



# global (alias: \_G)

<b>CONTEXTLMTXMODE</b>	number	<b>ctxrunner</b>	table
<b>FFISUPPORTED</b>	boolean	<b>debug</b>	table
<b>JITSUPPORTED</b>	boolean	<b>dimen</b>	function
<b>LUAMAJORVERSION</b>	number	<b>dir</b>	table
<b>LUAMINORVERSION</b>	number	<b>directives</b>	table
<b>LUATEXENGINE</b>	string	<b>document</b>	table
<b>LUATEXFORMATID</b>	number	<b>documentdata</b>	table
<b>LUATEXFUNCTIONALITY</b>	number	<b>dofile</b>	function
<b>LUATEXVERSION</b>	number	<b>done</b>	boolean
<b>LUAVERSION</b>	number	<b>drivers</b>	table
<b>MP</b>	function	<b>environment</b>	table
<b>aes</b>	table	<b>error</b>	function
<b>arg</b>	table	<b>experiments</b>	table
<b>asnumber_p</b>	function	<b>figures</b>	table
<b>assert</b>	function	<b>file</b>	table
<b>attributes</b>	table	<b>fio</b>	table
<b>backends</b>	table	<b>floats</b>	table
<b>basexx</b>	table	<b>flushsimplerule</b>	function
<b>bit32</b>	table	<b>flushspecialrule</b>	function
<b>blobs</b>	table	<b>font</b>	table
<b>blockrequire</b>	function	<b>fonts</b>	table
<b>boolean</b>	table	<b>functions</b>	table
<b>buffers</b>	table	<b>getmetatable</b>	function
<b>builders</b>	table	<b>getscriptstatus</b>	function
<b>caches</b>	table	<b>global</b>	table
<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>images</b>	table
<b>chemistry</b>	table	<b>inspect</b>	function
<b>collectgarbage</b>	function	<b>interactions</b>	table
<b>commands</b>	table	<b>interfaces</b>	table
<b>containers</b>	table	<b>io</b>	table
<b>context</b>	function	<b>ipairs</b>	function
<b>converters</b>	table	<b>job</b>	table
<b>copyarray</b>	function	<b>language</b>	table
<b>copydictionary</b>	function	<b>languages</b>	table
<b>coroutine</b>	table	<b>last_pdf</b>	number
<b>createmask</b>	function	<b>layouts</b>	table

<b>lfs</b>	table	<b>pngdecode</b>	table
<b>libraries</b>	table	<b>popleaderlevel</b>	function
<b>lmx</b>	table	<b>print</b>	function
<b>load</b>	function	<b>publications</b>	table
<b>loaders</b>	data table	<b>pushleaderlevel</b>	function
<b>loadfile</b>	function	<b>rawequal</b>	function
<b>loadstring</b>	function	<b>rawget</b>	function
<b>logs</b>	table	<b>rawlen</b>	function
<b>lpdf</b>	table	<b>rawset</b>	function
<b>lpeg</b>	table	<b>recolor</b>	function
<b>lua</b>	table	<b>regimes</b>	table
<b>luac</b>	table	<b>require</b>	function
<b>luatex</b>	table	<b>required</b>	function
<b>lxml</b>	table	<b>resolvers</b>	table
<b>math</b>	table	<b>ruledspace</b>	function
<b>mathematics</b>	table	<b>sandbox</b>	table
<b>mathshapekern</b>	function	<b>scripts</b>	table
<b>md5</b>	table	<b>select</b>	function
<b>metapost</b>	table	<b>set</b>	table
<b>mime</b>	table	<b>setinspector</b>	function
<b>moduledata</b>	table	<b>setmathparameters</b>	function
<b>modules</b>	table	<b>setmetatable</b>	function
<b>mp</b>	function	<b>sha2</b>	table
<b>mplib</b>	table	<b>shipbox_ref_h</b>	number
<b>next</b>	function	<b>shipbox_ref_v</b>	number
<b>noads</b>	table	<b>sio</b>	table
<b>node</b>	table	<b>socket</b>	table
<b>nodes</b>	table	<b>sorters</b>	table
<b>number</b>	table	<b>sparse</b>	table
<b>objects</b>	table	<b>statistics</b>	table
<b>optional</b>	table	<b>status</b>	table
<b>optionalrequire</b>	function	<b>storage</b>	table
<b>os</b>	table	<b>streams</b>	table
<b>p_number_p</b>	userdata	<b>string</b>	table
<b>p_number_u</b>	userdata	<b>structures</b>	table
<b>package</b>	table	<b>table</b>	table
<b>pagebuilders</b>	table	<b>tex</b>	table
<b>pairs</b>	function	<b>texconditionals</b>	data table
<b>parametersets</b>	table	<b>texconfig</b>	table
<b>pcall</b>	function	<b>texconstants</b>	data table
<b>pdf</b>	table	<b>texifs</b>	data table
<b>pdfdecode</b>	table	<b>texio</b>	table
<b>pdfe</b>	table	<b>texisdefined</b>	data table
<b>physics</b>	table	<b>texmodes</b>	data table

<b>texsystemmodes</b>	data table	<b>userdata</b>	table
<b>thirddata</b>	table	<b>utf</b>	table
<b>toboolean</b>	function	<b>utf8</b>	table
<b>todecimal</b>	function	<b>utilities</b>	table
<b>token</b>	table	<b>visualizers</b>	table
<b>tokens</b>	table	<b>warn</b>	function
<b>tonumber</b>	function	<b>xcomplex</b>	table
<b>tostring</b>	function	<b>xdecimal</b>	table
<b>tracers</b>	table	<b>xmath</b>	table
<b>trackers</b>	table	<b>xml</b>	table
<b>type</b>	function	<b>xpcall</b>	function
<b>typesetters</b>	table	<b>xzip</b>	table
<b>unpack</b>	function	<b>zip</b>	table
<b>updaters</b>	table	<b>zlib</b>	table
<b>url</b>	table		

## aes (context)

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

F setpagecolormodel	
D sets	
F spec	
F spot	
F spotcolorname	
F spotcolorparent	
F spotcolorvalue	
B supported	
F toattributes	
F transparencycomponents	
B triggering	
F usecolors	
D valid	
F value	
D values	
B weightgray	
F xyztolab	
F xyztorgb	
<b>counts</b>	data table
<b>define</b>	function
<b>effects</b>	table
N attribute	
D data	
F enable	
F handler	
F register	
D registered	
D values	
<b>getvalue</b>	function
<b>handlers</b>	table
<b>hasvalues</b>	function
<b>list</b>	data table
<b>markasoverload</b>	function
<b>names</b>	data table
<b>negatives</b>	table
N attribute	
D data	
F enable	
F handler	
F register	
D registered	
F set	
<b>numbers</b>	data table
<b>ofnode</b>	function

<b>private</b>	function
<b>public</b>	function
<b>registervalue</b>	function
<b>restore</b>	function
<b>save</b>	function
<b>setcleaner</b>	function
<b>showcurrent</b>	function
<b>states</b>	table
F disabletriggering	
F enabletriggering	
F finalize	
F initialize	
F process	
F selective	
F simple	
F stacked	
F stacker	
<b>system</b>	function
<b>tooverloads</b>	function
<b>transparencies</b>	table
N attribute	
D data	
F enable	
F forcesupport	
F handler	
T names	
N color	
N colorburn	
N colordodge	
N darken	
N difference	
N exclusion	
N hardlight	
N hue	
N lighten	
N luminosity	
N multiply	
N none	
N normal	
N overlay	
N saturation	
N screen	
N softlight	
N none	

F register	F handler
D registered	B hasorder
B supported	D listwise
F toattribute	F register
B triggering	D registered
F value	F resolve_begin
D values	F resolve_end
<b>unsetvalue</b>	F resolve_reset
<b>values</b>	F resolve_step
<b>viewerlayers</b>	D scopes
N attribute	F setfeatures
F cleanup	F start
D data	F stop
F define	B supported
F definedlayoutcomponent	D values
F enable	
F forcesupport	



# backends (context)

**closeout** function

**codeinjections** table

F registerboxresource

F restoreboxresource

**current** string

**defaults** table

T codeinjections

F prerollreference

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 definefield

F definefieldset

F defineviewerlayer

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 getpreviewfigure

F getrefobj

F insertrenderingwindow

F jp2

F jpg

F maptag

F mergebookmarks

F mergecomments

F mergefields

F mergereferences

F mergeviewerlayers

F newimage

F png

F prerollreference

F presetsymbol

F presetsymbolist

F processrendering

F registerdocumentcloseaction

F registerdocumentopenaction

- F registeredsymbol
- 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 setencryption
- F setfieldcalculationset
- F setfigurealternative
- F setfigurecolorspace
- F setfiguremask
- F setformat
- F setformsmethod
- F setpagetransition
- F settaggingsupport
- F setxmpfile
- F startlayer
- F startunicodetoactualtext
- F startunicodetoactualtextdirect
- F stoplayer
- F stopunicodetoactualtext
- F stopunicodetoactualtextdirect
- F supportedformats
- F unicodetoactualtext
- F useviewerlayer
- F validfield
- F validfieldcategory
- F validfieldset
- 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 (basic lua)

**arshift** function  
**band** function  
**bnot** function  
**bor** function  
**btest** function  
**bxor** function  
**extract** function

**lrotate** function  
**lshift** function  
**replace** function  
**rrotate** function  
**rshift** function

## blobs (context)

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

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

## boolean (context)

**tocontext**    function

**tonumber**    function

# buffers (context)

<b>append</b>	function
<b>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>getlines</b>	function
<b>gettexbuffer</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>undent</b>	function

# builders (context)

**checkparcontext** function

**checksidefloat** function

**kernel** table

F collapsing

F hyphenating

F kerning

F ligaturing

F mlisttohlist

**local\_box\_filter** function

**paragraphs** table

T constructors

N attribute

F define

F disable

F enable

F handler

T methods

F basic

F default

F hpack

F oneline

D names

D numbers

F set

F start

F stop

T expansion

F trace

F keptogether

F registertogether

T solutions

T splitters

F define

F optimize

T registered

F reset

F set

F split

F start

F stop

F tag

**profiling** table

F add

F distance

F fixedprofile

F get

F list

F pagehandler

F profilebox

F set

**vspacing** table

D categories

F checkstrutdepth

F collapsevbox

T data

D map

D skip

D snapmethods

F definesnapmethod

B fixed

F forcepageflush

F forcestrutdepth

F getnofpreviouslines

F inject

F injectdisable

F injectpenalty

F injectskip

F pagehandler

F pageoverflow

F popatsame

F pushatsame

F setmap

F setskip

F snapbox

F synchronizepage

F tocategories

F tocategory

F vboxhandler



## 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>savedata</b>	function
<b>getfirstreadablefile</b>	function	<b>setfirstwritablefile</b>	function
<b>getreadablepaths</b>	function	<b>setluaname</b>	function
<b>getwritablepath</b>	function	<b>treehash</b>	function
<b>hashed</b>	function	<b>usedpaths</b>	function
<b>is_writable</b>	function		

## callback (basic tex)

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

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

# callbacks (context)

**freeze** function

**functions** table

F start\_page\_number

F stop\_page\_number

**known** function

**list** data table

**pop** function

**push** function

**register** function

**report** function

**supported** table

B alignment\_filter

B append\_line\_filter

B append\_to\_vlist\_filter

B begin\_paragraph

B build\_page\_insert

B buildpage\_filter

B define\_font

B find\_format\_file

B find\_log\_file

B get\_attribute

B glyph\_run

B handle\_overload

B hpack\_filter

B hpack\_quality

B hyphenate

B insert\_par

B intercept\_lua\_error

B intercept\_tex\_error

B kerning

B ligaturing

B linebreak\_filter

B local\_box\_filter

B make\_extensible

B math\_rule

B missing\_character

B mlist\_to\_hlist

B open\_data\_file

B paragraph\_context

B post\_linebreak\_filter

B pre\_dump

B pre\_linebreak\_filter

B pre\_output\_filter

B process\_jobname

B register\_extensible

B show\_error\_message

B show\_lua\_call

B show\_warning\_message

B show\_whatsit

B start\_file

B start\_run

B stop\_file

B stop\_run

B trace\_memory

B vpack\_filter

B vpack\_quality

B wrapup\_run

## catcodes (context)

**names** data table  
**numbers** data table

**register** function

# characters (context)

<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>casemap</b>	table	T before_postscript	
<b>categories</b>	data table	T before_subscript	
<b>category</b>	function	T below_mark	
<b>categorytags</b>	data table	T consonant	
<b>classifiers</b>	table	T dependent_vowel	
<b>collapsed</b>	data table	T halant	
<b>combined</b>	data table	T independent_vowel	
<b>contextname</b>	function	T nukta	
<b>csletters</b>	data table	T post_mark	
<b>data</b>	data table	T pre_mark	
<b>decomposed</b>	data table	T ra	
<b>description</b>	function	T stress_tone_mark	
<b>descriptions</b>	data table	T twopart_mark	
<b>detailtags</b>	data table	T vowel_modifier	
<b>directions</b>	table	<b>initialize</b>	function
<b>emoji</b>	table	<b>is_character</b>	data table
F compact		<b>is_command</b>	data table
F known		<b>is_hyphenator</b>	data table
F resolve		<b>is_letter</b>	data table
<b>emojized</b>	function	<b>is_mark</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>private</b>	table
T after_main		<b>ranges</b>	data table
T after_postscript		<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>define</b>	function
<b>definitions</b>	data table
<b>format</b>	string
<b>inlinechemical</b>	function
<b>instance</b>	string
<b>method</b>	string

