

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

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

# global (alias: \_G)

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

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

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

## aes (extra lua)

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

**random** function

# attributes (context)

## alternates table

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

## applyoverloads function

## checkvalues function

## colorintents table

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

## colors table

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

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

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

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



# backends (context)

<b>closeout</b>	function	F analyze normalsymbol
<b>codeinjections</b>	table	F analyzesymbol
F registerboxresource		F attachmentid
F registerfont		F bitmap
F restoreboxresource		F clonefield
<b>current</b>	string	F copyimage
<b>defaults</b>	table	F defaultprofile
T codeinjections		F definefield
F prerollreference		F definefieldset
F setautoprefix		F defineviewerlayer
F vfstartcolor		F embedfile
F vfstopcolor		F embedimage
T nodeinjections		F enabletags
F cmykcolor		F exportformdata
F destination		F fieldsurrounding
F graycolor		F flushmergelayer
F injectknockout		F getbookmarks
F injectoverprint		F getboxresourcebox
F reference		F getdefaultfieldvalue
F rgbcolor		F getfieldcategory
F spotcolor		F getfieldset
F transparency		F getformatoption
T registrations		F getinfo
F transparency		F getpreviewfigure
D tables		F getrefobj
<b>getcallbackstate</b>	function	F insertrenderingwindow
<b>included</b>	table	F jp2
B context		F jpg
B date		F maptag
B id		F mergebookmarks
B metadata		F mergecomments
B pdf		F mergefields
<b>initialize</b>	function	F mergereferences
<b>latelua</b>	function	F mergerenditions
<b>nodeinjections</b>	table	F mergeviewerlayers
<b>nothing</b>	function	F newimage
<b>openout</b>	function	F png
<b>registered</b>	table	F prerollreference
T pdf		F presetsymbol
T codeinjections		F presetsymbollist
F addbookmarks		F processrendering

- F reducetags
- F registercompactor
- F registerdocumentcloseaction
- F registerdocumentopenaction
- F registeredsymbol
- F registerfiguremask
- F registerfigurerange
- F registerpagecloseaction
- F registerpageopenaction
- F registerpattern
- F registersymbol
- F ruleactionbox
- F ruleactiondraw
- F ruleactionfill
- F ruleactionmp
- F ruleactionstroke
- F saveboxresource
- F scanimage
- F setattachmentsupport
- F setautoprefix
- F setencryption
- F setfieldcalculationset
- F setfigurealternative
- F setfigurecolorspace
- F setfiguremask
- F setformat
- F setformsmethod
- F setpagetransition
- F settaggingsupport
- F setupviewerlayer
- F setxmpfile
- F startlayer
- F startunicodetoactualtext
- F startunicodetoactualtextdirect
- F stoplayer
- F stopunicodetoactualtext
- F stopunicodetoactualtextdirect
- F supportedformats
- F unicodetoactualtext
- F useviewerlayer
- F validcompactor
- F validfield
- F validfieldcategory
- F validfieldset

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

**registrations**  
**setencryption**  
**tables**

table  
function  
table

**writeout**

function

## basexx (extra lua)

**decode16**    function

**decode64**    function

**decode85**    function

**decodeLZW**   function

**decodeRL**    function

**encode16**    function

**encode64**    function

**encode85**    function

**encodeLZW**   function

**encodeRL**    function

## bit32 (context)

**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>getctxlua</b>	function
<b>getlines</b>	function
<b>getmkvi</b>	function
<b>gettex</b>	function
<b>loadcontent</b>	function

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



# builders (context)

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

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

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

## cache (context)

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

## callback (basic tex)

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

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

# callbacks (context)

**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 buildpage\_filter

B define\_font

B find\_format\_file

B find\_log\_file

B get\_attribute

B get\_math\_dictionary

B get\_noad\_class

B glyph\_run

B handle\_overload

B handle\_uleader

B hpack\_filter

B hpack\_quality

B hyphenate

B insert\_distance

B insert\_par

B intercept\_lua\_error

B intercept\_tex\_error

B italic\_correction

B kerning

B ligaturing

B linebreak\_filter

B linebreak\_quality

B local\_box\_filter

B make\_extensible

B math\_rule

B missing\_character

B mlist\_to\_hlist

B open\_data\_file

B packed\_vbox\_filter

B paragraph\_context

B paragraph\_pass

B post\_linebreak\_filter

B pre\_dump

B pre\_linebreak\_filter

B pre\_output\_filter

B process\_character

B process\_jobname

B quality\_font

B register\_extensible

B show\_break

B show\_build

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

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



## chemistry (context)

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

## containers (context)

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

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

## converters (context)

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

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

D data

function  
function  
function  
table

F translate

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

function  
function  
function

## coroutine (basic lua)

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

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

# ctxrunner (context)

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

## debug (basic lua)

**getinfo**    function

**sethook**    function

**traceback**   function

## dir (context)

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

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



## directives (context)

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

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

# document (context)

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

# documentdata (context)

**variable** function

# drivers (context)

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

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 popleaderlevel	T flushers	
F pushleaderlevel	F character	
F rule	F flushimage	
F simplerule	F fontchar	
F specialrule	F group	
T Whatsit	F literal	
S name	F popleaderlevel	
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 space	
F character	F specialrule	
F popleaderlevel	F startclipping	
F pushleaderlevel	F startmatrix	
F rule	F startmirroring	
F simplerule	F startrotation	
F specialrule	F startscaling	
F updatefontstate	F stopclipping	
T Whatsit	F stopmatrix	
S name	F stopmirroring	
T none	F stoprotation	
T actions	F stopscaling	
T flushers	F updatefontstate	
F popleaderlevel	T Whatsit	
F pushleaderlevel	S name	
T Whatsit	<b>lmtxversion</b>	number
S name	<b>outputfilename</b>	function
T pdf	<b>report</b>	function
T actions		

## environment (context)

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

# experiments (context)

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

# figures (context)

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



<b>resources</b>	data table	<b>setorder</b>	function
<b>scale</b>	function	<b>setpaths</b>	function
<b>set</b>	function	<b>suffixes</b>	data table
<b>setconversion</b>	function	<b>used</b>	data table
<b>setlookups</b>	function		

## file (basic lua)

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

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

## fio (extra lua)

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

<b>readinteger1le</b>	function
<b>readinteger2</b>	function
<b>readinteger2le</b>	function
<b>readinteger3</b>	function
<b>readinteger3le</b>	function
<b>readinteger4</b>	function
<b>readinteger4le</b>	function
<b>readintegertable</b>	function
<b>setposition</b>	function
<b>skipposition</b>	function
<b>writecardinal1</b>	function
<b>writecardinal1le</b>	function
<b>writecardinal2</b>	function
<b>writecardinal2le</b>	function
<b>writecardinal3</b>	function
<b>writecardinal3le</b>	function
<b>writecardinal4</b>	function
<b>writecardinal4le</b>	function

# floats (context)

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

## font (basic tex)

<b>addcharacters</b>	function
<b>addquality</b>	function
<b>current</b>	function
<b>define</b>	function
<b>getfont</b>	function
<b>getfontdimen</b>	function
<b>getfontspec</b>	function
<b>getmathindex</b>	function

<b>getmathspec</b>	function
<b>id</b>	function
<b>max</b>	function
<b>nextid</b>	function
<b>setfont</b>	function
<b>setfontdimen</b>	function
<b>xscaled</b>	function
<b>yscaled</b>	function

# fonts (context)

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

F finalize	S defaultbasealternate
F getfeatureaction	S defaultnodealternate
F getmathparameter	D features
F getprivate	F featuresinitializer
T handlers	F featuresprocessor
T afm	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

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



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

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

F internal		<b>formats</b>	data table
F loadfont		<b>getalternate</b>	function
F makespecification		<b>getindices</b>	function
T methods		<b>getkern</b>	function
F install		<b>getmultiple</b>	function
D variants		<b>getsubstitution</b>	function
F read		<b>getters</b>	table
F register		T alternate	
F registered		F opentype	
F registerfallbackfont		T kern	
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 common-math.lfg	
F getshapes		S author	
F nextid		S comment	
F provide		S copyright	
F registerglyph		B initialized	
F registerglyphs		T mathematics	
F swap		T tweaks	
F swapone		T presets	
<b>effects</b>	table	F addmathkerns	
<b>encodings</b>	table	F braille	
T agl		F eulertocalligraphic	
D ctxcodes		F fallbacks	
D extras		F moderntocalligraphic	
D synonyms		F moveintegrals	
D unicodes		F moveitalics	
D cache		F pagellaradical	
F is_known		F rsfstoscript	
D known		F rsfsuprighttoscript	
F load		F scripttocalligraphic	
F make_unicode_vector		F smalldigits	
D math		F wipeanchors	
N version		F wipeitalics	
<b>enhanceid</b>	function	F xitsarabic	
<b>expansions</b>	data table	S name	

S version	T list
T dejavu-math	F load
S author	F prepare_features
S comment	F register
S copyright	F registerpostprocessor
B initialized	F report
T mathematics	T suffixes
T alternates	<b>handlers</b> table
T dotless	<b>hashes</b> table
S comment	D characters
S feature	D classes
N value	D csnames
T bigslots	D descriptions
T parameters	D dynamics
N AccentBaseDepth	D emwidths
N AccentTopShiftUp	D exheights
N DelimiterDisplayPercent	D features
N DelimiterDisplayShortfall	D identifiers
N DelimiterPercent	D italics
N DelimiterShortfall	D lastmathids
N DisplayOperatorMinHeight	D marks
N FlattenedAccentTopShiftUp	D mathparameters
N FractionRuleThickness	D modes
S PrimeBaselineDropMax	D originals
S PrimeShiftUp	D parameters
S PrimeShiftUpCramped	T processes
N SubscriptShiftDown	D properties
S SubscriptShiftDownWithSuperscript	D quads
N SuperscriptShiftUp	D resources
T tweaks	T setdynamics
T aftercopying	T shapes
S name	D spaces
S version	D spacings
T dejavu-text	T streams
S author	D unicodes
S comment	D unislots
S copyright	D variants
T extensions	D xheights
B initialized	<b>helpers</b> table
S name	F addextraprivate
S version	F addprivate
D designsizes	F appendcommands
D filenames	F appendcommandtable
F getcompositions	F checkflags

