

1 attributes backends bibtex blobs  
boolean buffers builders caches **callback**  
callbacks catcodes characters chemicals  
commands containers context converters  
**coroutine** ctxrunner **debug** dir directives  
document documentdata environment **epdf**  
experiments figures **file** floats **font**  
**fontloader** fonts global graphics **gzip** img  
interactions interfaces **io** job **lang**  
languages layouts **lfs** libraries lmx logs  
lpdf **lpeg** **ltn12** **lua** luatex lxml **math**  
mathematics **md5** metapost **mime** moduledata  
modules **mplib** noads **node** nodes number **os**  
**package** parametersets **pdf** physics  
**profiler** regimes resolvers scripts set  
**socket** sorters statistics **status** storage  
streams **string** structures **table** **tex**  
**texconfig** **texio** token tokens tracers  
trackers typesetters **unicode** url  
utilities visualizers xml **zip** **zlib**

# ConTEXt MkIV

# global (alias: \_G)

1	table	gcinfo	function
arg	table	getfenv	function
assert	function	getmetatable	function
attributes	table	getreadfilename	function
backends	table	global	table
beginpage	function	graphics	table
bibtex	table	gzip	table
blobs	table	img	table
boolean	table	inspect	function
buffers	table	interactions	table
builders	table	interfaces	table
caches	table	io	table
callback	table	ipairs	function
callbacks	table	job	table
catcodes	table	lang	table
characters	table	languages	table
chemicals	table	layouts	table
collectgarbage	function	lfs	table
commands	table	libraries	table
containers	table	lmx	table
context	function	load	function
converters	table	loadfile	function
coroutine	table	loadstring	function
ctxrunner	table	logs	table
debug	table	lpdf	table
dimen	function	lpeg	table
dir	table	ltn12	table
directives	table	lua	table
document	table	luatex	table
documentdata	table	lxml	table
dofile	function	math	table
endpage	function	mathematics	table
environment	table	md5	table
epdf	table	metapost	table
error	function	mime	table
experiments	table	module	function
figures	table	moduledata	table
file	table	modules	table
floats	table	mplib	table
font	table	newline	function
fontloader	table	newproxy	function
fonts	table	next	function

noads	table	streams	table
node	table	string	table
nodes	table	stripmath	function
number	table	structures	table
os	table	table	table
outputpagetree	function	tex	table
package	table	texconfig	table
pairs	function	texio	table
parametersets	table	toboolean	function
pcall	function	tocontext	function
pdf	table	token	table
physics	table	tokens	table
print	function	tonumber	function
profiler	table	tostring	function
protect	function	trace_characters	boolean
rawequal	function	traceback	function
rawget	function	tracers	table
rawset	function	trackers	table
regimes	table	type	function
report_characters	function	typesetters	table
require	function	unicode	table
resolvers	table	unpack	function
scripts	table	url	table
select	function	utf	table
set	table	utilities	table
setfenv	function	visualizers	table
setmetatable	function	xml	table
socket	table	xmlconvert	function
sorters	table	xpcall	function
statistics	table	zip	table
status	table	zlib	table
storage	table		

# attributes (context)

## 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  
B couple  
D data  
N default  
F defineintermediatecolor  
F definemixcolor  
F definemultitonecolor  
F defineprocesscolor  
F definesimplegray  
F definespotcolor  
F definetransparency  
F enable  
F filter  
F forcedmodel  
F forcesupport  
F formatcolor  
F formatgray  
F gray  
F graytohsv  
F handler  
F hsvtorgay  
F hsvtorgb  
F iccprofile  
F isblack  
N main  
S model  
F mpcolor  
F mpoptions  
U none  
F popset

F pushset  
F register  
D registered  
F registerspotcolor  
F rgb  
F rgbtocmyk  
F rgbtorgay  
F rgbtohsv  
N selector  
F setlist  
F setmodel  
D sets  
F spot  
F spotcolorname  
F spotcolorparent  
F spotcolorvalue  
B supported  
F transparencycomponents  
B triggering  
F usecolors  
F value  
D values  
B weightgray

## define function

## effects table

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

## handlers table

## list data table

## names data table

## negatives table

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

<b>numbers</b>	data table	B triggering	
<b>ofnode</b>	function	F value	
<b>private</b>	function	D values	
<b>showcurrent</b>	function	<b>unsetvalue</b>	number
<b>states</b>	table	<b>viewerlayers</b>	table
F disabletriggering		N attribute	
F enabletriggering		D data	
F finalize		F define	
F initialize		F enable	
F process		F forcesupport	
F selective		F handler	
F stacked		B hasorder	
<b>transparencies table</b>		D listwise	
N attribute		F register	
D data		D registered	
F enable		D scopes	
F forcesupport		F setfeatures	
F handler		F start	
U none		F stop	
F register		B supported	
D registered		D values	
B supported			

# backends (context)

**codeinjections** table

F synchronizecolormodel

**current** string

**defaults** table

T codeinjections

T nodeinjections

T registrations

D tables

**install** function

**nodeinjections** table

F restore

F save

F transform

**nothing** function

**pdf** table

T codeinjections

F addbookmarks

F attachmentid

F clonefield

F definefield

F definefieldset

F defineviewerlayer

F embedfile

F enabletags

F exportformdata

F finalizepage

F finishreference

F getdefaultfieldvalue

F getfieldcategory

F getfieldset

F getformatoption

F getoutputfilename

F getpreviewfigure

F insertrenderingwindow

F mergereferences

F mergeviewerlayers

F prerollreference

F presetsymbol

F presetsymbollist

F processrendering

F registerdocumentcloseaction

F registerdocumentopenaction

F registeredsymbol

F registerpagecloseaction

F registerpageopenaction

F registersymbol

F setfieldcalculationset

F setfigurealternative

F setfigurecolorspace

F setfiguremask

F setformat

F setformsmethod

F setpagetransition

F setupcanvas

F setupidentity

F setxmpfile

F startlayer

F stoplayer

F supportedformats

F useviewerlayer

F validfield

F validfieldcategory

F validfieldset

S comment

T nodeinjections

F addtags

F attachfile

F cmykcolor

F comment

F destination

F effect

F graycolor

F injectbitmap

F insertmovie

F insertsound

F insertswf

F insertu3d

F knockout

F negative

F overprint

F positive

F reference

F rgbcolor

F spotcolor

F startlayer	T blue
F stoplayer	T gray
F switchlayer	T green
F transparency	T red
F typesetfield	T rulecolors
T registrations	T black
F cmykindexcolor	T blue
F cmykspotcolor	T gray
F getspotcolorreference	T green
F grayindexcolor	T paleblue
F grayspotcolor	T palegray
F rgbindexcolor	T palegreen
F rgbspotcolor	T palered
F spotcolorname	T red
F transparency	F startslant
T tables	T stopslant
T vfspecials	<b>registrations</b> table
T black	<b>tables</b> table

# bibtex (context)

**authorref**            function

**authors**            table

    F concat

    F inverted

    F invertedshort

    F normal

    F normalshort

    F setsettings

    F short

**authoryearref**        function

**authoryearsref**      function

**convert**            function

**hacks**            table

    F add

    F doifalreadyplaced

    F filterall

    F flush

    F nofregistered

    F process

    F register

    F registerplaced

    F reset

    F resolve

**load**            function

**new**            function

**singularorplural**    function

**statistics**        table

    N nofbytes

    N nofdefinitions

    N nofshortcuts

**toxml**            function



## blobs (context)

<code>append</code>	<code>function</code>
<code>dimensions</code>	<code>function</code>
<code>dispose</code>	<code>function</code>

<code>new</code>	<code>function</code>
<code>pack</code>	<code>function</code>
<code>write</code>	<code>function</code>

# boolean (context)

tocontext function

tonumber function

## buffers (context)

append	function	F define	
assign	function	F hassomecontent	
collectcontent	function	F next	
erase	function	F place	
exists	function	F reset	
getcontent	function	F save	
getlines	function	raw	function
parallel	table		

# builders (context)

## kernel table

- F hyphenation
- F kerning
- F ligaturing
- F mlist\_to\_hlist

## paragraphs table

- T constructors
  - N attribute
  - F disable
  - F enable
  - F handler
  - T methods
    - F default
    - F oneline
  - D names
  - D numbers
  - F register
  - F set
- F kepttogether
- F registertogether
- T solutions
  - T splitters
    - F define

- F disable

- F enable

- F optimize

- F setup

- F split

- F tag

## vspacing table

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

## cache (context)

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

## callback (basic tex)

```
find      function
list      function
register overloaded function
```

## callbacks (context)

freeze	function
known	function
list	data table
pop	function

push	function
register	function
report	function
table	function

## catcodes (context)

`names` data table

`numbers` data table

`register` function



# characters (context)

activeoffset	number	is_mark	data table
adobename	function	is_spacing	data table
bidi	data table	lcchars	data table
blocks	data table	lccode	function
casemap	table	lccodes	data table
categories	data table	lettered	function
category	function	lower	function
categorytags	data table	makeactive	function
combined	data table	math	table
contextname	function	mathpairs	data table
data	data table	ranges	data table
decomposed	data table	registerentities	function
define	function	remap_hangul_syllable	function
description	function	remapentity	function
descriptions	data table	setcodes	function
directions	data table	shape	function
encodes	data table	shaped	function
entities	data table	shchars	data table
fallbacks	data table	shcodes	data table
filters	data table	specialchars	data table
flush	function	specials	data table
fromnumber	function	subscripts	table
fschars	data table	superscripts	table
fscodes	data table	synonyms	data table
getrange	function	tex	table
graphemes	data table		
hangul	table	D accentmapping	
		F defineaccents	
		F toutf	
F decomposed		tonumber	function
F description		ucchars	data table
F leadconsonant		uccode	function
T remapped		uccodes	data table
initialize	function	unicodechar	function
is_character	data table	upper	function
is_command	data table		
is_letter	data table		

## chemicals (context)

<code>component</code>	<code>function</code>	<code>moleculeparser</code>	<code>userdata</code>
<code>define</code>	<code>function</code>	<code>start</code>	<code>function</code>
<code>format</code>	<code>string</code>	<code>stop</code>	<code>function</code>
<code>inline</code>	<code>function</code>	<code>structures</code>	<code>number</code>
<code>instance</code>	<code>string</code>	<code>undefine</code>	<code>function</code>
<code>molecule</code>	<code>function</code>		