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

## containers (context)

**cleanname** 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>convert</b>	function
<b>A:sl</b>	function	<b>decimals</b>	function
<b>AK</b>	function	<b>define</b>	function
<b>Alphabetic</b>	function	<b>gregorian_to_hebrew</b>	function
<b>Alphabetic:es</b>	function	<b>gregorian_to_jalali</b>	function
<b>Alphabetic:ru</b>	function	<b>hebrewnumerals</b>	function
<b>Alphabetic:sl</b>	function	<b>helpers</b>	table
<b>Character</b>	function	<b>hexstringtonumber</b>	function
<b>Characters</b>	function	<b>i</b>	function
<b>I</b>	function	<b>isleapyear</b>	function
<b>KA</b>	function	<b>jalali_to_gregorian</b>	function
<b>KR</b>	function	<b>lchexnumber</b>	function
<b>R</b>	function	<b>lchexnumbers</b>	function
<b>RK</b>	function	<b>leapyear</b>	function
<b>Romannumerals</b>	function	<b>lower</b>	function
<b>Russiannumerals</b>	function	<b>max</b>	function
<b>Sloveniannumerals</b>	function	<b>maxchrs</b>	function
<b>Spanishnumerals</b>	function	<b>nicenumber</b>	function
<b>Word</b>	function	<b>nofdays</b>	function
<b>Words</b>	function	<b>number</b>	function
<b>a</b>	function	<b>numbers</b>	function
<b>a:es</b>	function	<b>octnumber</b>	function
<b>a:ru</b>	function	<b>octstringtonumber</b>	function
<b>a:sl</b>	function	<b>ordinal</b>	function
<b>abjadnodotnumerals</b>	function	<b>r</b>	function
<b>abjadnumerals</b>	function	<b>rawcharacter</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>chinesenumerals</b>	function	<b>toabjad</b>	function
<b>chr</b>	function	<b>tochinese</b>	function
<b>chrs</b>	function	<b>tohebrew</b>	function
<b>cn</b>	function	<b>toroman</b>	function

<b>totime</b>	function	D data	
<b>uchexnumber</b>	function	F translate	
<b>uchexnumbers</b>	function	<b>weekday</b>	function
<b>upper</b>	function	<b>word</b>	function
<b>verbose</b>	table	<b>words</b>	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>resolve</b>	function
<b>preparedfile</b>	function		
<b>prepfiles</b>	data table		

## debug (basic lua)

**getinfo**    function  
**sethook**    function

**traceback**   function

## dir (context)

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

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

## directives (context)

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

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

# document (context)

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



# documentdata (context)

**variable** function

# drivers (context)

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

T	whatsit	T	actions
S	name	F	cleanup
T	mpo	F	convert
T	actions	F	finalize
F	finalize	F	initialize
F	initialize	F	outputfilename
T	flushers	F	prepare
F	character	F	wrapup
F	poplevelerlevel	T	flushers
F	pushleaderlevel	F	character
F	rule	F	fontchar
F	simplerule	F	group
F	specialrule	F	image
T	whatsit	F	literal
S	name	F	poplevelerlevel
T	mps	F	poporientation
T	actions	F	pushleaderlevel
F	cleanup	F	pushorientation
F	convert	F	restore
F	finalize	F	rule
F	initialize	F	save
F	outputfilename	F	setmatrix
F	prepare	F	setstate
F	wrapup	F	simplerule
T	flushers	F	specialrule
F	character	F	startclipping
F	poplevelerlevel	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	poplevelerlevel	S	name
F	pushleaderlevel	<b>lmtxversion</b>	number
T	whatsit	<b>outputfilename</b>	function
S	name	<b>report</b>	function
T	pdf		

## environment (context)

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

## experiments (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

# 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>converters</b>	data table	<b>B none</b>	
<b>current</b>	function	<b>B trim</b>	
<b>defaultdepth</b>	number	<b>F storedata</b>	
<b>defaultheight</b>	number	<b>F totable</b>	
<b>defaultsearch</b>	boolean	<b>T types</b>	
<b>defaultwidth</b>	number	<b>N jbig2</b>	
<b>done</b>	function	<b>N jp2</b>	
<b>dummy</b>	function	<b>N jpg</b>	
<b>existsers</b>	data table	<b>N none</b>	
<b>exists</b>	function	<b>N pdf</b>	
<b>formats</b>	data table	<b>N png</b>	
<b>found</b>	data table	<b>N stream</b>	
<b>get</b>	function	<b>F wrap</b>	
<b>getinfo</b>	function	<b>include</b>	function
<b>getpdfinfo</b>	function	<b>includers</b>	data table
<b>getrealpage</b>	function	<b>initialize</b>	function
<b>guess</b>	function	<b>loaded</b>	data table
<b>guessfromstring</b>	function	<b>localpaths</b>	data table
<b>hash</b>	function	<b>magics</b>	data table
<b>identifiers</b>	data table	<b>mergegoodies</b>	function
<b>identify</b>	function	<b>nofmissing</b>	number
<b>images</b>	table	<b>nofprocessed</b>	number
<b>F check</b>		<b>order</b>	data table
<b>F checksize</b>		<b>paths</b>	data table
<b>F copy</b>		<b>patterns</b>	data table
<b>F create</b>		<b>pop</b>	function
<b>F embed</b>		<b>preferquality</b>	boolean
<b>F embedfromstore</b>		<b>programs</b>	data table
<b>F fetchdata</b>		<b>push</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>setorder</b>	function
<b>resources</b>	data table	<b>setpaths</b>	function
<b>scale</b>	function	<b>suffixes</b>	data table
<b>set</b>	function	<b>used</b>	data table
<b>setlookups</b>	function		

## file (basic lua)

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

<b>id</b>	function
<b>max</b>	function
<b>nextid</b>	function
<b>setfont</b>	function
<b>setfontdimen</b>	function

# fonts (context)

## analyzers table

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

## checkers table

- F getmissing
- D mapping
- F missing
- F placeholder

## cid table

- F getmap
- F loadfile

## collections table

- F checkenabled
- F clonevector
- F define
- T definitions
- F found
- F prepare
- F process
- F register
- F registermain
- F report
- F reset
- T vectors

## constructors table

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

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

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

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
F cffcheck	F getaxisscale
T cffencoder	F getfactors
F checkhash	F getscales
F cmap	F gotodatatable
F colr	F normalizedaxis
F compact	T normalizedaxisishash
F condense	F readvariationdata
F cpal	F reportskippedtable
F ebdt	F setvariabledata
F eblc	F hhea
F ebsc	F hmtx
F expand	F hvar
F extend	F kern
F fvar	F loadfont
F gdef	F loadshapes
F getcomponents	F loca
F getinfo	F math
F glyf	F maxp
F gpos	F mvar
T gposhandlers	F name
F chainedcontext	F os/2
F context	F pack
F cursive	F parsecharstrings
F extension	F post
F marktobase	F registerextender
F marktoligature	F rehash
F marktomark	F sbix
F pair	F stat
F single	T streamreader
F gsub	F close
T gsubhandlers	F getposition
F alternate	F getsize
F chainedcontext	F look
F context	F open
F extension	F read2dot14

F 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
F writecardinal1	T vectors
F writecardinal1le	T arab
F writecardinal2	T gpos
F writecardinal2le	N curs
F writecardinal3	N kern
F writecardinal3le	N mark

N mkmk	F normal
T gsub	F virtual
N calt	F initializefeatures
N ccmp	D loadedfonts
N cswh	N noffontsloaded
N dlig	N nofsharedfonts
N fina	N nofsharedhashes
N init	N nofsharedvectors
N isol	N privateoffset
N liga	D privateslots
N medi	F readanddefine
N mset	F registerfeature
N rclt	F resetfeature
N rlig	B resolvevirtualtoo
N version	F scale
T pfb	F scaled
F loadvector	F setfactor
T tfm	F setfeature
D cache	F setmathparameter
D features	F setname
N maxnestingdepth	B sharefonts
N maxnestingsize	F trytosharefont
T readers	N version
F loadpk	<b>current</b> function
F loadtfm	<b>currentid</b> function
F loadtfmvf	<b>definers</b> table
F loadvf	F addlookup
F pktopdf	F analyze
F showpk	F applypostprocessors
F reencode	F checkedmode
F setfeatures	F checkedscript
N version	S defaultlookup
T vf	F define
T combinations	F getspecification
F combine	F internal
T combiner	F loadfont
D commands	F makespecification
D helpers	T methods
D math	F install
N version	D variants
D whatever	F read
F hashfeatures	F register
F hashinstance	F registered
T hashmethods	F registerfallbackfont



F registersplit		F opentype	
F resetnullfont		F type1	
F resolve		F type3	
T resolvers		T multiple	
F file		F opentype	
F name		T substitution	
F spec		F opentype	
<b>definetypface</b>	function	<b>goodies</b>	table
<b>dropins</b>	table	D colorschemes	
F clone		T data	
F getshape		T dejavu-math	
F getshapes		S author	
F nextid		S comment	
F provide		S copyright	
F registerglyph		B initialized	
F registerglyphs		T mathematics	
F swap		T alternates	
F swapone		T dotless	
<b>encodings</b>	table	S comment	
T agl		S feature	
D ctxcodes		N value	
D extras		T tweaks	
D names		T aftercopying	
D synonyms		S name	
D unicodes		S version	
D cache		D designsizes	
F is_known		D filenames	
D known		F getcompositions	
F load		T list	
F make_unicode_vector		F load	
D math		F prepare_features	
N version		F register	
<b>enhanceid</b>	function	F registerpostprocessor	
<b>expansions</b>	data table	F report	
<b>formats</b>	data table	T suffixes	
<b>getalternate</b>	function	<b>handlers</b>	table
<b>getindices</b>	function	<b>hashes</b>	table
<b>getkern</b>	function	D characters	
<b>getmultiple</b>	function	D classes	
<b>getsubstitution</b>	function	D csnames	
<b>getters</b>	table	D descriptions	
T alternate		D dynamics	
F opentype		D emwidths	
T kern		D exheights	

- D extensibles
- 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 table

- 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
- T extraprivates
- F fontpatternhassize
- F getcoloredglyphs
- F getdigitwidth
- F getinstancespec
- F getparameters

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

F resolved	S filename	
F uselibrary	F ignoredfile	
<b>tables</b>	F report	
<b>tracers</b>	F trace	
<b>treatments</b>	<b>typefaces</b>	table
F applyfixes		
D data		

# functions (context)

**dummy** function

# graphics (context)

## backgrounds table

- F fetchmultipar
- F pair
- F path
- F point

## bitmaps table

- F flush
- F new
- F placeholder
- F tocontext

## identifiers table

- F bitmap
- F jp2
- F jpg
- F png

## identify function

## synchronizers table

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

## gzip (extra lua)

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

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

# job (context)

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

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

# 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 injecthyphens	
<b>addgoodiesfile</b>	function	F installmethod	
<b>appliedoptions</b>	table	F lasttrace	
<b>associate</b>	function	F loadpatterns	
<b>associated</b>	data table	F registerexception	
<b>association</b>	function	F registerpattern	
<b>counters</b>	data table	F setfeatures	
<b>current</b>	function	<b>installed</b>	function
<b>data</b>	data table	<b>installhandler</b>	function
<b>decimals</b>	data table	<b>labels</b>	table
<b>define</b>	function	F define	
<b>explicitlyhyphen</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>getnumber</b>	function	<b>numbers</b>	data table
<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
F hyphenate		<b>transliteration</b>	table

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



# layouts (context)

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

## 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>makedirs</b>	function
<b>modification</b>	function
<b>readlink</b>	function
<b>rmdir</b>	overloaded function
<b>setexecutable</b>	function
<b>symlink</b>	function
<b>touch</b>	overloaded function

# libraries (context)

<b>basiclua</b>	data table	<b>extratex</b>	data table
<b>basictex</b>	data table	<b>functions</b>	data table
<b>builtin</b>	data table	<b>globals</b>	data table
<b>extralua</b>	data table		

# lmx (context)

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

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

# logs (context)

<b>application</b>	function	<b>setformats</b>	function
<b>categories</b>	function	<b>setformatters</b>	function
<b>direct</b>	function	<b>setlogfile</b>	function
<b>disable</b>	function	<b>setmessenger</b>	function
<b>enable</b>	function	<b>setprocessor</b>	function
<b>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>starterrorlogging</b>	function
<b>poptarget</b>	function	<b>startfilelogging</b>	function
<b>private</b>	table	<b>status</b>	function
F enablepagetiming		<b>stop_page_number</b>	function
F getpagetiming		<b>stoperrorlogging</b>	function
<b>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>texerrormessage</b>	function
<b>reporter</b>	function	<b>writer</b>	function
<b>resetlogfile</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>checkedvalue</b>	function
<b>circularshade</b>	function
<b>cmykcode</b>	function
<b>collectedresources</b>	function
<b>color</b>	function
<b>colorspace</b>	function
<b>colorspaceconstants</b>	data table
<b>colorspec</b>	function
<b>colorvalue</b>	function
<b>colorvalues</b>	function
<b>commentsymbols</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>epdf</b>	table

- F analyzefonts
- F contenttotext
- F expanded
- F getpagecontent
- F getstructure
- T image
  - F close
  - F copy
  - F new
  - F open
  - F query
- F load
- F objecttype
- F parsecontent
- F plugin
- T resolvers
  - F destinations
  - F embeddedfiles
  - F javascripts
  - F layers
  - F pages
  - F structure
  - F widgets
- F stripcontent
- F unload
- F verboseobject

<b>escaped</b>	function
<b>finalizedocument</b>	function
<b>finalizefonts</b>	function
<b>finalizepage</b>	function
<b>finishtransparencycode</b>	function
<b>flags</b>	table
T annotations	
N AutoView	

