment
  - S copyright
  - T extensions
- B initialized
  - S name
  - S version
- D designsizes

- D filenames
- F getcompositions
- T list
- F load
- F prepare\_features
- F register
- F registerpostprocessor
- F report
- T suffixes

**handlers**

**hashes**

- D characters
- D classes
- D csnames
- D descriptions
- D dynamics
- D emwidths
- D exheights
- D features
- D identifiers
- D italics
- D lastmathids
- D marks
- D mathparameters
- D modes
- D originals
- D parameters
- T processes
- D properties
- D quads
- D resources
- T setdynamics
- T shapes
- D spaces
- D spacings
- T streams
- D unicodes
- D unislots
- D variants
- D xheights

**helpers**

- F addextraprivate
- F addprivate
- F appendcommands

F appendcommandtable  
 F checkflags  
 F checkmerge  
 F checksteps  
 F collectanchors  
 F combineglyphs  
 D commands  
 F composecharacters  
 F descriptiontoslot  
 F dimenfactor  
 F expandglyph  
 D extraprivates  
 F fontpatternhassize  
 F getcoloredglyphs  
 F getdigitwidth  
 F getinstancespec  
 F getparameters  
 F getprivatecharornode  
 F getprivatenode  
 F getprivates  
 F getprivateslot  
 F glyphdimenfactor  
 F hasprivate  
 F indextoslot  
 F isprivate  
 F mathscriptslots  
 F name  
 F nametoslot  
 F newprivateslot  
 F prependcommands  
 F prependcommandtable  
 F privateslot  
 F registerglyphbox  
 F scalecommands  
 F setboxdirectly  
 F setboxglyph  
 F setboxglyphs  
 F setdigitwidth  
 F setmetaglyph  
 F setmetaglyphs  
 D sharedprivates  
 F splitfontpattern  
 F tochar  
 T vfinjectors

F startcolor  
 F stopcolor  
 T vfspecials  
 T backgrounds  
 T outlines

**infofont**                      function  
**iterators**                    table

F characters  
 F descriptions  
 F glyphs  
**loggers**                      table  
 F format  
 F onetimemessage  
 F register  
 F reportdefinedfonts  
 F reportusedfeatures

**mappings**                    table

F addtounicode  
 F fromunicode16  
 F getentry  
 F loadfile  
 F loadline  
 F makenameparser  
 D overloads  
 F reset  
 F tounicode  
 F tounicode16  
 F tounicode16sequence

**metapost**                    table

F baseline  
 F boundingbox  
 F boxtomp  
 F draw  
 F fill  
 F glyph  
 F maxbounds  
 F paths  
 F widthline  
 F zeroline

**mode**                          function  
**names**                        data table  
**nulldata**                    data table  
**privateoffsets**            table

B keepnames

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

B init	S script
B isol	B watu
B kern	T bengali-two
S language	B abvm
B liga	B abvs
B mark	B akhn
B medi	B blwf
B mkmk	B blwm
S mode	B blws
N number	B calt
B rlig	B cjct
S script	B dist
T ba	B half
S language	B haln
N number	S indic
S script	B init
T bandw:overlay	B kern
B ccmp	S language
B dist	B locl
N number	S mode
T bengali-one	B nukt
B abvm	N number
B abvs	B pres
B akhn	B pstf
B blwf	B psts
B blwm	B rphf
B blws	S script
B calt	B watu
B cjct	T boldened
B dist	S effect
B half	N number
B haln	T boldened-10
S indic	S effect
B init	N number
B kern	T boldened-15
S language	S effect
B locl	N number
S mode	T boldened-20
B nukt	S effect
N number	N number
B pres	T boldened-25
B pstf	S effect
B psts	N number
B rphf	T boldened-30



S effect	N number
N number	S script
T ca	S textcontrol
S language	B wipemath
N number	T cy
S script	S language
T camelcasing	N number
B camelcasing	S script
N number	T cz
T cn	S language
S language	N number
N number	S script
S script	T de
T color	S language
B ccmp	N number
S color	S script
B dist	T default
N number	S autolanguage
T color:bitmap	S autoscript
B ccmp	B checkmissing
B dist	B curs
N number	B itlc
B sbix	B kern
T color:overlay	B liga
B ccmp	B mark
B colr	B mkmk
B dist	S mode
N number	N number
T color:svg	S script
B ccmp	S textcontrol
B dist	B wipemath
N number	T deo
B svg	S language
T complete	N number
S autolanguage	S script
S autoscript	T devanagari-one
B checkmissing	B abvm
B compose	B abvs
B curs	B akhn
B kern	B blwf
B liga	B blwm
B mark	B blws
B mkmk	B calt
S mode	B cjct

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

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

B abvs  
 B akhn  
 B blwf  
 B blwm  
 B blws  
 B calt  
 B cjct  
 B dist  
 B half  
 B haln  
 S indic  
 B kern  
 S language  
 B locl  
 S mode  
 B nukl  
 N number  
 B pres  
 B pstf  
 B psts  
 B rphf  
 S script  
 B vatu  
 T hebrew  
 B analyze  
 S autolanguage  
 S autoscript  
 B calt  
 B ccmp  
 B clig  
 B curs  
 B dlig  
 B fina  
 B init  
 B isol  
 B kern  
 S language  
 B liga  
 B mark  
 B medi  
 B mkmk  
 S mode  
 N number  
 B reordercombining

B rlig  
 S script  
 T hr  
 S language  
 N number  
 S script  
 T hu  
 S language  
 N number  
 S script  
 T indic-common  
 B abvm  
 B abvs  
 B akhn  
 B blwm  
 B blws  
 B calt  
 B dist  
 B haln  
 S indic  
 B kern  
 S language  
 B locl  
 S mode  
 B nukl  
 N number  
 B pres  
 B psts  
 B rphf  
 T inlinenumbers  
 N number  
 B pnun  
 B tnum  
 T is  
 S language  
 N number  
 S script  
 T it  
 S language  
 N number  
 S script  
 T ja  
 S language  
 N number

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

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

S indic  
 B kern  
 S language  
 B locl  
 S mode  
 B nukt  
 N number  
 B pref  
 B pres  
 B pstf  
 B psts  
 B rphf  
 S script  
 T math  
 B compactmath  
 B flattenaccents  
 B kern  
 S language  
 B mathalternates  
 S mathexpansion  
 S mode  
 N number  
 S script  
 B ssty  
 B wipemath  
 T math-script  
 B compactmath  
 B flattenaccents  
 B kern  
 S language  
 B mathalternates  
 S mathexpansion  
 S mode  
 N number  
 S script  
 N ssty  
 B wipemath  
 T math-scriptscript  
 B compactmath  
 B flattenaccents  
 B kern  
 S language  
 B mathalternates  
 S mathexpansion

S mode  
 N number  
 S script  
 N ssty  
 B wipemath  
 T math-text  
   B compactmath  
   B flattenaccents  
   B kern  
   S language  
   B mathalternates  
   S mathexpansion  
   S mode  
   N number  
   S script  
   B ssty  
   B wipemath  
 T mathematics  
   B compactmath  
   B flattenaccents  
   B kern  
   S language  
   B mathalternates  
   S mathexpansion  
   S mode  
   N number  
   S script  
   B wipemath  
 T mixed  
 T mongolian  
   S autolanguage  
   S autoscript  
   B calt  
   B checkmissing  
   B curs  
   B fina  
   B init  
   B isol  
   B itlc  
   B kern  
   B liga  
   B mark  
   B medi  
   B mkmk

S mode  
 S mset  
 N number  
 B rclt  
 B rlig  
 S script  
 S textcontrol  
 B wipemath  
 T nl  
   S language  
   N number  
   S script  
 T none  
   B features  
   S mode  
   N number  
 T oldstyle  
   S autolanguage  
   S autoscript  
   B checkmissing  
   B curs  
   B kern  
   B liga  
   B mark  
   B mkmk  
   S mode  
   N number  
   B onum  
   S script  
   S textcontrol  
   B wipemath  
 T oldstylenumbers  
   N number  
   B onum  
 T original  
   S autolanguage  
   S autoscript  
   B checkmissing  
   B curs  
   B itlc  
   B kern  
   B liga  
   B mark  
   B mkmk

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



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

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

T telugu-one

B abvm  
B abvs  
B akhn  
B blwf  
B blwm  
B blws  
B calt  
B cjct  
B dist  
B half  
B haln  
S indic  
B kern  
S language  
B locl  
S mode  
B nukt  
N number  
B pref  
B pres  
B pstf  
B psts  
B rphf  
S script

T telugu-two

B abvm  
B abvs  
B akhn  
B blwf  
B blwm  
B blws  
B calt  
B cjct  
B dist  
B half  
B haln  
S indic  
B kern  
S language  
B locl  
S mode  
B nukt  
N number

B pref

B pres

B pstf

B psts

B rphf

S script

T th

S language

N number

S script

T tibetan

B abvm

B abvs

S autolanguage

S autoscript

B blwm

B blws

B calt

B ccmp

B checkmissing

B curs

B kern

S language

B liga

B locl

B mark

B mkmk

S mode

N number

S script

S textcontrol

B wipemath

T tr

S language

N number

S script

T uk

S language

N number

S script

T uppercasing

N number

B uppercasing

T us

S language  
 N number  
 S script  
 T virtualmath  
   B compactmath  
   B flattenaccents  
   B kern  
   S language  
   B mathalternates  
   S mathexpansion  
   S mode  
   N number  
   S script  
   B wipemath  
 T vn  
   S language  
   N number  
   S script  
 T zero  
   N number  
   B zero

F showcontext  
 F splitcontext  
 D synonyms  
 D variants  
**symbols**                   table  
   T emoji  
   F checked  
   F resolved  
   F uselibrary  
**tables**                   table  
**toeffect**               function  
**tracers**               table  
**treatments**           table  
   F applyfixes  
   D data  
   S filename  
   F ignoredfile  
   F report  
   F trace  
**typefaces**           table

# functions (context)

**dummy** function

# graphics (context)

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

# gzip (context)

<b>compress</b>	function	<b>load</b>	function
<b>compressed</b>	function	<b>save</b>	function
<b>decompress</b>	function	<b>suffix</b>	function

## helper (context)

<b>getprofile</b>	function
<b>mathnested</b>	function
<b>mathprocess</b>	function
<b>mathstep</b>	function
<b>snapindeed</b>	function

<b>snplist</b>	function
<b>traversecharmmethod</b>	function
<b>traverseglyphmethod</b>	function
<b>traversehorizontal</b>	function
<b>traversevertical</b>	function



# images (context)

<b>check</b>	function		B crop	
<b>checksize</b>	function		B media	
<b>copy</b>	function		B none	
<b>create</b>	function		B trim	
<b>embed</b>	function		<b>storedata</b>	function
<b>embedfromstore</b>	function		<b>totable</b>	function
<b>fetchdata</b>	function		<b>types</b>	table
<b>keys</b>	table		N jbig2	
<b>print</b>	function		N jp2	
<b>resetdata</b>	function		N jpg	
<b>resetstore</b>	function		N none	
<b>scan</b>	function		N pdf	
<b>serialize</b>	function		N png	
<b>sizes</b>	table		N stream	
B art			<b>wrap</b>	function
B bleed				

# interactions (context)

**attachments** data table

**fields** table

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

**general** table

- F getidentity
- F getidentityvariable

**help** table

- F collect
- F reference
- F register

**javascripts** table

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

D functions

D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

**linkedList**s data table

**pages** table

F setpagetransition

F setupcanvas

**references** table

F setcloseddocumentaction

F setclosepageaction

F setopendocumentaction

F setopenpageaction

**renderings** data table

# interfaces (context)

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

## io (basic lua)

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

# job (context)

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

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

## language (basic tex)

<b>clean</b>	function
<b>clearhyphenation</b>	function
<b>clearpatterns</b>	function
<b>current</b>	function
<b>gethjcode</b>	function
<b>has_language</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
<b>setwordhandler</b>	function

# languages (context)

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



**transliteration**

- F exception
- F handler
- F register
- F set
- F use

**unload**

**urls**

- D characters
- N lefthyphenmin
- D mapping
- B packslashes
- N righthyphenmin
- F setcharacters

**table**

**function  
table**

**version**

**visualizediscretionaries  
words**

- F check
- T data
- F disable
- F enable
- T enablers
- B enables
- F found
- F load
- T methods
- N threshold

**number**

**function  
table**

# layouts (context)

<b>getcanvas</b>	function	<b>status</b>	table
<b>getpagedimensions</b>	function	F isleftpage	
<b>setupcanvas</b>	function	F lefttorrightpageaction	

## lfs (extra lua)

<b>attributes</b>	overloaded function
<b>chdir</b>	overloaded function
<b>currentdir</b>	function
<b>dir</b>	overloaded function
<b>isdir</b>	overloaded function
<b>isfile</b>	overloaded function
<b>isfound</b>	function
<b>isreadabledir</b>	function
<b>isreadablefile</b>	function
<b>iswriteabledir</b>	function
<b>iswriteablefile</b>	function

<b>link</b>	overloaded function
<b>mkdir</b>	overloaded function
<b>mkdirs</b>	function
<b>modification</b>	function
<b>readlink</b>	function
<b>rmdir</b>	overloaded function
<b>setexecutable</b>	function
<b>symlink</b>	function
<b>symlinktarget</b>	function
<b>touch</b>	overloaded function
<b>walkdir</b>	function

# libraries (context)

**basiclua** data table

**basictex** data table

**builtin** data table

**extralua** data table

**extratex** data table

**functions** data table

**globals** data table

**optional** 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>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>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>finalactions</b>	function	<b>settarget</b>	function
<b>flush</b>	function	<b>settimedlog</b>	function
<b>loggingerrors</b>	function	<b>settranslations</b>	function
<b>messenger</b>	function	<b>show</b>	function
<b>new</b>	function	<b>start_page_number</b>	function
<b>newline</b>	function	<b>start_run</b>	function
<b>poplogfile</b>	function	<b>startererrorlogging</b>	function
<b>poptarget</b>	function	<b>startfilelogging</b>	function
<b>private</b>	table	<b>status</b>	function
F enablepagetiming		<b>stop_page_number</b>	function
F getpagetiming		<b>stoperrorlogging</b>	function
<b>pushlogfile</b>	function	<b>stopfilelogging</b>	function
<b>pushtarget</b>	function	<b>subdirect</b>	function
<b>registerfinalactions</b>	function	<b>subreport</b>	function
<b>report</b>	function	<b>system</b>	function
<b>reporter</b>	function	<b>texerrormessage</b>	function
<b>resetlogfile</b>	function	<b>writer</b>	function

# lpdf (context)

<b>action</b>	function
<b>adddocumentcolorspace</b>	function
<b>adddocumenttextgstate</b>	function
<b>adddocumentpattern</b>	function
<b>adddocumentshade</b>	function
<b>addtocatalog</b>	function
<b>addtoinfo</b>	function
<b>addtonames</b>	function
<b>addtopageattributes</b>	function
<b>addtopageresources</b>	function
<b>addtopagesattributes</b>	function
<b>addxmpinfo</b>	function
<b>annotationspecification</b>	function
<b>array</b>	function
<b>attachmentsymbols</b>	function
<b>boolean</b>	function
<b>border</b>	function
<b>checkedkey</b>	function
<b>checkedresources</b>	function
<b>checkedvalue</b>	function
<b>circularshade</b>	function
<b>close</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>commentssymbols</b>	function
<b>compressdata</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>deferredobject</b>	function
<b>delayedobject</b>	function
<b>destinationspecification</b>	function
<b>dictionary</b>	function
<b>docstring</b>	function
<b>encodingvalues</b>	table
N base16	
N base85	
N decoded	
N encoded	
N plain	
N utf16be	
N utf16le	
<b>epdf</b>	table
F allcontent	
F analyzefonts	
F contentplugin	
F contenttostring	
F contenttotext	
D encryptioncodes	
F expanded	
F expandwidths	
F fontplugin	
F getpagecontent	
F getstructure	
T helpers	
F tounicodetable	
T image	
F close	
F copy	
F new	
F open	
F query	
F load	
F mergewidths	
D objectcodes	
F objectrange	
F objecttype	
F pageplugin	