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

- T backgrounds
- T outlines
- infofont** function
- iterators** table
  - F characters
  - F descriptions
  - F glyphs
- loggers** table
  - F format
  - F onetimemessage
  - F register
  - F reportdefinedfonts
  - F reportusedfeatures
- mappings** table
  - F addtounicode
  - F fromunicode16
  - F getentry
  - F loadfile
  - F loadline
  - F makenameparser
  - D overloads
  - F reset
  - F tounicode
  - F tounicode16
  - F tounicode16sequence
- metapost** table
  - F baseline
  - F boundingbox
  - F boxtomp
  - F draw
  - F fill
  - F glyph
  - F maxbounds
  - F paths
  - F widthline
  - F zeroline
- mode** function
- names** data table
- nulldata** data table
- privateoffsets** table
  - B keepnames
  - N mathbase
  - N mathextrabase
  - N textbase

N textextrabase

**protrusions** data table

**readers** table

F afm

F check\_lua

F check\_tfm

F lua

F ofm

F opentype

F otf

F pfb

D sequence

F tfm

F ttc

F ttf

F woff

**registersanitizer** function

**reserveid** function

**select** table

D alternatives

F bodyfont

D data

F default

D defaults

F definefallbackfamily

F definefontfamily

F definefontfamilypreset

D extras

F fallback

D fallbacks

F features

F filefallback

F fontdata

F fontfallback

F fontsynonym

F goodies

F mathfallback

D methods

D presets

F registerfallback

F registerfiles

F registerfontalternative

F registerfontfamily

F textfallback

F typeface

F typescript

F userdata

**specifiers** table

D contextmerged

F contextnumber

D contextnumbers

D contextsetups

F contexttostring

F definecontext

F mergecontext

F presetcontext

F registercontext

F showcontext

F splitcontext

D synonyms

D variants

**symbols** table

T emoji

F checked

F resolved

F uselibrary

**tables** table

**toeffect** function

**tracers** table

**treatments** table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

**typefaces** table

# functions (context)

**dummy** function

# graphics (context)

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



## gzip (context)

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

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

# images (context)

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

# interactions (context)

**attachments** data table

**fields** table

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

**general** table

- F getidentity
- F getidentityvariable

**help** table

- F collect
- F reference
- F register

**javascripts** table

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

D functions

D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

**linkedList**s data table

**pages** table

F setpagetransition

F setupcanvas

**references** table

F setcloseddocumentaction

F setclosepageaction

F setopendocumentaction

F setopenpageaction

**renderings** data table

# interfaces (context)

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

## io (basic lua)

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

# job (context)

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

F onsamepage  
F overlapping  
F p  
F page  
F paragraph  
F parindent  
F position  
F r  
F region  
F registerhandlers  
F replace  
F rightskip  
F set  
F setall  
F setregionbox  
F setspec  
F settobesaved  
D tobesaved  
F upperleft  
F upperright  
F used  
F whd  
F width

F x  
F xy  
F y  
**register** function  
**save** function  
**structure** table  
D collected  
T components  
T namestack  
T tobesaved  
T branches  
S name  
S type  
**variables** table  
D checksums  
D collected  
F getchecksum  
F makechecksum  
F restore  
F save  
F setchecksum  
D tobesaved  
**version** number

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

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

# layouts (context)

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

## lfs (extra lua)

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

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

## libraries (context)

**basiclua** data table

**basictex** data table

**builtin** data table

**extralua** data table

**extratex** data table

**functions** data table

**globals** data table

**optional** data table

# lmx (context)

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

<b>loadedfile</b>	function
<b>make</b>	function
<b>new</b>	function
<b>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>startererrorlogging</b>	function
<b>poptarget</b>	function	<b>startfilelogging</b>	function
<b>private</b>	table	<b>status</b>	function
F enablepagetiming		<b>stop_page_number</b>	function
F getpagetiming		<b>stoperrorlogging</b>	function
<b>pushlogfile</b>	function	<b>stopfilelogging</b>	function
<b>pushtarget</b>	function	<b>subdirect</b>	function
<b>registerfinalactions</b>	function	<b>subreport</b>	function
<b>report</b>	function	<b>system</b>	function
<b>reporter</b>	function	<b>texerrormessage</b>	function
<b>resetlogfile</b>	function	<b>writer</b>	function

# lpdf (context)

<b>action</b>	function
<b>adddocumentcolorspace</b>	function
<b>adddocumenttextgstate</b>	function
<b>adddocumentpattern</b>	function
<b>adddocumentshade</b>	function
<b>addtocatalog</b>	function
<b>addtoinfo</b>	function
<b>addtonames</b>	function
<b>addtopageattributes</b>	function
<b>addtopageresources</b>	function
<b>addtopagesattributes</b>	function
<b>addxmpinfo</b>	function
<b>annotationspecification</b>	function
<b>array</b>	function
<b>attachmentsymbols</b>	function
<b>boolean</b>	function
<b>border</b>	function
<b>checkedkey</b>	function
<b>checkedvalue</b>	function
<b>circularshade</b>	function
<b>close</b>	function
<b>cmykcode</b>	function
<b>collectedresources</b>	function
<b>color</b>	function
<b>colorspace</b>	function
<b>colorspaceconstants</b>	data table
<b>colorspec</b>	function
<b>colorvalue</b>	function
<b>colorvalues</b>	function
<b>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 allcontent
F analyzefonts
F contentplugin
F contenttostring
F contenttotext
D encryptioncodes
F expanded
F expandwidths
F fontplugin
F getpagecontent
F getstructure
T helpers
F tounicodetable
T image
F close
F copy
F new
F open
F query
F load
F mergewidths
D objectcodes
F objectrange
F objecttype
F pageplugin
F parsecontent
F producer
T resolvers
F destinations
F embeddedfiles
F javascripts
F layers
F pages
F structure
F widgets



F stripcontent		N file	
F unload		N fixed	
F verboseobject		N nocheck	
<b>escaped</b>	function	N protected	
<b>finalizeddocument</b>	function	N readonly	
<b>finalizepage</b>	function	N required	
<b>finalizesignature</b>	function	N sorted	
<b>finishtransparencycode</b>	function	N unavailable	
<b>flags</b>	table	<b>flushfonts</b>	function
T annotations		<b>flushgroup</b>	function
N AutoView		<b>flushobject</b>	function
N Hidden		<b>flushstreamfileobject</b>	function
N Invisible		<b>flushstreamobject</b>	function
N Locked		<b>fonts</b>	table
N LockedContents		F color_direct	
N NoRotate		F color_indirect	
N NoView		<b>formats</b>	data table
N NoZoom		<b>frombytes</b>	function
N Print		<b>fromeight</b>	function
N Printable		<b>frompdfdoc</b>	function
N ReadOnly		<b>fromsixteen</b>	function
N ToggleNoView		<b>getcatalog</b>	function
N auto		<b>getcompression</b>	function
N hidden		<b>getfontname</b>	function
N printable		<b>getfontobjectnumber</b>	function
T widgets		<b>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>h_hex_2</b>	table
N PushButton		S	
N Radio		S	
N RadiosInUnison		S	
N ReadOnly		S	
N Required		S	
N RichText		S (	
N Sort		S )	

S \		registerinitializer	function
h_hex_4	table	registerpagefinalizer	function
hasmatrix	function	registerpattern	function
immediateobject	function	registersignature	function
includeimage	function	replacexmpinfo	function
initialize	function	reserveobject	function
injectors	table	rgbcode	function
F bitmap		rotationcm	function
F jp2		setcompression	function
F jpg		setencryption	function
F png		setincludecidset	function
injectxmpinfo	function	setpageorder	function
insertxmpinfo	function	setpagestate	function
lastreferredpage	function	setpagetag	function
layerreference	function	setversion	function
limited	function	sharedobject	function
linearshade	function	shareobject	function
literal	function	shareobjectreference	function
majorversion	function	spotcode	function
makenametree	function	stream	function
minorversion	function	string	function
nofpages	function	tocidset	function
null	function	toeight	function
number	function	topdfdoc	function
object	function	tosixteen	function
objectcompresslevel	function	transparency	function
pagereference	function	transparencycode	function
patternstream	function	transparencygroups	table
pdfcolor	function	B none	
pdftimestamp	function	transparencyvalue	function
prepresignature	function	unicode	function
print	function	usedcharacters	table
procset	function	usedfontnames	table
protectresources	boolean	N dejavusansmonoboldttf-1-0-0	
rectangle	function	usedfontobjects	table
reference	function	N dejavusansmonoboldttf-1-0-0	
registerannotation	function	usedfontstreams	data table
registerdestination	function	usedindices	table
registerdocumentfinalizer	function	T dejavusansmonoboldttf-1-0-0	
registerfontmethod	function	verbose	function