## commands (context)

Alphabetic	function	autonextspace	function
Character	function	autonextstructurelevel	function
Characters	function	autosetups	function
MPc	function	autostarttext	function
MPd	function	autostoptext	function
MPh	function	bcolumn	function
MPll	function	boolcase	function
MPlr	function	character	function
MPls	function	characters	function
MPn	function	checkcharactersinfont	function
MPp	function	checkcountersetup	function
MPpardata	function	checkedconversion	function
MPplus	function	checkedpagefloat	function
MPpos	function	checktwopassdata	function
MPposset	function	chineseallnumerals	function
MPr	function	chinesecapnumerals	function
MPrest	function	chinesenumerals	function
MPrs	function	cleanfontname	function
MPul	function	clonefield	function
MPur	function	collectfloat	function
MPw	function	collecthelp	function
MPx	function	colorcomponents	function
MPxy	function	consultfloat	function
MPxywhd	function	copyfileto log	function
MPy	function	copyposition	function
Romannumerals	function	countervalue	function
abjadnodotnumerals	function	counttwopassdata	function
abjadnumerals	function	currentcomponent	function
addcounter	function	currentdate	function
addff	function	currentenvironment	function
addfs	function	currentproduct	function
addlinklistelement	function	currentproject	function
addtojavascriptpreamble	function	currentregime	function
addtolist	function	datasetvariable	function
allinputpaths	function	dayname	function
alphabetic	function	defineattribute	function
analysefloatmethod	function	definebibtexsession	function
analyzelist	function	definebreakpoint	function
applytochars	function	definebreakpoints	function
applytowords	function	definecharacterspacing	function
assignbuffer	function	defineconversion	function
autofinishstructurelevels	function	definecounter	function

definedviewerlayer	function	doifelsevisualizer	function
definefield	function	doiffieldcategoryelse	function
definefieldset	function	doiffieldelse	function
definefilefallback	function	doiffieldsetelse	function
definefilesynonym	function	doiffiledefinedelse	function
definefont_one	function	doiffileexistelse	function
definefont_two	function	doiffirstcharelse	function
definefontfeature	function	doifinputfileelse	function
defineintermediatecolor	function	doifinsetelse	function
definelinkedlist	function	doifleapyearelse	function
definemarking	function	doiflisthasentry	function
definemultitonecolor	function	doiflisthasnumberelse	function
defineparallel	function	doiflisthaspageelse	function
defineprocesscolor	function	doiflisthastitleelse	function
definesectionlevels	function	doiflocfileelse	function
definespotcolor	function	doifnot	function
definestructureblock	function	doifnotcounter	function
definestructureset	function	doifoldervernionelse	function
definetransparency	function	doifoverlappingelse	function
definetwopasslist	function	doifparentfileelse	function
defineviewerlayer	function	doifposition	function
defrostrandomseed	function	doifpositionelse	function
digits	function	doifpositiononpage	function
disableregime	function	doifpositionsonsamepageelse	function
disablespellchecking	function	doifpositionsonthispageelse	function
discardfromlist	function	doifurldefinedelse	function
doanalyzeframedbox	function	doprocetypecriptfile	function
doif	function	doreshapeframedbox	function
doifblackelse	function	dostarttextfile	function
doifcommonelse	function	dostoptextfile	function
doifcounter	function	ecolumn	function
doifdimenstringelse	function	elapsedtime	function
doifdrawingblackelse	function	enablecolor	function
doifelse	function	enablecolorintents	function
doifelsebuffer	function	enablefontcolorschemes	function
doifelsecounter	function	enableregime	function
doifelsecurrentfonthasfeature	function	enablespellchecking	function
doifelseintwopassdata	function	enabletransparency	function
doifelsemarking	function	enhancelinkedlist	function
doifelsemultipar	function	enhancelist	function
doifelseparallel	function	erasebuffer	function
doifelsepositionsused	function	exportformdata	function
doifelserangeonpage	function	featureattribute	function
doifelsesavedfloat	function	featurelist	function
doifelsespaces	function	feedback	function

fetchallmarks	function	getrandomcounta	function
fetchmultipar	function	getrandomcountb	function
fetchmultishape	function	getrandomseed	function
fetchonemark	function	getreadfilename	function
fetchposboxes	function	gettexbuffer	function
fetchtwomarks	function	gettwopassdata	function
filterreference	function	gettwopassdatalist	function
finalizebox	function	geturl	function
findtwopassdata	function	grabbuffer	function
firstcountervalue	function	helpaction	function
firstinset	function	helpreference	function
flushfloat	function	hexstringtonumber	function
flushpostponedblocks	function	hour	function
fontchar	function	hyphenatedlist	function
fontcollectionclone	function	hyphenatedurl	function
fontcollectiondefine	function	D characters	
fontcollectionprepare	function	N lefthyphenmin	
fontcollectionregister	function	D mapping	
fontcollectionreport	function	N righthyphenmin	
fontcollectionreset	function	F setcharacters	
fontlookupgetkey	function	incrementedcounter	function
fontlookupgetkeyofindex	function	insertattachment	function
fontlookupinitialize	function	insertcomment	function
fontlookupnoffound	function	insertfield	function
forceendjob	function	insertrenderingwindow	function
forcequitjob	function	insertsoundclip	function
format	function	isleapyear	function
formatcolor	function	languagenumber	function
formatgray	function	lastcountervalue	function
freezerandomseed	function	lchexnumber	function
getbuffer	function	lchexnumbers	function
getbuffercctlua	function	leapyear	function
getbuffermkvi	function	listlabel	function
getcommandline	function	listlocation	function
getctxfile	function	listprefixednumber	function
getdefaultfieldvalue	function	listprefixedpage	function
getfieldcategory	function	listrealpage	function
getfirstcharacter	function	listsize	function
getfirsttwopassdata	function	listtitle	function
getfloatvariable	function	listuserdata	function
getinternalreference	function	loadexamodes	function
getlasttwopassdata	function	loadfontgoodies	function
getmarking	function	loadspellchecklist	function
getprivateattribute	function	loadtypescriptfile	function
getprivatechar	function	loadvisualizer	function

locatefilepath	function	preparedfile	function
locfilename	function	presetsymbollist	function
logoptions	function	presettabulate	function
markregionbox	function	prevcountervalue	function
mathrenderset	function	processbuffer	function
maxitemwidth	function	processedfile	function
minute	function	processedfiles	function
molecule	function	processfile	function
month	function	processfilemany	function
monthmnem	function	processfilenone	function
monthname	function	processfileonce	function
mpcolor	function	processlist	function
mpoptions	function	pushfloat	function
namedstructureuservariable	function	pushitaliccorrection	function
namedstructurevariable	function	pushlist	function
nbfs	function	rawcharacter	function
nextcountervalue	function	rawcountervalue	function
nextparallel	function	rawdate	function
nofdays	function	referencepagestate	function
nofitems	function	referencerealpage	function
nofstackedfloats	function	registerattachment	function
noteprefixednumber	function	registerbibtexentry	function
notetitle	function	registerbibtexfile	function
ntimes	function	registerbookmark	function
number	function	registerbuttons	function
octnumber	function	registercolor	function
octstringtonumber	function	registercolorintent	function
ordinal	function	registeredviewerlayer	function
overloadbookmark	function	registerhelp	function
pagestaterealpage	function	registeritemgroup	function
parpos	function	registermaintextcolor	function
pdfrotation	function	registernamespace	function
percentageof	function	registerpostponedblock	function
pgfxcolorspec	function	registersoundclip	function
placeparallel	function	registerstructureprocessor	function
popfloat	function	registertransparency	function
popitaliccorrection	function	registerunit	function
poplist	function	relatemarking	function
pos	function	removemissingcharacters	function
posplus	function	replacemissingcharacters	function
posstrut	function	replacepospxywhd	function
poswhd	function	resavefloat	function
posxy	function	resetcounter	function
prepareMPvariable	function	resetfontfeature	function
preparebibtexsession	function	resetmarking	function

<code>resetmathitalics</code>	<code>function</code>	<code>setmathalphabet</code>	<code>function</code>
<code>resetnullfont</code>	<code>function</code>	<code>setmathalternate</code>	<code>function</code>
<code>resetparallel</code>	<code>function</code>	<code>setmathattribute</code>	<code>function</code>
<code>resetstructureprocessor</code>	<code>function</code>	<code>setmathitalics</code>	<code>function</code>
<code>resettimer</code>	<code>function</code>	<code>setmathstyle</code>	<code>function</code>
<code>restartcounter</code>	<code>function</code>	<code>setopendocumentaction</code>	<code>function</code>
<code>restorecounter</code>	<code>function</code>	<code>setopenpageaction</code>	<code>function</code>
<code>restorecurrentattributes</code>	<code>function</code>	<code>setowncounter</code>	<code>function</code>
<code>romannumerals</code>	<code>function</code>	<code>setpagestate</code>	<code>function</code>
<code>runbuffer</code>	<code>function</code>	<code>setpagestaterealpageno</code>	<code>function</code>
<code>savebuffer</code>	<code>function</code>	<code>setpagetransition</code>	<code>function</code>
<code>savecounter</code>	<code>function</code>	<code>setpos</code>	<code>function</code>
<code>savecurrentattributes</code>	<code>function</code>	<code>setrandomseed</code>	<code>function</code>
<code>savedlistnumber</code>	<code>function</code>	<code>setrealign</code>	<code>function</code>
<code>savedlistprefixednumber</code>	<code>function</code>	<code>setreferencearguments</code>	<code>function</code>
<code>savedlisttitle</code>	<code>function</code>	<code>setreferenceoperation</code>	<code>function</code>
<code>savefloat</code>	<code>function</code>	<code>setstructureblockstate</code>	<code>function</code>
<code>saveparallel</code>	<code>function</code>	<code>settagcombination</code>	<code>function</code>
<code>savestructureblock</code>	<code>function</code>	<code>settagdescription</code>	<code>function</code>
<code>savetaggedtwopassdata</code>	<code>function</code>	<code>settagdescriptionsymbol</code>	<code>function</code>
<code>savetwopassdata</code>	<code>function</code>	<code>settagfigure</code>	<code>function</code>
<code>second</code>	<code>function</code>	<code>settaghighlight</code>	<code>function</code>
<code>selectstructureblock</code>	<code>function</code>	<code>settagitemgroup</code>	<code>function</code>
<code>setbreakpoints</code>	<code>function</code>	<code>settagproperty</code>	<code>function</code>
<code>setcharactercasing</code>	<code>function</code>	<code>settagsorting</code>	<code>function</code>
<code>setcharactercleaning</code>	<code>function</code>	<code>settagssynonym</code>	<code>function</code>
<code>setcharacterkerning</code>	<code>function</code>	<code>settagtablecell</code>	<code>function</code>
<code>setcharacterspacing</code>	<code>function</code>	<code>settagtabulatecell</code>	<code>function</code>
<code>setcharacterstripping</code>	<code>function</code>	<code>setupbookmarks</code>	<code>function</code>
<code>setclosedocumentaction</code>	<code>function</code>	<code>setupcanvas</code>	<code>function</code>
<code>setclosepageaction</code>	<code>function</code>	<code>setupcharacterspacing</code>	<code>function</code>
<code>setcolormodel</code>	<code>function</code>	<code>setupexport</code>	<code>function</code>
<code>setcounter</code>	<code>function</code>	<code>setupfontexpansion</code>	<code>function</code>
<code>setdataset</code>	<code>function</code>	<code>setupfontprotrusion</code>	<code>function</code>
<code>setdigitsmanipulation</code>	<code>function</code>	<code>setupidentity</code>	<code>function</code>
<code>setdirection</code>	<code>function</code>	<code>setupitaliccorrection</code>	<code>function</code>
<code>setdocumentenvironments</code>	<code>function</code>	<code>setxmpfile</code>	<code>function</code>
<code>setdocumentmodes</code>	<code>function</code>	<code>showattributes</code>	<code>function</code>
<code>setdocumentmodules</code>	<code>function</code>	<code>showchardata</code>	<code>function</code>
<code>setfontfeature</code>	<code>function</code>	<code>showcounter</code>	<code>function</code>
<code>setfontofid</code>	<code>function</code>	<code>showfontparameters</code>	<code>function</code>
<code>setformat</code>	<code>function</code>	<code>showhyphenatedinlist</code>	<code>function</code>
<code>setformsmethod</code>	<code>function</code>	<code>splitfilename</code>	<code>function</code>
<code>setinternalreference</code>	<code>function</code>	<code>spotcolorname</code>	<code>function</code>
<code>setmarking</code>	<code>function</code>	<code>spotcolorparent</code>	<code>function</code>