F parsecontent		N Password	
F producer		N PopUp	
T resolvers		N PushButton	
F destinations		N Radio	
F embeddedfiles		N RadiosInUnison	
F javascripts		N ReadOnly	
F layers		N Required	
F pages		N RichText	
F structure		N Sort	
F widgets		N file	
F unload		N fixed	
F verboseobject		N nocheck	
<b>escaped</b>	function	N protected	
<b>finalizeddocument</b>	function	N readonly	
<b>finalizepage</b>	function	N required	
<b>finalizesignature</b>	function	N sorted	
<b>finishtransparencycode</b>	function	N unavailable	
<b>flags</b>	table	<b>flushfonts</b>	function
T annotations		<b>flushgroup</b>	function
N AutoView		<b>flushobject</b>	function
N Hidden		<b>flushstreamfileobject</b>	function
N Invisible		<b>flushstreamobject</b>	function
N Locked		<b>fonts</b>	table
N LockedContents		F color_direct	
N NoRotate		F color_indirect	
N NoView		<b>formats</b>	data table
N NoZoom		<b>frombytes</b>	function
N Print		<b>fromeight</b>	function
N Printable		<b>frompdfdoc</b>	function
N ReadOnly		<b>fromsixteen</b>	function
N ToggleNoView		<b>getcatalog</b>	function
N auto		<b>getcompression</b>	function
N hidden		<b>getfontname</b>	function
N printable		<b>getfontobjectnumber</b>	function
T widgets		<b>getformatoption</b>	function
N Comb		<b>getinfo</b>	function
N CommitOnSelChange		<b>getmatrix</b>	function
N DoNotScroll		<b>getnofpages</b>	function
N DoNotSpellCheck		<b>getpageproperties</b>	function
N Edit		<b>getpagereference</b>	function
N FileSelect		<b>getpagetags</b>	function
N MultiLine		<b>getpos</b>	function
N NoExport		<b>gettrailerid</b>	function
N NoToggleToOff		<b>getversion</b>	function



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

<b>transparencycode</b>	function	N dejavusansmonoboldttf-1-0-0	
<b>transparencygroups</b>	table	<b>usedfontobjects</b>	table
B none		N dejavusansmonoboldttf-1-0-0	
<b>transparencyvalue</b>	function	<b>usedfontstreams</b>	data table
<b>unicode</b>	function	<b>usedindices</b>	table
<b>usedcharacters</b>	table	T dejavusansmonoboldttf-1-0-0	
<b>usedfontnames</b>	table	<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>utfR</b>	function
<b>counter</b>	function	<b>utfchartabletopattern</b>	function
<b>endstripper</b>	function	<b>utfreplacer</b>	function
<b>finder</b>	function	<b>version</b>	string

## lua (basic tex)

<b>addnibble</b>	function	<b>getruntime</b>	function
<b>bytecode</b>	table	<b>getstacktop</b>	function
<b>bytedata</b>	data table	<b>getstartupfile</b>	function
<b>bytdone</b>	table	<b>getstringkeys</b>	function
<b>callbytecode</b>	function	<b>getversion</b>	function
<b>comparekeys</b>	function	<b>lastbytecode</b>	number
<b>finalizeinitex</b>	function	<b>messages</b>	data table
<b>firstbytecode</b>	number	<b>newindex</b>	function
<b>get_functions_table</b>	function	<b>newtable</b>	function
<b>getallkeys</b>	function	<b>numbers</b>	data table
<b>getbytecode</b>	function	<b>registercode</b>	function
<b>getcheckedkeys</b>	function	<b>registeredcodes</b>	function
<b>getcurrenttime</b>	function	<b>registerinitexfinalizer</b>	function
<b>getdebuginfo</b>	function	<b>registername</b>	function
<b>getexitcode</b>	function	<b>setbytecode</b>	function
<b>getfunctionstable</b>	overloaded function	<b>setexitcode</b>	function
<b>getnibble</b>	function	<b>setnibble</b>	function
<b>getnumerickeys</b>	function	<b>startupfile</b>	string
<b>getpreciseseconds</b>	function	<b>subnibble</b>	function
<b>getpreciseticks</b>	function	<b>version</b>	string

## luac (extra lua)

```
inspect function  
print    function
```

# luatex (context)

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

# lxml (context)

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

<b>pushmatch</b>	function
<b>raw</b>	function
<b>rawroot</b>	function
<b>rawtex</b>	function
<b>refatt</b>	function
<b>register</b>	function
<b>registerentity</b>	function
<b>removesetup</b>	function
<b>replace</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>startunescaped</b>	function
<b>stopraw</b>	function
<b>stopunescaped</b>	function
<b>store</b>	function
<b>strip</b>	function
<b>stripped</b>	function
<b>tag</b>	function
<b>texatt</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>min</b>	function
<b>acos</b>	function	<b>mininteger</b>	number
<b>asin</b>	function	<b>mod</b>	function
<b>atan</b>	function	<b>modf</b>	function
<b>atan2</b>	function	<b>odd</b>	function
<b>ceil</b>	function	<b>pi</b>	number
<b>ceiling</b>	function	<b>pow</b>	function
<b>cos</b>	function	<b>rad</b>	function
<b>cosd</b>	function	<b>random</b>	overloaded function
<b>cosh</b>	function	<b>randomseed</b>	function
<b>deg</b>	function	<b>round</b>	function
<b>div</b>	function	<b>setrandomseedi</b>	function
<b>even</b>	function	<b>sin</b>	function
<b>exp</b>	function	<b>sind</b>	function
<b>floor</b>	function	<b>sinh</b>	function
<b>fmod</b>	function	<b>sqrt</b>	function
<b>huge</b>	number	<b>tan</b>	function
<b>initialseed</b>	number	<b>tand</b>	function
<b>ldexp</b>	function	<b>tanh</b>	function
<b>log</b>	function	<b>tointeger</b>	function
<b>log10</b>	function	<b>type</b>	function
<b>max</b>	function	<b>ult</b>	function
<b>maxinteger</b>	number		

# mathematics (context)

<b>addfallbacks</b>	function	<b>familyname</b>	function
<b>addvariant</b>	function	<b>functiontype</b>	function
<b>alphabets</b>	data table	<b>gaps</b>	data table
<b>alternatives</b>	data table	<b>getblobindex</b>	function
<b>beforepassingfonttotex</b>	function	<b>getboth</b>	function
<b>big</b>	function	<b>getdomainname</b>	function
<b>boldmap</b>	data table	<b>getextensibledata</b>	function
<b>categories</b>	table	<b>getmathblob</b>	function
D functions		<b>getoptionallabel</b>	function
<b>charactersets</b>	data table	<b>getstyle</b>	function
<b>checkaftercopyingfont</b>	function	<b>gettextblob</b>	function
<b>classes</b>	data table	<b>getverboselabel</b>	function
<b>classnames</b>	data table	<b>horizontalcode</b>	function
<b>codes</b>	data table	<b>initializeparameters</b>	function
<b>define</b>	function	<b>makefont</b>	function
<b>dictionaries</b>	table	<b>mapremap</b>	data table
D data		<b>markblobindexdone</b>	function
D defaults		<b>overloadparameters</b>	function
D groups		<b>preset</b>	function
F groupset		<b>presets</b>	table
F groupsetgroup		T less	
F name		T more	
D names		T zero	
F registercharacter		<b>privatebase</b>	number
F registergroup		<b>registerextensible</b>	function
F registergroupset		<b>registersimplematrix</b>	function
D sets		<b>registerverboselabel</b>	function
D variants		<b>remapalphabets</b>	function
<b>dimensions</b>	function	<b>renderextensible</b>	function
<b>disablecollecting</b>	function	<b>renderings</b>	table
<b>domainlabels</b>	table	D mappings	
<b>domainnames</b>	table	D numbers	
N default		D sets	
<b>enablecollecting</b>	function	<b>renderset</b>	function
<b>extensiblecode</b>	function	<b>resetattributes</b>	function
<b>extensibles</b>	data table	<b>scaleparameters</b>	function
<b>extrabase</b>	number	<b>setextensibledata</b>	function
<b>fallbacks</b>	table	<b>setmathsymbol</b>	function
F apply		<b>sets</b>	data table
F install		<b>setsnapping</b>	function
<b>fallbackstyleattr</b>	function	<b>setvariant</b>	function

<b>styles</b>	data table	F fixaccents
<b>syncboth</b>	function	F fixellipses
<b>syncname</b>	function	F fixintegrals
<b>syncstyle</b>	function	F fixoldschool
<b>tagging</b>	table	F fixprimes
B mfenced		F fixradicals
<b>toengineclass</b>	function	F fixslashes
<b>toname</b>	function	F fixvariants
<b>tostyle</b>	function	F flattenaccents
<b>tweakaftercopyingfont</b>	function	F fontname
<b>tweakbeforecopyingfont</b>	function	F inspect
<b>tweaks</b>	table	F keepbases
F accentdimensions		F kernpairs
F action		F kerns
F addactuarian		T kernsets
F addarrows		T .,
F addbars		F margins
F addcomposites		F message
F addequals		F moveitalics
F addfourier		F movelimits
F addmirrors		F parameters
F addparts		F radicalbodymargins
F addprivates		F radicaldegreeanchors
F addrules		F replace
F addscripts		F replacealphabets
F bigslots		F replacerules
F checkaccents		F setoptions
F checkspacing		F setovershoots
F copyaccents		F showinfo
T datasets		F simplifykerns
T accentdimensions		F sortvariants
T accent		F staircase
T over		T subsets
T under		T acenorsuvxz
T addarrows		T bhklt
T addscripts		T d
T checkspacing		T dotless
T copyaccents		T f
T fixprimes		T gjqy
T fixslashes		T horizontalfences
T wipecues		T i
F dimensions		T integrals
F extendaccents		T letterlike
F fallbacks		T mw

T p	<b>utfmathaccent</b>	function
F substitute	<b>utfmathclass</b>	function
F topanchors	<b>utfmathcommand</b>	function
F tweaks	<b>utfmathfiller</b>	function
F version	<b>utfmathstretch</b>	function
F wipeanchors	<b>variantcode</b>	function
F wipecues	<b>variantcount</b>	function
F wipeitalics	<b>virtualize</b>	function
F wipevariants	<b>virtualized</b>	data table

## md5 (extra lua)

<b>HEX</b>	function
<b>dec</b>	function
<b>hex</b>	function

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

# metapost (context)

<b>checkformat</b>	function	N newinternal
<b>checktracingonline</b>	function	N nullary
<b>cm</b>	function	N numeric
<b>codes</b>	table	N of
N addto		N ofbinary
N ampersand		N onlyset
N and		N parametertype
N assignment		N pathconnect
N atleast		N pathjoin
N begingroup		N plusorminus
N btex		N primarybinary
N capsule		N primarydef
N colon		N property
N comma		N protection
N controls		N relax
N curl		N repeatloop
N cycle		N rightbrace
N definedmacro		N rightbracket
N delimiters		N rightdelimiter
N endgroup		N runscript
N equals		N save
N etex		N scantokens
N everyjob		N secondarybinary
N exittest		N secondarydef
N expandafter		N semicolon
N fiorelse		N setbounds
N if		N shipout
N input		N show
N interim		N slash
N internal		N step
N iteration		N stop
N leftbrace		N str
N leftbracket		N string
N leftdelimiter		N tag
N let		N tension
N macrodef		N tertiarybinary
N macrospecial		N tertiarydef
N maketext		N thingstoadd
N message		N to
N mode		N typename
N newbytemap		N unary

N undefinedcs	
N until	
N void	
N with	
N within	
N write	
<b>colorinitializer</b>	function
<b>convert</b>	function
<b>currentmpx</b>	function
<b>currentmpxstatus</b>	function
<b>defaultformat</b>	string
<b>defaultinstance</b>	string
<b>defaultmethod</b>	string
<b>directrun</b>	function
<b>escaped</b>	function
<b>exectime</b>	table
<b>extensiondata</b>	data table
<b>filterclippath</b>	function
<b>flush</b>	function
<b>flushers</b>	table
T pdf	
F flushfigure	
F startfigure	
F stopfigure	
F textfigure	
F tocomment	
<b>flushnormalpath</b>	function
<b>fonts</b>	table
F define	
<b>format_number</b>	function
<b>format_string</b>	function
<b>formatnumber</b>	function
<b>getbackendoption</b>	function
<b>getbendtolerance</b>	function
<b>getbuffer</b>	function
<b>getclippath</b>	function
<b>getextensions</b>	function
<b>getextradata</b>	function
<b>gethashentries</b>	function
<b>getinstancebyname</b>	function
<b>getinstanceinfo</b>	function
<b>getinstancenames</b>	function
<b>getjobdata</b>	function
<b>getmovetolerance</b>	function

<b>getparameter</b>	function
<b>getparameterpreset</b>	function
<b>getparameterset</b>	function
<b>getrecord</b>	function
<b>getstatistics</b>	function
<b>gettext</b>	function
<b>gettolerance</b>	function
<b>graphic</b>	function
<b>graphic_base_pass</b>	function
<b>hascurvature</b>	function
<b>includesvgbuffer</b>	function
<b>includesvgfile</b>	function
<b>installplugin</b>	function
<b>isobject</b>	function
<b>knownparameters</b>	table
<b>lastlog</b>	string
<b>load</b>	function
<b>maketext</b>	function
<b>mesh</b>	function
<b>metafonts</b>	table
<b>metafun</b>	table
F interpolate	
F topath	
<b>mptopdf</b>	table
F convertmpstopdf	
N nofconverted	
<b>n</b>	number
<b>newlogger</b>	function
<b>nofruns</b>	number
<b>nofscriptruns</b>	function
<b>nvformat</b>	function
<b>pdf literals</b>	function
<b>pluginactions</b>	function
<b>popformat</b>	function
<b>popscriptrunner</b>	function
<b>popvariable</b>	function
<b>popvariables</b>	function
<b>preparetexttextsdata</b>	function
<b>process</b>	function
<b>processing</b>	function
<b>processplugins</b>	function
<b>properties</b>	table
<b>pushformat</b>	function
<b>pushscriptrunner</b>	function

<b>pushvariable</b>	function	<b>N %</b>	
<b>pushvariables</b>	function	<b>N bp</b>	
<b>quionerror</b>	boolean	<b>N cm</b>	
<b>reducetogray</b>	boolean	<b>N em</b>	
<b>registerdirect</b>	function	<b>N ex</b>	
<b>registerscript</b>	function	<b>N in</b>	
<b>registertokens</b>	function	<b>N mm</b>	
<b>remappedtext</b>	function	<b>N pc</b>	
<b>remaptext</b>	function	<b>N pt</b>	
<b>reporterror</b>	function	<b>N px</b>	
<b>reportsvgfonts</b>	function	<b>svgglyphstomp</b>	function
<b>reset</b>	function	<b>svgshapestomp</b>	function
<b>resetbackendoptions</b>	function	<b>svgshapestopdf</b>	function
<b>resetlastlog</b>	function	<b>svgsplitcolor</b>	function
<b>resetplugins</b>	function	<b>svgtomp</b>	function
<b>run</b>	function	<b>svgtopdf</b>	function
<b>runinternal</b>	function	<b>sxsy</b>	function
<b>runscript</b>	function	<b>tex</b>	table
<b>scanparameters</b>	function	<b>F get</b>	
<b>scriptindex</b>	function	<b>F reset</b>	
<b>setbendtolerance</b>	function	<b>F set</b>	
<b>setbuffer</b>	function	<b>F setfrombuffer</b>	
<b>setextensions</b>	function	<b>texerrors</b>	boolean
<b>setlogging</b>	function	<b>texexp</b>	function
<b>setmovetolerance</b>	function	<b>theclippath</b>	function
<b>setoutercolor</b>	function	<b>tographic</b>	function
<b>setparameter</b>	function	<b>totable</b>	function
<b>setparameterset</b>	function	<b>types</b>	table
<b>setrecord</b>	function	<b>N boolean</b>	
<b>settext</b>	function	<b>N cmykcolor</b>	
<b>settolerance</b>	function	<b>N color</b>	
<b>setvariable</b>	function	<b>N dependent</b>	
<b>showlog</b>	boolean	<b>N independent</b>	
<b>showsvgpage</b>	function	<b>N known</b>	
<b>simple</b>	function	<b>N nep</b>	
<b>splitprescript</b>	function	<b>N numeric</b>	
<b>startgraphic</b>	function	<b>N pair</b>	
<b>startsvghashing</b>	function	<b>N path</b>	
<b>stopgraphic</b>	function	<b>N pen</b>	
<b>stopsvghashing</b>	function	<b>N picture</b>	
<b>svformat</b>	function	<b>N protodependent</b>	
<b>svgcachefile</b>	boolean	<b>N string</b>	
<b>svgcolorremapper</b>	function	<b>N structured</b>	
<b>svgfactors</b>	table	<b>N suffixedmacro</b>	