N Hidden		<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>getinfo</b>	function
N Comb		<b>getmatrix</b>	function
N CommitOnSelChange		<b>getnofpages</b>	function
N DoNotScroll		<b>getpageproperties</b>	function
N DoNotSpellCheck		<b>getpagereference</b>	function
N Edit		<b>getpagetags</b>	function
N FileSelect		<b>getpos</b>	function
N MultiLine		<b>gettrailerid</b>	function
N NoExport		<b>getversion</b>	function
N NoToggleToOff		<b>getxformname</b>	function
N Password		<b>graycode</b>	function
N PopUp		<b>hasmatrix</b>	function
N PushButton		<b>immediateobject</b>	function
N Radio		<b>includeimage</b>	function
N RadiosInUnison		<b>initialize</b>	function
N ReadOnly		<b>injectors</b>	table
N Required		F bitmap	
N RichText		F jp2	
N Sort		F jpg	
N file		F png	
N fixed		<b>injectxmpinfo</b>	function
N nocheck		<b>insertxmpinfo</b>	function
N protected		<b>lastreferredpage</b>	function
N readonly		<b>layerreference</b>	function
N required		<b>limited</b>	function
N sorted		<b>linearshade</b>	function
N unavailable		<b>literal</b>	function
<b>flushfonts</b>	function	<b>majorversion</b>	function
<b>flushgroup</b>	function	<b>makenametree</b>	function
<b>flushobject</b>	function	<b>minorversion</b>	function

<b>nofpages</b>	function	<b>unicode</b>	function
<b>null</b>	function	<b>usedcharacters</b>	table
<b>number</b>	function	<b>usedfontnames</b>	table
<b>object</b>	function	N dejavusansmonoboldttf-1	
<b>objectcompresslevel</b>	function	<b>usedfontobjects</b>	table
<b>pagereference</b>	function	N dejavusansmonoboldttf-1	
<b>patternstream</b>	function	<b>usedfontstreams</b>	table
<b>pdfcolor</b>	function	T dejavusansmonoboldttf-1	
<b>pdftimestamp</b>	function	T characters	
<b>print</b>	function	T descriptions	
<b>procset</b>	function	T fonts	
<b>protectresources</b>	boolean	T goodies	
<b>rectangle</b>	function	S original	
<b>reference</b>	function	T parameters	
<b>registerannotation</b>	function	N ascender	
<b>registerdestination</b>	function	N descender	
<b>registerdocumentfinalizer</b>	function	N designsize	
<b>registerfont</b>	function	T expansion	
<b>registerinitializer</b>	function	N shrink	
<b>registerpagefinalizer</b>	function	N step	
<b>registerpattern</b>	function	N stretch	
<b>reserveobject</b>	function	N extendfactor	
<b>rgbcode</b>	function	N extrafactor	
<b>rotationcm</b>	function	N extraspace	
<b>setcompression</b>	function	N factor	
<b>setencryption</b>	function	N forcedsize	
<b>setincludecidset</b>	function	N hfactor	
<b>setpageorder</b>	function	N mathsize	
<b>setpagetag</b>	function	N maxsize	
<b>setversion</b>	function	N minsize	
<b>sharedobject</b>	function	N mode	
<b>shareobject</b>	function	N quad	
<b>shareobjectreference</b>	function	N scaledpoints	
<b>spotcode</b>	function	N size	
<b>stream</b>	function	N slant	
<b>string</b>	function	N slantfactor	
<b>toeight</b>	function	N space	
<b>topdfdoc</b>	function	N spaceshrink	
<b>tosixteen</b>	function	N spacestretch	
<b>transparency</b>	function	N squeezefactor	
<b>transparencycode</b>	function	N textsize	
<b>transparencygroups</b>	table	N units	
B none		N vfactor	
<b>transparencyvalue</b>	function	N width	



N xheight	T mkmk
T properties	T arab
S filename	B dflt
B finalized	T gsub
S fontname	T anum
S format	T arab
S fullname	B dflt
S hash	B urd
B hasmath	T camelcasing
N id	T *
S language	B *
S mode	T char-ligatures
S name	T *
S psname	B *
S script	T collapse
S sharedwith	T *
N subfont	B *
S writingmode	T compat-ligatures
T resources	T *
T alreadydone	B *
T classes	T dlig
T duplicates	T latn
T features	B dflt
T gpos	B ism
T mark	B ksm
T arab	B lsm
B dflt	B mol
T cyrl	B nsm
B dflt	B rom
B srb	B sks
T grek	B ssm
B dflt	T locl
T lao	T cyrl
B dflt	B srb
T latn	T latn
B dflt	B ism
B ism	B ksm
B ksm	B lsm
B lsm	B nsm
B mol	B sks
B nsm	B ssm
B rom	T lowercasing
B sks	T *
B ssm	B *

T primes	N Ccedilla
T *	N Ccircumflex
B *	N Cdotaccent
T tlig	N Chi
T *	N Circumflex
B *	N D
T trep	N Dcaron
T *	N Dcroat
B *	N Delta
T uppercasing	N Dieresis
T *	N E
B *	N Eacute
S filename	N Ebreve
S foundfilename	N Ecaron
T foundtables	N Ecircumflex
T markclasses	N Edieresis
T marks	N Edotaccent
T marksets	N Egrave
N private	N Emacron
T sequences	N Eng
T sublookups	N Eng.alt
T unicodes	N Eogonek
N .null	N Epsilon
N A	N Epsilontonos
N AE	N Eta
N AEacute	N Etatonos
N Aacute	N Eth
N Abreve	N Euro
N Acircumflex	N F
N Acute	N G
N Adieresis	N Gamma
N Agrave	N Gbreve
N Alpha	N Gcaron
N Alphanotos	N Gcircumflex
N Amacron	N Gcommaaccent
N Aogonek	N Gdotaccent
N Aring	N Grave
N Atilde	N H
N B	N Hbar
N Beta	N Hcircumflex
N C	N I
N Cacute	N IJ
N Caron	N Iacute
N Ccaron	N Ibreve

N Icircumflex  
N Idieresis  
N Idotaccent  
N Igrave  
N Imacron  
N Iogonek  
N Iota  
N Iotadieresis  
N Iotatonos  
N Itilde  
N J  
N Jcircumflex  
N K  
N Kappa  
N Kcommaaccent  
N L  
N Lacute  
N Lambda  
N Lcaron  
N Lcommaaccent  
N Ldot  
N Lslash  
N M  
N Mu  
N N  
N Nacute  
N Ncaron  
N Ncommaaccent  
N Ntilde  
N Nu  
N O  
N OE  
N Oacute  
N Obreve  
N Ocircumflex  
N Odieresis  
N Ograve  
N Ohorn  
N Ohungarumlaut  
N Omacron  
N Omega  
N Omegatonos  
N Omicron  
N Omicrontonos

N Oslash  
N Oslashacute  
N Otilde  
N P  
N Phi  
N Pi  
N Psi  
N Q  
N R  
N Racute  
N Rcaron  
N Rcommaaccent  
N Rho  
N S  
N Sacute  
N Scaron  
N Scedilla  
N Scircumflex  
N Scommaaccent  
N Sigma  
N T  
N Tau  
N Tbar  
N Tcaron  
N Tcommaaccent  
N Theta  
N Thorn  
N Tilde  
N U  
N Ugrave  
N Uhorn  
N Uhungarumlaut  
N Umacron  
N Uogonek  
N Upsilon  
N Upsilon1  
N Upsilondieresis  
N Upsilontonos  
N Uring  
N Utilde  
N V  
N W  
N Wacute  
N Wcircumflex

N Wdieresis	N arrowdbldown
N Wgrave	N arrowdblleft
N X	N arrowdblright
N Xi	N arrowdblup
N Y	N arrowdown
N Yacute	N arrowleft
N Ycircumflex	N arrowright
N Ydieresis	N arrowup
N Ygrave	N arrowupdn
N Z	N arrowupdnbse
N Zacute	N asciicircum
N Zcaron	N asciitilde
N Zdotaccent	N asterisk
N Zeta	N asteriskmath
N a	N at
N aacute	N atilde
N abreve	N b
N acircumflex	N backslash
N acute	N bar
N acutecomb	N beta
N adieresis	N block
N ae	N braceleft
N aeacute	N braceright
N agrave	N bracketleft
N alpha	N bracketright
N alphanos	N breve
N amacron	N brokenbar
N ampersand	N bullet
N angle	N c
N anoteleia	N cacute
N aogonek	N caron
N approxequal	N carriagereturn
N arabic_2dots	N ccaron
N arabic_2dots_a	N ccedilla
N arabic_3dots	N ccircumflex
N arabic_3dots_a	N cdotaccent
N arabic_4dots	N cedilla
N arabic_dot	N cent
N arabic_gaf_bar	N chi
N arabic_gaf_bar_a	N circle
N arabic_ring	N circlemultiply
N aring	N circleplus
N arrowboth	N circumflex
N arrowdblboth	N club

N colon	N eogonek
N colonmonetary	N epsilon
N comma	N epsilontonos
N congruent	N equal
N copyright	N equivalence
N currency	N estimated
N d	N eta
N dagger	N etatonos
N daggerdbl	N eth
N dcaron	N exclam
N dcroat	N exclamdbl
N degree	N exclamdown
N delta	N existential
N diaeresis.symbols	N f
N diamond	N female
N dieresis	N fi
N dieresistonos	N figuredash
N divide	N filledbox
N dkshade	N filledrect
N dLlcaron	N five
N dnblock	N fiveeighths
N dollar	N fl
N dong	N florin
N dotaccent	N four
N dotbelowcomb	N fractionslash
N dotlessi	N franc
N dotlessj	N g
N dotmath	N gamma
N e	N gbreve
N eacute	N gcaron
N ebreve	N gcircumflex
N ecaron	N gcommaaccent
N ecircumflex	N gdotaccent
N edieresis	N germandbls
N edotaccent	N gradient
N egrave	N grave
N eight	N gravecomb
N element	N greater
N ellipsis	N greaterequal
N emacron	N guillemotleft
N emdash	N guillemotright
N emptyset	N guilsinglleft
N endash	N guilsinglright
N eng	N h

N hbar	N lfblock
N hcircumflex	N lira
N heart	N logicaland
N hookabovecomb	N logicalnot
N house	N logicalor
N hungarumlaut	N longs
N hyphen	N lozenge
N i	N lslash
N iacute	N ltshade
N ibreve	N m
N icircumflex	N macron
N idieresis	N male
N igrave	N minus
N ij	N minute
N imacron	N mu
N infinity	N multiply
N integral	N musicalnote
N integralbt	N musicalnotedbl
N integraltp	N n
N intersection	N nacute
N invbullet	N napostrophe
N invcircle	N ncaron
N invsmileface	N ncommaaccent
N iogonek	N nine
N iota	N nonbreakingspace
N iotadieresis	N nonmarkingreturn
N iotadieresis-tonos	N notdef
N iotatonos	N notelement
N itilde	N notequal
N j	N notsubset
N jcircumflex	N ntilde
N jot	N nu
N k	N numbersign
N kappa	N o
N kcommaaccent	N oacute
N kgreenlandic	N obreve
N l	N ocircumflex
N lacute	N odieresis
N lambda	N oe
N lcaron	N ogonek
N lcommaaccent	N ograve
N ldot	N ohorn
N less	N ohungarumlaut
N lessequal	N omacron

N omega	N quotedblleft
N omega1	N quotedblright
N omegatonos	N quoteleft
N omicron	N quotereversed
N omicrontonos	N quoteright
N one	N quotesinglbase
N oneeighth	N quotesingle
N onehalf	N r
N onequarter	N racute
N onesuperior	N radical
N onethird	N rcaron
N openbullet	N rcommaaccent
N ordfeminine	N reflexsubset
N ordmasculine	N reflexsuperset
N orthogonal	N registered
N oslash	N revlogicalnot
N oslashacute	N rho
N otilde	N ring
N p	N rtblock
N paragraph	N s
N parenleft	N sacute
N parenright	N scaron
N partialdiff	N scedilla
N percent	N scircumflex
N period	N scommaaccent
N periodcentered	N second
N perpendicular	N section
N perthousand	N semicolon
N peseta	N seven
N phi	N seveneighths
N phil	N sfthyphen
N pi	N shade
N plus	N sigma
N plusminus	N sigma1
N product	N similar
N propersubset	N six
N propersuperset	N slash
N proportional	N smileface
N psi	N space
N q	N spade
N question	N sterling
N questiondown	N suchthat
N quotedbl	N summation
N quotedblbase	N sun

N t	N tilde
N tau	N v
N tbar	N w
N tcaron	N wacute
N tcommaaccent	N wcircumflex
N therefore	N wdieresis
N theta	N wgrave
N theta1	N x
N thinquestion	N xi
N thorn	N y
N three	N yacute
N threeeighths	N ycircumflex
N threequarters	N ydieresis
N threesuperior	N yen
N tilde	N ygrave
N tildecomb	N z
N tonos	N zacute
N trademark	N zcaron
N triagdn	N zdotaccent
N triaglf	N zero
N triagrt	N zeta
N triagup	S version
N two	T shared
N twosuperior	T dynamics
N twothirds	T features
N u	B analyze
N ugrave	B checkmarks
N uhorn	B devanagari
N uhungarumlaut	B dummies
N umacron	B extensions
N underbar	B extrafeatures
N underbar.small	B extraprivates
N underbar.wide	B features
N underscore	B mathrules
N underscoredbl	S mode
N union	N number
N universal	B spacekern
N uogonek	B visualspace
N upblock	T processes
N upsilon	T rawdata
N upsilondieresis	S cache_uuid
N upsilondieresis-tonos	N cache_version
N upsilontonos	B compacted
N uring	B condensed