spotcolorvalue	function	uchexnumber	function
startcolorset	function	uchexnumbers	function
startcomponent	function	unicodechar	function
startenvironment	function	unit	function
startproduct	function	updatefilenames	function
startproject	function	useMPlibrary	function
startregime	function	useanyfile	function
startsectionlevel	function	useclfile	function
starttag	function	usecolors	function
starttext	function	usecomponent	function
startviewerlayer	function	useenvironment	function
stopcolorset	function	usefile	function
stopcomponent	function	usejavascriptpreamble	function
stopenvironment	function	usejavascriptscripts	function
stopproduct	function	uselibrary	function
stopproject	function	useluafile	function
stopregime	function	usemodules	function
stopsectionlevel	function	usepath	function
stoptag	function	useproduct	function
stoptext	function	useproject	function
stopviewerlayer	function	usesubpath	function
storejavascriptcode	function	usesymbols	function
storejavascriptpreamble	function	usetexfile	function
structureautocatcodedget	function	useurl	function
structurecatcodedget	function	usexmlfile	function
structuregivencatcodedget	function	usezipfile	function
structurenumber	function	utfchar	function
structuretitle	function	utfmathclass	function
structureuservariable	function	utfmathcommand	function
structurevariable	function	utfmathfiller	function
subcountervalues	function	utfmathstretch	function
subff	function	vspacing	function
subfs	function	vspacingcollapse	function
synchronizicolormodel	function	vspacingdefine	function
synchronizemarking	function	vspacingsetamount	function
taggedmathfunction	function	vspacingsnap	function
testcase	function	weekday	function
textime	function	weekdayname	function
transparencycomponents	function	widthofstring	function
triggereffect	function	writestatus	function
triggernegative	function	x_table_cleanup	function
truefilename	function	x_table_construct	function
typebuffer	function	x_table_create	function
typefile	function	x_table_flush	function
typestring	function	x_table_init_construct	function



<code>x_table_init_reflow_height</code>	function	<code>x_table_set_construct</code>	function
<code>x_table_init_reflow_width</code>	function	<code>x_table_set_reflow_height</code>	function
<code>x_table_next_row</code>	function	<code>x_table_set_reflow_width</code>	function
<code>x_table_reflow_height</code>	function	<code>year</code>	function
<code>x_table_reflow_width</code>	function		

## containers (context)

`cleanname` function  
`content` function  
`define` function  
`is_usable` function

`is_valid` function  
`read` function  
`usecache` boolean  
`write` function

## converters (context)

Alphabetic	function	leapyear	function
Character	function	maxchrs	function
Characters	function	minute	function
Romannumerals	function	month	function
abjadnodotnumerals	function	nofdays	function
abjadnumerals	function	number	function
alphabetic	function	octnumber	function
character	function	octstringtonumber	function
characters	function	ordinal	function
chineseallnumerals	function	rawcharacter	function
chinesecapnumerals	function	romannumerals	function
chinesenumerals	function	second	function
chr	function	sequences	data table
chrs	function	textime	function
convert	function	toabjad	function
define	function	tochinese	function
hexstringtonumber	function	toroman	function
hour	function	uchexnumber	function
isleapyear	function	uchexnumbers	function
lchexnumber	function	weekday	function
lchexnumbers	function	year	function

## coroutine (basic lua)

<code>coco</code>	boolean	<code>running</code>	function
<code>create</code>	function	<code>status</code>	function
<code>cstacksize</code>	function	<code>wrap</code>	function
<code>resume</code>	function	<code>yield</code>	function

## ctxrunner (context)

load            function  
prepfiles data table

## debug (basic lua)

debug	function
getfenv	function
gethook	function
getinfo	function
getlocal	function
getmetatable	function
getregistry	function

getupvalue	function
setfenv	function
sethook	function
setlocal	function
setmetatable	function
setupvalue	function
traceback	function

## dir (context)

collectpattern	function
current	function
expandname	function
glob	function
globfiles	function
globpattern	function

ls	function
makedirs	function
mkdirs	function
pop	function
push	function

## directives (context)

<code>data</code>	data table
<code>disable</code>	function
<code>enable</code>	function
<code>list</code>	function

<code>name</code>	string
<code>register</code>	function
<code>report</code>	function
<code>show</code>	function



# document (context)

<b>arguments</b>	data table	D modules	
<b>files</b>	table	T ctxfile	
<b>getargument</b>	function	D environments	
<b>getfilename</b>	function	D modes	
<b>options</b>	table	D modules	
T commandline		<b>setargument</b>	function
D environments		<b>setdefaultargument</b>	function
D modes		<b>setfilename</b>	function

## environment (context)

argument	function	luafile	function
arguments	data table	luafilechunk	function
engineflags	data table	originalarguments	data table
files	table	outputfilename	string
filesynonyms	data table	ownbin	string
getargument	function	ownname	string
homedir	string	ownpath	string
initex	boolean	rawarguments	data table
initializearguments	function	reconstructcommandline	function
inputfilebarename	string	setargument	function
inputfilename	string	splitarguments	function
inputfilesuffix	string	texfile	function
jobfilename	string	texmfos	string
jobfilesuffix	string	texos	string
loadedluacode	function	texroot	string
loadluafile	function	truefilename	function

## epdf (extra tex)

Array	function
Dict	function
Object	function

PDFRectangle	function
open	function
type	function

## experiments (context)

<code>data</code>	data table
<code>disable</code>	function
<code>enable</code>	function
<code>list</code>	function

<code>name</code>	string
<code>register</code>	function
<code>report</code>	function
<code>show</code>	function

## figures (context)

applyratio	function	hash	function
bases	table	identifiers	data table
B enabled		identify	function
F find		include	function
T found		includers	data table
T list		initialize	function
F locate		loaded	data table
F use		localpaths	data table
T used		magics	data table
bitmapimage	function	mergegoodies	function
boxnumber	number	nofprocessed	number
cachepaths	data table	order	data table
check	function	paths	data table
checkers	data table	patterns	data table
converters	data table	pop	function
current	function	preferquality	boolean
defaultdepth	number	programs	data table
defaultheight	number	push	function
defaultsearch	boolean	registerpattern	function
defaultwidth	number	registerresource	function
done	function	registersuffix	function
dummy	function	resources	data table
exists	data table	scale	function
exists	function	setlookups	function
formats	data table	setpaths	function
found	data table	suffixes	data table
get	function	tprint	function
guess	function	used	data table

## file (basic lua)

<code>addsuffix</code>	function	<code>loadchecksum</code>	function
<code>basename</code>	function	<code>nameonly</code>	function
<code>checksum</code>	function	<code>nametotable</code>	function
<code>collapsepath</code>	function	<code>needs_updating</code>	function
<code>copy</code>	function	<code>needsupdating</code>	function
<code>dirname</code>	function	<code>readdata</code>	function
<code>expandname</code>	function	<code>removesuffix</code>	function
<code>extname</code>	function	<code>replacesuffix</code>	function
<code>is_qualified_path</code>	function	<code>robustname</code>	function
<code>is_readable</code>	function	<code>savechecksum</code>	function
<code>is_rootbased_path</code>	function	<code>savedata</code>	function
<code>is_writable</code>	function	<code>splitname</code>	function
<code>isreadable</code>	function	<code>splitpath</code>	function
<code>iswritable</code>	function	<code>strip</code>	function
<code>join</code>	function	<code>suffix</code>	function
<code>joinpath</code>	function	<code>syncmtimes</code>	function

## floats (context)

<code>analysemethod</code>	<code>function</code>
<code>checkedpagefloat</code>	<code>function</code>
<code>collect</code>	<code>function</code>
<code>consult</code>	<code>function</code>
<code>flush</code>	<code>function</code>
<code>getvariable</code>	<code>function</code>

<code>nofstacked</code>	<code>function</code>
<code>pop</code>	<code>function</code>
<code>push</code>	<code>function</code>
<code>resave</code>	<code>function</code>
<code>save</code>	<code>function</code>
<code>stacked</code>	<code>function</code>

## font (basic tex)

current	function
define	function
each	function
fonts	table
frozen	function
getfont	function

id	function
max	function
nextid	function
read_tfm	function
read_vf	function
setfont	function



## fontloader (extra tex)

<code>apply_afmfile</code>	<code>function</code>	<code>info</code>	<code>function</code>
<code>apply_featurefile</code>	<code>function</code>	<code>open</code>	<code>function</code>
<code>close</code>	<code>function</code>	<code>to_table</code>	<code>function</code>
<code>fields</code>	<code>function</code>	<code>totable</code>	<code>function</code>
<code>fullinfo</code>	<code>function</code>		

# fonts (context)

## analyzers table

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

## checkers table

- F missing

## cid table

- F getmap
- F loadfile

## collections table

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

## constructors table

- F aftercopyingcharacters
- F applymanipulators
- F assignmathparameters
- B autocleanup
- F beforecopyingcharacters
- D cache
- F calculatyscale
- F checkedfeatures
- F checkedfilename
- F cleanuptable
- F collectprocessors
- D designsizes
- D dontembed
- F enhanceparameters
- N factor
- F finalize
- F getfeatureaction
- F hashfeatures
- F hashinstance
- T hashmethods
- F normal