## lpeg (basic lua)

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

## lua (basic tex)

<b>bytecode</b>	table	<b>getstartupfile</b>	function
<b>bytedata</b>	data table	<b>getversion</b>	function
<b>bytedone</b>	table	<b>lastbytecode</b>	number
<b>callbytecode</b>	function	<b>messages</b>	data table
<b>finalizeinitex</b>	function	<b>newindex</b>	function
<b>firstbytecode</b>	number	<b>newtable</b>	function
<b>get_functions_table</b>	function	<b>numbers</b>	data table
<b>getbytecode</b>	function	<b>registercode</b>	function
<b>getcurrenttime</b>	function	<b>registeredcodes</b>	function
<b>getdebuginfo</b>	function	<b>registerinitexfinalizer</b>	function
<b>getexitcode</b>	function	<b>registername</b>	function
<b>getfunctionstable</b>	overloaded function	<b>setbytecode</b>	function
<b>getpreciseseconds</b>	function	<b>setexitcode</b>	function
<b>getpreciseticks</b>	function	<b>startupfile</b>	string
<b>getruntime</b>	function	<b>version</b>	string
<b>getstacktop</b>	function		

## luac (extra lua)

```
inspect function  
print    function
```

# luatex (context)

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

# lxml (context)

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

<b>pushmatch</b>	function
<b>raw</b>	function
<b>rawroot</b>	function
<b>rawtex</b>	function
<b>refatt</b>	function
<b>register</b>	function
<b>registerentity</b>	function
<b>removesetup</b>	function
<b>replace</b>	function
<b>resetcdata</b>	function
<b>resetsetups</b>	function
<b>resolvedentity</b>	function
<b>root</b>	function
<b>save</b>	function
<b>serialize</b>	function
<b>setaction</b>	function
<b>setatt</b>	function
<b>setattribute</b>	function
<b>setcdata</b>	function
<b>setcommandtonone</b>	function
<b>setcommandtotext</b>	function
<b>setpar</b>	function
<b>setparam</b>	function
<b>setparameter</b>	function
<b>setsetup</b>	function
<b>snippet</b>	function

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



## math (basic lua)

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

# mathematics (context)

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

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

<code>F wipeitalics</code>		<code>utfmathfiller</code>	function
<code>F wipevariants</code>		<code>utfmathstretch</code>	function
<code>F wipeweirdones</code>		<code>variantcode</code>	function
<code>utfmathaccent</code>	function	<code>variantcount</code>	function
<code>utfmathclass</code>	function	<code>virtualize</code>	function
<code>utfmathcommand</code>	function	<code>virtualized</code>	data table

## md5 (extra lua)

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

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

# metapost (context)

<b>checkformat</b>	function	N nullary
<b>checktracingonline</b>	function	N numeric
<b>cm</b>	function	N of
<b>codes</b>	table	N ofbinary
N addto		N onlyset
N ampersand		N parametertype
N and		N pathconnect
N assignment		N pathjoin
N atleast		N plusorminus
N begingroup		N primarybinary
N btex		N primarydef
N capsule		N property
N colon		N protection
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 newinternal		N undefinedcs

N until		<b>getstatistics</b>	function
N void		<b>gettext</b>	function
N with		<b>gettolerance</b>	function
N within		<b>graphic</b>	function
N write		<b>graphic_base_pass</b>	function
<b>colorinitializer</b>	function	<b>hascurvature</b>	function
<b>convert</b>	function	<b>includesvgbuffer</b>	function
<b>currentmpx</b>	function	<b>includesvgfile</b>	function
<b>currentmpxstatus</b>	function	<b>installplugin</b>	function
<b>defaultformat</b>	string	<b>isobject</b>	function
<b>defaultinstance</b>	string	<b>knownparameters</b>	table
<b>defaultmethod</b>	string	<b>lastlog</b>	string
<b>directrun</b>	function	<b>load</b>	function
<b>escaped</b>	function	<b>maketext</b>	function
<b>exectime</b>	table	<b>metafonts</b>	table
<b>extensiondata</b>	data table	<b>metafun</b>	table
<b>filterclippath</b>	function	F interpolate	
<b>flush</b>	function	F topath	
<b>flushers</b>	table	<b>mptopdf</b>	table
T pdf		F convertmpstopdf	
F flushfigure		N nofconverted	
F startfigure		<b>n</b>	number
F stopfigure		<b>newlogger</b>	function
F textfigure		<b>nofruns</b>	number
F tocomment		<b>nofscriptruns</b>	function
<b>flushnormalpath</b>	function	<b>nvformat</b>	function
<b>fonts</b>	table	<b>pdfliterals</b>	function
F define		<b>pluginactions</b>	function
<b>format_number</b>	function	<b>popformat</b>	function
<b>format_string</b>	function	<b>popscriptrunner</b>	function
<b>formatnumber</b>	function	<b>popvariable</b>	function
<b>getbendtolerance</b>	function	<b>popvariables</b>	function
<b>getbuffer</b>	function	<b>preparetexttextsdata</b>	function
<b>getclippath</b>	function	<b>process</b>	function
<b>getextensions</b>	function	<b>processing</b>	function
<b>getextradata</b>	function	<b>processplugins</b>	function
<b>gethashentries</b>	function	<b>properties</b>	table
<b>getinstancenames</b>	function	<b>pushformat</b>	function
<b>getjobdata</b>	function	<b>pushscriptrunner</b>	function
<b>getmovetolerance</b>	function	<b>pushvariable</b>	function
<b>getparameter</b>	function	<b>pushvariables</b>	function
<b>getparameterpreset</b>	function	<b>reducetogray</b>	boolean
<b>getparameterset</b>	function	<b>registerdirect</b>	function
<b>getrecord</b>	function	<b>registerscript</b>	function

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



N unknownstring		<b>unload</b>	function
N unsuffixedmacro		<b>untagvariable</b>	function
N vacuous		<b>variables</b>	table
<b>typesvgpage</b>	function		

## mime (context)

**b64** function

**decode** function

**decodet** table

F base64

F quoted-printable

**dot** function

**encode** function

**encodet** table

F base64

F quoted-printable

**eol** function

**normalize** function

**qp** function

**qpwrp** function

**report** function

**stuff** function

**unb64** function

**unqp** function

**wrap** function

**wrapt** table

F base64

F default

F quoted-printable

F text

**wrp** function

# mp (context)

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

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

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

## mplib (extra tex)

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

# noads (context)

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

# node (basic tex)

<b>checkdiscretionaries</b>	function	F getattributelist
<b>checkdiscretionary</b>	function	F getattributes
<b>copy</b>	function	F getboth
<b>copyleft</b>	function	F getbottom
<b>count</b>	function	F getbottomdelimiter
<b>currentattributes</b>	function	F getbox
<b>dimensions</b>	function	F getcachestate
<b>direct</b>	table	F getchar
F addmargins		F getchardict
F addxoffset		F getcharspec
F addxymargins		F getchoice
F addyoffset		F getclass
F appendaftertail		F getcornerkerns
F checkdiscretionaries		F getdata
F checkdiscretionary		F getdegree
F collapsing		F getdelimiter
F copy		F getdenominator
F copyleft		F getdepth
F copyonly		F getdirection
F count		F getdisc
F currentattributes		F getdiscpart
F dimensions		F getexpansion
F effectiveglue		F getfam
F endofmath		F getfield
F exchange		F getfont
F fields		F getgeometry
F findattribute		F getglue
F findattributerange		F getglyphdata
F findnode		F getglyphdimensions
F firstchar		F getheight
F firstglyph		F getid
F firstglyphnode		F getindex
F firstitalicglyph		F getinputfields
F flattendiscretionaries		F getkern
F flattenleaders		F getkerndimension
F flushlist		F getlanguage
F flushnode		F getleader
F free		F getleftdelimiter
F freeze		F getlist
F getanchors		F getlistdimensions
F getattribute		F getnext



F getnodes	F hasdiscoption
F getnormalizedline	F hasfield
F getnucleus	F hasgeometry
F getnumerator	F hasglyph
F getoffsets	F hasglyphoption
F getoptions	F hpack
F getorientation	F hyphenating
F getparstate	F id
F getpenalty	F ignoremathskip
F getpost	F insertafter
F getpre	F insertbefore
F getprev	F isboth
F getprime	F ischar
F getpropertystable	F isdirect
F getproperty	F isglyph
F getreplace	F isitalicglyph
F getrightdelimiter	F isnext
F getruledimensions	F isnextchar
F getscale	F isnextglyph
F getscales	F isnode
F getscrip	F isprev
F getshift	F isprevchar
F getslant	F isprevglyph
F getspeciallist	F issimilarglyph
F getstate	F isspeciallist
F getsub	F isvalid
F getsubpre	F iszeroglu
F getsubtype	F kerning
F getsup	F lastnode
F getsuppre	F length
F gettop	F ligaturing
F gettopdelimiter	F makeextensible
F gettotal	F migrate
F getusedattributes	F mlisttohtml
F getweight	F naturalhsize
F getwhd	F naturalwidth
F getwidth	F new
F getwordrange	F newcontinuationatom
F getxscale	F newmathglyph
F getxyscales	F newtextglyph
F getyscale	F patchattributes
F gluetostring	F prependbeforehead
F hasattribute	F protectglyph
F hasdimensions	F protectglyphs

F protectglyphsnone  
F protrusionskipable  
F rangedimensions  
F remove  
F removefromlist  
F repack  
F reverse  
F serialized  
F setanchors  
F setattribute  
F setattributelist  
F setattributes  
F setboth  
F setbottom  
F setbottomdelimiter  
F setbox  
F setchar  
F setchardict  
F setchoice  
F setclass  
F setdata  
F setdegree  
F setdelimiter  
F setdenominator  
F setdepth  
F setdirection  
F setdisc  
F setdiscpart  
F setexpansion  
F setfam  
F setfield  
F setfont  
F setgeometry  
F setglue  
F setglyphdata  
F setheight  
F setindex  
F setinputfields  
F setkern  
F setlanguage  
F setleader  
F setleftdelimiter  
F setlink  
F setlist