S creator	N maxextent
T descriptions	N minbottomsidebearing
B expanded	N mintopsidebearing
S format	N version
T goodies	S weight
T lookuphash	S width
T metadata	N nofglyphs
N ascender	N private
N averagewidth	T properties
T boundingbox	B hascolor
N defaultvheight	B hasitalics
N descender	B hasspacekerns
S family	N size
S familyname	N tableversion
S fontname	N time
N fstyle	T specification
S fullname	S cs
T horizontalmetrics	S detail
N ascender	S fallbacks
N descender	T features
N linegap	T normal
N maxadvanceheight	B features
N maxadvancewidth	S mode
N maxextent	N number
N minbottomsidebearing	S filename
N mintopsidebearing	S forced
N version	S forcedname
N italicangle	B global
B monospaced	S goodies
S panoseweight	S hash
S panosewidth	N id
N pfmweight	S lookup
N pfmwidth	N mathsize
S subfamily	S method
S subfamilyname	S name
N subfontindex	S resolved
N units	N scalemode
S version	N size
T verticalmetrics	S source
N ascender	S specification
N descender	N textsize
N linegap	T unscaled
N maxadvanceheight	N cache_version
N maxadvancewidth	T changed

T characters  
 T descriptions  
 T mathparameters  
 T parameters  
   N ascender  
   N charwidth  
   N descender  
   N designsized  
   N extraspace  
   N italicangle  
   N maxsize  
   N minsize  
   N quad  
   N slant  
   N space  
   N spaceshrink  
   N spacestretch  
   N units  
   N vheight  
   N xheight

T properties  
   S filename  
   S fontname  
   S format  
   S fullname  
   B hasmath  
   N id  
   S mode  
   B monospaced  
   S name  
   N private  
   S psname  
   B setitalics  
   S space  
   N subfont

S writingmode

**usedindices**

T dejavusansmonoboldttf-1

**verbose**

**table**

**function**

# lpeg (basic lua)

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

# lua (basic tex)

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

## luac (context)

**inspect**    function  
**print**     function

# luatex (context)

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

# lxml (context)

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



## math (basic lua)

<b>abs</b>	function	<b>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>setrandomseed</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	T less	
<b>alphabets</b>	data table	T more	
<b>alternatives</b>	data table	T zero	
<b>big</b>	function		<b>privatebase</b> number
<b>boldmap</b>	data table		<b>registerdomain</b> function
<b>categories</b>	table		<b>registerfallbackid</b> function
D functions			<b>registersimplematrix</b> function
<b>charactersets</b>	data table		<b>remapalphabets</b> function
<b>checkaccentbaseheight</b>	function		<b>renderings</b> table
<b>checkprivateparameters</b>	function	D mappings	
<b>classes</b>	data table	D numbers	
<b>codes</b>	data table	D sets	
<b>collected</b>	function		<b>renderset</b> function
<b>define</b>	function		<b>resetattributes</b> function
<b>dimensions</b>	function		<b>resetitalics</b> function
<b>domains</b>	table		<b>resolvefallbacks</b> function
<b>extensiblecode</b>	function		<b>scaleparameters</b> function
<b>extensibles</b>	data table		<b>setdomain</b> function
<b>extrabase</b>	number		<b>setitalics</b> function
<b>extras</b>	table		<b>sets</b> data table
F add			<b>startcollecting</b> function
F copy			<b>stopcollecting</b> function
<b>fallbacks</b>	table		<b>styles</b> data table
F apply			<b>syncboth</b> function
F install			<b>syncname</b> function
<b>fallbackstyleattr</b>	function		<b>syncstyle</b> function
<b>families</b>	data table		<b>toname</b> function
<b>finishfallbacks</b>	function		<b>tostyle</b> function
<b>gaps</b>	data table		<b>tweakaftercopyingfont</b> function
<b>getboth</b>	function		<b>tweakbeforecopyingfont</b> function
<b>getdomain</b>	function		<b>tweaks</b> table
<b>getitalics</b>	function	F action	
<b>getstyle</b>	function	F addscripts	
<b>horizontalcode</b>	function	F checkspacing	
<b>initializeparameters</b>	function	F dimensions	
<b>makefont</b>	function	F fixprimes	
<b>mapremap</b>	data table	F fixradicals	
<b>overloadparameters</b>	function	F version	
<b>preset</b>	function		<b>utfmathaccent</b> function
<b>presets</b>	table		<b>utfmathclass</b> function

**utfmathcommand**  
**utfmathfiller**  
**utfmathstretch**

function  
function  
function

**virtualize**  
**virtualized**

function  
data table

## md5 (extra lua)

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

<b>sumHEX</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 parametertype
N and		N pathjoin
N assignment		N plusorminus
N atleast		N primarybinary
N begingroup		N primarydef
N btex		N property
N capsule		N protection
N colon		N randomseed
N comma		N relax
N controls		N repeatloop
N curl		N rightbrace
N cycle		N rightbracket
N definedmacro		N rightdelimiter
N delimiters		N runscript
N endgroup		N save
N equals		N scantokens
N etex		N secondarybinary
N everyjob		N secondarydef
N exittest		N semicolon
N expandafter		N setbounds
N fiorelse		N shipout
N if		N show
N input		N slash
N interim		N step
N internal		N stop
N iteration		N str
N leftbrace		N string
N leftbracket		N tag
N leftdelimiter		N tension
N let		N tertiarybinary
N macrodef		N tertiarydef
N macrospecial		N thingstoadd
N maketext		N to
N message		N typename
N mode		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>getbendtolerance</b>	function
<b>getbuffer</b>	function
<b>getclippath</b>	function
<b>getextensions</b>	function
<b>getextradata</b>	function
<b>gethashentries</b>	function
<b>getinstancenames</b>	function
<b>getjobdata</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>graphic</b>	function
<b>graphic_base_pass</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>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>pdfliterals</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>pushvariables</b>	function
<b>reducetogray</b>	boolean
<b>registerdirect</b>	function
<b>registerscript</b>	function
<b>registertokens</b>	function
<b>remappedtext</b>	function

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





## mime (extra lua)

**b64**            function  
**decode**        function  
**decodet**      table  
    F base64  
    F quoted-printable  
**dot**            function  
**encode**        function  
**encodet**      table  
    F base64  
    F quoted-printable  
**eol**            function  
**normalize**    function  
**qp**            function

**qpwrp**        function  
**report**        function  
**stuff**        function  
**unb64**        function  
**unqp**        function  
**wrap**        function  
**wrapt**        table  
    F base64  
    F default  
    F quoted-printable  
    F text  
**wrp**            function

# mp (context)

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

<code>lmt_contours_minmean</code>	function	<code>mf_stop_saving_data</code>	function
<code>lmt_contours_minz</code>	function	<code>mode</code>	function
<code>lmt_contours_nofvalues</code>	function	<code>n</code>	function
<code>lmt_contours_nx</code>	function	<code>number</code>	function
<code>lmt_contours_ny</code>	function	<code>numeric</code>	function
<code>lmt_contours_range</code>	function	<code>pair</code>	function
<code>lmt_contours_shade_paths</code>	function	<code>pairpoints</code>	function
<code>lmt_contours_shade_set</code>	function	<code>path</code>	function
<code>lmt_contours_shape_paths</code>	function	<code>pathpoints</code>	function
<code>lmt_contours_start</code>	function	<code>points</code>	function
<code>lmt_contours_stop</code>	function	<code>print</code>	function
<code>lmt_contours_value</code>	function	<code>F boolean</code>	
<code>lmt_contours_xrange</code>	function	<code>F color</code>	
<code>lmt_contours_yrange</code>	function	<code>F direct</code>	
<code>lmt_function_x</code>	function	<code>F draw</code>	
<code>lmt_mesh_set</code>	function	<code>F fill</code>	
<code>lmt_mesh_update</code>	function	<code>F flush</code>	
<code>lmt_poisson_generate</code>	function	<code>F fprint</code>	
<code>lmt_surface_do</code>	function	<code>F integer</code>	
<code>lmt_svg_include</code>	function	<code>F number</code>	
<code>mf_blob_add</code>	function	<code>F numeric</code>	
<code>mf_blob_dimensions</code>	function	<code>F pair</code>	
<code>mf_blob_index</code>	function	<code>F pairpoints</code>	
<code>mf_blob_new</code>	function	<code>F path</code>	
<code>mf_blob_raw_content</code>	function	<code>F pathpoints</code>	
<code>mf_blob_raw_dimensions</code>	function	<code>F points</code>	
<code>mf_blob_raw_reset</code>	function	<code>F print</code>	
<code>mf_blob_raw_toutf</code>	function	<code>F quadruple</code>	
<code>mf_blob_raw_wipe</code>	function	<code>F quadruplepoints</code>	
<code>mf_blob_size</code>	function	<code>F quoted</code>	
<code>mf_blob_width</code>	function	<code>F size</code>	
<code>mf_external_figure</code>	function	<code>F string</code>	
<code>mf_finish_saving_data</code>	function	<code>F transform</code>	
<code>mf_formatted_text</code>	function	<code>F triplet</code>	
<code>mf_get_outline_text</code>	function	<code>F tripletpoints</code>	
<code>mf_graphic_text</code>	function	<code>F vprint</code>	
<code>mf_inject_blob</code>	function	<code>processingmode</code>	function
<code>mf_map_move</code>	function	<code>quadruple</code>	function
<code>mf_map_text</code>	function	<code>quadruplepoints</code>	function
<code>mf_named_color</code>	function	<code>quoted</code>	function
<code>mf_outline_text</code>	function	<code>report</code>	function
<code>mf_save_data</code>	function	<code>scan</code>	table
<code>mf_script_index</code>	function	<code>F boolean</code>	
<code>mf_start_saving_data</code>	function	<code>F cmykcolor</code>	

F color	T typescanners	
F expression	F whatever	
F integer	<b>set</b>	table
F next	<b>size</b>	function
F number	<b>skip</b>	table
F numeric	F token	
F pair	<b>solve</b>	function
F path	<b>string</b>	function
F pen	<b>systemmode</b>	function
F property	<b>transform</b>	function
F string	<b>triplet</b>	function
F symbol	<b>tripletpoints</b>	function
F token	<b>vprint</b>	function
T tokenscanners		
F transform		

## mplib (extra tex)

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

# noads (context)

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

# node (basic tex)

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

F getparstate	F is_char
F getpenalty	F is_glyph
F getpost	F is_node
F getpre	F is_valid
F getprev	F is_zero_glue
F getpropertystable	F ischar
F getproperty	F isglyph
F getreplace	F isnextchar
F getscale	F isnextglyph
F getscales	F isnode
F getscrip	F isprevchar
F getshift	F isprevglyph
F getspeciallist	F isvalid
F getstate	F iszeroglue
F getsub	F kerning
F getsubpre	F length
F getsubtype	F ligaturing
F getsup	F makeextensible
F getsuppre	F migrate
F getsynctexfields	F mlist_to_hlist
F gettotal	F mlisttohlist
F getusedattributes	F naturalhsize
F getwhd	F naturalwidth
F getwidth	F new
F getwordrange	F newmathglyph
F getxscale	F newtextglyph
F getxyscales	F patchattributes
F getyscale	F prependbeforehead
F has_attribute	F protect_glyph
F has_field	F protect_glyphs
F has_glyph	F protectglyph
F hasattribute	F protectglyphs
F hasdimensions	F protrusionskipable
F hasfield	F rangedimensions
F hasglyph	F remove
F hasglyphoption	F reverse
F hpack	F set_attribute
F hyphenating	F set_attributes
F id	F setattribute
F ignoremathskip	F setattributelist
F insert_after	F setattributes
F insert_before	F setboth
F insertafter	F setbox
F insertbefore	F setchar



F setdata	F show	
F setdepth	F slide	
F setdirection	F softenhyphens	
F setdisc	F start_of_par	
F setdiscpart	F startofpar	
F setexpansion	F subtypes	
F setfam	F tail	
F setfield	F todirect	
F setfont	F tonode	
F setglue	F tostring	
F setglyphdata	F tovaliddirect	
F setheight	F traverse	
F setindex	F traverse_char	
F setkern	F traverse_content	
F setlanguage	F traverse_glyph	
F setleader	F traverse_id	
F setlink	F traverse_list	
F setlist	F traversechar	
F setnext	F traversecontent	
F setnucleus	F traverseglyph	
F setoffsets	F traverseid	
F setoptions	F traverselist	
F setorientation	F type	
F setpenalty	F types	
F setpost	F unprotect_glyph	
F setpre	F unprotect_glyphs	
F setprev	F unprotectglyph	
F setproperty	F unprotectglyphs	
F setreplace	F unset_attribute	
F setscales	F unset_attributes	
F setscript	F unsetattribute	
F setshift	F unsetattributes	
F setspeciallist	F usedlist	
F setsplit	F uses_font	
F setstate	F usesfont	
F setsub	F values	
F setsubpre	F verticalbreak	
F setsubtype	F vpack	
F setup	F write	
F setsuppre	F xscaled	
F setsyntexfields	F yscaled	
F settotal	<b>effective_glue</b>	function
F setwhd	<b>effectiveglue</b>	function
F setwidth	<b>end_of_math</b>	function