- F virtual

- F initializefeatures

- T keys

- T character

- S depth

- S height

- S italic

- S width

- T description

- T boundingbox

- S depth

- S height

- S width

- T parameters

- S ascender

- S descender

- S designsize

- T expansion

- S auto

- S shrink

- S step

- S stretch

- S extendfactor

- S factor

- S hfactor

- S mathsize

- T protrusion

- S auto

- S quad

- S scaledpoints

- S scriptpercentage

- S scriptscriptpercentage

- S size

- S slantfactor

- S slantperpoint

- T spacing

- S extra

- S shrink

- S stretch

- S width

- T synonyms

- S em

S ex	current	function
S extra_space	currentid	function
S extraspace	definers	table
S slant	F addlookup	
S space	F analyze	
S space_shrink	F applypostprocessors	
S space_stretch	F checkedmode	
S spaceshrink	F checkedscript	
S spacestretch	F current	
S x_height	S defaultlookup	
S units	F define	
S vfactor	F getspecification	
S xheight	F loadfont	
T properties	F makespecification	
S autoitalicamount	T methods	
T cidinfo	F install	
S embedding	D variants	
S encodingbytes	F read	
S filename	F register	
S finalized	F registered	
S fontname	F registersplit	
S format	F resetnullfont	
S fullname	F resolve	
S hasitalics	T resolvers	
S hasmath	F file	
S mathitalics	F name	
S mode	F spec	
S name	definetypface	function
S noglyphnames	encodings	table
S nostackmath	T agl	
S psname	D cache	
S textitalics	F is_known	
S virtualized	D known	
D loadedfonts	F load	
S namemode	F make_unicode_vector	
F newfeatures	D math	
N privateoffset	N version	
F readanddefine	expansions	data table
F registerfeature	formats	data table
B resolvevirtualtoo	goodies	table
F scale	T colorschemes	
F scaled	F coloring	
F setfactor	T data	
F setname	F enable	
N version	T designsizes	

- D data
- F filename
- F register
- F getcompositions
- T list
  - F compositions
  - F designsizes
  - F expansions
  - F featureset
  - F files
  - F mathematics
  - F protrusions
  - F solutions
  - F typefaces
- F load
- F prepare\_features
- F register
- F registerpostprocessor
- F report
- handlers**                      **table**
  - T afm
    - B addkerns
    - B addligatures
    - B addtexligatures
    - B autoprefixed
  - D cache
  - D features
  - F load
  - F setfeatures
  - B syncspace
  - N version
- T otf
  - F addfeature
  - D cache
  - T chainhandlers
    - F normal
    - F verbose
  - F collectlookups
  - F dataset
  - S defaultbasealternate
  - S defaultnodealternate
  - D enhancers
  - D features
  - F getalternate
  - T glists

- F load
- F scriptandlanguage
- F setcontextchain
- F setdynamics
- F setfeatures
- T tables
  - D baselines
  - D features
  - D languages
  - D scripts
- N version
- T pfb
- T tfm
  - D features
  - F setfeatures
- T vf
  - T combinations
  - F combine
  - T combiner
    - D commands
  - F find
  - D helpers
  - D math
  - D predefined
  - D whatever
- hashes**                      **table**
  - D characters
  - D csnames
  - D descriptions
  - T dynamics
  - D identifiers
  - D italics
  - D marks
  - D parameters
  - T processes
  - D properties
  - D quads
  - D resources
  - T setdynamics
  - D xheights
- helpers**                      **table**
  - F addprivate
  - F dimenfactor
  - F getdigitwidth
  - F getparameters

```

F getprivatenode
F hasprivate
F nametoslot
F setdigitwidth
iterators      table
F characters
F descriptions
F glyphs
loggers       table
T category_to_placeholder
S ll
S lm
S lo
S lt
S lu
S mc
S me
S mn
S nd
S nl
S no
S pc
S pd
S pe
S pf
S pi
S po
S ps
S sc
S sk
S sm
S so
F format
F onetimemessage
F register
F reportdefinedfonts
F reportusedfeatures
mappings      table
F addtounicode
F fromunicode16
F loadfile
F loadline
F loadlumtable
F makenameparser
F reset

```

```

F tounicode16
F tounicode16sequence
names         table
S basename
B be_clever
D cache
F cleanfilename
F cleanname
F collect
F collectfiles
F collectspec
T data
B enabled
F exists
T filters
F afm
F dfont
T list
T names
F otf
T paths
F pfb
F ttc
F ttf
S fontconfigfile
F getfilename
F getlookupkey
F getlookups
F getpaths
F identify
F is_permitted
F list
F load
B loaded
F lookup
F noflookups
S osfontdirvariable
F readdata
F register
F registered
F resolve
F resolvedspecification
F resolvespec
B saved
F specification

```

D specifications	
F splitspec	
N version	
F writedata	
<b>protrusions</b>	<b>data table</b>
<b>readers</b>	<b>table</b>
F afm	
F check_lua	
F check_tfm	
F dfont	
F lua	
F opentype	
F otf	
F pfb	
D sequence	
F tfm	
F ttc	
F ttf	

<b>specifiers</b>	<b>table</b>
D contextmerged	
F contextnumber	
D contextnumbers	
D contextsetups	
F contexttostring	
F mergecontext	
F presetcontext	
F registercontext	
F showcontext	
F splitcontext	
D synonyms	
D variants	
<b>symbols</b>	<b>table</b>
F uselibrary	
<b>tables</b>	<b>table</b>
<b>tracers</b>	<b>table</b>
<b>typefaces</b>	<b>data table</b>

# graphics (context)

backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

`close` function

`lines` function

`open` function



## img (basic tex)

<b>boxes</b>	<b>function</b>
<b>checksize</b>	<b>function</b>
<b>clone</b>	<b>function</b>
<b>copy</b>	<b>function</b>
<b>immediatewrite</b>	<b>function</b>
<b>keys</b>	<b>function</b>
<b>new</b>	<b>function</b>
<b>node</b>	<b>function</b>

<b>ofindex</b>	<b>function</b>
<b>package</b>	<b>function</b>
<b>print</b>	<b>function</b>
<b>scan</b>	<b>function</b>
<b>serialize</b>	<b>function</b>
<b>totable</b>	<b>function</b>
<b>types</b>	<b>function</b>
<b>write</b>	<b>function</b>

# interactions (context)

## attachments table

- F insert
- F register

## fields table

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

## general table

- F getidentity
- F setupidentity

## help table

- F collect
- F reference
- F register

## javascripts table

- F addtopreamble
- F code
- D codes
- F flushpreambles
- D functions
- D preambles

- F setpreamble

- F storecode

- F storepreamble

- F usepreamblenow

- F usescripts

## linkedlists table

## pages table

- F setpagetransition

- F setupcanvas

## references table

- F setclosedocument

- F setclosepage

- F setopendocument

- F setopenpage

## renderings table

- F register

- F rendering

- F var

## soundclips table

- F insert

- F register

## interfaces (context)

addvalidkeys	function	namespaces	table
cachedsetups	data table	F define	
cachesetup	function	F list	
complete	data table	setconstant	function
constants	data table	setelement	function
corenamespaces	data table	setformat	function
definecommand	function	setmessage	function
doifelsemessage	function	setmessages	function
elements	data table	settranslation	function
formats	data table	setuserinterface	function
getcheckedparameters	function	setvalidkeys	function
getmessage	function	setvariable	function
hashedsetups	data table	showmessage	function
interfacedcommand	function	syntax	data table
interfaces	table	tolist	function
invalidkey	function	translations	data table
is_command	function	variables	data table

## io (basic lua)

ask	function	o_limiters	table
bytes	function	T paranoid	
characters	function	open	overloaded function
close	function	open_ro	function
exists	function	output	function
fileseparator	string	pathseparator	string
flush	function	popen	overloaded function
i_limiter	function	read	function
i_limiters	table	readnumber	function
T paranoid		readstring	function
input	function	savedata	function
limiter	function	size	function
lines	function	stderr	userdata
loadchunk	function	stdin	userdata
loaddata	function	stdout	userdata
loadlines	function	tmpfile	function
noflines	function	type	function
o_limiter	function	write	function

# job (context)

**comment**      **function**

**datasets**    **table**

D collected

F extend

F getdata

F setdata

D tobesaved

**disablesave** **function**

**files**        **table**

D collected

F context

B forcerun

F run

D tobesaved

**initialize** **function**

**load**          **function**

**loadother**   **function**

**objects**      **table**

D collected

F doifelse

F get

F number

F page

F save

F set

D tobesaved

**pack**          **boolean**

**pagestates** **table**

D collected

F extend

F realpage

F setstate

D tobesaved

**passes**       **table**

F check

D collected

F count

F define

F find

F first

F get

F getcollected

F getdata

F getfield

F gettobesaved

F inlist

F last

F list

F save

F savetagged

D tobesaved

**positions**   **table**

F b\_col

F b\_region

F c

D collected

F column

F copy

F depth

F e\_col

F e\_region

F enhance

F extra

F get

F getreserved

F hangafter

F hangindent

F height

F hsize

F leftskip

F lowerleft

F lowerright

F markregionbox

F n

F onsamepage

F overlapping

F p

F page

F paragraph

F parindent

F position

F r

F region

F replace

F rightskip  
F set  
F setall  
F setdim  
D tobesaved  
F upperleft  
F upperright  
F width  
F x  
F xy  
F y  
**register**      function  
**save**          function

**structure**    table  
D collected  
T components  
T tobesaved  
T branches  
S name  
S type  
**variables**    table  
D checksums  
D collected  
F save  
D tobesaved  
**version**      number

## lang (basic tex)

<code>clean</code>	<code>function</code>
<code>clear_hyphenation</code>	<code>function</code>
<code>clear_patterns</code>	<code>function</code>
<code>exceptions</code>	<code>function</code>
<code>hyphenate</code>	<code>function</code>
<code>hyphenation</code>	<code>function</code>
<code>id</code>	<code>function</code>

<code>new</code>	<code>function</code>
<code>patterns</code>	<code>function</code>
<code>postexhyphenchar</code>	<code>function</code>
<code>posthyphenchar</code>	<code>function</code>
<code>preexhyphenchar</code>	<code>function</code>
<code>prehyphenchar</code>	<code>function</code>

# languages (context)

associate	function
associated	data table
association	function
counters	data table
current	function
data	data table
define	function
exceptions	function
getnumber	function
hyphenate	function
installed	function
labels	table
F define	
F split	
lefthyphenmin	function
loadable	function
loadwords	function
logger	table
F report	

numbers	data table
posthyphenchar	function
prehyphenchar	function
registered	data table
righthyphenmin	function
setdirty	function
synonym	function
version	number
words	table
F check	
T data	
F disable	
F enable	
T enablers	
B enables	
F found	
F load	
T methods	
N threshold	



# layouts (context)

status table

F isleftpage

F lefttorrightpagection

## lfs (extra lua)

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

# libraries (context)

basiclua data table  
basictex data table  
builtin data table

extralua data table  
extratex data table  
globals data table

## lmx (context)

convert	function	pv	function
escape	function	reset	function
get	function	result	function
htmfile	function	set	function
include	function	show	function
lmxfile	function	showdebuginfo	function
loadedfile	function	showerror	function
make	function	tv	function
new	function	type	function
overloaderror	function	urlescape	function
popupfile	function	variable	function
print	function	variables	data table