F setnext  
F setnucleus  
F setnumerator  
F setoffsets  
F setoptions  
F setorientation  
F setpenalty  
F setpost  
F setpre  
F setprev  
F setprime  
F setproperty  
F setreplace  
F setrightdelimiter  
F setruledimensions  
F setscales  
F setscript  
F setshift  
F setslant  
F setspeciallist  
F setsplit  
F setstate  
F setsub  
F setsubpre  
F setsubtype  
F setsup  
F setsuppre  
F settop  
F settopdelimiter  
F settotal  
F setweight  
F setwhd  
F setwidth  
F show  
F slide  
F softenhyphens  
F startofpar  
F subtypes  
F tail  
F todirect  
F tonode  
F toString  
F tovaliddirect  
F traverse

F traversechar	
F traversecontent	
F traverseglyph	
F traverseid	
F traverseitalic	
F traverseleader	
F traverselist	
F type	
F types	
F unprotectglyph	
F unprotectglyphs	
F unsetattribute	
F unsetattributes	
F usedlist	
F usesfont	
F verticalbreak	
F vpack	
F write	
F xscaled	
F yscaled	
<b>effectiveglue</b>	function
<b>endofmath</b>	function
<b>family_font</b>	function
<b>fields</b>	function
<b>findattribute</b>	function
<b>flattendiscretionaries</b>	function
<b>flushlist</b>	function
<b>flushnode</b>	function
<b>free</b>	function
<b>getattribute</b>	function
<b>getcachestate</b>	function
<b>getfield</b>	function
<b>getglue</b>	function
<b>getpropertystable</b>	function
<b>getproperty</b>	function
<b>gluetostring</b>	function
<b>hasattribute</b>	function
<b>hasfield</b>	function
<b>hasglyph</b>	function
<b>hpack</b>	function
<b>hyphenating</b>	function
<b>id</b>	function

<b>insertafter</b>	function
<b>insertbefore</b>	function
<b>instock</b>	function
<b>inuse</b>	function
<b>isnode</b>	function
<b>iszeroglue</b>	function
<b>kerning</b>	function
<b>lastnode</b>	function
<b>length</b>	function
<b>ligaturing</b>	function
<b>makeextensible</b>	function
<b>mlisttohtml</b>	function
<b>new</b>	function
<b>protectglyph</b>	function
<b>protectglyphs</b>	function
<b>protrusionskipppable</b>	function
<b>rangedimensions</b>	function
<b>remove</b>	function
<b>serialized</b>	function
<b>setattribute</b>	function
<b>setfield</b>	function
<b>setglue</b>	function
<b>setProperty</b>	function
<b>show</b>	function
<b>slide</b>	function
<b>subtypes</b>	function
<b>tail</b>	function
<b>toDirect</b>	function
<b>tonode</b>	function
<b>tostring</b>	function
<b>traverse</b>	function
<b>traverseid</b>	function
<b>type</b>	function
<b>types</b>	function
<b>unprotectglyph</b>	function
<b>unprotectglyphs</b>	function
<b>unsetattribute</b>	function
<b>usedlist</b>	function
<b>usesfont</b>	function
<b>vpack</b>	function
<b>write</b>	function

# nodes (context)

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

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

F addmargins	F flush
F addxoffset	F flushlist
F addxymargins	F flushnode
F addyoffset	F free
F append	F freeze
F appendaftertail	F fullhpack
F apply	F getanchors
F applyvisuals	F getattr
F checkdiscretionaries	F getattribute
F checkslide	F getattributelist
F collapsing	F getattributes
T colors	F getattrlist
F set	F getattrrs
T components	F getboth
F copynocomponents	F getbottom
F copyonlyglyphs	F getbottomdelimiter
F count	F getbox
F flush	F getboxglue
F get	F getchar
F set	F getchardict
F concat	F getcharspec
F copy	F getchoice
F copy_properties	F getclass
F copylist	F getcomponents
F copynode	F getcornerkerns
F copyonly	F getdata
F copyvisual	F getdegree
F count	F getdelimiter
F countall	F getdenominator
F currentattributes	F getdepth
F delete	F getdirection
F dimensions	F getdisc
F dirdimensions	F getdiscpart
F effectiveglue	F getdiscretionary
F endofmath	F getexpansion
F exchange	F getfam
F findattribute	F getfield
F findnode	F getfont
F firstchar	F getgeometry
F firstglyph	F getglue
F firstglyphnode	F getglyphdata
F firstitalicglyph	F getglyphdimensions
F flattendiscretionaries	F getheight
F flattenleaders	F getid

F getindex	F gettopdelimiter
F getinputfields	F gettotal
F getkern	F getusedattributes
F getkerndimension	F getvalue
F getlang	F getweight
F getlanguage	F getwhd
F getleader	F getwidth
F getleftdelimiter	F getwordrange
F getlist	F getxscale
F getlistdimensions	F getxyscales
F getmiddle	F getyscale
F getmiddledelimiter	F gluetostring
F getnext	F hasattribute
F getnormalizedline	F hasdimensions
F getnucleus	F hasdiscoption
F getnumerator	F hasfield
F getoffsets	F hasgeometry
F getoptions	F hasglyph
F getorientation	F hasglyphoption
F getparstate	F hpack
F getpenalty	F hyphenating
F getpost	F ignoremathskip
F getpre	F insertafter
F getprev	F insertbefore
F getprime	F insertlistafter
F getprop	F is_display_math
F getreplace	F isboth
F getrightdelimiter	F ischar
F getruledata	F isdirect
F getruledimensions	F isdone
F getscale	F isglyph
F getscales	F isitalicglyph
F getscrip	F isnext
F getshift	F isnextchar
F getslant	F isnextglyph
F getspeciallist	F isnode
F getstate	F isnut
F getsub	F isprev
F getsubpre	F isprevchar
F getsubtype	F isprevglyph
F getsup	F issimilarglyph
F getsuppre	F iszeroglue
F getsurround	F kerning
F gettop	F lastnode

F length	F leftskip
F ligaturing	F lineskip
F link	F literal
F linked	F mathchar
F locate	F mathtextchar
F migrate	F negatedglue
F migratebox	F noad
F mlisttohlist	F originliteral
F naturalhsize	F outlinerule
F naturalwidth	F pageliteral
F nestedtracedslide	F penalty
F new	F radical
F newcontinuationatom	F rawliteral
F newmathglyph	F register
F openup	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 spacefontkern
F direction	F startrotation
F directliteral	F stock
F disc	F stretch
F emptyrule	F strutrule
F fence	F subbox
F fontkern	F sublist
F fraction	F temp
F glue	F usage
F gluespec	F userdefined
F glyph	T userids
F hlist	F usernode
F imagerule	F userrule
F indentskip	F virtualrule
F italicckern	F vlist
F kern	F wordboundary
F latelua	F prepend
F leader	F prependbeforehead
F lefthangskip	F processranges
F leftmarginkern	F processwords



F protectglyph	F setdirection
F protectglyphs	F setdisc
F protectglyphsnone	F setdiscpart
F protrusionskipppable	F setdiscretionary
F rangedimensions	F setexpansion
F rawprop	F setfam
F reference	F setfield
F rehpac	F setfont
F remove	F setgeometry
F removefromlist	F setglue
F repack	F setglyphdata
F repackhlist	F setheight
F replace	F setinputfields
F reverse	F setkern
T rules	F setlang
T ruleactions	F setlanguage
F box	F setleader
F draw	F setleftdelimiter
F fill	F setlink
F mp	F setlist
F stroke	F setmiddledelimiter
F userrule	F setnext
F serialized	F setnucleus
F setanchors	F setnumerator
F setattr	F setoffsets
F setattribute	F setoptions
F setattributelist	F setorientation
F setattributes	F setparproperty
F setattrlist	F setpenalty
F setattrrs	F setpost
F setboth	F setpre
F setbottom	F setprev
F setbox	F setprime
F setboxglue	F setprop
F setchar	F setreplace
F setchardict	F setrightdelimiter
F setchoice	F setruledata
F setclass	F setruledimensions
F setcomponents	F setscale
F setdata	F setscales
F setdegree	F setscript
F setdelimiter	F setshift
F setdenominator	F setslant
F setdepth	F setspeciallist

F setsplit	F boundary
F setstate	F char
F setsub	F content
F setsubpre	F dir
F setsubtype	F disc
F setup	F glue
F setsuppre	F glyph
F setsurround	F hlist
F settop	F leader
F setvalue	F list
F setvisual	F mark
F setvisuals	F next
F setweight	F node
F setwhd	F penalty
F setwidth	F rule
F show	F unset
F slide	F vlist
F softenhyphens	F whatsit
F somepenalty	T treversers
F somespace	F char
F splitbox	F content
F startofpar	F glyph
F striprange	F leader
F tail	F list
F takeattr	F node
F takebox	T typesetters
F takelist	F tohbox
F theprop	F tohpack
F tonode	F tonodes
F tonodes	F tovbox
F tonut	F tovpack
F tosequence	F unprotectglyph
F toString	F unprotectglyphs
F tracedslide	F unsetattribute
F traverse	F unsetattributes
F traversechar	F untracedslide
F traversecontent	F usedlist
F traverseglyph	F usesfont
F traverseid	F verticalbreak
F traverseitalic	F vianodes
F traverseleader	F vianuts
F traverselist	F vpack
T traversers	F write
F alignrecord	F xscaled