<b>endofmath</b>	function	<b>length</b>	function
<b>family_font</b>	function	<b>ligaturing</b>	function
<b>fields</b>	function	<b>makeextensible</b>	function
<b>findattribute</b>	function	<b>mlist_to_hlist</b>	function
<b>first_glyph</b>	function	<b>mlisttohlist</b>	function
<b>firstglyph</b>	function	<b>new</b>	function
<b>flattendiscretionaries</b>	function	<b>protect_glyph</b>	function
<b>flush_list</b>	function	<b>protect_glyphs</b>	function
<b>flush_node</b>	function	<b>protectglyph</b>	function
<b>flushlist</b>	function	<b>protectglyphs</b>	function
<b>flushnode</b>	function	<b>protrusionskipable</b>	function
<b>free</b>	function	<b>rangedimensions</b>	function
<b>get_attribute</b>	function	<b>remove</b>	function
<b>getattribute</b>	function	<b>set_attribute</b>	function
<b>getcachestate</b>	function	<b>setattribute</b>	function
<b>getfield</b>	function	<b>setfield</b>	function
<b>getglue</b>	function	<b>setglue</b>	function
<b>getpropertystable</b>	function	<b>setproperty</b>	function
<b>getproperty</b>	function	<b>show</b>	function
<b>has_attribute</b>	function	<b>slide</b>	function
<b>has_field</b>	function	<b>subtypes</b>	function
<b>has_glyph</b>	function	<b>tail</b>	function
<b>hasattribute</b>	function	<b>tostring</b>	function
<b>hasfield</b>	function	<b>traverse</b>	function
<b>hasglyph</b>	function	<b>traverse_id</b>	function
<b>hpack</b>	function	<b>traverseid</b>	function
<b>hyphenating</b>	function	<b>type</b>	function
<b>id</b>	function	<b>types</b>	function
<b>insert_after</b>	function	<b>unprotect_glyph</b>	function
<b>insert_before</b>	function	<b>unprotect_glyphs</b>	function
<b>insertafter</b>	function	<b>unprotectglyph</b>	function
<b>insertbefore</b>	function	<b>unprotectglyphs</b>	function
<b>instock</b>	function	<b>unset_attribute</b>	function
<b>inuse</b>	function	<b>unsetattribute</b>	function
<b>is_node</b>	function	<b>usedlist</b>	function
<b>is_zero_glue</b>	function	<b>usesfont</b>	function
<b>isnode</b>	function	<b>values</b>	function
<b>iszeroglue</b>	function	<b>vpack</b>	function
<b>kerning</b>	function	<b>write</b>	function
<b>last_node</b>	function		
<b>lastnode</b>	function		

## nodes (context)

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

F checkparcounter		<b>insert_before</b>	function
F cleanupbox		<b>insertafter</b>	function
F cleanuppape		<b>insertbefore</b>	function
F export		<b>insertlistafter</b>	function
F finalizebox		<b>installattributehandler</b>	function
F finalizelist		<b>is_display_math</b>	function
F flatten		<b>is_node</b>	function
F flattenline		<b>isnode</b>	function
F migrate		<b>kerncodes</b>	data table
F protectglyphs		<b>leftmarginwidth</b>	function
F recolor		<b>linefillers</b>	table
F show		F filler	
F showhyphenation		F handler	
F stripping		F set	
F textbackgrounds		<b>lines</b>	table
F unprotectglyphs		T boxed	
F visualizehyphenation		F addlinenumbers	
F wipe		F register	
<b>has_attribute</b>	function	F setup	
<b>has_field</b>	function	D data	
<b>hasattribute</b>	function	F finalize	
<b>hasfield</b>	function	F number	
<b>hpack</b>	function	<b>link</b>	function
<b>idsandsubtypes</b>	function	<b>linked</b>	function
<b>idstostring</b>	function	<b>list</b>	function
<b>injections</b>	table	<b>listcodes</b>	data table
F copy		<b>listtoutf</b>	function
F getligaindex		<b>literalvalues</b>	data table
F getthreshold		<b>locate</b>	function
F handler		<b>markcodes</b>	data table
F installgetspaceboth		<b>markers</b>	table
F installnewkern		F get	
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>noadoptions</b>	table
F setposition		N axis	
F setspacekerns		N exact	
<b>insert_after</b>	function	N left	

N middle		F dirdimensions
N no_axis		F effective_glue
N right		F effectiveglue
N set		F end_of_math
N unused_1		F endofmath
N unused_2		F exchange
<b>nodecodes</b>	<b>data table</b>	F find_attribute
<b>nopts</b>	<b>function</b>	F findattribute
<b>nuts</b>	<b>table</b>	F findnode
F addmargins		F first_glyph
F addxoffset		F firstcharacter
F addxymargins		F firstcharinbox
F addyoffset		F firstglyph
F append		F flattendiscretionaries
F appendaftertail		F flush
F apply		F flush_list
F applyvisuals		F flush_node
F checkdiscretionaries		F flushlist
F collapsing		F flushnode
T colors		F free
F set		F fullhpack
T components		F get_attribute
F copynocomponents		F get_synctex_fields
F copyonlyglyphs		F getattr
F count		F getattribute
F flush		F getattributelist
F get		F getattributes
F set		F getattrlist
F concat		F getattrs
F copy		F getboth
F copy_list		F getbox
F copy_node		F getboxglue
F copy_only		F getchar
F copy_properties		F getcharspec
F copyleft		F getcomponents
F copynode		F getdata
F copyonly		F getdepth
F copyvisual		F getdirection
F count		F getdisc
F countall		F getdiscpart
F current_attr		F getdiscretionary
F currentattributes		F getexpansion
F delete		F getfam
F dimensions		F getfield

F getfont  
F getglue  
F getglyphdata  
F getglyphdimensions  
F getheight  
F getid  
F getindex  
F getkern  
F getkerndimension  
F getlang  
F getlanguage  
F getleader  
F getlist  
F getnext  
F getnormalizedline  
F getnucleus  
F getoffsets  
F getoptions  
F getorientation  
F getparstate  
F getpenalty  
F getpost  
F getpre  
F getprev  
F getprop  
F getreplace  
F getruledata  
F getscale  
F getscales  
F getscrip  
F getshift  
F getspeciallist  
F getstate  
F getsub  
F getsubpre  
F getsubtype  
F getsup  
F getsuppre  
F getsurround  
F getsyntexfields  
F gettotal  
F getusedattributes  
F getvalue  
F getwhd

F getwidth  
F getwordrange  
F getxscale  
F getxyscales  
F getsyscale  
F has\_attribute  
F has\_dimensions  
F has\_field  
F has\_glyph  
F hasattribute  
F hasdimensions  
F hasfield  
F hasglyph  
F hasglyphoption  
F hpack  
F hyphenating  
F ignoremathskip  
F insert\_after  
F insert\_before  
F insertafter  
F insertbefore  
F insertlistafter  
F is\_display\_math  
F is\_node  
F is\_zero\_glue  
F ischar  
F isdone  
F isglyph  
F isnextchar  
F isnextglyph  
F isnode  
F isprevchar  
F isprevglyph  
F iszeroglue  
F kerning  
F length  
F ligaturing  
F link  
F linked  
F locate  
F migrate  
F mlist\_to\_hlist  
F mlisttohlist  
F naturalhsize

F naturalwidth	F radical
F nestedtracedslide	F rawliteral
F new	F register
F newmathglyph	F restore
F patchattributes	F righthangskip
T pool	F rightmarginkern
F accent	F rightskip
F baselineskip	F rule
F boundary	F save
F boxrule	F savepos
F choice	F setmatrix
F cleanup	F setstate
F delim	F shrink
F delimiter	F startrotation
F direction	F stock
F directliteral	F stretch
F disc	F subbox
F emptyrule	F sublist
F fence	F temp
F fontkern	F usage
F fraction	F userdefined
F glue	T userids
F gluespec	F usernode
F glyph	F userrule
F hlist	F vlist
F imagerule	F wordboundary
F indentskip	F prepend
F italickern	F prependbeforehead
F kern	F processranges
F latelua	F processwords
F leader	F protect_glyph
F lefthangskip	F protect_glyphs
F leftmarginkern	F protectglyph
F leftskip	F protectglyphs
F lineskip	F protrusionskipable
F literal	F rangedimensions
F mathchar	F rawprop
F mathtextchar	F reference
F negatedglue	F rehpac
F noad	F remove
F originliteral	F repacklist
F outlinerule	F replace
F pageliteral	F reverse
F penalty	T rules

T ruleactions	F setpenalty
F box	F setpost
F draw	F setpre
F fill	F setprev
F mp	F setprop
F stroke	F setreplace
F userrule	F setruledata
F set_attribute	F setscale
F setattr	F setscales
F setattribute	F setscript
F setattributelist	F setshift
F setattributes	F setspeciallist
F setattrlist	F setsplit
F setattrrs	F setstate
F setboth	F setsub
F setbox	F setsubpre
F setboxglue	F setsubtype
F setchar	F setup
F setcomponents	F setsuppre
F setdata	F setsurround
F setdepth	F setsynctexfields
F setdirection	F setvalue
F setdisc	F setvisual
F setdiscpart	F setvisuals
F setdiscretionary	F setwhd
F setexpansion	F setwidth
F setfam	F show
F setfield	F slide
F setfont	F softenhyphens
F setglue	F somepenalty
F setglyphdata	F somespace
F setheight	F splitbox
F setkern	F start_of_par
F setlang	F startofpar
F setlanguage	F striprange
F setleader	F tail
F setlink	F takeattr
F setlist	F takebox
F setnext	F takelist
F setnucleus	F theprop
F setoffsets	F tonode
F setoptions	F tonodes
F setorientation	F tonut
F setparproperty	F tosequence



F tostring  
 F tracedslide  
 F traverse  
 F traverse\_char  
 F traverse\_glyph  
 F traverse\_id  
 F traverse\_list  
 F traversechar  
 F traversecontent  
 F traverseglyph  
 F traverseid  
 F traverselist  
 T traversers  
   F alignrecord  
   F boundary  
   F char  
   F content  
   F dir  
   F disc  
   F glue  
   F glyph  
   F hlist  
   F list  
   F mark  
   F next  
   F node  
   F unset  
   F vlist  
   F whatsit  
 T treversers  
   F char  
   F content  
   F glyph  
   F list  
   F node  
 T typesetters  
   F tohbox  
   F tohpack  
   F tonodes  
   F toinbox  
   F toinbox  
 F unprotect\_glyph  
 F unprotect\_glyphs  
 F unprotectglyph

F unprotectglyphs  
 F unset\_attribute  
 F unsetattribute  
 F unsetattributes  
 F untracedslide  
 F usedlist  
 F uses\_font  
 F usesfont  
 F verticalbreak  
 F vianodes  
 F vianuts  
 F vpack  
 F write  
 F xscaled  
 F yscaled

**packlist**  
**parcodes**  
**penaltycodes**  
**plugindata**

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

**points**  
**pool**

F baselineskip  
 F cleanup  
 F directliteral  
 F glyph  
 F hlist  
 F latelua  
 F leader  
 F lineskip  
 F literal  
 F originliteral  
 F register

function  
 data table  
 data table  
 table

function  
 table

F restore		<b>setboth</b>	function
F save		<b>setbox</b>	function
F savepos		<b>setboxtonaturalwd</b>	function
F setmatrix		<b>setchar</b>	function
F stock		<b>setfield</b>	function
F usage		<b>setfont</b>	function
F usernode		<b>setleader</b>	function
F vlist		<b>setlink</b>	function
<b>prepend</b>	function	<b>setlist</b>	function
<b>print</b>	function	<b>setnext</b>	function
<b>processors</b>	table	<b>setprev</b>	function
F alignment_filter		<b>setproperty</b>	function
F append_line_filter		<b>shifts</b>	table
F glyph_run		F handler	
F post_linebreak_filter		F set	
F pre_linebreak_filter		<b>showboxes</b>	function
F trace_glyph_run_a		<b>showlist</b>	function
F trace_glyph_run_b		<b>showsimplelist</b>	function
<b>properties</b>	table	<b>skipcodes</b>	data table
T data		<b>snapshots</b>	table
<b>pts</b>	function	F getsamples	
<b>radicalcodes</b>	data table	F resetsamples	
<b>references</b>	table	F takesample	
N attribute		<b>somepenalty</b>	function
T done		<b>somespace</b>	function
F handler		<b>specialskipcodes</b>	table
T stack		<b>splitbox</b>	function
<b>reheapack</b>	function	<b>startofpar</b>	function
<b>remove</b>	function	<b>stripdiscretionaries</b>	function
<b>repackhlist</b>	function	<b>stripping</b>	table
<b>replace</b>	function	T glyphs	
<b>report</b>	function	F set	
<b>rightmarginwidth</b>	function	<b>subtypes</b>	data table
<b>rulecodes</b>	data table	<b>tail</b>	function
<b>rules</b>	table	<b>takeattr</b>	function
F handler		<b>takebox</b>	function
F process		<b>tasks</b>	table
F set		F actions	
F userrule		F appendaction	
<b>serialize</b>	function	F disableaction	
<b>serializebox</b>	function	F disablegroup	
<b>set_attribute</b>	function	F enableaction	
<b>setattr</b>	function	F enablegroup	
<b>setattribute</b>	function	F freeze	

F freezgroup		F setproperties	
F new		F start	
F prependaction		T steppers	
F removeaction		F check	
F replaceaction		F codes	
F restart		F features	
F setaction		F font	
F showactions		F glyphs	
F table		F message	
<b>tobasepoints</b>	function	F messages	
<b>tocentimeters</b>	function	F nofsteps	
<b>toxiceros</b>	function	F register	
<b>todidots</b>	function	F reset	
<b>todimen</b>	function	F start	
<b>toinches</b>	function	F stop	
<b>tomillimeters</b>	function	F stop	
<b>tonode</b>	function	T transparencies	
<b>tonodes</b>	function	F reset	
<b>tonut</b>	function	F set	
<b>topicsas</b>	function	F setlist	
<b>topoints</b>	function	<b>traverse</b>	function
<b>toscaledpoints</b>	function	<b>traverse_id</b>	function
<b>tosequence</b>	function	<b>traverseid</b>	function
<b>tostring</b>	function	<b>typesetters</b>	table
<b>totable</b>	function	F hbox	
<b>totree</b>	function	F hpack	
<b>toutf</b>	function	F tohbox	
<b>tracers</b>	table	F tohpack	
T colors		F tonodes	
F reset		F tovbox	
F set		F tovpack	
F setlist		F vpack	
F directions		<b>unset_attribute</b>	function
F fontchar		<b>unsetattribute</b>	function
T frequencies		<b>usedlist</b>	function
F register		<b>vianodes</b>	function
T pool		<b>vianuts</b>	function
T nodes		<b>visualizebox</b>	function
F rule		<b>visualizers</b>	table
T nuts		F attribute	
F rule		T attributes	
F resetproperties		F box	
F rule		F handler	
F setlist		F markfonts	