## logs (context)

application	function	setmessenger	function
categories	function	setprogram	function
direct	function	settarget	function
disable	function	settranslations	function
enable	function	show	function
extendbanner	function	show_close	function
flush	function	show_load	function
help	function	show_open	function
messenger	function	simple	function
new	function	simpleline	function
newline	function	simplelines	function
poptarget	function	start_page_number	function
pushtarget	function	status	function
report	function	stop_page_number	function
report_job_stat	function	subdirect	function
reportbanner	function	subreport	function
reporter	function	system	function
reportline	function	texerrormessage	function
reportlines	function	writer	function
setformats	function		

# lpdf (context)

action	function	graycode	function
adddocumentcolorspace	function	id	function
adddocumenttextgstate	function	injectxmpinfo	function
adddocumentpattern	function	insertxmpinfo	function
adddocumentshade	function	javascript	function
addtocatalog	function	launch	function
addtoinfo	function	layerreference	function
addtonames	function	limited	function
addtopageattributes	function	linearshade	function
addtopageresources	function	link	function
addtopagesattributes	function	null	function
addxmpinfo	function	number	function
array	function	pagedestination	function
boolean	function	pagereference	function
checkedkey	function	pdfcolor	function
checkedvalue	function	pdftimestamp	function
circularshade	function	protectresources	boolean
cmykcode	function	reference	function
collectedresources	function	registerannotation	function
color	function	registerdocumentfinalizer	function
colorspace	function	registerpagefinalizer	function
colorspaceconstants	table	reserveannotation	function
T all		reserveobject	function
T cmyk		rgbcode	function
T gray		rotationcm	function
T rgb		shareobject	function
colorspec	function	shareobjectreference	function
colorvalue	function	spotcode	function
colorvalues	function	stream	function
constant	function	string	function
delayedobject	function	timestamp	function
dictionary	function	toeight	function
epdf	table	tosixteen	function
F load		transparency	function
finalizedocument	function	transparencycode	function
finalizepage	function	transparencygroups	table
finishtransparencycode	function	B none	
flushobject	function	transparencyvalue	function
flushstreamfileobject	function	unicode	function
flushstreamobject	function	verbose	function
formats	data table		

## lpeg (basic lua)

<b>C</b>	function	<b>endstripper</b>	function
<b>Carg</b>	function	<b>firstofsplit</b>	function
<b>Cb</b>	function	<b>frontstripper</b>	function
<b>Cc</b>	function	<b>is_lpeg</b>	function
<b>Cf</b>	function	<b>keeper</b>	function
<b>Cg</b>	function	<b>locale</b>	function
<b>Cmt</b>	function	<b>match</b>	function
<b>Cp</b>	function	<b>oneof</b>	function
<b>Cs</b>	function	<b>patterns</b>	data table
<b>Ct</b>	function	<b>print</b>	function
<b>P</b>	function	<b>replacer</b>	function
<b>R</b>	function	<b>secondofsplit</b>	function
<b>S</b>	function	<b>span</b>	function
<b>UP</b>	function	<b>split</b>	function
<b>UR</b>	function	<b>splitat</b>	function
<b>US</b>	function	<b>splitter</b>	function
<b>V</b>	function	<b>stripper</b>	function
<b>anywhere</b>	function	<b>tsplitat</b>	function
<b>append</b>	function	<b>tsplitter</b>	function
<b>balancer</b>	function	<b>type</b>	function
<b>checkedsplit</b>	function	<b>utfchartabletopattern</b>	function
<b>count</b>	function	<b>version</b>	function
<b>counter</b>	function		

# ltn12 (extra lua)

**BLOCKSIZE** number

**filter** table

F chain

F cycle

**pump** table

F all

F step

**sink** table

F chain

F error

F file

F null

F simplify

F table

**source** table

F cat

F chain

F empty

F error

F file

F rewind

F simplify

F string



## lua (basic tex)

<b>bytecode</b>	<b>table</b>	<b>messages</b>	<b>data table</b>
<b>bytedata</b>	<b>data table</b>	<b>name</b>	<b>table</b>
<b>bytdone</b>	<b>table</b>	<b>numbers</b>	<b>data table</b>
<b>collectgarbage</b>	<b>function</b>	<b>registercode</b>	<b>function</b>
<b>delay</b>	<b>function</b>	<b>registeredcodes</b>	<b>function</b>
<b>finalize</b>	<b>function</b>	<b>registerfinalizer</b>	<b>function</b>
<b>firstbytecode</b>	<b>number</b>	<b>registername</b>	<b>function</b>
<b>flush</b>	<b>function</b>	<b>setbytecode</b>	<b>function</b>
<b>flushdelayed</b>	<b>function</b>	<b>setluaname</b>	<b>function</b>
<b>getbytecode</b>	<b>function</b>	<b>startupfile</b>	<b>string</b>
<b>getluaname</b>	<b>function</b>	<b>version</b>	<b>string</b>
<b>lastbytecode</b>	<b>number</b>		

## luatex (context)

<code>cleanuptempfiles</code>	function	<code>showjobstat</code>	function
<code>registerstartactions</code>	function	<code>showtexstat</code>	function
<code>registerstopactions</code>	function	<code>starttime</code>	number
<code>registertempfile</code>	function		

## lxml (context)

addindex	function	getindex	function
all	function	id	function
applyfunction	function	idsplitter	userdata
att	function	include	function
attribute	function	index	function
chainattribute	function	info	function
checkindex	function	inlineverbatim	function
collected	function	installsetup	function
command	function	last	function
concat	function	load	function
concatrange	function	loadbuffer	function
content	function	loaddata	function
context	function	loaded	table
convert	function	loadregistered	function
count	function	main	function
delete	function	match	function
direct	function	name	function
directives	table	namespace	function
F after		nonspace	function
F before		pos	function
F handle		position	function
F load		raw	function
F setup		rawroot	function
displayverbatim	function	register	function
doif	function	registerentity	function
doifelse	function	removesetup	function
doifelsetext	function	resetcdata	function
doifnot	function	resetsetups	function
doifnottext	function	resolvedentity	function
doiftext	function	root	function
element	function	serialize	function
elements	function	setaction	function
entities	data table	setcdata	function
filter	function	setcommandtonone	function
filterlist	function	setcommandtotext	function
first	function	setsetup	function
flush	function	snippet	function
flushlinewise	function	sorters	table
flushsetups	function	F add	
flushspacewise	function	F compare	
get_id	<del>function</del>	F flush	
getid	function	F reset	

<code>F show</code>		<code>tag</code>	function
<code>F sort</code>		<code>text</code>	function
<code>splitid</code>	function	<code>tofile</code>	function
<code>startraw</code>	function	<code>toparameters</code>	function
<code>stopraw</code>	function	<code>toverbatim</code>	function
<code>store</code>	function	<code>verbatim</code>	function
<code>strip</code>	function	<code>withindex</code>	function
<code>stripped</code>	function	<code>xmltexhandler</code>	data table

## math (basic lua)

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

# mathematics (context)

<b>addfallbacks</b>	function	<b>remapalphabets</b>	function
<b>alphabets</b>	data table	<b>renderings</b>	table
<b>big</b>	function	D mappings	
<b>boldmap</b>	table	D numbers	
<b>categories</b>	table	D sets	
D functions		<b>renderset</b>	function
<b>checkaccentbaseheight</b>	function	<b>resetitalics</b>	function
<b>checkprivateparameters</b>	function	<b>scaleparameters</b>	function
<b>classes</b>	data table	<b>setalternate</b>	function
<b>codes</b>	data table	<b>setitalics</b>	function
<b>define</b>	function	<b>syncboth</b>	function
<b>dimensions</b>	function	<b>syncname</b>	function
<b>extrabase</b>	number	<b>syncstyle</b>	function
<b>extras</b>	table	<b>toname</b>	function
F add		<b>tostyle</b>	function
F copy		<b>tweakaftercopyingfont</b>	function
<b>families</b>	data table	<b>tweakbeforecopyingfont</b>	function
<b>gaps</b>	table	<b>tweaks</b>	table
<b>getboth</b>	function	F fixbadprime	
<b>getstyle</b>	function	<b>utfmathclass</b>	function
<b>initializeparameters</b>	function	<b>utfmathcommand</b>	function
<b>makefont</b>	function	<b>utfmathfiller</b>	function
<b>overloadparameters</b>	function	<b>utfmathstretch</b>	function
<b>privatebase</b>	number		

## md5 (extra lua)

HEX      function  
crypt    function  
dec      function  
decrypt function

exor     function  
hex      function  
sum      function  
sumhexa function

# metapost (context)

analyzeplugins	function	makempy	table
checkformat	function	N nofconverted	
checktexts	function	F processgraphics	
colorinitializer	function	metafun	table
convert	function	F interpolate	
defaultformat	string	F topath	
directrun	function	method	number
edefsxsy	function	mptopdf	table
escaped	function	F convertmpstopdf	
exectime	table	N nofconverted	
filterclippath	function	multipass	boolean
finder	function	n	number
flush	function	optimize	boolean
flushers	table	parse	function
T pdf		pdfliterals	function
F comment		pluginactions	function
F flushfigure		process	function
F startfigure		processplugins	function
F stopfigure		reducetogray	boolean
F textfigure		reporterror	function
flushliteral	function	reset	function
flushnormalpath	function	resetlastlog	function
flushreset	function	resetplugins	function
format	function	resettex texts	function
formatnumber	function	setoutercolor	function
getclippath	function	settext	function
gettext	function	showlog	boolean
graphic	function	tex	table
graphic_base_pass	function	F get	
graphic_extra_pass	function	F reset	
intermediate	table	F set	
T actions		texerrors	boolean
F makempy		textextsdata	function
B needed		theclippath	function
lastlog	string	totable	function
load	function	unload	function



## mime (extra lua)

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

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

## mplib (extra tex)

`fields`    `function`  
`new`       `function`

`pen_info` `function`  
`version`  `function`

# noads (context)

## handlers table

F check  
F collapse  
F families  
F italics  
F relocate  
F render  
F resize  
F respace  
F tags  
F unscript

## F variants

**process** function

**processors** table

T collapse  
F mlist\_to\_hlist  
T relocate  
T render  
T resize  
T respace  
T unscript