N tokenlist

N transform

N unknownboolean

N unknownnep

N unknownpath

N unknownpen

N unknownpicture

N unknownstring

N unsuffixedmacro

N vacuous

**typesvgpage**

**unload**

**untagvariable**

**variables**

function

function

function

table

## mime (context)

**b64** function

**decode** function

**decodet** table

F base64

F quoted-printable

**dot** function

**encode** function

**encodet** table

F base64

F quoted-printable

**eol** function

**normalize** function

**qp** function

**qpwrp** function

**report** function

**stuff** function

**unb64** function

**unqp** function

**wrap** function

**wrapt** table

F base64

F default

F quoted-printable

F text

**wrp** function

# mp (context)

<b>autoinject</b>	function	<b>format</b>	function
<b>aux</b>	function	<b>formatted</b>	function
F boolean		<b>fprint</b>	function
F color		<b>get</b>	table
F direct		F hashentry	
F draw		<b>getbytemap</b>	function
F fill		<b>getbytemapdata</b>	function
F flush		<b>getlastaddtype</b>	function
F fprint		<b>graphformat</b>	function
F integer		<b>inject</b>	function
F number		F boolean	
F numeric		F cmykcolor	
F pair		F color	
F pairpoints		F integer	
F path		F number	
F pathpoints		F numeric	
F points		F pair	
F print		F path	
F quadruple		F pt	
F quadruplepoints		F quadruplet	
F quoted		F string	
F size		F transform	
F string		F triplet	
F transform		F vector	
F triplet		F vectors	
F tripletpoints		F whatever	
F vprint		F whd	
<b>boolean</b>	function	F xy	
<b>bytemap_load_from_file</b>	function	<b>integer</b>	function
<b>cleaned</b>	function	<b>lmt_color_functions</b>	table
<b>color</b>	function	F shade	
<b>dataset</b>	function	F step	
<b>datasets</b>	function	<b>lmt_contours_bitmap_get</b>	function
F load		<b>lmt_contours_bitmap_set</b>	function
<b>direct</b>	function	<b>lmt_contours_cleanup</b>	function
<b>draw</b>	function	<b>lmt_contours_color</b>	function
<b>expandtex</b>	function	<b>lmt_contours_edge_get_band</b>	function
<b>fill</b>	function	<b>lmt_contours_edge_get_cell</b>	function
<b>fillbytemap</b>	function	<b>lmt_contours_edge_paths</b>	function
<b>flatten</b>	function	<b>lmt_contours_edge_set</b>	function
<b>flush</b>	function	<b>lmt_contours_edge_set_by_band</b>	function

<b>lmt_contours_edge_set_by_cell</b>	function	<b>mf_blob_dimensions</b>	function
<b>lmt_contours_format</b>	function	<b>mf_blob_index</b>	function
<b>lmt_contours_function</b>	function	<b>mf_blob_new</b>	function
<b>lmt_contours_maxmean</b>	function	<b>mf_blob_raw_content</b>	function
<b>lmt_contours_maxz</b>	function	<b>mf_blob_raw_dimensions</b>	function
<b>lmt_contours_minmean</b>	function	<b>mf_blob_raw_reset</b>	function
<b>lmt_contours_minz</b>	function	<b>mf_blob_raw_toutf</b>	function
<b>lmt_contours_nofvalues</b>	function	<b>mf_blob_raw_wipe</b>	function
<b>lmt_contours_nx</b>	function	<b>mf_blob_size</b>	function
<b>lmt_contours_ny</b>	function	<b>mf_blob_width</b>	function
<b>lmt_contours_range</b>	function	<b>mf_external_figure</b>	function
<b>lmt_contours_shade_paths</b>	function	<b>mf_finish_saving_data</b>	function
<b>lmt_contours_shade_set</b>	function	<b>mf_formatted_text</b>	function
<b>lmt_contours_shape_paths</b>	function	<b>mf_get_outline_text</b>	function
<b>lmt_contours_start</b>	function	<b>mf_graphic_text</b>	function
<b>lmt_contours_stop</b>	function	<b>mf_inject_blob</b>	function
<b>lmt_contours_value</b>	function	<b>mf_map_move</b>	function
<b>lmt_contours_xrange</b>	function	<b>mf_map_text</b>	function
<b>lmt_contours_yrange</b>	function	<b>mf_named_color</b>	function
<b>lmt_function_x</b>	function	<b>mf_outline_text</b>	function
<b>lmt_glyphshape_accent</b>	function	<b>mf_save_data</b>	function
<b>lmt_glyphshape_baseline</b>	function	<b>mf_script_index</b>	function
<b>lmt_glyphshape_boundingbox</b>	function	<b>mf_start_saving_data</b>	function
<b>lmt_glyphshape_depth</b>	function	<b>mf_stop_saving_data</b>	function
<b>lmt_glyphshape_height</b>	function	<b>mode</b>	function
<b>lmt_glyphshape_italic</b>	function	<b>n</b>	function
<b>lmt_glyphshape_llx</b>	function	<b>newbytemap</b>	function
<b>lmt_glyphshape_n</b>	function	<b>number</b>	function
<b>lmt_glyphshape_path</b>	function	<b>numeric</b>	function
<b>lmt_glyphshape_start</b>	function	<b>pair</b>	function
<b>lmt_glyphshape_stop</b>	function	<b>pairpoints</b>	function
<b>lmt_glyphshape_usedbox</b>	function	<b>path</b>	function
<b>lmt_glyphshape_usedline</b>	function	<b>pathpoints</b>	function
<b>lmt_glyphshape_width</b>	function	<b>points</b>	function
<b>lmt_mesh_set</b>	function	<b>print</b>	function
<b>lmt_mesh_update</b>	function	F boolean	
<b>lmt_poisson_generate</b>	function	F color	
<b>lmt_start_potrace</b>	function	F direct	
<b>lmt_step_potrace</b>	function	F draw	
<b>lmt_stop_potrace</b>	function	F fill	
<b>lmt_surface_do</b>	function	F flush	
<b>lmt_svg_include</b>	function	F fprint	
<b>mesh_register</b>	function	F integer	
<b>mf_blob_add</b>	function	F number	

F numeric		F next	
F pair		F number	
F pairpoints		F numeric	
F path		F pair	
F pathpoints		F path	
F points		F pen	
F print		F property	
F quadruple		F string	
F quadruplepoints		F symbol	
F quoted		F token	
F size		T tokenscanners	
F string		F transform	
F transform		T typescanners	
F triplet		F whatever	
F tripletpoints		<b>set</b>	table
F vprint		<b>setbytemap</b>	function
<b>processingmode</b>	function	<b>size</b>	function
<b>quadruple</b>	function	<b>skip</b>	table
<b>quadruplepoints</b>	function	F token	
<b>quoted</b>	function	<b>solve</b>	function
<b>report</b>	function	<b>string</b>	function
<b>scan</b>	table	<b>systemmode</b>	function
F boolean		<b>transform</b>	function
F cmykcolor		<b>triplet</b>	function
F color		<b>tripletpoints</b>	function
F expression		<b>vprint</b>	function
F integer			

## mplib (extra tex)

<b>execute</b>	function	<b>injectpair</b>	function
<b>expandtex</b>	function	<b>injectpath</b>	function
<b>fillbyte</b>	function	<b>injectstring</b>	function
<b>finder</b>	function	<b>injecttransform</b>	function
<b>finders</b>	table	<b>injectvector</b>	function
F file		<b>injectvectors</b>	function
F mpstemplate		<b>injectwhatever</b>	function
<b>finish</b>	function	<b>new</b>	overloaded function
<b>getbytemap</b>	function	<b>newbytemap</b>	function
<b>getbytemapdata</b>	function	<b>peninfo</b>	function
<b>getcallbackstate</b>	function	<b>propertycodes</b>	table
<b>getcodes</b>	function	<b>realtimelogging</b>	boolean
<b>getcolormodels</b>	function	<b>scanboolean</b>	function
<b>getfields</b>	function	<b>scancmykcolor</b>	function
<b>gethashentries</b>	function	<b>scancolor</b>	function
<b>gethashentry</b>	function	<b>scanexpression</b>	function
<b>getinternalactions</b>	function	<b>scaninteger</b>	function
<b>getknotstates</b>	function	<b>scannext</b>	function
<b>getlastaddtype</b>	function	<b>scannumber</b>	function
<b>getlogtargets</b>	function	<b>scannumeric</b>	function
<b>getobjecttypes</b>	function	<b>scanpair</b>	function
<b>getresultstatus</b>	function	<b>scanpath</b>	function
<b>getscantypes</b>	function	<b>scanpen</b>	function
<b>getstates</b>	function	<b>scanproperty</b>	function
<b>getstatistics</b>	function	<b>scanstring</b>	function
<b>getstatus</b>	function	<b>scansymbol</b>	function
<b>gettolerance</b>	function	<b>scantoken</b>	function
<b>gettype</b>	function	<b>scantransform</b>	function
<b>gettypes</b>	function	<b>setbytemap</b>	function
<b>injectboolean</b>	function	<b>settolerance</b>	function
<b>injectcmykcolor</b>	function	<b>showcontext</b>	function
<b>injectcolor</b>	function	<b>skiptoken</b>	function
<b>injectinteger</b>	function	<b>solvepath</b>	function
<b>injectnumber</b>	function	<b>version</b>	function
<b>injectnumeric</b>	function		

# noads (context)

<b>getmathmode</b>	function		F showtree
<b>handlers</b>	table		F snap
F alternates			F spacing
F autofences			F suspicious
F classes			F tags
F collapse			F unscript
F dictionaries			F unstack
F export			F variants
F families		<b>process</b>	function
F fencing		<b>processnested</b>	function
F intervals		<b>processors</b>	table
F kernpairs		T dictionaries	
F makeup		T intervals	
F normalize		T suspicious	
F numbers		T unscript	
F relocate		T unstack	
F render		<b>processouter</b>	function

# node (basic tex)

<b>checkdiscretionaries</b>	function	F getanchors
<b>checkdiscretionary</b>	function	F getattribute
<b>copy</b>	function	F getattributelist
<b>copylist</b>	function	F getattributes
<b>count</b>	function	F getboth
<b>currentattributes</b>	function	F getbottom
<b>dimensions</b>	function	F getbottomdelimiter
<b>direct</b>	table	F getbox
F addmargins		F getcachestate
F addxoffset		F getchar
F addxymargins		F getchardict
F addyoffset		F getcharspec
F appendaftertail		F getchoice
F appendcurrenttail		F getclass
F beginofmath		F getcontrol
F checkdiscretionaries		F getcornerkerns
F checkdiscretionary		F getcurrenttail
F collapsing		F getdata
F copy		F getdegree
F copylist		F getdelimiter
F copyonly		F getdenominator
F count		F getdepth
F currentattributes		F getdirection
F dimensions		F getdisc
F effectiveglue		F getdiscpart
F endofmath		F getexcept
F exchange		F getexpansion
F fields		F getfam
F findattribute		F getfield
F findattributerange		F getfielderror
F findnode		F getfirstdirectioninlist
F firstchar		F getfont
F firstglyph		F getgeometry
F firstglyphnode		F getglue
F firstitalicglyph		F getglyphdata
F flattendiscretionaries		F getglyphdimensions
F flattenleaders		F getheight
F flushlist		F getid
F flushnode		F getidsubtype
F free		F getidsubtypenext
F freeze		F getindex



F getinputfields  
F getkern  
F getkerndimension  
F getlanguage  
F getleader  
F getleftdelimiter  
F getlist  
F getlistdimensions  
F getmvlolist  
F getnext  
F getnodes  
F getnormalizedline  
F getnucleus  
F getnumerator  
F getoffsets  
F getoptions  
F getorientation  
F getparstate  
F getpenalty  
F getpost  
F getpre  
F getprev  
F getprime  
F getpropertystable  
F getproperty  
F getreplace  
F getrightdelimiter  
F getruledimensions  
F getscale  
F getscales  
F getscrip  
F getscripts  
F getshift  
F getslant  
F getspeciallist  
F getstate  
F getsub  
F getsubpre  
F getsubtype  
F getsup  
F getsuppre  
F gettop  
F gettopdelimiter  
F gettotal

F getusage  
F getusedattributes  
F getweight  
F getwhd  
F getwidth  
F getwordrange  
F getxscale  
F getxyscales  
F getsyscale  
F gluetostring  
F hasattribute  
F hasdimensions  
F hasdiscoption  
F hasfield  
F hasgeometry  
F hasglyph  
F hasglyphoption  
F hasidsubtype  
F hasusage  
F hpack  
F hyphenating  
F id  
F ignoremathskip  
F insertafter  
F insertbefore  
F insertcurrentthead  
F isboth  
F ischar  
F isdirect  
F isglyph  
F isitalicglyph  
F isloop  
F isnext  
F isnextchar  
F isnextglyph  
F isnode  
F isprev  
F isprevchar  
F isprevglyph  
F issimilarglyph  
F isspeciallist  
F isvalid  
F iszeroglue  
F kerning

F lastnode	F setdenominator
F length	F setdepth
F ligaturing	F setdirection
F makeextensible	F setdisc
F migrate	F setdiscpart
F mlisttohlist	F setexcept
F naturalhsize	F setexpansion
F naturalwidth	F setfam
F new	F setfield
F newcontinuationatom	F setfielderror
F newmathglyph	F setfont
F newtextglyph	F setgeometry
F patchattributes	F setglue
F patchparshape	F setglyphdata
F prependbeforehead	F setheight
F prependcurrenttail	F setindex
F protectglyph	F setinputfields
F protectglyphs	F setkern
F protectglyphsbase	F setlanguage
F protectglyphsnone	F setleader
F protrusionskipable	F setleftdelimiter
F rangedimensions	F setlink
F remove	F setlist
F removefromlist	F setnext
F repack	F setnucleus
F reverse	F setnumerator
F serialized	F setoffsets
F setanchors	F setoptions
F setattribute	F setorientation
F setattributelist	F setpenalty
F setattributes	F setpost
F setboth	F setpre
F setbottom	F setprev
F setbottomdelimiter	F setprime
F setbox	F setproperty
F setchar	F setreplace
F setchardict	F setrightdelimiter
F setchoice	F setruledimensions
F setclass	F setscale
F setcontrol	F setscales
F setcurrenttail	F setscript
F setdata	F setscripts
F setdegree	F setshift
F setdelimiter	F setslant

F setspeciallist	F usesfont	
F setsplit	F vbalance	
F setstate	F verticalbreak	
F setsub	F vpack	
F setsubpre	F write	
F setsubtype	F xscaled	
F setup	F yscaled	
F setsuppre	<b>effectiveglue</b>	function
F settop	<b>endofmath</b>	function
F settopdelimiter	<b>family_font</b>	function
F settotal	<b>fields</b>	function
F setweight	<b>findattribute</b>	function
F setwhd	<b>flattendiscretionaries</b>	function
F setwidth	<b>flushlist</b>	function
F show	<b>flushnode</b>	function
F size	<b>free</b>	function
F slide	<b>getattribute</b>	function
F softenhyphens	<b>getcachestate</b>	function
F startofpar	<b>getfield</b>	function
F subtypes	<b>getfielderror</b>	function
F tail	<b>getglue</b>	function
F todirect	<b>getpropertystable</b>	function
F tonode	<b>getproperty</b>	function
F toString	<b>gluetostring</b>	function
F tovaliddirect	<b>hasattribute</b>	function
F traverse	<b>hasfield</b>	function
F traversechar	<b>hasglyph</b>	function
F traversecontent	<b>hpack</b>	function
F traverseglyph	<b>hyphenating</b>	function
F traverseid	<b>id</b>	function
F traverseitalic	<b>insertafter</b>	function
F traverseleader	<b>insertbefore</b>	function
F traverselist	<b>instock</b>	function
F type	<b>inuse</b>	function
F types	<b>isnode</b>	function
F unprotectglyph	<b>iszeroglue</b>	function
F unprotectglyphs	<b>kerning</b>	function
F unsetattribute	<b>lastnode</b>	function
F unsetattributes	<b>length</b>	function
F updatefirstandbotmark	<b>ligaturing</b>	function
F updatefirstmarks	<b>makeextensible</b>	function
F updatemarks	<b>mlisttohlist</b>	function
F updatetopmarks	<b>new</b>	function
F usedlist	<b>protectglyph</b>	function

<b>protectglyphs</b>	function	<b>todirect</b>	function
<b>protrusionskipppable</b>	function	<b>tonode</b>	function
<b>rangedimensions</b>	function	<b>tostring</b>	function
<b>remove</b>	function	<b>traverse</b>	function
<b>serialized</b>	function	<b>traverseid</b>	function
<b>setattribute</b>	function	<b>type</b>	function
<b>setfield</b>	function	<b>types</b>	function
<b>setfielderror</b>	function	<b>unprotectglyph</b>	function
<b>setglue</b>	function	<b>unprotectglyphs</b>	function
<b>setproperty</b>	function	<b>unsetattribute</b>	function
<b>show</b>	function	<b>usedlist</b>	function
<b>size</b>	function	<b>usesfont</b>	function
<b>slide</b>	function	<b>vpack</b>	function
<b>subtypes</b>	function	<b>write</b>	function
<b>tail</b>	function		