T modes	N penalty	
N depth	N simple	
N dir	N simplehbox	
N discretionary	N simplevbox	
N expansion	N simplevtop	
N fontkern	N space	
N glue	N strut	
N glyph	N user	
N hbox	N vbox	
N insert	N vtop	
N italic	N whatsit	
N kern	F register	
N line	F setfont	
N marginkern	F setlayer	
N mark	F setruledglyph	
N math	F setvisual	
N mathglue	<b>vpack</b>	function
N mathkern	<b>whatsitcodes</b>	data table
N origin	<b>write</b>	function
N par		

## 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>tociceros</b>	function
<b>dimenfactors</b>	data table	<b>tocontext</b>	function
<b>formatted</b>	function	<b>todidots</b>	function
<b>formattedfloat</b>	function	<b>todimen</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>topicsas</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>valid</b>	function
<b>splitdimen</b>	function		

## objects (context)

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

## **postgres** table

F close  
F execute  
F getmessage  
F initialize  
F open

**sqlite**                    table

  F close

  F execute

  F getmessage

  F initialize

  F open

**zint**                    table

  F execute

  F initialize

**zstd**                    table

  F compress

  F decompress

  F initialize



## os (basic lua)

<b>__getenv__</b>	function	<b>remove</b>	overloaded function
<b>__setenv__</b>	function	<b>rename</b>	overloaded function
<b>binsuffix</b>	string	<b>resultof</b>	function
<b>binsuffixes</b>	table	<b>runtime</b>	function
<b>bits</b>	string	<b>selfarg</b>	table
<b>clock</b>	function	<b>selfbase</b>	string
<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>selfname</b>	string
<b>env</b>	data table	<b>selfpath</b>	string
<b>execute</b>	overloaded function	<b>setenv</b>	overloaded function
<b>exit</b>	overloaded function	<b>setexitcode</b>	function
<b>fulltime</b>	function	<b>setlocale</b>	overloaded function
<b>getcodepage</b>	function	<b>sleep</b>	function
<b>getenv</b>	overloaded function	<b>time</b>	function
<b>gettimeofday</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
<b>platform</b>	string		

## package (basic lua)

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

# pagebuilders (context)

## **columnsets**      table

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

F setspan  
F setlines  
F setproperties  
F setstart  
F setvsize

## **injections**      table

F flushafter  
F flushbefore  
F save

## **mixedcolumns**      table

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

pdf (basic tex)

**immediateobj** function

## pdf (extra tex)

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

# physics (context)

**units** table

F registerunit

D tables

## pngdecode (extra tex)

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

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

# publications (context)

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



S year	S keywords	
T optional	S number	
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	

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

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

## 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>findfile</b>	function
<b>appendhash</b>	function	<b>findfiles</b>	function
<b>automount</b>	function	<b>findgivenfile</b>	function
<b>booleanvariable</b>	function	<b>findgivenfiles</b>	function
<b>cacheversion</b>	string	<b>findlib</b>	function
<b>checkedvariable</b>	function	<b>findpath</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>initialized</b>	function
<b>executers</b>	table	<b>installinputfilehandler</b>	function
<b>expandbraces</b>	function	<b>installinputlinehandler</b>	function
<b>expandedpathfromlist</b>	function	<b>jobpath</b>	function
<b>expandedpathlist</b>	function	<b>jobs</b>	table
<b>expandedpathlistfromvariable</b>	function	F currentcomponent	
<b>expandpath</b>	function	F currentenvironment	
<b>expandpathfromvariable</b>	function	F currentproduct	
<b>expansion</b>	function	F currentproject	
<b>extendtexmfvariable</b>	function	F justacomponent	
<b>filtered_from_content</b>	function	D processors	
<b>find_file</b>	function	F productcomponent	
<b>find_files</b>	function	F usefile	
<b>findbinfile</b>	function	<b>joinpath</b>	function
<b>findctxfile</b>	function	<b>knownvariables</b>	function
<b>finders</b>	data table	<b>libraries</b>	table

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

<b>usertypes</b>	data table	<b>variableofformat</b>	function
<b>usezipfile</b>	function	<b>variableofformatorsuffix</b>	function
<b>validatedpath</b>	function	<b>wildcardpattern</b>	function
<b>variable</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

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

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

**newtry**                      function  
**protect**                    function  
**report**                     function  
**select**                    function  
**sink**                        function  
**sinkt**                     table  
     F close-when-done  
     F default  
     F http-chunked  
     F keep-open  
**skip**                        function  
**sleep**                      function  
**source**                    function  
**sourcet**                    table  
     F by-length  
     F default  
     F http-chunked  
     F until-closed  
**tcp**                         function  
**tcp4**                        function  
**tcp6**                        function  
**tp**                          table  
     N TIMEOUT  
     F connect  
**try**                         function  
**udp**                         function  
**udp4**                        function  
**udp6**                        function  
**url**                         table  
     F absolute  
     F build  
     F build\_path  
     F escape  
     F parse  
     F parse\_path  
     F unescape

# sorters (context)

**basicsorter** function

**comparers** table

F basic

**constants** table

S defaultdigits

S defaultlanguage

S defaultmethod

N digitmaximum

N digitoffset

N ignoredoffset

N replacementoffset

T validmethods

B ch

B mc

B mm

B pc

B pm

B uc

B zc

B zm

**definitions** data table

**firstofsplit** function

**packch** function

**packuc** function

**replacementlist** function

**setlanguage** function

**sort** function

**splitters** table

F utf

**strip** function

**tracers** data table

**update** function

## sparse (context)

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

## storage (context)

<b>allocate</b>	function	<b>register</b>	function
<b>data</b>	table	<b>shared</b>	data table
<b>mark</b>	function	<b>storedfunctions</b>	data table
<b>marked</b>	function	<b>strip</b>	boolean
<b>max</b>	number	<b>tofmodules</b>	number
<b>min</b>	number	<b>toftables</b>	number
<b>nofmodules</b>	number		
<b>noftables</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>nospaces</b>	function
<b>autosingle</b>	function	<b>nspace</b>	table
<b>booleanstring</b>	function	<b>optionalquoted</b>	function
<b>byte</b>	function	<b>pack</b>	function
<b>bytepairs</b>	function	<b>packrowscolumns</b>	function
<b>bytes</b>	function	<b>packsize</b>	function
<b>bytetable</b>	function	<b>quote</b>	function
<b>char</b>	function	<b>quoted</b>	function
<b>characterpairs</b>	function	<b>rep</b>	function
<b>characters</b>	function	<b>replacenewlines</b>	function
<b>checkedsplit</b>	function	<b>reverse</b>	function
<b>collapsespaces</b>	function	<b>split</b>	function
<b>containsws</b>	function	<b>splitlines</b>	function
<b>count</b>	function	<b>splitup</b>	function
<b>dawson</b>	function	<b>strip</b>	function
<b>dump</b>	function	<b>sub</b>	function
<b>erf</b>	function	<b>texnewlines</b>	function
<b>erfc</b>	function	<b>tformat</b>	function
<b>erfcx</b>	function	<b>toHEX</b>	function
<b>erfi</b>	function	<b>toboollean</b>	function
<b>escapedpattern</b>	function	<b>tobytes</b>	function
<b>escapedquotes</b>	function	<b>tocontext</b>	function
<b>explode</b>	function	<b>todec</b>	function
<b>f6</b>	function	<b>todimen</b>	function
<b>find</b>	function	<b>tohex</b>	function
<b>format</b>	function	<b>tonodes</b>	function
<b>formatter</b>	function	<b>topattern</b>	function
<b>formatters</b>	function	<b>totable</b>	function
<b>fullstrip</b>	function	<b>tounicode16</b>	function
<b>gmatch</b>	function	<b>toutf</b>	function
<b>gsub</b>	function	<b>toutf32</b>	function
<b>is_boolean</b>	function	<b>toutf8</b>	function
<b>is_empty</b>	function	<b>tracedchar</b>	function
<b>itself</b>	function	<b>tracedchars</b>	table
<b>len</b>	function	<b>unescapedquotes</b>	function
<b>limit</b>	function	<b>unpack</b>	function
<b>linetable</b>	function	<b>unquote</b>	function
<b>longtostring</b>	function	<b>unquoted</b>	function
<b>lower</b>	function	<b>upper</b>	function
<b>match</b>	function	<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>voigt</b>	function
<b>voigt_hwhm</b>	function
<b>wordsplitter</b>	function

# structures (context)

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

F prefixpage		D pushed	
F simplify		F pushnesting	
F title		F realpage	
F touserdata		F reordered	
<b>inserts</b>	table	T result	
D data		F savedlistnumber	
F define		F savedlistprefixednumber	
F getdata		F savedlisttitle	
F getlocation		D sectionblocks	
F getname		F sectionnumber	
F getnumber		F size	
F setlocation		F title	
F setup		D tobesaved	
D stored		F userdata	
<b>itemgroups</b>	table	F uservalue	
<b>lists</b>	table	<b>marks</b>	table
F addto		F number	
F analyze		F title	
B autoreorder		<b>notes</b>	table
D cached		F check_spacing	
D collected		F checkpagechange	
F discard		F define	
F enhance		F doifonsamepageasprevious	
T enhancers		F get	
F filter		F getdeltapage	
F formulainumber		F getinternal	
F getresult		F getn	
F groupindex		F getstate	
F hasnumberdata		F hascontent	
F haspagedata		F internal	
F hastitledata		F internalid	
F iscached		F listindex	
D kinds		D numbers	
F label		F ordered	
F location		F postpone	
D names		F resetpostponed	
F number		F restore	
D ordered		F save	
F page		F setstate	
F popnesting		D states	
F prefix		F store	
F prefixednumber		<b>pages</b>	table
F prefixedpage		F allmarked	
F process		F analyze	



D collected	F getcurrentmetadata
F fraction	F getcurrentprefixspec
F has_changed	F getinnermethod
F in_body	F getinternalcachedlistreference
F is_odd	F getinternallistreference
F mark	F getinternalreference
F marked	F getoutermethod
F markedlist	D handlers
N nopages	F identify
F number	F import
F on_right	F inject
F save	F injectcurrentset
D tobesaved	S innermethod
F toranges	D internals
<b>references</b>	F load
	F loadpresets
F analyze	F mark
F checkedfile	S outermethod
F checkedfileorurl	D pages
F checkedprogram	U prefixsplitter
F checkedrealpage	D productdata
F checkedurl	T programs
D collected	T data
U componentsplitter	F define
F currentmetadata	F get
F currentorder	F realpageofpage
D currentset	U referencesplitter
F define	D referred
D defined	F referredpage
D derived	F registerfinalizer
F enhance	F registerinitializer
D executers	F registerpage
F export	F reset
T files	D runners
T data	F set
F define	F setandgetattribute
F found	F setcomponent
F get	F setinternalreference
F filter	F setlinkmethod
F filterdefault	F setnextinternal
D filters	F setnextorder
D flaginternals	F setreferencerealpage
F from	D specials
D functions	F splitcomponent
F get	

- 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 prepare
- F process
- F setmethod

table

- F sort
- F store
- D tobesaved
- F unique
- F userdata

**sections**

- F autodepth
- F cct
- D collected
- F current
- F currentblock
- F currentid
- F currentlevel
- F currentsectionindex
- F depthnumber
- F finddata
- F findnumber
- F fullnumber
- F getcurrentlevel
- F getlevel
- F getnumber
- F internalreference
- D levelmap
- D levels
- F matchingtilldepth
- F numberatdepth
- F numbers
- F popblock
- F prefixedconverted
- F pushblock
- F register
- D registered
- F reportstructure
- F save
- T sectionblockdata
  - T bodypart
    - S bookmark
- F set
- F setblock
- F setchecker
- F setentry
- F setinitialblock
- F setlevel
- F setnumber

table

F showstructure		F marginanchor
F structuredata		F margintext
F title		F math
D tobesaved		F mrow
F typesetnumber		F mtable
F userdata		T destinationhash
B verbose		T extras
<b>sets</b>	<b>table</b>	F adddestination
F define		F addimplicit
F get		F addinternal
F getall		F addreference
D setlist		F combination
<b>specials</b>	<b>table</b>	F delimitedsymbol
D collected		F description
F retrieve		F descriptionsymbol
F store		F document
D tobesaved		F float
<b>synonyms</b>	<b>table</b>	F formulacontent
F analyzed		F image
D collected		F item
F compare		F itemgroup
F define		F link
F filter		F listitem
F finalize		F mi
F flush		F msub
F isshown		F msup
F isused		F paragraph
F meaning		F publication
F prepare		F reference
F process		F registerlocation
F register		F registerpages
F registershown		F registerseparator
F registerused		F section
F reset		F sorting
F resetall		F subsentencesymbol
F resetlist		F synonym
F resetshown		F tablecell
F resetused		F tabulate
F sort		F tabulatecell
F synonym		T finalizers
D tobesaved		F descriptions
<b>tags</b>	<b>table</b>	T fixes
T backend		F linenumber
T checks		T listdata