## node (basic tex)

<code>copy</code>	<code>function</code>	<code>ligaturing</code>	<code>function</code>
<code>copy_list</code>	<code>function</code>	<code>mlist_to_hlist</code>	<code>function</code>
<code>count</code>	<code>function</code>	<code>new</code>	<code>function</code>
<code>current_attr</code>	<code>function</code>	<code>next</code>	<code>function</code>
<code>dimensions</code>	<code>function</code>	<code>prev</code>	<code>function</code>
<code>do_ligature_n</code>	<code>function</code>	<code>protect_glyphs</code>	<code>function</code>
<code>family_font</code>	<code>function</code>	<code>protrusion_skippable</code>	<code>function</code>
<code>fields</code>	<code>function</code>	<code>remove</code>	<code>function</code>
<code>first_character</code>	<code>function</code>	<code>set_attribute</code>	<code>function</code>
<code>first_glyph</code>	<code>function</code>	<code>slide</code>	<code>function</code>
<code>flush_list</code>	<code>function</code>	<code>subtype</code>	<code>function</code>
<code>free</code>	<code>function</code>	<code>tail</code>	<code>function</code>
<code>has_attribute</code>	<code>function</code>	<code>traverse</code>	<code>function</code>
<code>has_field</code>	<code>function</code>	<code>traverse_id</code>	<code>function</code>
<code>hpack</code>	<code>function</code>	<code>type</code>	<code>function</code>
<code>id</code>	<code>function</code>	<code>types</code>	<code>function</code>
<code>insert_after</code>	<code>function</code>	<code>unprotect_glyphs</code>	<code>function</code>
<code>insert_before</code>	<code>function</code>	<code>unset_attribute</code>	<code>function</code>
<code>is_node</code>	<code>function</code>	<code>usedlist</code>	<code>function</code>
<code>kerning</code>	<code>function</code>	<code>vpack</code>	<code>function</code>
<code>last_node</code>	<code>function</code>	<code>whatsits</code>	<code>function</code>
<code>length</code>	<code>function</code>	<code>write</code>	<code>function</code>

# nodes (context)

after	function	F stripping	
aligned	function	F unprotectglyphs	
astable	function	has_attribute	function
before	function	idtoString	function
builders	table	ignorablefields	data table
F buildpage_filter		injections	table
F vpack_filter		F handler	
codes	data table	F setcursive	
concat	function	F setkern	
count	function	F setmark	
delete	function	F setpair	
destinations	table	installattributehandler	function
N attribute		is_display_math	function
T done		is_mirrored	data table
F handler		is_rotated	data table
T stack		kerncodes	data table
dimensionfields	data table	leftmarginwidth	function
dir_is_pop	data table	lines	table
dir_negation	data table	T boxed	
fasthpack	function	F register	
fields	function	F setup	
fillcodes	data table	F stage_one	
firstcharacter	function	F stage_two	
firstcharinbox	function	F stage_zero	
firstglyph	function	D data	
getattribute	function	F finalize	
gluecodes	data table	F number	
glyphcodes	data table	N scratchbox	
glyphdir_is_equal	data table	link	function
glyphdir_is_opposite	data table	list	function
glyphdir_is_orthogonal	data table	listablefields	data table
handlers	table	listcodes	data table
F accessibility		listtoutf	function
F backgrounds		load	function
F characters		locate	function
F checkforleaks		mathcodes	data table
F checkglyphs		noadcodes	data table
F cleanuppage		nodecodes	data table
F export		packlist	function
F finalize		pardir_is_equal	data table
F migrate		pardir_is_opposite	data table
F protectglyphs		pardir_is_parallel	data table

partextdir_is_equal	data table	B enabled	
penaltycodes	data table	F hpack_filter	
pool	table	F post_linebreak_filter	
		F pre_linebreak_filter	
		F tracer	
		processwords	function
		reference	function
		references	table
		N attribute	
		T done	
		F handler	
		T stack	
		remove	function
		repackhlist	function
		replace	function
		report	function
		rightmarginwidth	function
		rules	table
		D data	
		F define	
		F enable	
		F handler	
		save	function
		serialize	function
		serializebox	function
		setattribute	function
		setattributes	function
		setunsetattributes	function
		shifts	table
		D data	
		F define	
		F enable	
		F handler	
		show	function
		showboxes	function
		showcodes	function
		showlist	function
		showsimplelist	function
		skipcodes	data table
		somepenalty	function
		somespace	function
		stripping	table
		T glyphs	
		F set	
print	function	striprange	function
processors	table		

<b>tasks</b>	<b>table</b>	F start	
F actions		F string	
F appendaction		F unicodes	
F disableaction		T colors	
F disablegroup		F reset	
F enableaction		F set	
F enablegroup		F fontchar	
F freeze		F start	
F freezegroup		T steppers	
F new		F check	
F prependaction		F codes	
F removeaction		F features	
F restart		F glyphs	
F showactions		F message	
F table		F messages	
textdir_is_equal	data table	F nofsteps	
textdir_is_is	data table	F register	
textdir_is_opposite	data table	F reset	
textdir_is_parallel	data table	F start	
tonodes	function	F stop	
tosequence	function	F stop	
totable	function	unsetattribute	function
toutf	function	unsetattributes	function
tracers	table	visualizebox	function
T characters		whatcodes	data table
F collect		whatsitcodes	data table
F equal		writable_spec	function
F indices			

## number (context)

	function		
basepoints	function	tociceros	function
bit	function	todidots	function
bits	function	todimen	function
clearbit	function	toevenhex	function
dimenfactors	data table	toinches	function
hasbit	function	tomillimeters	function
maxdimen	number	tonewciceros	function
nopts	function	tonewdidots	function
percent	function	tonumberf	function
points	function	tonumberg	function
pts	function	topicas	function
setbit	function	topoints	function
tobasepoints	function	toscaled	function
tobitstring	function	toscaledpoints	function
tocentimeters	function	toset	function



## os (basic lua)

<code>__getenv__</code>	function	<code>resolvers</code>	table
<code>__setenv__</code>	function	<code>resultof</code>	function
<code>binsuffix</code>	string	<code>runtime</code>	function
<code>binsuffixes</code>	table	<code>selfdir</code>	string
<code>clock</code>	function	<code>setenv</code>	overloaded function
<code>date</code>	function	<code>setlocale</code>	overloaded function
<code>difftime</code>	function	<code>sleep</code>	function
<code>env</code>	data table	<code>spawn</code>	overloaded function
<code>exec</code>	overloaded function	<code>time</code>	function
<code>execute</code>	overloaded function	<code>times</code>	function
<code>exit</code>	function	<code>timezone</code>	function
<code>getenv</code>	overloaded function	<code>tmpdir</code>	function
<code>gettimeofday</code>	function	<code>tmpname</code>	function
<code>launch</code>	function	<code>type</code>	string
<code>libsuffix</code>	string	<code>uname</code>	function
<code>name</code>	string	<code>uuid</code>	function
<code>platform</code>	string	<code>where</code>	function
<code>remove</code>	function	<code>which</code>	function
<code>rename</code>	function		

## package (basic lua)

<code>appendtolibpath</code>	function	<code>loaders</code>	table
<code>clibpaths</code>	function	<code>loadlib</code>	function
<code>config</code>	string	<code>path</code>	string
<code>cpath</code>	string	<code>preload</code>	table
<code>libpaths</code>	function	<code>prependtolibpath</code>	function
<code>loaded</code>	table	<code>seeall</code>	function

## pdf (basic tex)

<code>immediateobj</code>	<code>function</code>
<code>mapfile</code>	<code>function</code>
<code>mapline</code>	<code>function</code>
<code>maxobjnum</code>	<code>function</code>
<code>obj</code>	<code>function</code>
<code>objtype</code>	<code>function</code>
<code>pageattributes</code>	<code>string</code>
<code>pageref</code>	<code>function</code>

<code>pageresources</code>	<code>string</code>
<code>pagesattributes</code>	<code>string</code>
<code>pdfmapfile</code>	<code>function</code>
<code>pdfmapline</code>	<code>function</code>
<code>print</code>	<code>function</code>
<code>refobj</code>	<code>function</code>
<code>registerannot</code>	<code>function</code>
<code>reserveobj</code>	<code>function</code>

# physics (context)

units table	S <sup>-1</sup>
T tables	S <sup>-2</sup>
T shortcuts	S <sup>-3</sup>
T operators	S <sup>-1</sup>
S *	S <sup>-2</sup>
S .	S <sup>-3</sup>
S /	T units
S :	S A
T prefixes	S B
S E	S Hz
S G	S W
S M	S b
S P	S g
S T	S h
S Y	S hz
S Z	S l
S a	S lx
S c	S m
S d	S n
S da	S s
S f	S t
S h	S v
S k	S °C
S m	S
S n	T units
S p	T operators
S u	S OutOf
S y	S Per
S z	S Solidus
T suffixes	S Times
S +1	T packaged
S +2	S Micron
S +3	S mmHg
S -1	T prefixes
S -2	S Atto
S -3	S Centi
S 1	S Deca
S 2	S Deci
S 3	S Exa
S <sup>+1</sup>	S Exbi
S <sup>+2</sup>	S Femto
S <sup>+3</sup>	S Gibi

S Giga	S Astronomical Unit
S Hecto	S Atm
S Kibi	S Atmosphere
S Kilo	S Atomic Mass Unit
S Mebi	S Bar
S Mega	S Barn
S Micro	S Baud
S Milli	S Bel
S Nano	S Bequerel
S Pebi	S Bit
S Peta	S Byte
S Pico	S Cal
S Root	S Calorie
S Tebi	S Candela
S Tera	S Celsius
S Yobi	S Coulomb
S Yocto	S Dalton
S Yotta	S Day
S Zebi	S Degree Celsius
S Zepto	S Degree Fahrenheit
S Zetta	S Degrees Celsius
T suffixes	S Degrees Fahrenheit
S Cubic	S Dyne
S ICubic	S Electron Volt
S ILinear	S Erg
S ISquare	S Erlang
S Inverse	S Fahrenheit
S Linear	S Farad
S Square	S Foot
T symbols	S Gal
S %	S Gauss
S ArcMinute	S Gon
S ArcSecond	S Grad
S Degree	S Gram
S Degrees	S Gray
S Percent	S Hectare
S Per mille	S Henry
S Promille	S Hertz
S °	S Hg
S	S Hour
S	S Inch
T units	S Joule
S AMU	S Katal
S Ampere	S Kelvin
S Angstrom	S Knot

S Liter  
S Litre  
S Lumen  
S Lux  
S Maxwell  
S Meter  
S Metre  
S Metric Ton  
S Minute  
S Mol  
S Mole  
S Nautical Mile  
S Neper  
S Newton  
S Oersted  
S Ohm  
S Pascal

S Phot  
S Poise  
S Radian  
S Rev  
S Revolution  
S Second  
S Siemens  
S Sievert  
S Steradian  
S Stilb  
S Stokes  
S Tesla  
S Tonne  
S Volt  
S Watt  
S Weber  
S eV