# nodes (context)

<b>accentcodes</b>	data table	<b>directionvalues</b>	data table
<b>adaptive</b>	table	<b>dirvalues</b>	data table
F handlehorizontal		<b>disccodes</b>	data table
F handlevertical		<b>discretionarycodes</b>	data table
T methods		<b>fencecodes</b>	data table
F set		<b>fields</b>	function
<b>aligned</b>	function	<b>fieldtypes</b>	table
<b>append</b>	function	<b>fillcodes</b>	data table
<b>apply</b>	function	<b>fillvalues</b>	data table
<b>applyvisuals</b>	function	<b>firstdirinbox</b>	function
<b>astable</b>	function	<b>flush</b>	function
<b>attributecodes</b>	data table	<b>flushlist</b>	function
<b>basepoints</b>	function	<b>flushnode</b>	function
<b>boundarycodes</b>	data table	<b>fractioncodes</b>	data table
<b>boxes</b>	table	<b>fullhpack</b>	function
F count		<b>getattr</b>	function
F dimensions		<b>getattribute</b>	function
F direct		<b>getboth</b>	function
F dispose		<b>getbox</b>	function
F found		<b>getchar</b>	function
F prune		<b>getfield</b>	function
F reset		<b>getfont</b>	function
F restore		<b>getid</b>	function
F save		<b>getleader</b>	function
F savenode		<b>getlist</b>	function
<b>builders</b>	table	<b>getnext</b>	function
<b>choicecodes</b>	data table	<b>getprev</b>	function
<b>concat</b>	function	<b>getproperty</b>	function
<b>copy</b>	function	<b>getsubtype</b>	function
<b>copy_node</b>	function	<b>gluecodes</b>	data table
<b>copyleft</b>	function	<b>glyphcodes</b>	data table
<b>countall</b>	function	<b>handlers</b>	table
<b>currentattributes</b>	function	F adjusters	
<b>delete</b>	function	F aligncharacter	
<b>destinations</b>	table	F backgrounds	
N attribute		F backgroundspace	
T done		F backgroundsvbox	
F handler		F characters	
T stack		F checkglyphs	
<b>dircodes</b>	data table	F checkparcounter	
<b>directioncodes</b>	data table	F cleanupbox	

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

**nuts**

F addmargins  
F addxoffset  
F addxymargins  
F addyoffset  
F append  
F appendaftertail  
F apply  
F applyvisuals  
F beginofmath  
F checkdiscretionaries  
F checkdiscretionary  
F checkslide  
F collapsing  
T colors  
F set  
T components  
F copynocomponents  
F copyonlyglyphs  
F count  
F flush  
F get  
F set  
F concat  
F copy  
F copy\_properties  
F copyleft  
F copynode  
F copyonly  
F copyvisual  
F count  
F countall  
F currentattributes  
F delete  
F dimensions  
F dirdimensions  
F effectiveglue  
F endofmath  
F exchange  
F findattribute  
F findattributerange  
F findnode  
F firstchar  
F firstglyph

**table**

F firstglyphnode  
F firstitalicglyph  
F flattendiscretionaries  
F flattenleaders  
F flush  
F flushlist  
F flushnode  
F free  
F freeze  
F fullhpack  
F getanchors  
F getattr  
F getattribute  
F getattributelist  
F getattributes  
F getattrlist  
F getattrs  
F getboth  
F getbottom  
F getbottomdelimiter  
F getbox  
F getboxglue  
F getchar  
F getchardict  
F getcharspec  
F getchoice  
F getclass  
F getcomponents  
F getcornerkerns  
F getdata  
F getdegree  
F getdelimiter  
F getdenominator  
F getdepth  
F getdirection  
F getdisc  
F getdiscpart  
F getdiscretionary  
F getexcept  
F getexpansion  
F getfam  
F getfield  
F getfirstdirectioninlist  
F getfont

F getgeometry  
F getglue  
F getglyphdata  
F getglyphdimensions  
F getheight  
F getid  
F getidsubtype  
F getidsubtypenext  
F getindex  
F getinputfields  
F getkern  
F getkerndimension  
F getlang  
F getlanguage  
F getleader  
F getleftdelimiter  
F getlist  
F getlistdimensions  
F getmiddle  
F getmiddledelimiter  
F getmvllist  
F getnext  
F getnormalizedline  
F getnucleus  
F getnumerator  
F getoffsets  
F getoptions  
F getorientation  
F getparstate  
F getpenalty  
F getpost  
F getpre  
F getprev  
F getprime  
F getprop  
F getreplace  
F getrightdelimiter  
F getruledata  
F getruledimensions  
F getscale  
F getscales  
F getscrip  
F getscripts  
F getshift

F getslant  
F getspeciallist  
F getstate  
F getsub  
F getsubpre  
F getsubtype  
F getsup  
F getsuppre  
F getsurround  
F gettop  
F gettopdelimiter  
F gettotal  
F getusedattributes  
F getvalue  
F getweight  
F getwhd  
F getwidth  
F getwordrange  
F getxscale  
F getxyscales  
F getsyscale  
F gluetostring  
F hasattribute  
F hasdimensions  
F hasdiscoption  
F hasfield  
F hasgeometry  
F hasglyph  
F hasglyphoption  
F hasidsubtype  
F hpack  
F hyphenating  
F ignoremathskip  
F insertafter  
F insertbefore  
F insertlistafter  
F is\_display\_math  
F isboth  
F ischar  
F isdirect  
F isdone  
F isglyph  
F isitalicglyph  
F isnext



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

F stopscaling	F setattrtribute
F stretch	F setattrtributelist
F strutrul	F setattrtributes
F subbox	F setattrtrlist
F submlist	F setattrtrs
F temp	F setboth
F usage	F setbottom
F userdefined	F setbox
T userids	F setboxglue
F usernode	F setchar
F userrule	F setchardict
F virtualrule	F setchoice
F vlist	F setclass
F wordboundary	F setcomponents
F prepend	F setdata
F prependbeforehead	F setdegree
F processranges	F setdelimiter
F processwords	F setdenominator
F protectglyph	F setdepth
F protectglyphs	F setdirection
F protectglyphsbase	F setdisc
F protectglyphsnone	F setdiscpart
F protrusionskipable	F setdiscretionary
F rangedimensions	F setexcept
F rawprop	F setexpansion
F reference	F setfam
F rehpac	F setfield
F remove	F setfont
F removefromlist	F setgeometry
F repack	F setglue
F repackhlist	F setglyphdata
F replace	F setheight
F reverse	F setinputfields
T rules	F setkern
T ruleactions	F setlang
F box	F setlanguage
F draw	F setleader
F fill	F setleftdelimiter
F mp	F setlink
F stroke	F setlist
F userrule	F setmiddledelimiter
F serialized	F setnext
F setanchors	F setnucleus
F setattr	F setnumerator

F setoffsets	F tail
F setoptions	F takeattr
F setorientation	F takebox
F setparproperty	F takelist
F setpenalty	F theprop
F setpost	F tonode
F setpre	F tonodes
F setprev	F tonut
F setprime	F tosequence
F setprop	F toString
F setreplace	F tracedslide
F setrightdelimiter	F traverse
F setruledata	F traversesechar
F setruledimensions	F traversesecontent
F setscale	F traverseseglyph
F setscales	F traverseseid
F setscript	F traverseseitalic
F setscripts	F traverseseleader
F setshift	F traverselist
F setslant	T traversers
F setspeciallist	F alignrecord
F setsplit	F boundary
F setstate	F char
F setsub	F content
F setsubpre	F dir
F setsubtype	F disc
F setup	F glue
F setsuppre	F glyph
F setsurround	F hlist
F settop	F leader
F setvalue	F list
F setvisual	F mark
F setvisuals	F next
F setweight	F node
F setwhd	F penalty
F setwidth	F rule
F show	F unset
F slide	F vlist
F softenhyphens	F whatsit
F somepenalty	T treversers
F somespace	F char
F splitbox	F content
F startofpar	F glyph
F striprange	F leader

F list		F baselineskip	
F node		F cleanup	
T typesetters		F directliteral	
F tohbox		F glyph	
F tohpack		F hlist	
F tonodes		F latelua	
F toinbox		F leader	
F toinbox		F lineskip	
F unprotectglyph		F literal	
F unprotectglyphs		F originliteral	
F unsetattribute		F register	
F unsetattributes		F restore	
F untracedslide		F save	
F updatefirstandbotmark		F savepos	
F updatefirstmarks		F setmatrix	
F updatemarks		F stock	
F updatetopmarks		F usage	
F usedlist		F usernode	
F usesfont		F vlist	
F verticalbreak		<b>prepend</b>	function
F vianodes		<b>print</b>	function
F vianuts		<b>processors</b>	table
F vpack		F trace_glyph_run_a	
F write		F trace_glyph_run_b	
F xscaled		<b>properties</b>	table
F yscaled		T data	
<b>packlist</b>	function	<b>pts</b>	function
<b>parcodes</b>	data table	<b>radicalcodes</b>	data table
<b>penaltycodes</b>	data table	<b>references</b>	table
<b>plugindata</b>	table	N attribute	
F finalizer		T done	
F initializer		F handler	
S name		T stack	
T namespace		<b>reheapack</b>	function
N attribute		<b>remove</b>	function
D data		<b>repackhlist</b>	function
F enable		<b>replace</b>	function
F handler		<b>report</b>	function
F register		<b>rightmarginwidth</b>	function
D registered		<b>rulecodes</b>	data table
D values		<b>rules</b>	table
F processor		F handler	
<b>points</b>	function	F process	
<b>pool</b>	table	F set	

<b>F</b> <code>userrule</code>		<b>takeattr</b>	function
<b>serialize</b>	function	<b>takebox</b>	function
<b>serializebox</b>	function	<b>tasks</b>	table
<b>serialized</b>	function	<b>F</b> <code>actions</code>	
<b>setattr</b>	function	<b>F</b> <code>appendaction</code>	
<b>setattribute</b>	function	<b>F</b> <code>disableaction</code>	
<b>setattrrlist</b>	function	<b>F</b> <code>disablegroup</code>	
<b>setboth</b>	function	<b>F</b> <code>enableaction</code>	
<b>setbox</b>	function	<b>F</b> <code>enablegroup</code>	
<b>setboxtonaturalwd</b>	function	<b>F</b> <code>freeze</code>	
<b>setchar</b>	function	<b>F</b> <code>freezegroup</code>	
<b>setfield</b>	function	<b>F</b> <code>new</code>	
<b>setfont</b>	function	<b>F</b> <code>prependaction</code>	
<b>setleader</b>	function	<b>F</b> <code>removeaction</code>	
<b>setlink</b>	function	<b>F</b> <code>replaceaction</code>	
<b>setlist</b>	function	<b>F</b> <code>restart</code>	
<b>setnext</b>	function	<b>F</b> <code>setaction</code>	
<b>setprev</b>	function	<b>F</b> <code>showactions</code>	
<b>setproperty</b>	function	<b>F</b> <code>table</code>	
<b>shadows</b>	table	<b>tobasepoints</b>	function
<b>F</b> <code>handler</code>		<b>tocentimeters</b>	function
<b>F</b> <code>set</code>		<b>tociceros</b>	function
<b>shifts</b>	table	<b>todidots</b>	function
<b>F</b> <code>handler</code>		<b>todimen</b>	function
<b>F</b> <code>set</code>		<b>toinches</b>	function
<b>showboxes</b>	function	<b>tomillimeters</b>	function
<b>showlist</b>	function	<b>tonode</b>	function
<b>showsimplelist</b>	function	<b>tonodes</b>	function
<b>skipcodes</b>	data table	<b>tonut</b>	function
<b>snapshots</b>	table	<b>topics</b>	function
<b>F</b> <code>getsamples</code>		<b>topoints</b>	function
<b>F</b> <code>resetsamples</code>		<b>toscaledpoints</b>	function
<b>F</b> <code>takesample</code>		<b>tosequence</b>	function
<b>somepenalty</b>	function	<b>tostring</b>	function
<b>somespace</b>	function	<b>totable</b>	function
<b>specialskipcodes</b>	table	<b>totree</b>	function
<b>splitbox</b>	function	<b>toutf</b>	function
<b>startofpar</b>	function	<b>tracers</b>	table
<b>stripdiscretionaries</b>	function	<b>T</b> <code>colors</code>	
<b>stripping</b>	table	<b>F</b> <code>reset</code>	
<b>T</b> <code>glyphs</code>		<b>F</b> <code>set</code>	
<b>F</b> <code>set</code>		<b>F</b> <code>setlist</code>	
<b>subtypes</b>	data table	<b>F</b> <code>directions</code>	
<b>tail</b>	function	<b>F</b> <code>fontchar</code>	

T frequencies		<b>vianodes</b>	function
F register		<b>vianuts</b>	function
T pool		<b>visualizebox</b>	function
T nodes		<b>visualizers</b>	table
F rule		F attribute	
T nuts		T attributes	
F rule		F box	
F resetproperties		F definelayer	
F rule		F enable	
F setlist		T filters	
F setproperties		N continuation	
F start		N hglue	
T steppers		N hkern	
F check		N hpenalty	
F codes		N toddler	
F features		N vglue	
F font		N vkern	
F glyphs		N vpenalty	
F message		F getusedfont	
F messages		F handler	
F nofsteps		F markfonts	
F register		T modes	
F reset		N boundary	
F start		N depth	
F stop		N dir	
F stop		N discretionary	
T transparencies		N expansion	
F reset		N fontkern	
F set		N glue	
F setlist		N glyph	
<b>traverse</b>	function	N hbox	
<b>traverseid</b>	function	N hglue	
<b>typesetters</b>	table	N hkern	
F hbox		N hpenalty	
F hpack		N insert	
F tohbox		N italic	
F tohpack		N kern	
F tonodes		N line	
F tovbox		N marginkern	
F tovpack		N mark	
F vpack		N math	
<b>unsetattribute</b>	function	N mathglue	
<b>upcomingproperties</b>	function	N mathkern	
<b>usedlist</b>	function	N origin	

N par  
N penalty  
N simple  
N simplehbox  
N simplevbox  
N simplevtop  
N space  
N strut  
N toddler  
N user  
N vbox  
N vglue  
N vkern

N vpenalty  
N vtop  
N whatsit  
F register  
F registercache  
F setfont  
F setlayer  
F setruledglyph  
F setvisual

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

function  
data table  
function

## number (context)

	function	<b>tol6dot16</b>	function
<b>basepoints</b>	function	<b>tobasepoints</b>	function
<b>bytetodecimal</b>	function	<b>tobitstring</b>	function
<b>compactfloat</b>	function	<b>tocentimeters</b>	function
<b>decimaltobyte</b>	function	<b>toxiceros</b>	function
<b>dimenfactors</b>	data table	<b>tocontext</b>	function
<b>formatted</b>	function	<b>to didots</b>	function
<b>formattedfloat</b>	function	<b>todimen</b>	function
<b>fractiontobyte</b>	function	<b>toediths</b>	function
<b>idiv</b>	function	<b>toevenhex</b>	function
<b>maxdimen</b>	number	<b>toinches</b>	function
<b>nopts</b>	function	<b>tomillimeters</b>	function
<b>nubasepoints</b>	function	<b>tonumberf</b>	function
<b>nupoints</b>	function	<b>tonumberg</b>	function
<b>percent</b>	function	<b>topicas</b>	function
<b>points</b>	function	<b>topoints</b>	function
<b>pts</b>	function	<b>toscaled</b>	function
<b>signed</b>	function	<b>toscaledpoints</b>	function
<b>sparseexponent</b>	function	<b>totoves</b>	function
<b>splitdimen</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

# optional (context)

## **curl** table

F escape  
F fetch  
F getversion  
F initialize  
F unescape

## **foreign** table

F abivalues  
F getbuffer  
F initialize  
F load  
F newbuffer  
F totable  
F types

## **ghostscript** table

F execute  
F initialize

## **graphicsmagick** table

F execute  
F getnoisetypes  
F initialize

## **hb** table

F getshapers  
F getversion  
F initialize  
F loadfont  
F shapestring

## **imagemagick** table

F execute  
F initialize

## **kpse** table

F expand\_braces  
F expand\_path  
F expand\_var  
F find\_file  
F find\_files  
F get\_file\_types  
F initialize  
F readable\_file  
F set\_program\_name  
F var\_value

## **library** table

F load

## **loaded** table

## **lz4** table

F compress  
F decompresssize  
F framecompress  
F framedecompress  
F initialize

## **lzma** table

F compress  
F decompress  
F initialize

## **lzo** table

F compress  
F decompresssize  
F initialize

## **mujs** table

F dofile  
F execute  
F initialize  
F reset  
F setclosefile  
F setconsole  
F setfindfile  
F setopenfile  
F setreadfile  
F setseekfile