F yscaled		F post_linebreak_filter	
<b>packlist</b>	function	F pre_linebreak_filter	
<b>parcodes</b>	data table	F trace_glyph_run_a	
<b>penaltycodes</b>	data table	F trace_glyph_run_b	
<b>plugindata</b>	table	<b>properties</b>	table
F finalizer		T data	
F initializer		<b>pts</b>	function
S name		<b>radicalcodes</b>	data table
T namespace		<b>references</b>	table
N attribute		N attribute	
D data		T done	
F enable		F handler	
F handler		T stack	
F register		<b>reheap</b>	function
D registered		<b>remove</b>	function
D values		<b>repackhlist</b>	function
F processor		<b>replace</b>	function
<b>points</b>	function	<b>report</b>	function
<b>pool</b>	table	<b>rightmarginwidth</b>	function
F baselineskip		<b>rulecodes</b>	data table
F cleanup		<b>rules</b>	table
F directliteral		F handler	
F glyph		F process	
F hlist		F set	
F latelua		F userrule	
F leader		<b>serialize</b>	function
F lineskip		<b>serializebox</b>	function
F literal		<b>serialized</b>	function
F originliteral		<b>setattr</b>	function
F register		<b>setattribute</b>	function
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 set	
<b>showboxes</b>	function
<b>showlist</b>	function
<b>showsimplelist</b>	function
<b>skipcodes</b>	data table
<b>snapshots</b>	table
F getsamples	
F resetsamples	
F takesample	
<b>somepenalty</b>	function
<b>somespace</b>	function
<b>specialskipcodes</b>	table
<b>splitbox</b>	function
<b>startofpar</b>	function
<b>stripdiscretionaries</b>	function
<b>stripping</b>	table
T glyphs	
F set	
<b>subtypes</b>	data table
<b>tail</b>	function
<b>takeattr</b>	function
<b>takebox</b>	function
<b>tasks</b>	table
F actions	
F appendaction	
F disableaction	
F disablegroup	
F enableaction	
F enablegroup	
F freeze	
F freezegroup	
F new	
F prependaction	
F removeaction	
F replaceaction	
F restart	
F setaction	
F showactions	
F table	
<b>tobasepoints</b>	function
<b>tocentimeters</b>	function
<b>toxiceros</b>	function
<b>todidots</b>	function
<b>todimen</b>	function

<b>toinches</b>	function
<b>tomillimeters</b>	function
<b>tonode</b>	function
<b>tonodes</b>	function
<b>tonut</b>	function
<b>topics</b>	function
<b>topoints</b>	function
<b>toscaledpoints</b>	function
<b>tosequence</b>	function
<b>tostring</b>	function
<b>totable</b>	function
<b>totree</b>	function
<b>toutf</b>	function
<b>tracers</b>	table
T colors	
F reset	
F set	
F setlist	
F directions	
F fontchar	
T frequencies	
F register	
T pool	
T nodes	
F rule	
T nuts	
F rule	
F resetproperties	
F rule	
F setlist	
F setproperties	
F start	
T steppers	
F check	
F codes	
F features	
F font	
F glyphs	
F message	
F messages	
F nofsteps	
F register	
F reset	
F start	

F stop		N expansion	
F stop		N fontkern	
T transparencies		N glue	
F reset		N glyph	
F set		N hbox	
F setlist		N hglue	
<b>traverse</b>	function	N hkern	
<b>traverseid</b>	function	N hpenalty	
<b>typesetters</b>	table	N insert	
F hbox		N italic	
F hpack		N kern	
F tohbox		N line	
F tohpack		N marginkern	
F tonodes		N mark	
F tovbox		N math	
F tovpack		N mathglue	
F vpack		N mathkern	
<b>unsetattribute</b>	function	N origin	
<b>usedlist</b>	function	N par	
<b>vianodes</b>	function	N penalty	
<b>vianuts</b>	function	N simple	
<b>visualizebox</b>	function	N simplehbox	
<b>visualizers</b>	table	N simplevbox	
F attribute		N simplevtop	
T attributes		N space	
F box		N strut	
F definelayer		N user	
F enable		N vbox	
T filters		N vglue	
N hglue		N vkern	
N hkern		N vpenalty	
N hpenalty		N vtop	
N vglue		N whatsit	
N vkern		F register	
N vpenalty		F registercache	
F getusedfont		F setfont	
F handler		F setlayer	
F markfonts		F setruledglyph	
T modes		F setvisual	
N boundary		<b>vpack</b>	function
N depth		<b>whatsitcodes</b>	data table
N dir		<b>write</b>	function
N discretionary			

## number (context)

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

## objects (context)

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

# optional (context)

## curl table

F escape  
F fetch  
F getversion  
F initialize  
F unescape

## foreign table

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

## ghostscript table

F execute  
F initialize

## graphicsmagick table

F execute  
F initialize

## hb table

F getshapers  
F getversion  
F initialize  
F loadfont  
F shapestring

## imagemagick table

F execute  
F initialize

## kpse table

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

## library table

F load

## loaded table

## lz4 table

F compress  
F decompresssize  
F framecompress  
F framedecompress  
F initialize

## lzma table

F compress  
F decompress  
F initialize

## lzo table

F compress  
F decompresssize  
F initialize

## mujs table

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

## mysql table

F close  
F execute  
F getmessage  
F initialize  
F open

## openssl table

F getversion  
F initialize  
F sign  
F verify

## postgres table

F close  
F execute



F 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>	number	<b>selfarg</b>	table
<b>clock</b>	function	<b>selfbin</b>	string
<b>converttime</b>	function	<b>selfcore</b>	string
<b>date</b>	overloaded function	<b>selfdir</b>	string
<b>difftime</b>	function	<b>selflink</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>loadlib</b>	function
<b>cpath</b>	string	<b>luapaths</b>	function
<b>extralibpath</b>	function	<b>path</b>	string
<b>extralibpaths</b>	function	<b>poplibpath</b>	function
<b>extralupath</b>	function	<b>popluapath</b>	function
<b>extralupaths</b>	function	<b>preload</b>	table
<b>helpers</b>	table	<b>pushlibpath</b>	function
<b>libpaths</b>	function	<b>pushluapath</b>	function
<b>loaded</b>	table	<b>searchers</b>	table
<b>loaders</b>	table	<b>searchpath</b>	function

# pagebuilders (context)

## columnsets      table

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

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

## injections      table

- F flushafter
- F flushbefore
- F save

## mixedcolumns      table

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

pdf (context)

**immediateobj** function

## pdf (extra tex)

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

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

# physics (context)

<b>units</b>	table	F registerunit
F registers	shortcut	D tables

## pngdecode (extra tex)

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

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



## posit (extra lua)

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

## potrace (extra tex)

<b>checked</b>	function	<b>getbitmap</b>	function
<b>concat</b>	function	<b>new</b>	function
<b>contourplot</b>	function	<b>process</b>	function
<b>convert</b>	function	<b>setbitmap</b>	function
<b>count</b>	function	<b>stripped</b>	function
<b>flush</b>	function	<b>totable</b>	function
<b>free</b>	function	<b>trace</b>	function

# publications (context)

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

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

F load		F 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>oneorrange</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		T dataset	
<b>listvariants</b>	table	T sequence	
F default		T key	
F index		T sequence	
F num		<b>specifications</b>	table
F short		T default	
F tag		S author	
<b>load</b>	function	S comment	
<b>loadbibdata</b>	function	S copyright	
<b>loaddefinitionfile</b>	function	S name	
<b>loaders</b>	table	S version	
F bbl		D virtual	
F bib		<b>splitauthor</b>	function
F buffer		<b>splitoneauthor</b>	function
F endnote		<b>statistics</b>	table

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

## regimes (context)

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

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

# resolvers (context)

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



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

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



S 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 (extra lua)

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

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

## statistics (context)

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

## status (basic tex)

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

## streams (context)

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

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

## string (basic lua)

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



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

F title	
F touserdata	
<b>inserts</b>	<b>table</b>
D data	
F define	
F getdata	
F getlocation	
F getname	
F getnumber	
F setlocation	
F setup	
D stored	
<b>itemgroups</b>	<b>table</b>
D collected	
D tobesaved	
<b>lists</b>	<b>table</b>
F addto	
F analyze	
B autoreorder	
D cached	
D collected	
F discard	
F enhance	
T enhancers	
F external	
F filter	
F formulainumber	
F getresult	
F groupindex	
F hasnumberdata	
F haspagedata	
F hastitledata	
F integrate	
F iscached	
D kinds	
F label	
F location	
D names	
F number	
D ordered	
F page	
F popnesting	
F prefix	
F prefixednumber	

F prefixedpage	
F process	
D pushed	
F pushnesting	
F rawnumber	
F realpage	
F reordered	
T result	
F savedlistnumber	
F savedlistprefixednumber	
F savedlisttitle	
D sectionblocks	
F sectionnumber	
F size	
F title	
D tobesaved	
F use	
F userdata	
F uservalue	
<b>marks</b>	<b>table</b>
F number	
F title	
<b>notes</b>	<b>table</b>
F check_spacing	
F checkpagechange	
F define	
F doifonsamepageasprevious	
F get	
F getdeltapage	
F getinternal	
F getn	
F getstate	
F hascontent	
F internal	
F internalid	
F listindex	
D numbers	
F ordered	
F postpone	
F resetpostponed	
F restore	
F save	
F setstate	
D states	

F store	
<b>pages</b>	<b>table</b>
F allmarked	
F analyze	
D collected	
F fraction	
F in_body	
F is_odd	
F mark	
F marked	
F markedlist	
N nopages	
F number	
F on_right	
F save	
D tobesaved	
F toranges	

<b>references</b>	<b>table</b>
F analyze	
F checked	
F checkedfile	
F checkedfileorurl	
F checkedprogram	
F checkedrealpage	
F checkedurl	
D collected	
U componentsplitter	
F currentmetadata	
F currentorder	
D currentset	
F define	
D defined	
D derived	
F enhance	
D executers	
F export	
T files	
T data	
F define	
F found	
F get	
F filter	
F filterdefault	
D filters	

D flaginternals
F from
D functions
F get
F getcurrentlabel
F getcurrentmetadata
F getcurrentprefixspec
F getinnermethod
F getinternalcachedlistreference
F getinternallistreference
F getinternalreference
F getoutermethod
D handlers
F identify
F import
F inject
F injectcurrentset
S innermethod
F integrate
D internals
F load
F loadpresets
F mark
S outermethod
F pagefromhash
D pages
U prefixsplitter
D productdata
T programs
T data
F define
F get
F realpageofpage
U referencesplitter
D referred
F referredpage
F registerfinalizer
F registerinitializer
F registerpage
F reset
D runners
F set
F setandgetattribute
F setinternalreference