## profiler (extra lua)

pause function  
resume function

start function  
stop function

## regimes (context)

disable	function
enable	function
pop	function
process	function

push	function
toregime	function
translate	function



# resolvers (context)

allprefixes	function	findfiles	function
appendhash	function	findgivenfile	function
automount	function	findgivenfiles	function
automounted	table	findpath	function
booleanvariable	function	findtexfile	function
cacheversion	string	findwildcardfile	function
checkedvariable	function	findwildcardfiles	function
cleanpath	function	formatofsuffix	function
cleanpathlist	function	formatofvariable	function
concatinators	data table	formats	data table
configbanner	string	generators	data table
criticalvars	data table	getenv	function
dangerous	data table	getownpath	function
datastate	function	getreadfilename	function
defaultsuffixes	table	hashers	data table
dowithfilesandreport	function	homedir	string
dowithfilesintree	function	installinputfilehandler	function
dowithpath	function	installinputlinehandler	function
dowithvariable	function	instance	table
env	function	D data	
executers	table	B diskcache	
F check		D environment	
F exec		D expansions	
F execute		D fakepaths	
F finalize		D files	
F popen		B force_suffixes	
F register		D found	
F spawn		D foundintrees	
expandbraces	function	D hashed	
expandedpathfromlist	function	D hashes	
expandedpathlist	function	D lists	
expandedpathlistfromvariable	function	B loadererror	
expandpath	function	D order	
expandpathfromvariable	function	B remember	
expansion	function	B renewcache	
extendtexmfvariable	function	B renewtree	
find_file	function	B savelists	
find_files	function	D setups	
findbinfile	function	D specification	
findctxfile	function	D variables	
finders	data table	jobs	table
findfile	function	F currentcomponent	

F currentenvironment		relations	data table
F currentproduct		renew	function
F currentproject		repath	function
F justacomponent		reset	function
D processors		resetextrapath	function
F productcomponent		resetresolve	function
F usefile		resolve	function
joinpath	function	savers	data table
load	function	scandata	function
loadbinfile	function	scanfiles	function
loaders	data table	schemes	table
loadlualib	function	T cleaners	
loadtexfile	function	F md5	
loadtime	function	F none	
locateformat	function	F strip	
locators	data table	F cleanname	
luacnfname	string	F install	
luacnfspec	string	N threshold	
luacnfstate	string	setenv	function
macros	table	setinstance	function
F convertfile		settrace	function
F decodecomment		showpath	function
F enablecomment		simplescanfiles	function
F encodecomment		splitconfigurationpath	function
F preprocessed		splitexpansions	function
F processmkvi		splitmethod	function
F version		splitpath	function
maxreadlevel	number	suffixes	data table
methodhandler	function	suffixmap	data table
newinstance	function	suffixofformat	function
openbinfile	function	texdatablob	function
openers	data table	unexpandedpath	function
openfile	function	unexpandedpathlist	function
opentexfile	function	unresolve	function
ownpath	string	updaterelations	function
prefixes	data table	updatescript	function
prependhash	function	usezipfile	function
registerextrapath	function	validatedpath	function
registerfile	function	variable	function
registerfilehash	function	variableofformat	function
registerintrees	function	variableofformatorsuffix	function
registermethod	function	wildcardpattern	function
registerzipfile	function		

## scripts (context)

**categorytonumber** data table

**colors** data table

**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

**handlers**

data table

**hash**

table

**installdataset**

function

**installmethod**

function

**numbertocategory**

data table

**numbertodataset**

data table

**preprocess**

function

**reset**

function

**set**

function

# set (context)

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

`tonumber` function  
`totable` function

# socket (extra lua)

**BLOCKSIZE** number  
**\_DEBUG** boolean  
**bind** function  
**choose** function  
**connect** function  
**dns** table  
    F gethostname  
    F tohostname  
    F toip  
**ftp** table  
    S PASSWORD  
    N PORT  
    N TIMEOUT  
    S USER  
    F command  
    F get  
    F open  
    F put  
**gettime** function  
**http** table  
    N PORT  
    N TIMEOUT  
    S USERAGENT  
    F open  
    F request  
**newtry** function  
**protect** function  
**select** function  
**sink** function  
**sinkt** table  
    F close-when-done  
    F default  
    F http-chunked

    F keep-open  
**skip** function  
**sleep** function  
**smtp** table  
    S DOMAIN  
    N PORT  
    S SERVER  
    N TIMEOUT  
    S ZONE  
    F message  
    F open  
    F send  
**source** function  
**sourcet** table  
    F by-length  
    F default  
    F http-chunked  
    F until-closed  
**tcp** function  
**tp** table  
    N TIMEOUT  
    F connect  
**try** function  
**udp** function  
**url** table  
    F absolute  
    F build  
    F build\_path  
    F escape  
    F parse  
    F parse\_path  
    F unescape

## sorters (context)

**comparers**      table

    F basic

**constants**      table

    S defaultdigits

    S defaultlanguage

    S defaultmethod

    N digitsmaximum

    N digitsoffset

    N ignoredoffset

    N replacementoffset

**definitions**    data table

**firstofsplit**    function

**setlanguage**    function

**sort**            function

**splitters**      table

    F utf

**strip**            function

**tracers**        data table

**update**          function

## statistics (context)

<code>checkfmtstatus</code>	function	<code>resettiming</code>	function
<code>elapsedindeed</code>	function	<code>runtime</code>	function
<code>elapsedseconds</code>	function	<code>savefmtstatus</code>	function
<code>elapsedtime</code>	function	<code>show</code>	function
<code>enable</code>	boolean	<code>showjobstat</code>	function
<code>formatruntime</code>	function	<code>starttiming</code>	function
<code>hastiming</code>	function	<code>stoptiming</code>	function
<code>memused</code>	function	<code>threshold</code>	number
<code>register</code>	function	<code>timed</code>	function
<code>reportstorage</code>	function		

status (basic tex)

list function



## storage (context)

allocate	function
data	table
evaluators	table
mark	function
marked	function
max	number

min	number
nofmodules	number
noftables	number
register	function
shared	data table

## streams (context)

collect	function
disable	function
enable	function
flush	function
initialize	function

push	function
start	function
stop	function
synchronize	function

## string (basic lua)

<code>byte</code>	<code>function</code>	<code>quote</code>	<code>function</code>
<code>bytepairs</code>	<code>function</code>	<code>quoted</code>	<code>function</code>
<code>bytes</code>	<code>function</code>	<code>rep</code>	<code>function</code>
<code>char</code>	<code>function</code>	<code>reverse</code>	<code>function</code>
<code>characterpairs</code>	<code>function</code>	<code>split</code>	<code>function</code>
<code>characters</code>	<code>function</code>	<code>splitlines</code>	<code>function</code>
<code>checkedsplit</code>	<code>function</code>	<code>splitup</code>	<code>function</code>
<code>count</code>	<code>function</code>	<code>strip</code>	<code>function</code>
<code>dump</code>	<code>function</code>	<code>sub</code>	<code>function</code>
<code>escapedpattern</code>	<code>function</code>	<code>toboolean</code>	<code>function</code>
<code>explode</code>	<code>function</code>	<code>tocontext</code>	<code>function</code>
<code>find</code>	<code>function</code>	<code>todimen</code>	<code>function</code>
<code>format</code>	<code>function</code>	<code>topattern</code>	<code>function</code>
<code>gfind</code>	<code>function</code>	<code>toutf</code>	<code>function</code>
<code>gmatch</code>	<code>function</code>	<code>unquote</code>	<code>function</code>
<code>gsub</code>	<code>function</code>	<code>unquoted</code>	<code>function</code>
<code>is_boolean</code>	<code>function</code>	<code>upper</code>	<code>function</code>
<code>is_empty</code>	<code>function</code>	<code>utfcharacters</code>	<code>function</code>
<code>len</code>	<code>function</code>	<code>utfsplitlines</code>	<code>function</code>
<code>limit</code>	<code>function</code>	<code>utfvalues</code>	<code>function</code>
<code>lower</code>	<code>function</code>	<code>validutf</code>	<code>function</code>
<code>match</code>	<code>function</code>		

# structures (context)

<b>atlocation</b>	<b>function</b>	<b>F setoffset</b>	
<b>blocks</b>	<b>table</b>	<b>F setown</b>	
D collected		<b>F setstate</b>	
F define		<b>F setvalue</b>	
F print		<b>T specials</b>	
F save		<b>F userpage</b>	
F select		<b>F subs</b>	
F setstate		<b>D tobесaved</b>	
D states		<b>F value</b>	
D tobесaved		<b>currentsectionnumber</b>	<b>function</b>
<b>bookmarks</b>	<b>table</b>	<b>descriptions</b>	<b>table</b>
F finalize		<b>documents</b>	<b>table</b>
F flatten		<b>T data</b>	
S method		<b>S block</b>	
F overload		<b>T blocks</b>	
F place		<b>T checkers</b>	
F register		<b>N depth</b>	
F setup		<b>T forced</b>	
<b>counters</b>	<b>table</b>	<b>T numbers</b>	
F add		<b>T ownnumbers</b>	
F analyze		<b>T status</b>	
F check		<b>F initialize</b>	
D collected		<b>F preset</b>	
F compact		<b>F reset</b>	
F converted		<b>floats</b>	<b>table</b>
F currentvalue		<b>formulas</b>	<b>table</b>
D data		<b>F current</b>	
F define		<b>F simplify</b>	
F first		<b>F store</b>	
F get		<b>helpers</b>	<b>table</b>
F last		<b>F analyze</b>	
F next		<b>F formulanumber</b>	
F prev		<b>F merged</b>	
F previous		<b>F page</b>	
F raw		<b>F prefix</b>	
F record		<b>F prefixlastpage</b>	
F reset		<b>F prefixpage</b>	
F restart		<b>F simplify</b>	
F restore		<b>F title</b>	
F save		<b>F touserdata</b>	
F set		<b>itemgroups</b>	<b>table</b>
F setlevel		<b>F maxwidth</b>	

F nofitems		F fetchonemark	
F register		F fetchtwomarks	
<b>lists</b>	<b>table</b>	F get	
F addto		F number	
F analyze		F relate	
D cached		F reset	
D collected		F set	
F discard		F show	
F enhance		F synchronize	
T enhancers		F title	
F filter		T tracers	
F filtercollected		F showtable	
F formulanumber		<b>notes</b>	<b>table</b>
F hasnumberdata		F checkpagechange	
F haspagedata		F define	
F hastitledata		F deltapage	
D internals		F doifcontent	
F iscached		F doifonsamepageasprevious	
F label		F flush	
F location		F flushpostponed	
F number		F get	
D ordered		F getn	
F page		F getnumberpage	
F popnesting		F getstate	
F prefix		F getsymbolpage	
F prefixednumber		F internal	
F prefixedpage		F internalid	
F process		F listindex	
D pushed		F ordered	
F pushnesting		F postpone	
F realpage		F resetpostponed	
T result		F restore	
F sectionnumber		F save	
F size		F setstate	
F title		F setsymbolpage	
D tobесaved		D states	
F userdata		F store	
F uservalue		<b>pages</b>	<b>table</b>
<b>marks</b>	<b>table</b>	F analyze	
D data		D collected	
F define		F is_odd	
F exists		F number	
F fetch		F save	
F fetchallmarks		D tobесaved	
F fetched		<b>references</b>	<b>table</b>