## **mysql** table

F close  
F execute  
F getmessage  
F initialize  
F open

## **openssl** table

F getversion  
F initialize  
F sign  
F verify

## **postgres** table

F close

F execute		F open	
F getmessage		<b>zint</b>	table
F initialize		F execute	
F open		F initialize	
<b>sqlite</b>	table	<b>zstd</b>	table
F close		F compress	
F execute		F decompress	
F getmessage		F initialize	
F initialize			

## os (basic lua)

<b>__getenv__</b>	function	<b>platform</b>	string
<b>__setenv__</b>	function	<b>remove</b>	overloaded function
<b>binsuffix</b>	string	<b>rename</b>	overloaded function
<b>binsuffixes</b>	table	<b>resultof</b>	function
<b>bits</b>	number	<b>runtime</b>	function
<b>clock</b>	function	<b>selfarg</b>	table
<b>converttime</b>	function	<b>selfbin</b>	string
<b>date</b>	overloaded function	<b>selfcore</b>	string
<b>difftime</b>	function	<b>selfdir</b>	string
<b>enableansi</b>	function	<b>selflink</b>	string
<b>env</b>	data table	<b>selfname</b>	string
<b>execute</b>	overloaded function	<b>selfpath</b>	string
<b>exit</b>	overloaded function	<b>serialwrite</b>	function
<b>fulltime</b>	function	<b>setenv</b>	overloaded function
<b>getcodepage</b>	function	<b>setexitcode</b>	function
<b>getenv</b>	overloaded function	<b>setlocale</b>	overloaded function
<b>getnamevalues</b>	function	<b>sleep</b>	function
<b>gettimeofday</b>	function	<b>startuptime</b>	function
<b>gettypevalues</b>	function	<b>time</b>	function
<b>getunamefields</b>	function	<b>timezone</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

## package (basic lua)

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

# pagebuilders (context)

## **columnsets**      table

F add  
F addmvl  
F block  
F blockrows  
F check  
F clean  
T data  
F define  
F definesub  
F delayedsheet  
F finishflush  
F flushareas  
F flushcolumn  
F goto  
F gotoslot  
F limit  
F noto  
F prepareflush  
F presetsheets  
F presetspreadsheets  
F put  
F putdirect  
F registerarea  
F registersheet  
F registerspreadsheets  
F reset  
F resetdirect

F reshape  
F setarea  
F setextra  
F sethsize  
F sethspan  
F setlines  
F setmvl  
F setpresent  
F setproperties  
F setstart  
F shape  
F showshape  
F state  
F status  
F submvl  
F submvlbalance

## **injections**      table

F flushafter  
F flushbefore  
F save

## **mixedcolumns**      table

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

pdf (context)

**immediateobj** function

## pdf (extra tex)

<b>arraytotable</b>	function
<b>close</b>	function
<b>closestream</b>	function
<b>dictionarytotable</b>	function
<b>getarray</b>	function
<b>getboolean</b>	function
<b>getbox</b>	function
<b>getcatalag</b>	function
<b>getdictionary</b>	function
<b>getencodingvalues</b>	function
<b>getfieldtypes</b>	function
<b>getfromarray</b>	function
<b>getfromdictionary</b>	function
<b>getfromobject</b>	function
<b>getfromreference</b>	function
<b>getfromstream</b>	function
<b>getinfo</b>	function
<b>getinteger</b>	function
<b>getmemoryusage</b>	function
<b>getname</b>	function
<b>getnofobjects</b>	function
<b>getnofpages</b>	function

<b>getnumber</b>	function
<b>getobjectrange</b>	function
<b>getpage</b>	function
<b>getpages</b>	function
<b>getpermissions</b>	function
<b>getsize</b>	function
<b>getstatus</b>	function
<b>getstatusvalues</b>	function
<b>getstream</b>	function
<b>getstring</b>	function
<b>gettrailer</b>	function
<b>getversion</b>	function
<b>new</b>	function
<b>open</b>	function
<b>openfile</b>	function
<b>openstream</b>	function
<b>pagestotable</b>	function
<b>readfromstream</b>	function
<b>readwholestream</b>	function
<b>type</b>	function
<b>unencrypt</b>	function



# physics (context)

**units** table

F registershortcut

F registerunit

D tables

## pngdecode (extra tex)

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

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

## posit (extra lua)

<b>NaN</b>	function	<b>exp2</b>	function
<b>NaR</b>	function	<b>expand</b>	function
<b>__add</b>	function	<b>floor</b>	function
<b>__band</b>	function	<b>frombyte</b>	function
<b>__bor</b>	function	<b>fromchar</b>	function
<b>__bxor</b>	function	<b>fromposit</b>	function
<b>__div</b>	function	<b>integer</b>	function
<b>__eq</b>	function	<b>log</b>	function
<b>__le</b>	function	<b>log10</b>	function
<b>__lt</b>	function	<b>log1p</b>	function
<b>__mul</b>	function	<b>log2</b>	function
<b>__name</b>	string	<b>logb</b>	function
<b>__pow</b>	function	<b>max</b>	function
<b>__shl</b>	function	<b>min</b>	function
<b>__shr</b>	function	<b>modf</b>	function
<b>__sub</b>	function	<b>new</b>	function
<b>__tostring</b>	function	<b>pow</b>	function
<b>__unm</b>	function	<b>rotate</b>	function
<b>abs</b>	function	<b>round</b>	function
<b>acos</b>	function	<b>rounded</b>	function
<b>asin</b>	function	<b>shift</b>	function
<b>atan</b>	function	<b>sin</b>	function
<b>band</b>	function	<b>sqrt</b>	function
<b>bor</b>	function	<b>tan</b>	function
<b>bxor</b>	function	<b>tobyte</b>	function
<b>ceil</b>	function	<b>tochar</b>	function
<b>conj</b>	function	<b>tonumber</b>	function
<b>copy</b>	function	<b>toposit</b>	function
<b>cos</b>	function	<b>tostring</b>	function
<b>exp</b>	function		

## potrace (extra tex)

<b>checked</b>	function
<b>concat</b>	function
<b>contourplot</b>	function
<b>convert</b>	function
<b>count</b>	function
<b>flush</b>	function
<b>free</b>	function
<b>fromfile</b>	function
<b>getbitmap</b>	function

<b>getnewfields</b>	function
<b>getpolicyvalues</b>	function
<b>getprocessfields</b>	function
<b>new</b>	function
<b>process</b>	function
<b>setbitmap</b>	function
<b>stripped</b>	function
<b>totable</b>	function
<b>trace</b>	function

# publications (context)

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

T required	S page	
T sets	S pages	
T author	S volume	
T editionset	S version	
T virtual	D virtual	
T demo-a	T virtualfields	
S category	B authornum	
T extra	B authoryear	
T fields	B authoryears	
S author	B num	
S institution	B suffix	
S organization	<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	

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

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



## qrcodegen (context)

**bitmap**    function  
**generate**   function

## 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>findfiles</b>	function
<b>appendhash</b>	function	<b>findgivenfile</b>	function
<b>automount</b>	function	<b>findgivenfiles</b>	function
<b>booleanvariable</b>	function	<b>findlib</b>	function
<b>cacheversion</b>	string	<b>findpath</b>	function
<b>checkedvariable</b>	function	<b>findpk</b>	function
<b>cleanedpathlist</b>	function	<b>findtexfile</b>	function
<b>cleaners</b>	data table	<b>findwildcardfile</b>	function
<b>cleanpath</b>	function	<b>findwildcardfiles</b>	function
<b>cleanpathlist</b>	function	<b>formatofsuffix</b>	function
<b>cleanupbinfile</b>	function	<b>formatofvariable</b>	function
<b>concatinators</b>	data table	<b>formats</b>	data table
<b>configbanner</b>	string	<b>foundintree</b>	function
<b>configurationfiles</b>	function	<b>foundintrees</b>	function
<b>dangerous</b>	data table	<b>generators</b>	data table
<b>datastate</b>	function	<b>get_from_content</b>	function
<b>decompressors</b>	table	<b>getenv</b>	function
F register		<b>getextrapaths</b>	function
F unregister		<b>getfilehashes</b>	function
<b>defaultsuffixes</b>	table	<b>gethashes</b>	function
<b>dirstatus</b>	function	<b>getownpath</b>	function
<b>dowithfilesandreport</b>	function	<b>getreadfilename</b>	function
<b>dowithfilesintree</b>	function	<b>hashers</b>	data table
<b>dowithpath</b>	function	<b>homedir</b>	string
<b>dowithvariable</b>	function	<b>ignorelibrary</b>	function
<b>executers</b>	table	<b>initialized</b>	function
<b>expandbraces</b>	function	<b>installinputfilehandler</b>	function
<b>expandedpathfromlist</b>	function	<b>installinputlinehandler</b>	function
<b>expandedpathlist</b>	function	<b>jobpath</b>	function
<b>expandedpathlistfromvariable</b>	function	<b>jobs</b>	table
<b>expandpath</b>	function	F collectstructure	
<b>expandpathfromvariable</b>	function	F currentcomponent	
<b>expansion</b>	function	F currentenvironment	
<b>extendtexmfvariable</b>	function	F currentproduct	
<b>filtered_from_content</b>	function	F currentproject	
<b>find_file</b>	function	F currentstructure	
<b>find_files</b>	function	F justacomponent	
<b>findbinfile</b>	function	F namelist	
<b>findctxfile</b>	function	D processors	
<b>finders</b>	data table	F productcomponent	
<b>findfile</b>	function	F usefile	

<b>joinpath</b>	function	<b>registerfile</b>	function
<b>knownvariables</b>	function	<b>registerfilehash</b>	function
<b>libraries</b>	table	<b>registerintrees</b>	function
F optionalloaded		<b>registermethod</b>	function
F validoptional		<b>registerzipfile</b>	function
<b>load</b>	function	<b>relations</b>	data table
<b>loadbinfile</b>	function	<b>renew</b>	function
<b>loaders</b>	data table	<b>renewcache</b>	function
<b>loadlualib</b>	function	<b>repath</b>	function
<b>loadtexfile</b>	function	<b>reset</b>	function
<b>loadtime</b>	function	<b>resetextrapaths</b>	function
<b>locateformat</b>	function	<b>resetresolve</b>	function
<b>locators</b>	data table	<b>resolve</b>	function
<b>luacnffallback</b>	string	<b>savers</b>	data table
<b>luacnfname</b>	string	<b>scandata</b>	function
<b>luacnfspec</b>	string	<b>scanfiles</b>	function
<b>luacnfstate</b>	string	<b>schemes</b>	table
<b>macros</b>	table	T cleaners	
F convertfile		F md5	
F decodecomment		F none	
F enablecomment		F strip	
F encodecomment		F cleannname	
F preprocessed		F fetchstring	
F processmk		F fetchtable	
F processmklx		F install	
F processmkvi		<b>setdynamic</b>	function
F version		<b>setenv</b>	function
<b>maxreadlevel</b>	number	<b>showpath</b>	function
<b>methodhandler</b>	function	<b>simplescanfiles</b>	function
<b>missinglibrary</b>	function	<b>splitconfigurationpath</b>	function
<b>openbinfile</b>	function	<b>splitexpansions</b>	function
<b>openers</b>	data table	<b>splitmethod</b>	function
<b>openfile</b>	function	<b>splitpath</b>	function
<b>opentexfile</b>	function	<b>stackpath</b>	function
<b>ownpath</b>	string	<b>starttiming</b>	function
<b>popextrapath</b>	function	<b>stoptiming</b>	function
<b>popinputname</b>	function	<b>suffixes</b>	data table
<b>poppath</b>	function	<b>suffixmap</b>	data table
<b>prefixes</b>	data table	<b>suffixofformat</b>	function
<b>prependhash</b>	function	<b>texdatablob</b>	function
<b>pushextrapath</b>	function	<b>toppath</b>	function
<b>pushinputname</b>	function	<b>tracers</b>	data table
<b>pushpath</b>	function	<b>unexpandedpath</b>	function
<b>registerextrapath</b>	function	<b>unexpandedpathlist</b>	function

<b>unresolve</b>	function	<b>validatedpath</b>	function
<b>updaterelations</b>	function	<b>variable</b>	function
<b>updatescript</b>	function	<b>variableofformat</b>	function
<b>uselibrary</b>	function	<b>variableofformatorsuffix</b>	function
<b>usertypes</b>	data table	<b>wildcardpattern</b>	function
<b>usezipfile</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

**colors** data table

**decomposehangul** function

**defaults** table

N inter\_char\_half\_shrink\_factor  
N inter\_char\_half\_stretch\_factor  
N inter\_char\_hangul\_penalty  
N inter\_char\_quarter\_shrink\_factor  
N inter\_char\_quarter\_stretch\_factor  
N inter\_char\_shrink\_factor  
N inter\_char\_stretch\_factor  
N inter\_word\_stretch\_factor

**getdata** function

**getinjector** function

**getsplitter** function

**getstatus** function

**handlers** data table

**helpers** data table

**injectors** data table

**inserters** table

F nobreakspace\_after  
F nobreakspace\_before  
F space\_after  
F space\_before  
F zerowidthspace\_after  
F zerowidthspace\_before

**installdataset** function

**installmethod** function

**numbertodataset** data table

**numbertohandler** data table

**reset** function

**set** function

**setstatus** function

**splitters** data table

## serial (context)

<b>__gc</b>	function
<b>__name</b>	string
<b>__tostring</b>	function
<b>close</b>	function

<b>open</b>	function
<b>send</b>	function
<b>tostring</b>	function
<b>write</b>	function



## set (context)

**contains**    function

**create**     function

**tolist**     function

**tonumber**   function

**totable**    function

## sha2 (extra lua)

<b>HASH256</b>	function
<b>HASH384</b>	function
<b>HASH512</b>	function
<b>HEX256</b>	function
<b>HEX384</b>	function
<b>HEX512</b>	function
<b>digest256</b>	function
<b>digest384</b>	function
<b>digest512</b>	function

<b>hash256</b>	function
<b>hash384</b>	function
<b>hash512</b>	function
<b>hex256</b>	function
<b>hex384</b>	function
<b>hex512</b>	function
<b>sum256</b>	function
<b>sum384</b>	function
<b>sum512</b>	function

## sio (extra lua)

<b>read2dot14</b>	function
<b>readbytes</b>	function
<b>readbytetable</b>	function
<b>readcardinal1</b>	function
<b>readcardinal1le</b>	function
<b>readcardinal2</b>	function
<b>readcardinal2le</b>	function
<b>readcardinal3</b>	function
<b>readcardinal3le</b>	function
<b>readcardinal4</b>	function
<b>readcardinal4le</b>	function
<b>readcardinaltable</b>	function
<b>readcline</b>	function
<b>readcstring</b>	function
<b>readfixed2</b>	function
<b>readfixed4</b>	function
<b>readinteger1</b>	function

<b>readinteger1le</b>	function
<b>readinteger2</b>	function
<b>readinteger2le</b>	function
<b>readinteger3</b>	function
<b>readinteger3le</b>	function
<b>readinteger4</b>	function
<b>readinteger4le</b>	function
<b>readintegertable</b>	function
<b>tocardinal1</b>	function
<b>tocardinal1le</b>	function
<b>tocardinal2</b>	function
<b>tocardinal2le</b>	function
<b>tocardinal3</b>	function
<b>tocardinal3le</b>	function
<b>tocardinal4</b>	function
<b>tocardinal4le</b>	function

# socket (extra lua)

<b>BLOCKSIZE</b>	number	S content-range
<b>_SETSIZE</b>	number	S content-transfer-encoding
<b>_SOCKETINVALID</b>	number	S content-type
<b>bind</b>	function	S cookie
<b>choose</b>	function	S date
<b>connect</b>	function	S diagnostic-code
<b>connect4</b>	function	S dsn-gateway
<b>connect6</b>	function	S etag
<b>dns</b>	table	S expect
F getaddrinfo		S expires
F gethostname		S final-log-id
F getnameinfo		S final-recipient
F tohostname		S from
F toip		S host
<b>gettime</b>	function	S if-match
<b>headers</b>	table	S if-modified-since
T canonic		S if-none-match
S accept		S if-range
S accept-charset		S if-unmodified-since
S accept-encoding		S in-reply-to
S accept-language		S keywords
S accept-ranges		S last-attempt-date
S action		S last-modified
S age		S location
S allow		S max-forwards
S alternate-recipient		S message-id
S arrival-date		S mime-version
S authorization		S original-envelope-id
S bcc		S original-recipient
S cache-control		S pragma
S cc		S proxy-authenticate
S comments		S proxy-authorization
S connection		S range
S content-description		S received
S content-disposition		S received-from-mta
S content-encoding		S references
S content-id		S referer
S content-language		S remote-mta
S content-length		S reply-to
S content-location		S reporting-mta
S content-md5		S resent-bcc