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

## table (basic lua)

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

# tex (basic tex)

<b>attribute</b>	table	<b>getattribute</b>	function
<b>automigrationcodes</b>	data table	<b>getautomigrationvalues</b>	function
<b>badness</b>	function	<b>getbox</b>	function
<b>box</b>	table	<b>getboxdir</b>	function
<b>boxresources</b>	table	<b>getboxresourcebox</b>	function
F getbox		<b>getboxresourcedimensions</b>	function
F getdimensions		<b>getcatcode</b>	function
F save		<b>getcount</b>	function
F use		<b>getdelcode</b>	function
<b>catcode</b>	table	<b>getdelcodes</b>	function
<b>chardef</b>	function	<b>getdelimtermodevalues</b>	function
<b>codes</b>	table	<b>getdimen</b>	function
<b>conditionals</b>	data table	<b>getdimensionvalue</b>	function
<b>constants</b>	data table	<b>getdiscoptionvalues</b>	function
<b>count</b>	table	<b>getdiscstatevalues</b>	function
<b>cprint</b>	function	<b>geterrorvalues</b>	function
<b>ctdcatcodes</b>	number	<b>getflagvalues</b>	function
<b>ctxcatcodes</b>	number	<b>getfontoffamily</b>	function
<b>definefont</b>	function	<b>getfrozenparvalues</b>	function
<b>delcode</b>	table	<b>getglue</b>	function
<b>dimen</b>	table	<b>getglyphdata</b>	function
<b>dimensiondef</b>	function	<b>getglyphoptionvalues</b>	function
<b>directives</b>	data table	<b>getglyphscales</b>	function
<b>discoptioncodes</b>	data table	<b>getglyphscript</b>	function
<b>enableprimitives</b>	function	<b>getglyphstate</b>	function
<b>error</b>	function	<b>getgroupvalues</b>	function
<b>expandasvalue</b>	function	<b>gethelptext</b>	function
<b>experiments</b>	data table	<b>gethyphenationvalues</b>	function
<b>extraprimitives</b>	function	<b>getinsertcontent</b>	function
<b>fatalerror</b>	function	<b>getinsertdepth</b>	function
<b>flagcodes</b>	data table	<b>getinsertdistance</b>	function
<b>fontidentifier</b>	function	<b>getinsertheight</b>	function
<b>fontname</b>	function	<b>getinsertlimit</b>	function
<b>forcehmode</b>	function	<b>getinsertmultiplier</b>	function
<b>forcesynctexline</b>	function	<b>getinsertwidth</b>	function
<b>forcesynctextag</b>	function	<b>getintegervalue</b>	function
<b>fprint</b>	function	<b>getinteraction</b>	function
<b>frozenparcodes</b>	data table	<b>getiovalues</b>	function
<b>get</b>	function	<b>getlargestusedmark</b>	function
<b>getappendlinecontextvalues</b>	function	<b>getlccode</b>	function

<b>getlinedir</b>	function	<b>glue</b>	table
<b>getlist</b>	function	<b>glyphoptioncodes</b>	data table
<b>getlocalbox</b>	function	<b>groupcodes</b>	data table
<b>getlocallevel</b>	function	<b>hashtokens</b>	function
<b>getmark</b>	function	<b>hyphenationcodes</b>	data table
<b>getmath</b>	function	<b>ifs</b>	data table
<b>getmathcode</b>	function	<b>inimatcodes</b>	number
<b>getmathcodes</b>	function	<b>integerdef</b>	function
<b>getmathcontrolvalues</b>	function	<b>isattribute</b>	function
<b>getmathdir</b>	function	<b>isbox</b>	function
<b>getmathflattenvalues</b>	function	<b>iscount</b>	overloaded function
<b>getmathoptionvalues</b>	function	<b>isdefined</b>	function
<b>getmathparametervalues</b>	function	<b>isdimen</b>	overloaded function
<b>getmathstylenamevalues</b>	function	<b>isglue</b>	function
<b>getmathstylevalues</b>	function	<b>ismuglue</b>	function
<b>getmathvariantvalues</b>	function	<b>ismuskip</b>	overloaded function
<b>getmode</b>	function	<b>isprintable</b>	function
<b>getmodevalues</b>	function	<b>isskip</b>	overloaded function
<b>getmuglue</b>	function	<b>istoken</b>	function
<b>getmuskip</b>	function	<b>istoks</b>	function
<b>getnest</b>	function	<b>lastnodetype</b>	function
<b>getnormalizevalues</b>	function	<b>lccode</b>	table
<b>getoutputactive</b>	function	<b>linebreak</b>	function
<b>getpacktypevalues</b>	function	<b>lists</b>	table
<b>getpagecontextvalues</b>	function	<b>luacatcodes</b>	number
<b>getpagestate</b>	function	<b>magicconstants</b>	table
<b>getparbeginvalues</b>	function	N awfulbad	
<b>getparcontextvalues</b>	function	N decentcriterium	
<b>getpardir</b>	function	N defaultcatcodetable	
<b>getparmodevalues</b>	function	N defaultdeadcycles	
<b>getparstate</b>	function	N defaulteqnogapstep	
<b>getprimitiveorigins</b>	function	N defaulthangafter	
<b>getregisterindex</b>	function	N defaultoutputbox	
<b>getrunstatevalues</b>	function	N defaultpredisplaygap	
<b>getsfcode</b>	function	N defaultrule	
<b>getshapingpenaltiesvalues</b>	function	N defaultspacefactor	
<b>getskip</b>	function	N defaulttolerance	
<b>getsynctexline</b>	function	N deplorable	
<b>getsynctexmode</b>	function	N ejectpenalty	
<b>getsynctextag</b>	function	N ignoreddepth	
<b>gettextcontrolvalues</b>	function	N infinitebad	
<b>gettextdir</b>	function	N infinitepenalty	
<b>gettoks</b>	function	N infinity	
<b>getuccode</b>	function	N largewidthexcess	

N loosecriterium	N texhashprime	
N maxbytecodeindex	N texhashsize	
N maxcardinal	N two	
N maxcategorycode	N unity	
N maxcharactercode	N unusedattributevalue	
N maxcharcode	N unusedscriptvalue	
N maxdatavalue	N unusedstatevalue	
N maxdimen	N zeroglua	
N maxfunctionreference	<b>mathchardef</b>	function
N maxhalfvalue	<b>mathcode</b>	table
N maxhalfword	<b>mathcontrolcodes</b>	data table
N maxinteger	<b>mathflattencodes</b>	data table
N maxmarkindex	<b>mathoptioncodes</b>	data table
N maxmathclasscode	<b>modelevels</b>	table
N maxmathfamilyindex	N horizontal	
N maxnewlinecharacter	N math	
N maxnofbytecodes	N unset	
N maxnofcatcodetables	N vertical	
N maxnoffonts	<b>modes</b>	data table
N maxnoflanguages	<b>mprint</b>	function
N maxnofmarks	<b>muglua</b>	table
N maxnofmathfamilies	<b>muskip</b>	table
N maxnofregisters	<b>nest</b>	table
N maxquarterword	<b>nilcatcodes</b>	number
N maxregisterindex	<b>normalizecodes</b>	data table
N maxsizeofword	<b>notcatcodes</b>	number
N maxspacefactor	<b>number</b>	function
N mincardinal	<b>parcontextcodes</b>	data table
N mindatavalue	<b>poplocal</b>	function
N mindimen	<b>primitives</b>	function
N minhalfword	<b>print</b>	function
N mininfinity	<b>prtcacodes</b>	number
N mininteger	<b>pushlocal</b>	function
N minquarterword	<b>quitlocal</b>	function
N minspacefactor	<b>quittoks</b>	function
N nocatcodetable	<b>resetparagraph</b>	function
N null	<b>rlncatcodes</b>	number
N nullflag	<b>romannumeral</b>	function
N nullfont	<b>round</b>	function
N onebp	<b>runlocal</b>	function
N presetrulethickness	<b>runstring</b>	function
N runningrule	<b>runtoks</b>	function
N smallstretchability	<b>saveboxresource</b>	function
N texeqtbsize	<b>scale</b>	function



<b>scantoks</b>	function	<b>setsynctextag</b>	function
<b>set</b>	function	<b>settetxtdir</b>	function
<b>setattribute</b>	function	<b>settoks</b>	function
<b>setbox</b>	function	<b>setuccode</b>	function
<b>setboxdir</b>	function	<b>sfcode</b>	table
<b>setcatcode</b>	function	<b>shiftparshape</b>	function
<b>setcount</b>	function	<b>shipout</b>	function
<b>setdelcode</b>	function	<b>showbox</b>	function
<b>setdimen</b>	function	<b>showcontext</b>	function
<b>setdimensionvalue</b>	function	<b>skip</b>	table
<b>setglue</b>	function	<b>snapshotpar</b>	function
<b>setglyphdata</b>	function	<b>sp</b>	function
<b>setglyphscript</b>	function	<b>splitbox</b>	function
<b>setglyphstate</b>	function	<b>sprint</b>	function
<b>setinsertcontent</b>	function	<b>stringtocodesbitmap</b>	function
<b>setinsertdistance</b>	function	<b>systemmodes</b>	data table
<b>setinsertlimit</b>	function	<b>takebox</b>	function
<b>setinsertmultiplier</b>	function	<b>texcatcodes</b>	number
<b>setintegervalue</b>	function	<b>textcontrolcodes</b>	data table
<b>setinteraction</b>	function	<b>toks</b>	table
<b>setlccode</b>	function	<b>tonumber</b>	function
<b>setlinedir</b>	function	<b>toscaled</b>	function
<b>setlist</b>	function	<b>tpacatcodes</b>	number
<b>setlocalbox</b>	function	<b>tpbcatcodes</b>	number
<b>setmath</b>	function	<b>tprint</b>	function
<b>setmathcode</b>	function	<b>trackers</b>	data table
<b>setmathdir</b>	function	<b>triggerbuildpage</b>	function
<b>setmuglue</b>	function	<b>txtcatcodes</b>	number
<b>setmuskip</b>	function	<b>type</b>	function
<b>setnest</b>	function	<b>uccode</b>	table
<b>setpardir</b>	function	<b>uprint</b>	function
<b>setrunstate</b>	overloaded function	<b>useboxresource</b>	function
<b>setsfcode</b>	function	<b>vrbcacodes</b>	number
<b>setskip</b>	function	<b>write</b>	function
<b>setsynctexline</b>	function		
<b>setsynctexmode</b>	function		

# texconfig (basic tex)

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

## texio (basic tex)

<b>closeinput</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>getdimension</b>	function
<b>expand</b>	function	<b>getexpandable</b>	function
<b>expand_macro</b>	function	<b>getexpansion</b>	function
<b>expandmacro</b>	function	<b>getfields</b>	function
<b>future_expand</b>	function	<b>getflags</b>	function
<b>futureexpand</b>	function	<b>getfrozen</b>	function
<b>get_active</b>	function	<b>getfunctionvalues</b>	function
<b>get_cmdchrcls</b>	function	<b>getid</b>	function
<b>get_cmdname</b>	function	<b>getimmutable</b>	function
<b>get_command</b>	function	<b>getindex</b>	function
<b>get_csname</b>	function	<b>getinstance</b>	function
<b>get_cstoken</b>	function	<b>getinteger</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_dimen</b>	function
<b>get_parameters</b>	function	<b>gobble_integer</b>	function
<b>get_permanent</b>	function	<b>gobbledimen</b>	function
<b>get_primitive</b>	function	<b>gobbleinteger</b>	function
<b>get_protected</b>	function	<b>is_defined</b>	function
<b>get_range</b>	function	<b>is_next_char</b>	function
<b>get_tok</b>	function	<b>is_token</b>	function
<b>get_tolerant</b>	function	<b>isdefined</b>	function
<b>getactive</b>	function	<b>isnextchar</b>	function
<b>getcndchrcls</b>	function	<b>istoken</b>	function
<b>getcndname</b>	function	<b>new</b>	function
<b>getcommand</b>	function	<b>peek_next</b>	function
<b>getcommandid</b>	function	<b>peek_next_char</b>	function
<b>getcommandvalues</b>	function	<b>peek_next_expanded</b>	function
<b>getcsname</b>	function	<b>peeknext</b>	function
<b>getcstoken</b>	function	<b>peeknextchar</b>	function

<b>peeknextexpanded</b>	function	<b>scan_value</b>	function
<b>pop_macro</b>	function	<b>scan_word</b>	function
<b>popmacro</b>	function	<b>scanargument</b>	function
<b>push_macro</b>	function	<b>scanbox</b>	function
<b>pushmacro</b>	function	<b>scancardinal</b>	function
<b>put_back</b>	function	<b>scanchar</b>	function
<b>put_next</b>	function	<b>scancmdchr</b>	function
<b>putback</b>	function	<b>scancmdchrexploded</b>	function
<b>putnext</b>	function	<b>scancode</b>	function
<b>save_lua</b>	function	<b>scancsname</b>	function
<b>savelua</b>	function	<b>scandelimited</b>	function
<b>scan_argument</b>	function	<b>scandimen</b>	function
<b>scan_box</b>	function	<b>scandimenargument</b>	function
<b>scan_cardinal</b>	function	<b>scanfloat</b>	function
<b>scan_char</b>	function	<b>scan glue</b>	function
<b>scan_cmdchr</b>	function	<b>scaninteger</b>	function
<b>scan_cmdchr_expanded</b>	function	<b>scanintegerargument</b>	function
<b>scan_code</b>	function	<b>scankey</b>	function
<b>scan_csname</b>	function	<b>scankeyword</b>	function
<b>scan_delimited</b>	function	<b>scankeywordcs</b>	function
<b>scan_dimen</b>	function	<b>scanletters</b>	function
<b>scan_dimen_argument</b>	function	<b>scanluacardinal</b>	function
<b>scan_float</b>	function	<b>scanluainteger</b>	function
<b>scan_glue</b>	function	<b>scanluanumber</b>	function
<b>scan_integer</b>	function	<b>scannext</b>	function
<b>scan_integer_argument</b>	function	<b>scannextchar</b>	function
<b>scan_key</b>	function	<b>scannextexpanded</b>	function
<b>scan_keyword</b>	function	<b>scanreal</b>	function
<b>scan_keyword_cs</b>	function	<b>scanscale</b>	function
<b>scan_letters</b>	function	<b>scanskip</b>	function
<b>scan_luacardinal</b>	function	<b>scanstring</b>	function
<b>scan_luainteger</b>	function	<b>scantoken</b>	function
<b>scan_luanumber</b>	function	<b>scantokencode</b>	function
<b>scan_next</b>	function	<b>scantokenlist</b>	function
<b>scan_next_char</b>	function	<b>scantoks</b>	function
<b>scan_next_expanded</b>	function	<b>scanvalue</b>	function
<b>scan_real</b>	function	<b>scanword</b>	function
<b>scan_scale</b>	function	<b>serialize</b>	function
<b>scan_skip</b>	function	<b>set_char</b>	function
<b>scan_string</b>	function	<b>set_dimension</b>	function
<b>scan_token</b>	function	<b>set_integer</b>	function
<b>scan_token_code</b>	function	<b>set_lua</b>	function
<b>scan_tokenlist</b>	function	<b>set_macro</b>	function
<b>scan_toks</b>	function	<b>setchar</b>	function