- F setlinkmethod
- F setnextinternal
- F setnextorder
- F setreferencerealpage
- F setstructure
- D specials
- F splitcomponent
- F splitprefix
- F splitreference
- F synchronizepage
- T testrunners
  - F inner
  - F special
  - F special operation
  - F special operation with arguments

#### T testspecials

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

#### D tobereferred

#### D tobesaved

#### D tracedpages

#### T urls

- T data
- F define
- F found
- F get
- F untext

#### D usedinternals

#### D usedviews

#### F valid

### registers

- F analyze
- D collected
- F compare
- F define
- F enhance
- F extend
- F filter
- F filtercollected

### table

- F finalize
- F findinternal
- F flush
- F get
- F integrate
- F prepare
- F process
- F setmethod
- F sort
- F store
- D tobesaved
- F tweak
- F unique
- F use
- F userdata

### sections

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

### table

T sectionblockdata		F registerused	
T bodypart		F reset	
S bookmark		F resetall	
F set		F resetlist	
F setblock		F resetshown	
F setchecker		F resetused	
F setentry		F sort	
F setinitialblock		F synonym	
F setlevel		D tobesaved	
F setnumber		<b>tags</b>	<b>table</b>
F showstructure		T backend	
F structuredata		T checks	
F title		F marginanchor	
D tobesaved		F margintext	
F typesetnumber		F math	
F userdata		F mrow	
B verbose		F mtable	
<b>sets</b>	<b>table</b>	T destinationhash	
F define		T extras	
F get		F adddestination	
F getall		F addimplicit	
D setlist		F addinternal	
<b>specials</b>	<b>table</b>	F addreference	
D collected		F combination	
F retrieve		F delimitedsymbol	
F store		F description	
D tobesaved		F descriptionsymbol	
<b>synonyms</b>	<b>table</b>	F document	
F analyzed		F float	
D collected		F formulacontent	
F compare		F image	
F define		F item	
F enhance		F itemgroup	
F filter		F link	
F finalize		F listitem	
F flush		F mmultiscripts	
F isshown		F msub	
F isused		F msubsup	
F meaning		F msup	
F pages		F paragraph	
F prepare		F publication	
F process		F reference	
F register		F registerlocation	
F registershown		F registerpages	

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

## table (basic lua)

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



# tex (basic tex)

<b>amcode</b>	table	<b>extraprimitives</b>	function
<b>attribute</b>	table	<b>fatalerror</b>	function
<b>automigrationcodes</b>	data table	<b>fillcodes</b>	data table
<b>autoparagraphcodes</b>	data table	<b>fitnesscodes</b>	data table
<b>badness</b>	function	<b>flagcodes</b>	data table
<b>boundaries</b>	table	<b>fontidentifier</b>	function
D names		<b>fontname</b>	function
D numbers		<b>forcehmode</b>	function
F system		<b>forceinputstatefile</b>	function
<b>box</b>	table	<b>forceinputstateline</b>	function
<b>boxresources</b>	table	<b>fprint</b>	function
F getbox		<b>frozenparcodes</b>	data table
F getdimensions		<b>get</b>	function
F save		<b>getalignmentcontextvalues</b>	function
F use		<b>getamcode</b>	function
<b>breakcodes</b>	data table	<b>getappendlinecontextvalues</b>	function
<b>buildcodes</b>	data table	<b>getattribute</b>	function
<b>catcode</b>	table	<b>getautomigrationvalues</b>	function
<b>character&gt;tagcodes</b>	data table	<b>getautoparagraphvalues</b>	function
<b>chardef</b>	function	<b>getbox</b>	function
<b>classoptioncodes</b>	data table	<b>getboxdir</b>	function
<b>codes</b>	table	<b>getboxresourcebox</b>	function
<b>conditionals</b>	data table	<b>getboxresourcedimensions</b>	function
<b>constants</b>	data table	<b>getbreakcontextvalues</b>	function
<b>count</b>	table	<b>getbuildcontextvalues</b>	function
<b>cprint</b>	function	<b>getcardinalvalue</b>	function
<b>ctdcatcodes</b>	number	<b>getcatcode</b>	function
<b>ctxcatcodes</b>	number	<b>getcharacter&gt;tagvalues</b>	function
<b>definefont</b>	function	<b>getcount</b>	function
<b>delcode</b>	table	<b>getdelcode</b>	function
<b>dimen</b>	table	<b>getdelcodes</b>	function
<b>dimensiondef</b>	function	<b>getdimen</b>	function
<b>directioncodes</b>	data table	<b>getdimensionvalue</b>	function
<b>directives</b>	data table	<b>getdirectionvalues</b>	function
<b>discoptioncodes</b>	data table	<b>getdiscoptionvalues</b>	function
<b>dontcomplain</b>	function	<b>getdiscstatevalues</b>	function
<b>doublescriptoptioncodes</b>	data table	<b>getdoublescriptoptionvalues</b>	function
<b>enableprimitives</b>	function	<b>geterrorvalues</b>	function
<b>error</b>	function	<b>getfillvalues</b>	function
<b>expandasvalue</b>	function	<b>getfitnessvalues</b>	function
<b>experiments</b>	data table	<b>getflagvalues</b>	function

<b>getfloat</b>	function	<b>getmathcodes</b>	function
<b>getfontofffamily</b>	function	<b>getmathcontrolvalues</b>	function
<b>getfrozenparvalues</b>	function	<b>getmathdir</b>	function
<b>getglue</b>	function	<b>getmathgluevalues</b>	function
<b>getglueoptionvalues</b>	function	<b>getmathoptionvalues</b>	function
<b>getglyphdata</b>	function	<b>getmathparametervalues</b>	function
<b>getglyphoptionvalues</b>	function	<b>getmathscriptordervalue</b> s	function
<b>getglyphscales</b>	function	<b>getmathscriptsmodevalues</b>	function
<b>getglyphscript</b>	function	<b>getmathstylenamevalues</b>	function
<b>getglyphstate</b>	function	<b>getmathstylevalues</b>	function
<b>getgroupvalues</b>	function	<b>getmathsurroundvalues</b>	function
<b>gethccode</b>	function	<b>getmathvariantvalues</b>	function
<b>gethelptext</b>	function	<b>getmode</b>	function
<b>gethmcode</b>	function	<b>getmodevalues</b>	function
<b>gethyphenationvalues</b>	function	<b>getmuglue</b>	function
<b>getiftypes</b>	function	<b>getmuskip</b>	function
<b>getinputstatefile</b>	function	<b>getnest</b>	function
<b>getinputstateline</b>	function	<b>getnestlevel</b>	function
<b>getinputstatemode</b>	function	<b>getnoadoptionvalues</b>	function
<b>getinsertcontent</b>	function	<b>getnormalizelinevalues</b>	function
<b>getinsertdepth</b>	function	<b>getnormalizeparvalues</b>	function
<b>getinsertdistance</b>	function	<b>getoutputactive</b>	function
<b>getinsertheight</b>	function	<b>getpacktypevalues</b>	function
<b>getinsertlimit</b>	function	<b>getpagecontextvalues</b>	function
<b>getinsertmultiplier</b>	function	<b>getpagestate</b>	function
<b>getinsertwidth</b>	function	<b>getparametermodevalues</b>	function
<b>getintegervalue</b>	function	<b>getparcontextvalues</b>	function
<b>getinteraction</b>	function	<b>getpardir</b>	function
<b>getinteractionmodes</b>	function	<b>getparmodevalues</b>	function
<b>getiovalues</b>	function	<b>getparpassclassvalues</b>	function
<b>getkerneloptionvalues</b>	function	<b>getparstate</b>	function
<b>getlargestusedmark</b>	function	<b>getpartriggervalue</b> s	function
<b>getlccode</b>	function	<b>getpenaltyoptionvalues</b>	function
<b>getlinedir</b>	function	<b>getpositvalue</b>	function
<b>getlist</b>	function	<b>getprepoststatevalues</b>	function
<b>getlistanchorvalues</b>	function	<b>getprimitiveorigins</b>	function
<b>getlistgeometryvalues</b>	function	<b>getprotrusionboundaryvalues</b>	function
<b>getlistsignvalues</b>	function	<b>getregisterindex</b>	function
<b>getlocalbox</b>	function	<b>getruleoptionvalues</b>	function
<b>getlocallevel</b>	function	<b>getrunstatevalues</b>	function
<b>getmark</b>	function	<b>getsfcode</b>	function
<b>getmath</b>	function	<b>getshapingpenaltiesvalues</b>	function
<b>getmathclassoptionvalues</b>	function	<b>getskip</b>	function
<b>getmathcode</b>	function	<b>getspecialmathclassvalues</b>	function