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

**newtry**                    function  
**protect**                   function  
**report**                    function  
**select**                    function  
**sink**                      function  
**sinkt**                    table  
     F close-when-done  
     F default  
     F http-chunked  
     F keep-open  
**skip**                      function  
**sleep**                     function  
**source**                    function  
**sourcecet**                table  
     F by-length  
     F default  
     F http-chunked  
     F until-closed  
**tcp**                        function  
**tcp4**                      function  
**tcp6**                      function  
**tp**                         table  
     N TIMEOUT  
     F connect  
**try**                        function  
**url**                        table  
     F absolute  
     F build  
     F build\_path  
     F escape  
     F parse  
     F parse\_path  
     F unescape

# sorters (context)

<b>basicsorter</b>	function
<b>comparers</b>	table
F basic	
<b>constants</b>	table
S defaultdigits	
S defaultlanguage	
S defaultmethod	
N digitsmaximum	
N digitsoffset	
N ignoredoffset	
N replacementoffset	
T validmethods	
B ch	
B mc	
B mm	
B pc	

B pm	
B uc	
B zc	
B zm	
<b>definitions</b>	data table
<b>firstofsplit</b>	function
<b>packch</b>	function
<b>packuc</b>	function
<b>replacementlist</b>	function
<b>setlanguage</b>	function
<b>sort</b>	function
<b>splitters</b>	table
F utf	
<b>strip</b>	function
<b>tracers</b>	data table
<b>update</b>	function

## sparse (extra lua)

<b>concat</b>	function
<b>get</b>	function
<b>max</b>	function
<b>min</b>	function
<b>new</b>	function

<b>range</b>	function
<b>restore</b>	function
<b>set</b>	function
<b>traverse</b>	function
<b>wipe</b>	function

## statistics (context)

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



## status (basic tex)

<b>getbalancestate</b>	function	<b>getluastate</b>	function
<b>getbufferstate</b>	function	<b>getmarkstate</b>	function
<b>getcallbackstate</b>	function	<b>getmvlstate</b>	function
<b>getconstants</b>	function	<b>getneststate</b>	function
<b>geterrorlinestate</b>	function	<b>getnodestate</b>	function
<b>geterrorstate</b>	function	<b>getparameterstate</b>	function
<b>getexpandstate</b>	function	<b>getpoolstate</b>	function
<b>getfilestate</b>	function	<b>getreadstate</b>	function
<b>getfontstate</b>	function	<b>getsavestate</b>	function
<b>gethalferrorlinestate</b>	function	<b>getsparsestate</b>	function
<b>gethashstate</b>	function	<b>getstringstate</b>	function
<b>gethyphenationstate</b>	function	<b>gettexstate</b>	function
<b>getinputstate</b>	function	<b>gettokenstate</b>	function
<b>getinsertstate</b>	function	<b>getwarningstate</b>	function
<b>getlanguagestate</b>	function	<b>iocodes</b>	table
<b>getlinebreakstate</b>	function	<b>list</b>	function
<b>getlookupstate</b>	function	<b>resetmessages</b>	function

# storage (context)

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

## streams (context)

<b>collect</b>	function
<b>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>octtointeger</b>	function
<b>autosingle</b>	function	<b>optionalquoted</b>	function
<b>booleanstring</b>	function	<b>pack</b>	function
<b>byte</b>	function	<b>packrowscolumns</b>	function
<b>bytepairs</b>	function	<b>packsize</b>	function
<b>bytes</b>	function	<b>quote</b>	function
<b>bytetable</b>	function	<b>quoted</b>	function
<b>char</b>	function	<b>rep</b>	function
<b>characterpairs</b>	function	<b>replacenewlines</b>	function
<b>characters</b>	function	<b>reverse</b>	function
<b>checkedsplit</b>	function	<b>split</b>	function
<b>chrtointeger</b>	function	<b>splitlines</b>	function
<b>collapsespaces</b>	function	<b>splitup</b>	function
<b>containsws</b>	function	<b>strip</b>	function
<b>count</b>	function	<b>sub</b>	function
<b>dectointeger</b>	function	<b>texhashed</b>	function
<b>dump</b>	function	<b>texnewlines</b>	function
<b>escapedpattern</b>	function	<b>tformat</b>	function
<b>escapedquotes</b>	function	<b>toHEX</b>	function
<b>explode</b>	function	<b>toboolean</b>	function
<b>f6</b>	function	<b>tobytes</b>	function
<b>find</b>	function	<b>tocontext</b>	function
<b>format</b>	function	<b>todec</b>	function
<b>formatter</b>	function	<b>todimen</b>	function
<b>formatters</b>	function	<b>tohex</b>	function
<b>fullstrip</b>	function	<b>tonodes</b>	function
<b>gmatch</b>	function	<b>topattern</b>	function
<b>gsub</b>	function	<b>totable</b>	function
<b>hextocharacters</b>	function	<b>tounicode16</b>	function
<b>hextointeger</b>	function	<b>toutf</b>	function
<b>is_boolean</b>	function	<b>toutf32</b>	function
<b>is_empty</b>	function	<b>toutf8</b>	function
<b>itself</b>	function	<b>tracedchar</b>	function
<b>len</b>	function	<b>tracedchars</b>	table
<b>limit</b>	function	<b>unescapedquotes</b>	function
<b>linetable</b>	function	<b>unpack</b>	function
<b>longtostring</b>	function	<b>unquote</b>	function
<b>lower</b>	function	<b>unquoted</b>	function
<b>match</b>	function	<b>upper</b>	function
<b>nospaces</b>	function	<b>utf16toutf8</b>	function
<b>nspaces</b>	table	<b>utfcharacter</b>	function

<b>utfcharacters</b>	function
<b>utfcharacterstable</b>	function
<b>utflength</b>	function
<b>utfpadd</b>	function
<b>utfpadding</b>	function

<b>utfvalue</b>	function
<b>utfvalues</b>	function
<b>utfvaluetable</b>	function
<b>valid</b>	function
<b>wordsplitter</b>	function

# structures (context)

<b>atlocation</b>	function	F last
<b>blocks</b>	table	F next
D collected		F prev
F define		F previous
F empty		F raw
F print		F record
F save		F reset
F select		F restart
F setstate		F restore
D states		F save
D tobesaved		F set
F uservariable		F setlevel
<b>bookmarks</b>	table	F setoffset
T extras		F setown
F get		F setstate
F mergesections		F setvalue
F register		T specials
F reset		F userpage
F tosections		F subs
F finalize		D tobesaved
F flatten		F value
F installhandler		F way
F merge		<b>currentsectionnumber</b> function
S method		<b>descriptions</b> table
F overload		<b>documents</b> table
F place		D data
F register		F initialize
F setopened		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 title	
F touserdata	
<b>inserts</b>	<b>table</b>
F attach	
D data	
F define	
F detach	
F getdata	
F getlocation	
F getname	
F getnumber	
F nofdetached	
F setlocation	
F setup	
D stored	
<b>itemgroups</b>	<b>table</b>
D collected	
D tobesaved	
<b>lists</b>	<b>table</b>
F addto	
F analyze	
D cached	
D collected	
F discard	
F enhance	
T enhancers	
F external	
F filter	
F formulainumber	
F getresult	
F groupindex	
F hasnumberdata	
F haspagedata	
F hastitledata	
F integrate	
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 rawnumber	
F rawrealpage	
F rawuserpage	
F realpage	
F reorder	
F reordered	
T result	
F savedlistnumber	
F savedlistprefixednumber	
F savedlisttitle	
D sectionblocks	
F sectionnumber	
F size	
F title	
D tobesaved	
F use	
F userdata	
F userpage	
F uservalue	

<b>marks</b>	<b>table</b>
--------------	--------------

F number	
F title	

<b>notes</b>	<b>table</b>
--------------	--------------

F check_spacing	
F checkpagechange	
F define	
F doifonsamepageasprevious	
F flushrange	
F get	
F getdeltapage	
F getinternal	
F getn	
F getstate	
F hascontent	
F internal	
F internalid	
F listindex	
D numbers	

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



- F referredpage
- F registerfinalizer
- F registerinitializer
- F registerpage
- F reset
- D runners
- F set
- F setandgetattribute
- F setinternalreference
- F setlinkmethod
- F setnextinternal
- F setnextorder
- F setreferencerealpage
- F setstructure
- 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
- F extend
- F filter
- F filtercollected
- F finalize
- F findinternal
- F flush
- F get
- F integrate
- F prepare
- F process
- F setmethod
- F sort
- F store
- D tobesaved
- F tweak
- F unique
- F use
- 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

## table

## table

- F numberatdepth
- F numbers
- F popblock
- F prefixedconverted
- F pushblock
- F register
- D registered
- F reportstructure
- F save
- T sectionblockdata
  - T bodypart
    - S bookmark
- F set
- F setblock
- F setchecker
- F setentry
- F setinitialblock
- F setlevel
- F setnumber
- F showstructure
- F structuredata
- F title
- D tobesaved
- F typesetnumber
- F userdata
- B verbose

## sets table

- F define
- F get
- F getall
- D setlist

## specials table

- D collected
- F retrieve
- F store
- D tobesaved

## synonyms table

- F analyzed
- D collected
- F compare
- F define
- F enhance
- F filter
- F finalize

- F flush
- F isshown
- F isused
- F meaning
- F pages
- F prepare
- F process
- F register
- F registershown
- F registerused
- F reset
- F resetall
- F resetlist
- F resetshown
- F resetused
- F sort
- F synonym
- D tobesaved

## tags table

- T backend
- T checks
  - F marginanchor
  - F margintext
  - F math
  - F mrow
  - F mtable
- T destinationhash
- T extras
  - F adddestination
  - F addimplicit
  - F addinternal
  - F addreference
  - F combination
  - F combinationpair
  - F delimitedsymbol
  - F description
  - F descriptionsymbol
  - F document
  - F float
  - F formulacontent
  - F image
  - F item
  - F itemgroup
  - F link

F listitem	F gettablecell
F mmultiscripts	F gettabulatecell
F mover	F handler
F msub	T ignored
F msubsup	F initializeexport
F msup	D labels
F munder	F last
F munderover	F lastinchain
F paragraph	F localexport
F publication	F locatedtag
F reference	D overloads
F registerlocation	T patterns
F registerpages	U splitter
F registerseparator	F pop
F section	D properties
F sorting	F push
F subsentencesymbol	F registerextradata
F synonym	F registermetadata
F tablecell	F restart
F tabulate	F setaspect
F tabulatecell	F setattributefield
T finalizers	F setcodepoint
F descriptions	F setcombination
T fixes	F setcombinationpair
F linenumber	F setconstruct
F fontfaced	F setfigure
T listdata	F setfloat
T referencehash	F setformulacontent
F setattribute	F sethighlight
F tofontface	F setitem
T usedimages	F setitemgroup
T image	F setlist
T usedstyles	F setnotation
T construct	F setnotationsymbol
T highlight	F setparagraph
F current	F setproperty
F elementtag	F setpublication
F enabled	F setregister
F exportbox	F setsorting
F finishexport	F setsynonym
F getextradata	F settablecell
F getid	F settabulatecell
F getitemgroup	F settagdelimitedsymbol
F getmetadata	F settagssubsentencesymbol

F setupexport

F setuserproperties

D specifications

F start

F stop

F strip

D taglist

T usewithcare

## table (basic lua)

<b>allkeys</b>	function	<b>orderedhash</b>	function
<b>append</b>	function	<b>pack</b>	function
<b>are_equal</b>	function	<b>prepend</b>	function
<b>collapsed</b>	function	<b>print</b>	function
<b>collapsedhash</b>	function	<b>remove</b>	function
<b>combine</b>	function	<b>reverse</b>	function
<b>compact</b>	function	<b>reversed</b>	function
<b>concat</b>	function	<b>save</b>	function
<b>contains</b>	function	<b>sequenced</b>	function
<b>copy</b>	function	<b>serialize</b>	function
<b>count</b>	function	<b>setmetatablecall</b>	function
<b>create</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>ordered</b>	function		

# tex (basic tex)

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

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

<b>getmuglue</b>	function	<b>getunitclassvalues</b>	function
<b>getmuskip</b>	function	<b>getusedmarks</b>	function
<b>getmvloptionvalues</b>	function	<b>getvsplitcontextvalues</b>	function
<b>getnest</b>	function	<b>glue</b>	table
<b>getnestfields</b>	function	<b>glueoptioncodes</b>	data table
<b>getnestlevel</b>	function	<b>glyphdiscodes</b>	data table
<b>getnoadoptionvalues</b>	function	<b>glyphoptioncodes</b>	data table
<b>getnormalizelinevalues</b>	function	<b>groupcodes</b>	data table
<b>getnormalizeparvalues</b>	function	<b>hashtokens</b>	function
<b>getoutputactive</b>	function	<b>hccode</b>	table
<b>getpacktypevalues</b>	function	<b>hmcode</b>	table
<b>getpagecontextvalues</b>	function	<b>hshcatcodes</b>	number
<b>getpagestate</b>	function	<b>hyphenationcodes</b>	data table
<b>getpagestatevalues</b>	function	<b>ifs</b>	data table
<b>getparametermodevalues</b>	function	<b>inimatcodes</b>	number
<b>getparcontextvalues</b>	function	<b>integerdef</b>	function
<b>getpardataspecifications</b>	function	<b>interactioncodes</b>	data table
<b>getpardir</b>	function	<b>isattribute</b>	function
<b>getparmodevalues</b>	function	<b>isbox</b>	function
<b>getparstate</b>	function	<b>iscount</b>	function
<b>getparstatefields</b>	function	<b>isdefined</b>	function
<b>getpartriggervalue</b>	function	<b>isdimen</b>	function
<b>getpenaltyoptionvalues</b>	function	<b>isfloat</b>	function
<b>getpositvalue</b>	function	<b>isglue</b>	function
<b>getprepoststatevalues</b>	function	<b>ismuglue</b>	function
<b>getprimitivelegacies</b>	function	<b>ismuskip</b>	function
<b>getprimitiveorigins</b>	function	<b>isprintable</b>	function
<b>getprotrusionboundaryvalues</b>	function	<b>isskip</b>	function
<b>getregisterindex</b>	function	<b>istoks</b>	function
<b>getruleoptionvalues</b>	function	<b>lastnodetype</b>	function
<b>getrunstate</b>	function	<b>lccode</b>	table
<b>getrunstatevalues</b>	function	<b>linebreak</b>	function
<b>getsfcode</b>	function	<b>linebreakstatecodes</b>	data table
<b>getshapingpenaltiesvalues</b>	function	<b>listanchorcodes</b>	data table
<b>getskip</b>	function	<b>listgeometrycodes</b>	data table
<b>getsnappingvalues</b>	function	<b>lists</b>	table
<b>getspecialmathclassvalues</b>	function	<b>listsigncodes</b>	data table
<b>getspecification</b>	function	<b>luacatcodes</b>	number
<b>getspecificationoptionvalues</b>	function	<b>magicconstants</b>	table
<b>gettextcontrolvalues</b>	function		
<b>gettextdir</b>	function	S activecharacternamespace	
<b>gettoks</b>	function	N allfitnessvalues	
<b>getuccode</b>	function	N assumedmathcontrol	
<b>getuleaderlocationvalues</b>	function	N awfulbad	
		N decentcriterion	



N defaultcatcodetable	N maxinteger
N defaultcharactercontrol	N maxintegerregisterindex
N defaultdeadcycles	N maxintregisterindex
N defaulteqnogapstep	N maxlimitedscale
N defaulthangafter	N maxmarkindex
N defaultoutputbox	N maxmathclasscode
N defaultpredisplaygap	N maxmathfamilyindex
N defaultrule	N maxmathscalingfactor
N defaultspacefactor	N maxmathstylescale
N defaulttolerance	N maxmugluregisterindex
N deplorable	N maxmvlindex
N ejectpenalty	N maxnewlinecharacter
N ignoredepth	N maxnofbytecodes
N infinitebad	N maxnofcatcodetables
N infinitepenalty	N maxnoffitnessvalues
N infinity	N maxnoffonts
N largewidthexcess	N maxnoflanguages
N loosecriterion	N maxnofmarks
N mathallclass	N maxnofmathfamilies
N mathbeginclass	N maxquarterword
N mathdefaultpenalty	N maxscalefactor
N mathendclass	N maxsizeofword
N mathfirstuserclass	N maxspacefactor
N mathlastuserclass	N maxtoksregisterindex
N maxattributeregisterindex	N maxtwinlinegth
N maxboxregisterindex	N mincardinal
N maxbytecodeindex	N mindatavalue
N maxcalculatedbadness	N mindimen
N maxcardinal	N mindimension
N maxcharactercode	N minhalfword
N maxdatavalue	N mininfinity
N maxdimen	N mininteger
N maxdimenregisterindex	N minmvlindex
N maxdimension	N minnoffitnessvalues
N maxdimensionregisterindex	N minquarterword
N maxendlinecharacter	N minscalefactor
N maxfloatregisterindex	N minspacefactor
N maxfontadjustshrinkfactor	N nocatcodetable
N maxfontadjuststep	N null
N maxfontadjuststretchfactor	N nullflag
N maxfunctionreference	N nullfont
N maxgluregisterindex	N onebp
N maxhalfvalue	N presetrulethickness
N maxhalfword	N runningrule