<b>setdimension</b>	function	<b>skipnext</b>	function
<b>setinteger</b>	function	<b>skipnextexpanded</b>	function
<b>setlua</b>	function	<b>type</b>	function
<b>setmacro</b>	function	<b>undefine_macro</b>	function
<b>skip_next</b>	function	<b>undefinemacro</b>	function
<b>skip_next_expanded</b>	function		

# tokens (context)

## accessors table

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

## astable function bits table

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

## cache table

- U NC
- U NR
- U bf
- U buff\_finish

- U c\_font\_compact
- U color
- U colordefalc
- U colordefflc
- U colordefflt
- U colordefrlt
- U dofinishreference
- U dostarttext
- U finishjob
- U firstofoneargument
- U firstoftwoarguments
- U gobbleoneargument
- U goto
- U iftrue
- U input
- U loadfoundtypescriptfile
- U resetctxscanner
- U rlap
- U secondoftwoarguments
- U setfalsevalue
- U setsectionblock
- U setupsystem
- U startcolumns
- U starttabulate
- U starttitle
- U startxtitle
- U stopcolumns
- U stoptabulate
- U stoptitle
- U stopxtitle
- U texsetup
- U xmlw

## commands data table compile function constant function converters table

- S toboolean
- S todimen
- S toglue
- S tonumber

**S** tostring  
**create** function  
**defined** function  
**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  
**isdefined** function  
**istoken** function  
**new** function  
**pickup** function  
**popmacro** function  
**presets** table  
 T 1 argument  
 T 1 string  
 T 2 arguments  
 T 2 strings  
 T 3 arguments  
 T 3 strings  
 T 4 arguments  
 T 4 strings  
 T 5 strings  
 T 6 strings  
 T 7 strings  
 T 8 strings  
**pushmacro** function  
**scanners** table  
 F argument  
 F argumentasis  
 F array  
 F boolean  
 F box  
 F bracketed  
 F bracketedasis  
 F cardinal

F char  
 F cmdchr  
 F cmdchrexploded  
 F code  
 F conditional  
 F count  
 F csname  
 F csnameunchecked  
 F delimited  
 F dimen  
 F dimenargument  
 F dimension  
 F float  
 F glue  
 F gluespec  
 F gluevalues  
 F hash  
 F hbox  
 F integer  
 F integerargument  
 F ischar  
 F key  
 F keyword  
 F keywordcs  
 F letters  
 F list  
 F luacardinal  
 F luainteger  
 F luanumber  
 F lxmlid  
 F next  
 F nextchar  
 F nextexpanded  
 F number  
 F optional  
 F peek  
 F peekchar  
 F peekexpanded  
 F real  
 F scanclose  
 F scanopen  
 F skip  
 F skipexpanded  
 F string



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

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

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

F scansnameunchecked  
F scandelimited  
F scandimen  
F scandimenargument  
F scandimension  
F scan glue  
F scan glue spec  
F scan glue values  
F scan hash  
F scan hbox  
F scan integer  
F scan integer argument  
F scan keyword  
F scan keyword cs  
F scan letters  
F scan list  
F scan number  
F scan open

F scan optional  
F scan string  
F scan table  
F scan token list  
F scan toks  
F scan vbox  
F scan verbatim  
F scan vtop  
F scan word  
F to boolean  
F to dimen  
F to number  
F to string  
D values  
F to number  
F to string

**values**      data table

## 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		



F set  
**kerns** table

D factors  
F handler  
F keepligature  
D mapping  
F set

**localboxes** table

F handler

**manipulators** table

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

**margins** table

F finalhandler  
F globalhandler  
F localhandler  
F save

**marksuspects** function

**paragraphs** table

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

**periodkerns** table

D factors  
F handler  
D mapping  
F set

**processors** table

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

**rubies** table

F attach  
F check

**showsuspects** function

**spacings** table

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

F reset

F set

F setup

**wrappers** table

F handler

**xtables** table

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



## 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>hascheme</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)

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

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

# utilities (context)

## **debugger**            table

F disable  
F enable  
F savestats  
F showstats  
F showtraceback

## **files**                table

F close  
F getposition  
F getsize  
F look  
F open  
F read2dot14  
F readbyte  
F readbytes  
F readbytetable  
F readcardinal  
F readcardinal1  
F 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

## **lua** **table**

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

## **packers** **table**

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

## **parsers** **table**

F add\_settings\_to\_array  
F arguments\_to\_table  
F array\_to\_string  
F csvsplitter  
F getparameters  
F groupedsplitat  
F hash\_to\_string  
T hashes  
T settings\_to\_set  
T text,hidden,paper,page,leftpage,rightpage  
B hidden

B leftpage  
B page  
B paper  
B rightpage  
B text  
F iterator  
F keq\_to\_hash  
F listitem  
F make\_settings\_to\_hash\_pattern  
F mergehashes  
F options\_to\_array  
F options\_to\_hash  
T patterns  
U settings\_to\_array  
U settings\_to\_hash\_a  
U settings\_to\_hash\_b  
U settings\_to\_hash\_c  
U settings\_to\_hash\_d  
U unittotex  
F process\_stripped\_settings  
F rfc4180splitter  
F runtime  
F settings\_to\_array  
F settings\_to\_array\_obey\_fences  
F settings\_to\_array\_with\_repeat  
F settings\_to\_hash  
F settings\_to\_hash\_colon\_too  
F settings\_to\_hash\_strict  
F settings\_to\_hash\_tolerant  
F settings\_to\_numbers  
F settings\_to\_set  
F simple\_hash\_to\_string  
F splitmethod  
F splitthousands  
F stepper  
F stripped\_settings\_to\_array  
F totime  
F unittotex  
F unittoxml

## **randomizer** **table**

F get  
F getnumber  
F getrepeatable  
F getrepeatableseed

F getseed		F marked	
F newrepeatable		F setinitializer	
F popseed		F sparse	
F pushseed		<b>streams</b>	<b>table</b>
F repeatable		F close	
F reuseseed		F getposition	
F setseed		F getsizes	
F setseedi		F getstring	
<b>randomizers</b>	<b>table</b>	F look	
F poisson		F open	
<b>sequencers</b>	<b>table</b>	F openstring	
F appendaction		F read2dot14	
F appendgroup		F readbyte	
F compile		F readbytes	
F disableaction		F readbytetable	
F disablegroup		F readcardinal	
F enableaction		F readcardinal1	
F enablegroup		F readcardinal1le	
D functions		F readcardinal2	
F localize		F readcardinal2le	
F new		F readcardinal3	
F nodeprocessor		F readcardinal3le	
F prependaction		F readcardinal4	
F prependgroup		F readcardinal4le	
F removeaction		F readcardinaltable	
F replaceaction		F readchar	
F setkind		F readcline	
F tostring		F readcstring	
<b>setters</b>	<b>table</b>	F readfixed2	
F disable		F readfixed4	
F enable		F readinteger	
F initialize		F readinteger1	
F list		F readinteger1le	
F new		F readinteger2	
F register		F readinteger2le	
F report		F readinteger3	
F reset		F readinteger3le	
F show		F readinteger4	
<b>stacker</b>	<b>table</b>	F readinteger4le	
F new		F readintegertable	
<b>storage</b>	<b>table</b>	F readsignedbyte	
F allocate		F readstring	
F checked		F setposition	
F mark		F size	

F skip	F removevalue
F skipbytes	F replacevalue
F skiplong	<b>tar</b> table
F skipshort	T archives
F tocardinal1	F closearchive
F tocardinal1le	T files
F tocardinal2	F fetch
F tocardinal2le	F hash
F tocardinal3	F list
F tocardinal3le	F pack
F tocardinal4	F unpack
F tocardinal4le	F openarchive
<b>strings</b> table	T registeredfiles
F collapse	T streams
F collapsecrlf	F fetch
T formatters	F hash
F add	F list
F new	F pack
F newcollector	F unpack
F newrepeater	T strings
F nice	F fetch
T striplinepatterns	F hash
U collapse	F list
U prune	F pack
U prune and collapse	F unpack
U prune and no empty	<b>templates</b> table
U prune and to space	F load
U retain	F replace
U retain and collapse	F replacer
U retain and no empty	F resolve
F striplines	<b>zipfiles</b> table
F striplong	F close
F tabtospace	F found
T tracers	F gunzipfile
<b>tables</b> table	F hash
F accesstable	F list
F definedtable	F open
F definetable	F unzip
F encapsulate	F unzipdir
F insertaftervalue	F zipdir
F insertbeforevalue	
F migratetable	

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

<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		

# xdecimal (extra lua)

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

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

## xmath (extra lua)

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

## xml (context)

<b>addentitiesdoctype</b>	function	F dimension	
<b>addspecialcode</b>	function	F family	
<b>after</b>	function	F fontspecification	
<b>all</b>	function	F mappedstylevalue	
<b>applylpath</b>	function	F padding	
<b>applyselector</b>	function	F size	
<b>assign</b>	function	F style	
<b>attribute</b>	function	F stylevalue	
<b>badinclusions</b>	function	F todimension	
<b>before</b>	function	F variant	
<b>body</b>	function	F weight	
<b>builtinentities</b>	table	<b>defaulthandlers</b>	table
B amp		D file	
B apos		D parsedxml	
B gt		D string	
B lt		D tex	
B quot		D texline	
<b>cdata</b>	function	D texspace	
<b>cdatatotext</b>	function	D verbose	
<b>checkbom</b>	function	<b>defaultprotocol</b>	string
<b>checkedempty</b>	function	<b>delete</b>	function
<b>checkerror</b>	function	<b>delete_element</b>	function
<b>checknamespace</b>	function	<b>despecialized</b>	function
<b>checkns</b>	function	<b>each</b>	function
<b>cleansed</b>	function	<b>each_element</b>	function
<b>collect</b>	function	<b>elements</b>	function
<b>collect_elements</b>	function	<b>elementtocdata</b>	function
<b>collect_tags</b>	function	<b>empty</b>	function
<b>collect_texts</b>	function	<b>entities</b>	data table
<b>collected</b>	function	<b>erase</b>	function
<b>collecttexts</b>	function	<b>errorhandler</b>	function
<b>compactelement</b>	function	<b>escaped</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 hasclass		F tags	
F idstring		F text	
F lower		F upper	
F name		F upperall	
F number		F xml	
F oneof		T xml	
F print		F all	
F quit		F att	
F tag		F attribute	
F text		F attributes	
F undefined		F cdata	
F upper		F chainattribute	
<b>fillin</b>	function	F count	
<b>filter</b>	function	F default	
<b>finalizers</b>	table	F elements	
F paragraphs		F empty	
T tex		F first	
F all		F function	
F attribute		F index	
F chainattribute		F last	
F chainpath		F lowerall	
F command		F match	
F concat		F name	
F concatrange		F position	
F context		F reverse	
F count		F table	
F ctxtext		F tag	
F default		F tags	
F depth		F text	
F first		F texts	
F function		F upperall	
F index		<b>first</b>	function
F last		<b>found</b>	function
F lettered		<b>functions</b>	table
F lower		F classes	
F lowerall		F hasclass	
F match		<b>getbuffer</b>	function
F name		<b>gethandlers</b>	function
F param		<b>gethandlersfunction</b>	function
F parameter		<b>helpers</b>	table
F position		F recursetext	
F reverse		<b>include</b>	function
F stripped		<b>inclusion</b>	function
F tag		<b>inclusions</b>	function

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



<code>S &amp;</code>		<code>texttocdata</code>	function
<code>S '</code>		<code>tocdata</code>	function
<code>S &lt;</code>		<code>toelement</code>	function
<code>S &gt;</code>		<code>tostring</code>	function
<code>S \</code>		<code>totable</code>	function
<code>S {</code>		<code>toxml</code>	function
<code>S  </code>		<code>tprint</code>	function
<code>S }</code>		<code>traverse</code>	function
<code>S ~</code>		<code>unescaped</code>	function
<code>specialhandler</code>	table	<code>unescapedentitylpeg</code>	userdata
<code>sprint</code>	function	<code>unprivatized</code>	function
<code>string</code>	function	<code>unspecialized</code>	function
<code>strip</code>	function	<code>wipe</code>	function
<code>strip_whitespace</code>	function	<code>withelement</code>	function
<code>stripelement</code>	function	<code>withelements</code>	function
<code>stripleadingspaces</code>	function	<code>wrap</code>	function
<code>table</code>	function	<code>xmlns</code>	table
<code>text</code>	function		
<code>textonly</code>	function		

## xzip (extra lua)

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

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

## zip (extra lua)

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

## zlib (extra lua)

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

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