<b>gettextcontrolvalues</b>	function	N defaulteqnogapstep
<b>gettextdir</b>	function	N defaultthangafter
<b>gettoks</b>	function	N defaultoutputbox
<b>getuicode</b>	function	N defaultpredisplaygap
<b>getunitclassvalues</b>	function	N defaultrule
<b>glue</b>	table	N defaultspacefactor
<b>glueoptioncodes</b>	data table	N defaulttolerance
<b>glyphoptioncodes</b>	data table	N deplorable
<b>groupcodes</b>	data table	N ejectpenalty
<b>hashtokens</b>	function	N ignoredepth
<b>hccode</b>	table	N infinitebad
<b>hmcode</b>	table	N infinitepenalty
<b>hshcatcodes</b>	number	N infinity
<b>hyphenationcodes</b>	data table	N largewidthexcess
<b>ifs</b>	data table	N loosecriterion
<b>inicatcodes</b>	number	N mathallclass
<b>integerdef</b>	function	N mathbeginclass
<b>interactioncodes</b>	data table	N mathdefaultpenalty
<b>isattribute</b>	function	N mathendclass
<b>isbox</b>	function	N mathfirstuserclass
<b>iscount</b>	function	N mathlastuserclass
<b>isdefined</b>	function	N maxattributeregisterindex
<b>isdimen</b>	function	N maxboxregisterindex
<b>isfloat</b>	function	N maxbytecodeindex
<b>isglue</b>	function	N maxcalculatedbadness
<b>ismuglue</b>	function	N maxcardinal
<b>ismuskip</b>	function	N maxcategorycode
<b>isprintable</b>	function	N maxcharactercode
<b>isskip</b>	function	N maxdatavalue
<b>istoks</b>	function	N maxdimen
<b>lastnodetype</b>	function	N maxdimenregisterindex
<b>lccode</b>	table	N maxdimension
<b>linebreak</b>	function	N maxdimensionregisterindex
<b>listanchorcodes</b>	data table	N maxendlinecharacter
<b>listgeometrycodes</b>	data table	N maxfloatregisterindex
<b>lists</b>	table	N maxfontadjustshrinkfactor
<b>listsigncodes</b>	data table	N maxfontadjuststep
<b>luacatcodes</b>	number	N maxfontadjuststretchfactor
<b>magicconstants</b>	table	N maxfunctionreference
N assumedmathcontrol		N maxglueregisterindex
N awfulbad		N maxhalfvalue
N decentcriterion		N maxhalfword
N defaultcatcodetable		N maxinteger
N defaultdeadcycles		N maxintegerregisterindex

N maxintregisterindex	N unusedattributevalue	
N maxlimitedscale	N unusedmathfamily	
N maxmarkindex	N unusedmathstyle	
N maxmathclasscode	N unusedscriptvalue	
N maxmathfamilyindex	N unusedstatevalue	
N maxmathscalingfactor	N zeroglu	
N maxmathstylescale	<b>mathchardef</b>	function
N maxmuglueregisterindex	<b>mathcode</b>	table
N maxnewlinecharacter	<b>mathcontrolcodes</b>	data table
N maxnofbytecodes	<b>mathoptioncodes</b>	data table
N maxnofcatcodetables	<b>mathparametercodes</b>	data table
N maxnoffonts	<b>mathscriptordercodes</b>	data table
N maxnoflanguages	<b>mathscriptsmodecodes</b>	data table
N maxnofmarks	<b>modelevels</b>	table
N maxnofmathfamilies	N horizontal	
N maxquarterword	N math	
N maxscalefactor	N unset	
N maxsizeofword	N vertical	
N maxspacefactor	<b>modes</b>	data table
N maxtoksregisterindex	<b>mprint</b>	function
N mincardinal	<b>muglue</b>	table
N mindatavalue	<b>muskip</b>	table
N mindimen	<b>nest</b>	table
N mindimension	<b>nilcatcodes</b>	number
N minhalfword	<b>noadoptioncodes</b>	data table
N mininfinity	<b>normalizelinecodes</b>	data table
N mininteger	<b>normalizeparcodes</b>	data table
N minquarterword	<b>notcatcodes</b>	number
N minscalefactor	<b>number</b>	function
N minspacefactor	<b>parcontextcodes</b>	data table
N nocatcodetable	<b>parpassclasscodes</b>	data table
N null	<b>partriggercodes</b>	data table
N nullflag	<b>penaltyoptioncodes</b>	data table
N nullfont	<b>poplocal</b>	function
N onebp	<b>popsavelevel</b>	function
N presetrulethickness	<b>posit</b>	table
N runningrule	<b>positdef</b>	function
N smallstretchability	<b>preparelinebreak</b>	function
N texeqtbsize	<b>primitives</b>	function
N texhashprime	<b>print</b>	function
N texhashsize	<b>protrusionboundarycodes</b>	data table
N two	<b>prtcacodes</b>	number
N undefinedmathparameter	<b>pushlocal</b>	function
N unity	<b>pushsavelevel</b>	function

<b>quitlocal</b>	function	<b>setmath</b>	function
<b>quittoks</b>	function	<b>setmathcode</b>	function
<b>resetparagraph</b>	function	<b>setmathdir</b>	function
<b>rlncatcodes</b>	number	<b>setmuglue</b>	function
<b>romannumeral</b>	function	<b>setmuskip</b>	function
<b>round</b>	function	<b>setnest</b>	function
<b>ruleoptioncodes</b>	data table	<b>setpardir</b>	function
<b>runlocal</b>	function	<b>setpositvalue</b>	function
<b>runstring</b>	function	<b>setrunstate</b>	overloaded function
<b>runtoks</b>	function	<b>setsfcode</b>	function
<b>saveboxresource</b>	function	<b>setskip</b>	function
<b>scale</b>	function	<b>settexmdir</b>	function
<b>scantoks</b>	function	<b>settoks</b>	function
<b>set</b>	function	<b>setuccode</b>	function
<b>setamcode</b>	function	<b>sfcode</b>	table
<b>setattribute</b>	function	<b>shapingpenaltiescodes</b>	data table
<b>setbox</b>	function	<b>shiftparshape</b>	function
<b>setboxdir</b>	function	<b>shipout</b>	function
<b>setcardinalvalue</b>	function	<b>showcontext</b>	function
<b>setcatcode</b>	function	<b>skip</b>	table
<b>setcount</b>	function	<b>snapshotpar</b>	function
<b>setdelcode</b>	function	<b>sp</b>	function
<b>setdimen</b>	function	<b>specialmathclasscodes</b>	data table
<b>setdimensionvalue</b>	function	<b>splitbox</b>	function
<b>setfloat</b>	function	<b>sprint</b>	function
<b>setglue</b>	function	<b>stringtocodesbitmap</b>	function
<b>setglyphdata</b>	function	<b>systemmodes</b>	data table
<b>setglyphscript</b>	function	<b>takebox</b>	function
<b>setglyphstate</b>	function	<b>texcatcodes</b>	number
<b>sethcode</b>	function	<b>textcontrolcodes</b>	data table
<b>sethmcode</b>	function	<b>toks</b>	table
<b>setinputstatefile</b>	function	<b>tonumber</b>	function
<b>setinputstateline</b>	function	<b>toscaled</b>	function
<b>setinputstatemode</b>	function	<b>tpacatcodes</b>	number
<b>setinsertcontent</b>	function	<b>tpbcatcodes</b>	number
<b>setinserttdistance</b>	function	<b>tprint</b>	function
<b>setinsertlimit</b>	function	<b>trackers</b>	data table
<b>setinsertmultiplier</b>	function	<b>triggerbuildpage</b>	function
<b>setintegervalue</b>	function	<b>txtcatcodes</b>	number
<b>setinteraction</b>	function	<b>uccode</b>	table
<b>setlcode</b>	function	<b>uprint</b>	function
<b>setlinedir</b>	function	<b>useboxresource</b>	function
<b>setlist</b>	function	<b>userdiscoptioncodes</b>	data table
<b>setlocalbox</b>	function	<b>userglyphoptioncodes</b>	data table

**vrbc**atcodes  
**write**

number  
**function**

# texconfig (basic tex)

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

## texio (basic tex)

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

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



## token (basic tex)

<b>create</b>	function	<b>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_cmdchrscs</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>grab</b>	function
<b>get_range</b>	function	<b>is_defined</b>	function
<b>get_tok</b>	function	<b>is_next_char</b>	function
<b>get_tolerant</b>	function	<b>is_token</b>	function
<b>getactive</b>	function	<b>isdefined</b>	function
<b>getcmdchrscs</b>	function	<b>isnextchar</b>	function
<b>getcmdname</b>	function	<b>istoken</b>	function
<b>getcommand</b>	function	<b>new</b>	function
<b>getcommandid</b>	function	<b>peek_next</b>	function
<b>getcommandvalues</b>	function	<b>peek_next_char</b>	function
<b>getconstant</b>	function	<b>peek_next_expanded</b>	function
<b>getcurname</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>scanctoken</b>	function
<b>scan_argument</b>	function	<b>scandelimited</b>	function
<b>scan_box</b>	function	<b>scandetokened</b>	function
<b>scan_cardinal</b>	function	<b>scandimen</b>	function
<b>scan_char</b>	function	<b>scandimenargument</b>	function
<b>scan_cmdchr</b>	function	<b>scandimension</b>	function
<b>scan_cmdchr_expanded</b>	function	<b>scandimensionargument</b>	function
<b>scan_code</b>	function	<b>scanfloat</b>	function
<b>scan_csname</b>	function	<b>scan glue</b>	function
<b>scan_delimited</b>	function	<b>scanint</b>	function
<b>scan_dimen</b>	function	<b>scaninteger</b>	function
<b>scan_dimen_argument</b>	function	<b>scanintegerargument</b>	function
<b>scan_float</b>	function	<b>scankey</b>	function
<b>scan_glue</b>	function	<b>scankeyword</b>	function
<b>scan_integer</b>	function	<b>scankeywordcs</b>	function
<b>scan_integer_argument</b>	function	<b>scanletters</b>	function
<b>scan_key</b>	function	<b>scanluacardinal</b>	function
<b>scan_keyword</b>	function	<b>scanluainteger</b>	function
<b>scan_keyword_cs</b>	function	<b>scanluanumber</b>	function
<b>scan_letters</b>	function	<b>scannext</b>	function
<b>scan_luacardinal</b>	function	<b>scannextchar</b>	function
<b>scan_luainteger</b>	function	<b>scannextexpanded</b>	function
<b>scan_luanumber</b>	function	<b>scanposit</b>	function
<b>scan_next</b>	function	<b>scanreal</b>	function
<b>scan_next_char</b>	function	<b>scanscale</b>	function
<b>scan_next_expanded</b>	function	<b>scanskip</b>	function
<b>scan_real</b>	function	<b>scanstring</b>	function
<b>scan_scale</b>	function	<b>scantoken</b>	function
<b>scan_skip</b>	function	<b>scantokencode</b>	function
<b>scan_string</b>	function	<b>scantokenlist</b>	function
<b>scan_token</b>	function	<b>scantokenstring</b>	function
<b>scan_token_code</b>	function	<b>scantoks</b>	function
<b>scan_tokenlist</b>	function	<b>scanvalue</b>	function
<b>scan_toks</b>	function	<b>scanword</b>	function