N smallstretchability		<b>positdef</b>	function
N specialspacefactor		<b>preparelinebreak</b>	function
N texeqtbsize		<b>primitives</b>	function
N texhashprime		<b>print</b>	function
N texhashsize		<b>protrusionboundarycodes</b>	data table
N two		<b>prtcategories</b>	number
N undefinedmathparameter		<b>pushlocal</b>	function
N unity		<b>pushsavelevel</b>	function
N unusedattributevalue		<b>quitlocal</b>	function
N unusedmathfamily		<b>quittoks</b>	function
N unusedmathstyle		<b>resetparagraph</b>	function
N unusedscriptvalue		<b>rlncategories</b>	number
N unusedstatevalue		<b>romannumeral</b>	function
N zeroglu		<b>round</b>	function
<b>mathchardef</b>	function	<b>ruleoptioncodes</b>	data table
<b>mathcode</b>	table	<b>runlocal</b>	function
<b>mathcontrolcodes</b>	data table	<b>runstatecodes</b>	data table
<b>mathoptioncodes</b>	data table	<b>runstring</b>	function
<b>mathparametercodes</b>	data table	<b>runtoks</b>	function
<b>mathscriptordercodes</b>	data table	<b>saveboxresource</b>	function
<b>mathscriptsmodecodes</b>	data table	<b>scale</b>	function
<b>modelevels</b>	table	<b>scantoks</b>	function
N horizontal		<b>set</b>	function
N math		<b>setamcode</b>	function
N unset		<b>setattribute</b>	function
N vertical		<b>setbalanceshape</b>	function
<b>modes</b>	data table	<b>setbox</b>	function
<b>mprint</b>	function	<b>setboxdir</b>	function
<b>muglu</b>	table	<b>setcardinalvalue</b>	function
<b>muskip</b>	table	<b>setcatcode</b>	function
<b>mvloptioncodes</b>	data table	<b>setcccode</b>	function
<b>nest</b>	table	<b>setconditional</b>	function
<b>nilcategories</b>	number	<b>setcount</b>	function
<b>noadoptoptioncodes</b>	data table	<b>setdelcode</b>	function
<b>normalizelinecodes</b>	data table	<b>setdimen</b>	function
<b>normalizeparcodes</b>	data table	<b>setdimensionvalue</b>	function
<b>notcategories</b>	number	<b>setfloat</b>	function
<b>number</b>	function	<b>setglue</b>	function
<b>parcontextcodes</b>	data table	<b>setglyphdata</b>	function
<b>partriggercodes</b>	data table	<b>setglyphscript</b>	function
<b>penaltyoptioncodes</b>	data table	<b>setglyphstate</b>	function
<b>poplocal</b>	function	<b>sethccode</b>	function
<b>popsavelevel</b>	function	<b>sethmcode</b>	function
<b>posit</b>	table	<b>setinputstatefile</b>	function

<b>setinputstateline</b>	function	<b>skip</b>	table
<b>setinputstatemode</b>	function	<b>snappingcodes</b>	data table
<b>setinsertcontent</b>	function	<b>snapshotpar</b>	function
<b>setinsertdistance</b>	function	<b>sp</b>	function
<b>setinsertlimit</b>	function	<b>specialmathclasscodes</b>	data table
<b>setinsertmultiplier</b>	function	<b>specificationoptioncodes</b>	data table
<b>setintegervalue</b>	function	<b>splitbox</b>	function
<b>setinteraction</b>	function	<b>splitcodes</b>	data table
<b>setlcode</b>	function	<b>sprint</b>	function
<b>setlinedir</b>	function	<b>stringtocodesbitmap</b>	function
<b>setlist</b>	function	<b>systemmodes</b>	data table
<b>setlocalbox</b>	function	<b>takebox</b>	function
<b>setmath</b>	function	<b>texcatcodes</b>	number
<b>setmathcode</b>	function	<b>textcontrolcodes</b>	data table
<b>setmathdir</b>	function	<b>toks</b>	table
<b>setmuglue</b>	function	<b>tonumber</b>	function
<b>setmuskip</b>	function	<b>toscaled</b>	function
<b>setnest</b>	function	<b>tpacatcodes</b>	number
<b>setpardir</b>	function	<b>tpbcacodes</b>	number
<b>setpositvalue</b>	function	<b>tprint</b>	function
<b>setrunstate</b>	overloaded function	<b>trackers</b>	data table
<b>setsfcode</b>	function	<b>triggerbuildpage</b>	function
<b>setskip</b>	function	<b>txtcatcodes</b>	number
<b>settexmdir</b>	function	<b>uccode</b>	table
<b>settoks</b>	function	<b>uprint</b>	function
<b>setuccode</b>	function	<b>useboxresource</b>	function
<b>sfcode</b>	table	<b>userdiscoptioncodes</b>	data table
<b>shapingpenaltiescodes</b>	data table	<b>userglyphoptioncodes</b>	data table
<b>shiftparshape</b>	function	<b>vrbcacodes</b>	number
<b>shipout</b>	function	<b>write</b>	function
<b>showcontext</b>	function		

# texconfig (basic tex)

<b>buffer</b> <b>size</b>	table	<b>language</b> <b>size</b>	table
N size		N size	
N step		N step	
<b>error</b> <b>line</b> <b>size</b>	table	<b>mark</b> <b>size</b>	table
N size		N size	
<b>expand</b> <b>size</b>	table	N step	
N size		<b>nest</b> <b>size</b>	table
<b>file</b> <b>size</b>	table	N size	
N size		N step	
N step		<b>node</b> <b>size</b>	table
<b>first</b> <b>line</b>	string	N size	
<b>font</b> <b>size</b>	table	N step	
N size		<b>param</b> <b>eter</b> <b>size</b>	table
N step		N size	
<b>format</b> <b>name</b>	string	N step	
<b>function</b> <b>size</b>	number	<b>pool</b> <b>size</b>	table
<b>half</b> <b>error</b> <b>line</b> <b>size</b>	table	N size	
N size		N step	
<b>hash</b> <b>size</b>	table	<b>prop</b> <b>erti</b> <b>ess</b> <b>ize</b>	number
N size		<b>save</b> <b>size</b>	table
N step		N size	
<b>init</b>	overloaded function	N step	
<b>input</b> <b>size</b>	table	<b>shell_</b> <b>escape</b>	string
N size		<b>string</b> <b>size</b>	table
N step		N size	
<b>insert</b> <b>size</b>	table	N step	
N size		<b>token</b> <b>size</b>	table
N step		N size	
<b>kpse_</b> <b>init</b>	boolean	N step	

## texio (basic tex)

<b>closeinput</b>	function
<b>forceendoffile</b>	function
<b>getinputindex</b>	function
<b>getselectorvalues</b>	function
<b>getsourcefilename</b>	function
<b>setlogfile</b>	function
<b>terminal</b>	function

<b>write</b>	function
<b>write_nl</b>	function
<b>writeln</b>	function
<b>writeselector</b>	function
<b>writeselectorlf</b>	function
<b>writeselectornl</b>	function

## token (basic tex)

<b>create</b>	function	<b>getexpandable</b>	function
<b>expand</b>	function	<b>getexpansion</b>	function
<b>expand_macro</b>	function	<b>getfields</b>	function
<b>expandmacro</b>	function	<b>getflags</b>	function
<b>future_expand</b>	function	<b>getfrozen</b>	function
<b>futureexpand</b>	function	<b>getfunctionvalues</b>	function
<b>get_active</b>	function	<b>getid</b>	function
<b>get_cmdchrscs</b>	function	<b>getimmutable</b>	function
<b>get_cmdname</b>	function	<b>getindex</b>	function
<b>get_command</b>	function	<b>getinstance</b>	function
<b>get_csname</b>	function	<b>getinteger</b>	function
<b>get_cstoken</b>	function	<b>getlength</b>	function
<b>get_dimension</b>	function	<b>getmacro</b>	function
<b>get_expandable</b>	function	<b>getmeaning</b>	function
<b>get_fields</b>	function	<b>getnoaligned</b>	function
<b>get_flags</b>	function	<b>getparameters</b>	function
<b>get_frozen</b>	function	<b>getpermanent</b>	function
<b>get_id</b>	function	<b>getprimitive</b>	function
<b>get_immutable</b>	function	<b>getprimitives</b>	function
<b>get_index</b>	function	<b>getprotected</b>	function
<b>get_instance</b>	function	<b>getrange</b>	function
<b>get_integer</b>	function	<b>gettok</b>	function
<b>get_macro</b>	function	<b>gettolerant</b>	function
<b>get_meaning</b>	function	<b>gobble</b>	function
<b>get_noaligned</b>	function	<b>gobble_dimension</b>	function
<b>get_parameters</b>	function	<b>gobble_integer</b>	function
<b>get_permanent</b>	function	<b>gobbledimension</b>	function
<b>get_primitive</b>	function	<b>gobbleinteger</b>	function
<b>get_protected</b>	function	<b>grab</b>	function
<b>get_range</b>	function	<b>inhibit</b>	function
<b>get_tok</b>	function	<b>is_defined</b>	function
<b>get_tolerant</b>	function	<b>is_next_char</b>	function
<b>getactive</b>	function	<b>is_token</b>	function
<b>getcmdchrscs</b>	function	<b>isactivestring</b>	function
<b>getcmdname</b>	function	<b>isdefined</b>	function
<b>getcommand</b>	function	<b>isnextchar</b>	function
<b>getcommandvalues</b>	function	<b>istoken</b>	function
<b>getconstant</b>	function	<b>locatemacro</b>	function
<b>getcsname</b>	function	<b>new</b>	function
<b>getcstoken</b>	function	<b>peek_next</b>	function
<b>getdimension</b>	function	<b>peek_next_char</b>	function

<code>peek_next_expanded</code>	function	<code>scan_toks</code>	function
<code>peeknext</code>	function	<code>scan_value</code>	function
<code>peeknextchar</code>	function	<code>scan_word</code>	function
<code>peeknextexpanded</code>	function	<code>scanargument</code>	function
<code>pop_macro</code>	function	<code>scanbox</code>	function
<code>popmacro</code>	function	<code>scancardinal</code>	function
<code>push_macro</code>	function	<code>scanchar</code>	function
<code>pushmacro</code>	function	<code>scancmdchr</code>	function
<code>put_back</code>	function	<code>scancmdchrexploded</code>	function
<code>put_next</code>	function	<code>scancode</code>	function
<code>putback</code>	function	<code>scancsname</code>	function
<code>putnext</code>	function	<code>scanctoken</code>	function
<code>save_lua</code>	function	<code>scandelimited</code>	function
<code>savelua</code>	function	<code>scandetokened</code>	function
<code>scan_argument</code>	function	<code>scandimen</code>	function
<code>scan_box</code>	function	<code>scandimenargument</code>	function
<code>scan_cardinal</code>	function	<code>scandimension</code>	function
<code>scan_char</code>	function	<code>scandimensionargument</code>	function
<code>scan_cmdchr</code>	function	<code>scanfloat</code>	function
<code>scan_cmdchr_expanded</code>	function	<code>scanglue</code>	function
<code>scan_code</code>	function	<code>scanint</code>	function
<code>scan_csname</code>	function	<code>scaninteger</code>	function
<code>scan_delimited</code>	function	<code>scanintegerargument</code>	function
<code>scan_dimen</code>	function	<code>scankey</code>	function
<code>scan_float</code>	function	<code>scankeyword</code>	function
<code>scan_glue</code>	function	<code>scankeywordcs</code>	function
<code>scan_integer</code>	function	<code>scanletters</code>	function
<code>scan_key</code>	function	<code>scanluacardinal</code>	function
<code>scan_keyword</code>	function	<code>scanluainteger</code>	function
<code>scan_keyword_cs</code>	function	<code>scanluanumber</code>	function
<code>scan_letters</code>	function	<code>scannext</code>	function
<code>scan_luacardinal</code>	function	<code>scannextchar</code>	function
<code>scan_luainteger</code>	function	<code>scannextexpanded</code>	function
<code>scan_luanumber</code>	function	<code>scanposit</code>	function
<code>scan_next</code>	function	<code>scanreal</code>	function
<code>scan_next_char</code>	function	<code>scanscale</code>	function
<code>scan_next_expanded</code>	function	<code>scanskip</code>	function
<code>scan_real</code>	function	<code>scanstring</code>	function
<code>scan_scale</code>	function	<code>scantoken</code>	function
<code>scan_skip</code>	function	<code>scantokencode</code>	function
<code>scan_string</code>	function	<code>scantokenlist</code>	function
<code>scan_token</code>	function	<code>scantokenstring</code>	function
<code>scan_token_code</code>	function	<code>scantoks</code>	function
<code>scan_tokenlist</code>	function	<code>scanvalue</code>	function

<b>scanword</b>	function	<b>setmacrofrommark</b>	function
<b>serialize</b>	function	<b>setmacrotonothing</b>	function
<b>set_dimension</b>	function	<b>skip_next</b>	function
<b>set_integer</b>	function	<b>skip_next_expanded</b>	function
<b>set_lua</b>	function	<b>skipnext</b>	function
<b>set_macro</b>	function	<b>skipnextexpanded</b>	function
<b>setdimension</b>	function	<b>type</b>	function
<b>setinteger</b>	function	<b>undefine_macro</b>	function
<b>setlua</b>	function	<b>undefinemacro</b>	function
<b>setmacro</b>	function		



# tokens (context)

**accessors** table

F active  
F cmd  
F cmdchrsc  
F cmdname  
F command  
F csname  
F expandable  
F frozen  
F index  
F name  
F protected  
F range

**astable** function

**bits** table

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

**cache** data table

**commands** data table

**compile** function

**constant** function

**converters** table

S toboolean

S todimen

S toglue

S tonumber

S tostring

**create** function

**defined** function

**flags** function

**getinteger** function

**getters** table

F box

F count

F cstoken

F dimen

F glue

F macro

F meaning

F skip

F token

**gobble** function

**isactivestring** function

**isdefined** function

**istoken** function

**new** function

**pickup** function

**popmacro** function

**presets** table

T 1 argument

T 1 integer

T 1 optional

T 1 string

T 2 arguments

T 2 integers

T 2 optionals

T 2 strings

T 3 arguments

T 3 integers

T 3 optionals

T 3 strings

T 4 arguments

T 4 integers

T 4 optionals

T 4 strings		F luainteger	
T 5 strings		F luanumber	
T 6 strings		F lxmlid	
T 7 strings		F next	
T 8 strings		F nextchar	
<b>pushmacro</b>	function	F nextexpanded	
<b>scanners</b>	table	F number	
F argument		F optional	
F argumentasis		F peek	
F array		F peekchar	
F boolean		F peekexpanded	
F box		F posit	
F bracketed		F real	
F bracketedasis		F scanclose	
F cardinal		F scanopen	
F char		F skip	
F cmdchr		F skipexpanded	
F cmdchrexploded		F string	
F code		F table	
F conditional		F token	
F count		F tokencode	
F csname		F tokenlist	
F csnameunchecked		F tokens	
F delimited		F tokenstring	
F detokened		F toks	
F dimen		F value	
F dimension		F vbox	
F dimensionargument		F verbatim	
F float		F vtop	
F glue		F whd	
F gluespec		F word	
F gluevalues		<b>setinteger</b>	function
F hash		<b>setters</b>	table
F hbox		F box	
F integer		F char	
F integerargument		F count	
F ischar		F dimen	
F key		F glue	
F keyword		F lua	
F keywordcs		F macro	
F letters		F skip	
F list		<b>shortcuts</b>	table
F lua		T bits	
F luacardinal		N active	

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

F scanbracketed	F detokened
F scanbracketedasis	F dimen
F scancardinal	F dimension
F scanclose	F dimensionargument
F scancode	F float
F scanconditional	F glue
F scanscname	F gluespec
F scanscnameunchecked	F gluevalues
F scandelimited	F hash
F scandetokened	F hbox
F scandimen	F integer
F scandimension	F integerargument
F scandimensionargument	F ischar
F scanfloat	F key
F scanglue	F keyword
F scangluespec	F keywordcs
F scangluevalues	F letters
F scanhash	F list
F scanhbox	F lua
F scaninteger	F luacardinal
F scanintegerargument	F luainteger
F scankeyword	F luanumber
F scankeywordcs	F lxmlid
F scanletters	F next
F scanlist	F nextchar
F scanlua	F nextexpanded
T scanners	F number
F argument	F optional
F argumentasis	F peek
F array	F peekchar
F boolean	F peekexpanded
F box	F posit
F bracketed	F real
F bracketedasis	F scanclose
F cardinal	F scanopen
F char	F skip
F cmdchr	F skipexpanded
F cmdchrexplained	F string
F code	F table
F conditional	F token
F count	F tokencode
F csname	F tokenlist
F csnameunchecked	F tokens
F delimited	F tokenstring

F toks	S toglue
F value	S tonumber
F vbox	S tostring
F verbatim	F create
F vtop	F defined
F whd	F flags
F word	F getinteger
F scannumber	T getters
F scanopen	F box
F scanoptional	F count
F scanposit	F cstoken
F scanstring	F dimen
F scantable	F glue
F scantokenlist	F macro
F scantokenstring	F meaning
F scantoks	F skip
F scanvbox	F token
F scanverbatim	F gobble
F scanvtop	F isactivestring
F scanword	F isdefined
F toboolean	F istoken
F todimen	F new
T tokens	F pickup
T accessors	F popmacro
F active	T presets
F cmd	F pushmacro
F cmdchrsc	F setinteger
F cmdname	T setters
F command	F box
F csname	F char
F expandable	F count
F frozen	F dimen
F index	F glue
F name	F lua
F protected	F macro
F range	F skip
F astable	T shortcuts
D cache	N close
D commands	F inspect
F compile	N open
F constant	F report
T converters	F scanargument
S toboolean	F scanargumentasis
S todimen	F scanarray

F scanboolean	F scanletters	
F scanbox	F scanlist	
F scanbracketed	F scanlua	
F scanbracketedasis	F scannumber	
F scancardinal	F scanopen	
F scanclose	F scanoptional	
F scancode	F scanposit	
F scanconditional	F scanstring	
F scancsname	F scantable	
F scancsnameunchecked	F scantokenlist	
F scandelimited	F scantokenstring	
F scandetokened	F scantoks	
F scandimen	F scanvbox	
F scandimension	F scanverbatim	
F scandimensionargument	F scanvtop	
F scanfloat	F scanword	
F scanglue	F toboolean	
F scangluespec	F todimen	
F scangluevalues	F tonumber	
F scanhash	F tostring	
F scanhbox	D values	
F scaninteger	F tonumber	
F scanintegerargument	F tostring	
F scankeyword	<b>values</b>	data table
F scankeywordcs		

## tracers (context)

**printerror**    function  
**printwarning**    function

**showlines**    function

## trackers (context)

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



# typesetters (context)

<b>alignments</b>	table		T actions
F handler			F handler
F set			F set
<b>breakpoints</b>	table	<b>directions</b>	table
F define		F getfences	
F handler		F getglobal	
D mapping		F getmethod	
T methods		F handler	
T numbers		T handlers	
F set		F installhandler	
F setreplacement		F set	
<b>cases</b>	table	F setcolor	
T actions		F tomode	
F handler		<b>firstlines</b>	table
F register		T actions	
F set		F default	
<b>characteralign</b>	table	F line	
F handler		F word	
F resetcharacteralign		F handler	
F setcharacteralign		F set	
<b>characters</b>	table	<b>fontkerns</b>	table
F handler		F handler	
T methods		<b>initials</b>	table
F replacensp		T actions	
F replacenspaces		F default	
<b>checkers</b>	table	F handler	
F handler		F set	
F reset		<b>injectors</b>	table
F set		F check	
<b>cleaners</b>	table	T list	
F handler		F mark	
F set		F reset	
<b>compare</b>	table	F set	
F handler		F show	
F reset		<b>italics</b>	table
F set		F enablemath	
F setpair		F enabletext	
F setup		F handler	
<b>corrections</b>	table	<b>kerns</b>	table
F handler		D factors	
<b>digits</b>	table	F handler	

F keepligature	
D mapping	
F set	
<b>localboxes</b>	table
F handler	
<b>manipulators</b>	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	
<b>margins</b>	table
F finalhandler	
F globalhandler	
F localhandler	
F save	
<b>marksuspects</b>	function
<b>paragraphs</b>	table
F addanchortoline	
F addtoline	
F calculatedelta	
F checkline	
F moveinline	
<b>periodkerns</b>	table
D factors	
F handler	
D mapping	
F set	
<b>processors</b>	table
F apply	
F register	
F reset	
F split	
F startapply	
F stopapply	
F stripped	
F tostring	
<b>rubies</b>	table
F attach	
F check	
<b>showinvisibles</b>	function
<b>showsuspects</b>	function
<b>spacings</b>	table
F define	
F handler	
D mapping	
T numbers	
T frenchpunctuation	
T characters	
S name	
N number	
F reset	
F set	
F setup	
<b>stacking</b>	table
F getindex	
F getselection	
F handler	
<b>swapping</b>	table
F handler	
<b>synchronize</b>	table
F handler	
<b>tighten</b>	table
F handler	
<b>wrappers</b>	table
<b>xtables</b>	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

## 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 (basic lua)

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

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

# utilities (context)

## **debugger**            table

F disable  
F enable  
F savestats  
F showstats  
F showtraceback

## **files**                table

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

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

## **formatters**           table

F formatcolumns  
F list  
F stripzeros

## **ghostscript**           table

F convert  
F statistics

## **graphicmagick**        table

F convert  
F statistics

## **graphicsmagick**      table

F convert  
F statistics

## **json**                  table

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



F splitthousands		F new	
F stepper		F register	
F stripped_settings_to_array		F report	
F totime		F reset	
F unittotex		F show	
F unittoxml		<b>signals</b>	<b>table</b>
<b>randomizer</b>	<b>table</b>	S configuration	
F get		F initialize	
F getnumber		F loadstate	
F getrepeatable		F report	
F getrepeatableseed		F savestate	
F getseed		F serialclose	
F newrepeatable		F serialfast	
F popseed		F serialopen	
F pushseed		F serialsend	
F repeatable		F serialwrite	
F reuseseed		N version	
F setseed		<b>stacker</b>	<b>table</b>
F setseedi		F new	
<b>randomizers</b>	<b>table</b>	<b>storage</b>	<b>table</b>
F poisson		F allocate	
<b>sequencers</b>	<b>table</b>	F checked	
F appendaction		F mark	
F appendgroup		F marked	
F compile		F setinitializer	
F disableaction		F sparse	
F disablegroup		<b>streams</b>	<b>table</b>
F enableaction		F close	
F enablegroup		F getposition	
D functions		F getsizes	
F localize		F getstring	
F new		F look	
F nodeprocessor		F open	
F prependaction		F openstring	
F prependgroup		F read2dot14	
F removeaction		F readbyte	
F replaceaction		F readbytes	
F setkind		F readbytetable	
F tostring		F readcardinal	
<b>setters</b>	<b>table</b>	F readcardinal1	
F disable		F readcardinal11e	
F enable		F readcardinal2	
F initialize		F readcardinal21e	
F list		F readcardinal3	

F readcardinal3le  
 F readcardinal4  
 F readcardinal4le  
 F readcardinaltable  
 F readchar  
 F readcline  
 F readcstring  
 F readfixed2  
 F readfixed4  
 F readinteger  
 F readinteger1  
 F readinteger1le  
 F readinteger2  
 F readinteger2le  
 F readinteger3  
 F readinteger3le  
 F readinteger4  
 F readinteger4le  
 F readintegertable  
 F readsignedbyte  
 F readstring  
 F setposition  
 F size  
 F skip  
 F skipbytes  
 F skiplong  
 F skipshort  
 F tocardinal1  
 F tocardinal1le  
 F tocardinal2  
 F tocardinal2le  
 F tocardinal3  
 F tocardinal3le  
 F tocardinal4  
 F tocardinal4le

## strings table

F collapse  
 F collapsecrlf  
 T formatters  
   F add  
   F new  
 F newcollector  
 F newrepeater  
 F nice

T striplinepatterns  
   U collapse  
   U collapse all  
   U prune  
   U prune and collapse  
   U prune and no empty  
   U prune and to space  
   U retain  
   U retain and collapse  
   U retain and no empty

F striplines  
 F striplong  
 F tabtospace  
 T tracers

## tables table

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

## tar table

T archives  
 F closearchive  
 T files  
   F fetch  
   F hash  
   F list  
   F pack  
   F unpack  
 F openarchive  
 T registeredfiles  
 T streams  
   F fetch  
   F hash  
   F list  
   F pack  
   F unpack  
 T strings  
   F fetch  
   F hash

F list  
F pack  
F unpack  
**templates**      table  
F load  
F replace  
F replacer  
F resolve  
**zipfiles**      table

F close  
F found  
F hash  
F list  
F open  
F unzip  
F unzipdir  
F zipdir

# vector (context)

<b>add</b>	function	<b>homogenize</b>	function
<b>append</b>	function	<b>identity</b>	function
<b>average</b>	function	<b>inner</b>	function
<b>ceiling</b>	function	<b>insert</b>	function
<b>checkoverlap</b>	function	<b>inverse</b>	function
<b>collectoverlap</b>	function	<b>ismesh</b>	function
<b>concat</b>	function	<b>issingular</b>	function
<b>contour</b>	table	<b>isvector</b>	function
F average		<b>iszero</b>	function
F bounds		<b>mesh</b>	table
F checkoverlap		F get	
F collectoverlap		F getdimensions	
F getarea		F ismesh	
F getmesh		F new	
F makemesh		F set	
F overlapping		F toString	
F show		F totable	
F sort		F type	
<b>copy</b>	function	<b>meshname</b>	function
<b>crossproduct</b>	function	<b>mul</b>	function
<b>delete</b>	function	<b>negate</b>	function
<b>determinant</b>	function	<b>new</b>	function
<b>div</b>	function	<b>normalize</b>	function
<b>equal</b>	function	<b>onecolumn</b>	function
<b>exchange</b>	function	<b>onerow</b>	function
<b>floor</b>	function	<b>product</b>	function
<b>get</b>	function	<b>remove</b>	function
<b>getdimensions</b>	function	<b>replace</b>	function
<b>getepsilon</b>	function	<b>round</b>	function
<b>getmesh</b>	function	<b>rowechelon</b>	function
<b>getrc</b>	function	<b>set</b>	function
<b>getrow</b>	function	<b>setepsilon</b>	function
<b>getstacking</b>	function	<b>setnext</b>	function
<b>gettype</b>	function	<b>setrc</b>	function
<b>helpers</b>	table	<b>setstacking</b>	function
F points		<b>slice</b>	function
F transform		<b>sort</b>	function
F xrotation		<b>sub</b>	function
F xyzscale		<b>swap</b>	function
F yrotation		<b>toString</b>	function
F zrotation		<b>totable</b>	function

**transpose**  
**triangulate**

function  
function

**truncate**  
**type**

function  
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		

## xcomplex (extra lua)

<b>I</b>	function	<b>erf</b>	function
<b>__add</b>	function	<b>erfc</b>	function
<b>__div</b>	function	<b>erfcx</b>	function
<b>__eq</b>	function	<b>erfi</b>	function
<b>__mul</b>	function	<b>exp</b>	function
<b>__name</b>	string	<b>i</b>	function
<b>__pow</b>	function	<b>imag</b>	function
<b>__sub</b>	function	<b>log</b>	function
<b>__tostring</b>	function	<b>new</b>	function
<b>__unm</b>	function	<b>pow</b>	function
<b>abs</b>	function	<b>proj</b>	function
<b>acos</b>	function	<b>real</b>	function
<b>acosh</b>	function	<b>sin</b>	function
<b>arg</b>	function	<b>sinh</b>	function
<b>asin</b>	function	<b>sqrt</b>	function
<b>asinh</b>	function	<b>tan</b>	function
<b>atan</b>	function	<b>tanh</b>	function
<b>atanh</b>	function	<b>topair</b>	function
<b>conj</b>	function	<b>tostring</b>	function
<b>cos</b>	function	<b>totable</b>	function
<b>cosh</b>	function	<b>voigt</b>	function
<b>dawson</b>	function	<b>voigt_hwhm</b>	function

## xdecimal (extra lua)

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



## xmath (extra lua)

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

# xml (context)

<b>addentitiesdoctype</b>	function	F family	
<b>addspecialcode</b>	function	F fontspecification	
<b>after</b>	function	F mappedstylevalue	
<b>all</b>	function	F padding	
<b>applylpath</b>	function	F size	
<b>applyselector</b>	function	F style	
<b>assign</b>	function	F stylevalue	
<b>attribute</b>	function	F todimension	
<b>badinclusions</b>	function	F variant	
<b>before</b>	function	F weight	
<b>body</b>	function	<b>defaulthandlers</b>	table
<b>builtinentities</b>	table	D file	
B amp		D parsedxml	
B apos		D string	
B gt		D tex	
B lt		D texline	
B quot		D texspace	
<b>CDATA</b>	function	D verbose	
<b>CDATATOTEXT</b>	function	<b>defaultprotocol</b>	string
<b>checkboxom</b>	function	<b>delete</b>	function
<b>checkedempty</b>	function	<b>delete_element</b>	function
<b>checkerror</b>	function	<b>despecialized</b>	function
<b>checknamespace</b>	function	<b>each</b>	function
<b>checkns</b>	function	<b>each_element</b>	function
<b>cleansed</b>	function	<b>elements</b>	function
<b>collect</b>	function	<b>elementtocdata</b>	function
<b>collect_elements</b>	function	<b>empty</b>	function
<b>collect_tags</b>	function	<b>entities</b>	data table
<b>collect_texts</b>	function	<b>erase</b>	function
<b>collected</b>	function	<b>errorhandler</b>	function
<b>collecttexts</b>	function	<b>escaped</b>	function
<b>compactelement</b>	function	<b>expand</b>	function
<b>content</b>	function	<b>expressions</b>	table
<b>convert</b>	function	F attribute	
<b>copy</b>	function	F boolean	
<b>count</b>	function	F child	
<b>cprint</b>	function	F contains	
<b>CSS</b>	table	F count	
F applyselector		F error	
F colorspecification		F find	
F dimension		F hasclass	

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

<b>include</b>	function	F tex	
<b>inclusion</b>	function	<b>placeholders</b>	table
<b>inclusions</b>	function	F unknown_any_entity	
<b>index</b>	function	F unknown_dec_entity	
<b>inheritattributes</b>	function	F unknown_hex_entity	
<b>inheritedconvert</b>	function	<b>popmatch</b>	function
<b>inject</b>	function	<b>position</b>	function
<b>inject_element</b>	function	<b>privatecodes</b>	data table
<b>inject_element_after</b>	function	<b>privatetoken</b>	function
<b>inject_element_before</b>	function	<b>process</b>	function
<b>injectafter</b>	function	<b>process_attributes</b>	function
<b>injectbefore</b>	function	<b>process_elements</b>	function
<b>insert</b>	function	<b>processattributes</b>	function
<b>insert_element</b>	function	<b>profiled</b>	table
<b>insert_element_after</b>	function	<b>pure</b>	function
<b>insert_element_before</b>	function	<b>pushmatch</b>	function
<b>insertafter</b>	function	<b>raw</b>	function
<b>insertbefore</b>	function	<b>registerentity</b>	function
<b>insertcdata</b>	function	<b>registerns</b>	function
<b>insertcomment</b>	function	<b>reindex</b>	function
<b>inspect</b>	function	<b>remap_name</b>	function
<b>is_valid</b>	function	<b>remap_namespace</b>	function
<b>kind</b>	function	<b>remap_tag</b>	function
<b>last</b>	function	<b>remapname</b>	function
<b>lastmatch</b>	function	<b>remapnamespace</b>	function
<b>load</b>	function	<b>remaptag</b>	function
<b>lpath</b>	function	<b>rename</b>	function
<b>lpathcached</b>	function	<b>renamespace</b>	function
<b>lpathcalls</b>	function	<b>reparsedentitylpeg</b>	userdata
<b>lshow</b>	function	<b>replace</b>	function
<b>makestandalone</b>	function	<b>replace_element</b>	function
<b>match</b>	function	<b>resetinjectors</b>	function
<b>mml</b>	table	<b>resolvns</b>	function
F stripped		<b>root</b>	function
F verbose		<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

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

## xzip (extra lua)

**adler32**            function

**compress**        function

**compresssize**    function

**crc32**            function

**decompress**      function

**decompresssize** function

# zip (context)

<b>archives</b>	table	<b>openarchive</b>	function
<b>closearchive</b>	function	<b>registeredfiles</b>	table

## zlib (context)

<b>adler32</b>	function
<b>compress</b>	function
<b>compresssize</b>	function

<b>crc32</b>	function
<b>decompress</b>	function
<b>decompresssize</b>	function