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

# tokens (context)

## **accessors** table

F active  
F cmd  
F cmdchrscs  
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** data table

## **commands** data table

## **compile** function

## **constant** function

## **converters** table

S toboolean

S todimen

S toglue

S tonumber

S tostring

## **create** function

## **defined** function

## **flags** function

## **getinteger** function

## **getters** table

F box

F count

F cstoken

F dimen

F glue

F macro

F meaning

F skip

F token

## **gobble** function

## **isdefined** function

## **istoken** function

## **new** function

## **pickup** function

## **popmacro** function

## **presets** table

T 1 argument

T 1 integer

T 1 optional

T 1 string

T 2 arguments

T 2 integers

T 2 optionals

T 2 strings

T 3 arguments

T 3 integers

T 3 optionals

T 3 strings

T 4 arguments

T 4 integers

T 4 optionals

T 4 strings

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 detokened  
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 posit  
F real  
F scanclose  
F scanopen  
F skip  
F skipexpanded  
F string  
F table  
F token  
F tokencode  
F tokenlist  
F tokens  
F tokenstring  
F toks  
F value  
F vbox  
F verbatim  
F vtop  
F whd  
F word

**setinteger** function  
**setters** table

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

**shortcuts** table

T bits  
N active  
N alignment  
N begingroup

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

F scannameunchecked	F hash
F scandelimited	F hbox
F scandetokened	F integer
F scandimen	F integerargument
F scandimenargument	F ischar
F scandimension	F key
F scanfloat	F keyword
F scanglue	F keywordcs
F scangluespec	F letters
F scangluevalues	F list
F scanhash	F luacardinal
F scanhbox	F luainteger
F scaninteger	F luanumber
F scanintegerargument	F lxmlid
F scankeyword	F next
F scankeywordcs	F nextchar
F scanletters	F nextexpanded
F scanlist	F number
T scanners	F optional
F argument	F peek
F argumentasis	F peekchar
F array	F peekexpanded
F boolean	F posit
F box	F real
F bracketed	F scanclose
F bracketedasis	F scanopen
F cardinal	F skip
F char	F skipexpanded
F cmdchr	F string
F cmdchrexplanded	F table
F code	F token
F conditional	F tokencode
F count	F tokenlist
F csname	F tokens
F csnameunchecked	F tokenstring
F delimited	F toks
F detokened	F value
F dimen	F vbox
F dimenargument	F verbatim
F dimension	F vtop
F float	F whd
F glue	F word
F gluespec	F scannumber
F gluevalues	F scanopen

F scanoptional	F cstoken
F scanstring	F dimen
F scantable	F glue
F scantokenlist	F macro
F scantokenstring	F meaning
F scantoks	F skip
F scanvbox	F token
F scanverbatim	F gobble
F scanvtop	F isdefined
F scanword	F istoken
F toboolean	F new
F todimen	F pickup
T tokens	F popmacro
T accessors	T presets
F active	F pushmacro
F cmd	F setinteger
F cmdchrcls	T setters
F cmdname	F box
F command	F char
F csname	F count
F expandable	F dimen
F frozen	F glue
F index	F lua
F name	F macro
F protected	F skip
F range	T shortcuts
F astable	N close
D cache	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 scanscsname
F box	F scanscsnameunchecked
F count	F scandelimited



F scandetokened	F scanoptional
F scandimen	F scanstring
F scandimenargument	F scantable
F scandimension	F scantokenlist
F scanfloat	F scantokenstring
F scan glue	F scantoks
F scan glue spec	F scanvbox
F scan glue values	F scanverbatim
F scanhash	F scanvtop
F scan hbox	F scanword
F scaninteger	F toboolean
F scanintegerargument	F todimen
F scankeyword	F tonumber
F scankeywordcs	F tostring
F scanletters	D values
F scanlist	F tonumber
F scannumber	F tostring
F scanopen	<b>values</b> 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		

# typesetters (context)

<b>alignments</b>	table		F getmethod
<b>breakpoints</b>	table		F handler
			T handlers
			F installhandler
			F set
			F setcolor
			F tomode
		<b>firstlines</b>	table
			T actions
			F default
			F line
			F word
			F handler
			F set
<b>cases</b>	table	<b>fontkerns</b>	table
			F handler
		<b>initials</b>	table
			T actions
			F default
			F handler
			F set
<b>characteralign</b>	table	<b>injectors</b>	table
			F check
			T list
			F mark
			F reset
			F set
			F show
<b>characters</b>	table	<b>italics</b>	table
			F enablemath
			F enabletext
			F handler
<b>checkers</b>	table	<b>kerns</b>	table
			D factors
			F handler
			F keepligature
			D mapping
			F set
<b>cleaners</b>	table	<b>localboxes</b>	table
			F handler
		<b>manipulators</b>	table
<b>corrections</b>	table		
<b>digits</b>	table		
<b>directions</b>	table		

F apply		F toString	
F applyspecification		<b>rubies</b>	table
T methods		F attach	
F Word		F check	
F Words		<b>showinvisibles</b>	function
F abbreviatedjournal		<b>showsuspects</b>	function
F expandedjournal		<b>spacings</b>	table
F lowercase		F define	
F stripperperiod		F handler	
F uppercase		D mapping	
T patterns		T numbers	
U list		T frenchpunctuation	
U pair		T characters	
F splitspecification		S name	
<b>margins</b>	table	N number	
F finalhandler		F reset	
F globalhandler		F set	
F localhandler		F setup	
F save		<b>synchronize</b>	table
<b>marksuspects</b>	function	F handler	
<b>paragraphs</b>	table	<b>tighten</b>	table
F addanchortoline		F handler	
F addtoline		<b>wrappers</b>	table
F calculatedelta		<b>xtables</b>	table
F checkline		F cleanup	
F moveinline		F construct	
<b>periodkerns</b>	table	F create	
D factors		F finish_row	
F handler		F flush	
D mapping		F initialize_construct	
F set		F initialize_reflow_height	
<b>processors</b>	table	F initialize_reflow_width	
F apply		F next_row	
F register		F reflow_height	
F reset		F reflow_width	
F split		F set_construct	
F startapply		F set_reflow_height	
F stopapply		F set_reflow_width	
F stripped			

## updaters (context)

**apply**      function

**register**   function

## url (context)

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

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

## utf8 (basic lua)

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

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



# utilities (context)

## **debugger**            table

F disable  
F enable  
F savestats  
F showstats  
F showtraceback

## **files**                table

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

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

## **formatters**           table

F formatcolumns  
F list  
F stripzeros

## **ghostscript**           table

F convert  
F statistics

## **graphicmagick**        table

F convert  
F statistics

## **graphicsmagick**      table

F convert  
F statistics

## **lua**                    table

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

F unittotex  
 F unittotxml  
**randomizer**            table  
 F get  
 F getnumber  
 F getrepeatable  
 F getrepeatableseed  
 F getseed  
 F newrepeatable  
 F popseed  
 F pushseed  
 F repeatable  
 F reuseseed  
 F setseed  
 F setseedi  
**randomizers**           table  
 F poisson  
**sequencers**           table  
 F appendaction  
 F appendgroup  
 F compile  
 F disableaction  
 F disablegroup  
 F enableaction  
 F enablegroup  
 D functions  
 F localize  
 F new  
 F nodeprocessor  
 F prependaction  
 F prependgroup  
 F removeaction  
 F replaceaction  
 F setkind  
 F tostring  
**setters**                table  
 F disable  
 F enable  
 F initialize  
 F list  
 F new  
 F register  
 F report  
 F reset

F show  
**stacker**                table  
 F new  
**storage**                table  
 F allocate  
 F checked  
 F mark  
 F marked  
 F setinitializer  
 F sparse  
**streams**                table  
 F close  
 F getposition  
 F getsizes  
 F getstring  
 F look  
 F open  
 F openstring  
 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 setposition
- F size
- F skip
- F skipbytes
- F skiplong
- F skipshort
- F tocardinal1
- F tocardinal1le
- F tocardinal2
- F tocardinal2le
- F tocardinal3
- F tocardinal3le
- F tocardinal4
- F tocardinal4le

**strings**                      table

- F collapse
- F collapseCrLf
- T formatters
  - F add
  - F new
- F newcollector
- F newrepeater
- F nice
- T striplinepatterns
  - U collapse
  - U collapse all
  - U prune
  - U prune and collapse
  - U prune and no empty
  - U prune and to space
  - U retain
  - U retain and collapse
  - U retain and no empty
- F striplines
- F striplong
- F tabtospace
- T tracers

**tables**                      table

- F accesstable

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

**tar**                      table

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

**templates**                      table

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

**zipfiles**                      table

- F close
- F found
- F hash
- F list
- F open
- F unzip

F unzipdir

F zipdir

## visualizers (context)

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

## xcomplex (extra lua)

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

## xdecimal (extra lua)

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



## xmath (extra lua)

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

# xml (context)

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

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

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

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

## xzip (extra lua)

**adler32**            function

**compress**        function

**compresssize**    function

**crc32**            function

**decompress**      function

**decompresssize** function

# zip (context)

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

## zlib (context)

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

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