- F analyze
- 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 doifelse
- F enableinteraction
- F enhance
- D executers
- F expandcurrent
- F export
- T files
  - T data
  - F define
  - F get
- F filter
- D filters
- F from
- F get
- F getcurrentmetadata
- F getcurrentprefixspec
- F getinnermethod
- F getinternalreference
- D handlers
- F identify
- F import
- F inject
- F injectcurrentset
- D internals
- F load
- F loadpresets
- F mark
- 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 reportproblems
- F reset
- T resolvers
  - F reference
  - F section
- D runners
- F set
  - F setandgetattribute
  - F setcomponent
  - F setinnermethod
  - F setinternalreference
  - F setnextinternal
  - F setnextorder
- D specials
  - F splitcomponent
  - F splitprefix
  - F splitreference
- 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
- T urls
  - T data
  - F define

F get	
F whatfrom	
<b>registers</b>	<b>table</b>
F analyze	
F analyzed	
D collected	
F compare	
F define	
F enhance	
F extend	
F filter	
F filtercollected	
F finalize	
F flush	
F prepare	
F process	
F sort	
F store	
D tobesaved	
F unique	
F userdata	
<b>sections</b>	<b>table</b>
F autodepth	
F cct	
T collected	
F current	
F currentblock	
F currentid	
F currentlevel	
F depthnumber	
F finddata	
F findnumber	
F fullnumber	
F getcurrentlevel	
F getlevel	
F getnumber	
F internalreference	
D levelmap	
D levels	
F load	
F matchingtilldepth	
F numberatdepth	
F numbers	
F popblock	
F prefixedconverted	

F pushblock	
F register	
D registered	
F reportstructure	
F save	
F set	
F setblock	
F setchecker	
F setlevel	
F setnumber	
F somelevel	
F structuredata	
F title	
D tobesaved	
F typesetnumber	
F userdata	
B verbose	
F way	
<b>sets</b>	<b>table</b>
F define	
F get	
F getall	
D setlist	
<b>specials</b>	<b>table</b>
D collected	
F retrieve	
F store	
D tobesaved	
<b>synonyms</b>	<b>table</b>
F analyzed	
D collected	
F compare	
F define	
F filter	
F finalize	
F flush	
F meaning	
F prepare	
F process	
F register	
F registerused	
F sort	
F synonym	
D tobesaved	
<b>tags</b>	<b>table</b>

T data	F setdescription
F detailedtag	F setdescriptionsymbol
F getid	F setfigure
F handler	F sethighlight
D labels	F setitemgroup
F last	F setproperty
F lastinchain	F setsorting
T metadata	F setsynonym
D properties	F settablecell
F registerdata	F settabulatecell
F registermetadata	F start
F restart	F stop
F setattributehash	D taglist
F setcombination	T userdata



## table (basic lua)

append	function	print	function
are_equal	function	remove	function
compact	function	reversed	function
concat	function	sequenced	function
contains	function	serialize	function
copy	function	setmetatablecall	function
count	function	setmetatableindex	function
derive	function	setmetatablekey	function
fastcopy	function	setmetatablenewindex	function
flattened	function	setn	function
foreach	function	sort	function
foreachi	function	sortedhash	function
fromhash	function	sortedhashkeys	function
getmetatablekey	function	sortedkeys	function
getn	function	sortedpairs	function
has_one_entry	function	strip	function
identical	function	sub	function
imerge	function	swapped	function
merged	function	tocontext	function
insert	function	tofile	function
is_empty	function	tohandle	function
keys	function	tohash	function
loweredkeys	function	toxml	function
maxn	function	unique	function
merge	function	unnest	function
merged	function	unpack	function
prepend	function		

## tex (basic tex)

<b>attribute</b>	table	<b>linebreak</b>	function
<b>badness</b>	function	<b>lists</b>	table
<b>box</b>	table	<b>luacatcodes</b>	number
<b>catcode</b>	table	<b>mathcode</b>	table
<b>conditionals</b>	data table	<b>modes</b>	data table
<b>constants</b>	data table	<b>nest</b>	table
<b>count</b>	table	<b>nilcatcodes</b>	number
<b>ctxcatcodes</b>	number	<b>notcatcodes</b>	number
<b>definefont</b>	function	<b>number</b>	function
<b>delcode</b>	table	<b>pdffontname</b>	function
<b>dimen</b>	table	<b>pdffontobjnum</b>	function
<b>enableprimitives</b>	function	<b>pdffontsize</b>	function
<b>error</b>	function	<b>pdfpageref</b>	function
<b>extraprimitives</b>	function	<b>pdfxformname</b>	function
<b>finish</b>	function	<b>primitives</b>	function
<b>fontidentifier</b>	function	<b>print</b>	function
<b>fontname</b>	function	<b>printlist</b>	function
<b>fprint</b>	function	<b>prtcacodes</b>	number
<b>get</b>	function	<b>romannumeral</b>	function
<b>getattribute</b>	function	<b>round</b>	function
<b>getbox</b>	function	<b>run</b>	function
<b>getcatcode</b>	function	<b>scale</b>	function
<b>getcount</b>	function	<b>set</b>	function
<b>getdelcode</b>	function	<b>setattribute</b>	function
<b>getdimen</b>	function	<b>setbox</b>	function
<b>getlccode</b>	function	<b>setcatcode</b>	function
<b>getlist</b>	function	<b>setcount</b>	function
<b>getmath</b>	function	<b>setdelcode</b>	function
<b>getmathcode</b>	function	<b>setdimen</b>	function
<b>getnest</b>	function	<b>setfalse</b>	function
<b>getsfcode</b>	function	<b>setlccode</b>	function
<b>getskip</b>	function	<b>setlist</b>	function
<b>gettoks</b>	function	<b>setmath</b>	function
<b>getuccode</b>	function	<b>setmathcode</b>	function
<b>hashtokens</b>	function	<b>setnest</b>	function
<b>ifs</b>	data table	<b>setsfcode</b>	function
<b>inicatcodes</b>	number	<b>setskip</b>	function
<b>iscount</b>	function	<b>settoks</b>	function
<b>isdimen</b>	function	<b>settrue</b>	function
<b>isskip</b>	function	<b>setuccode</b>	function
<b>istoken</b>	function	<b>sfcode</b>	table
<b>lccode</b>	table	<b>shipout</b>	function

<b>skip</b>	table	<b>tprint</b>	function
<b>sp</b>	function	<b>txtcatcodes</b>	number
<b>sprint</b>	function	<b>type</b>	function
<b>systemmodes</b>	data table	<b>uccode</b>	table
<b>texcatcodes</b>	number	<b>uniformdeviate</b>	function
<b>toks</b>	table	<b>uprint</b>	function
<b>tpacatcodes</b>	number	<b>vrbcacodes</b>	number
<b>tpbcacodes</b>	number	<b>write</b>	function

## texconfig (basic tex)

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

## texio (basic tex)

```
write    function  
write_nl function
```

## token (basic tex)

<code>command_id</code>	function	<code>get_next</code>	function
<code>command_name</code>	function	<code>is_activechar</code>	function
<code>create</code>	function	<code>is_expandable</code>	function
<code>csname_id</code>	function	<code>is_protected</code>	function
<code>csname_name</code>	function	<code>lookup</code>	function
<code>expand</code>	function		

## tokens (context)

bgroup        table  
collectors table  
  T data  
  F defaultwords  
  F dowithwords  
  F flush  
  F handle  
  F install  
  F register  
  T registered  
  T remapper  
    F convert  
    T data  
    F store  
  F show

  T show\_methods  
    F a  
    F b  
    F c  
  F showtoken  
  F test  
  F trace  
egroup        table  
hbox          table  
letter        function  
letters       function  
other         function  
vbox          table  
vtop          table

## tracers (context)

count	function
cs	function
dimen	function
knownlist	function
lists	table

T context

T internals

T scratch

name	function
primitive	function
prnterror	function
showlines	function
strings	table

S undefined

toks	function
------	----------

type	function
------	----------



## trackers (context)

<code>data</code>	data table	<code>name</code>	string
<code>disable</code>	function	<code>register</code>	function
<code>dumphashtofile</code>	function	<code>report</code>	function
<code>enable</code>	function	<code>savehash</code>	function
<code>list</code>	function	<code>show</code>	function

# typesetters (context)

## **alignments** table

F handler

F set

## **breakpoints** table

N attribute

F define

F handler

D mapping

T methods

T numbers

F set

F setreplacement

## **cases** table

T actions

F handler

F register

F set

## **characters** table

F handler

## **cleaners** table

F handler

F set

## **digits** table

T actions

N attribute

F handler

F set

## **directions** table

F handler

F process

F set

## **hpack** function

## **italics** table

F forcevariant

F handler

F reset

F set

## **kerns** table

D factors

F handler

B keepligature

B keptogether

D mapping

F set

## **margins** table

F finalhandler

F globalhandler

F ha

F localhandler

F save

## **paragraphs** table

N attribute

T droppers

F freeze

F set

F handler

F set

## **processors** table

F apply

F register

F reset

F split

F startapply

F stopapply

F stripped

F tostring

## **spacings** table

N attribute

F define

F handler

D mapping

T numbers

T frenchpunctuation

T characters

S name

N number

F reset

F set

F setup

## **tonodes** function

## **vpack** function

## **xtables** table

F cleanup

F construct

F create	F reflow_height
F flush	F reflow_width
F initialize_construct	F set_construct
F initialize_reflow_height	F set_reflow_height
F initialize_reflow_width	F set_reflow_width
F next_row	

# unicode (extra lua)

<b>ascii</b>	<b>table</b>		
F byte		F gmatch	
F char		F gsub	
F dump		F len	
F find		F lower	
F format		F match	
F gfind		F rep	
F gmatch		F reverse	
F gsub		F sub	
F len		F upper	
F lower		<b>ustring</b>	<b>function</b>
F match		utf16_to_utf8	<b>function</b>
F rep		utf16_to_utf8_be	<b>function</b>
F reverse		utf16_to_utf8_le	<b>function</b>
F sub		utf32_to_utf8	<b>function</b>
F upper		utf32_to_utf8_be	<b>function</b>
		utf32_to_utf8_le	<b>function</b>
<b>filetype</b>	<b>function</b>	<b>utf8</b>	<b>table</b>
<b>grapheme</b>	<b>table</b>	F byte	
F byte		F char	
F char		F dump	
F dump		F find	
F find		F format	
F format		F gfind	
F gfind		F gmatch	
F gmatch		F gsub	
F gsub		F len	
F len		F lower	
F lower		F match	
F match		F rep	
F rep		F reverse	
F reverse		F string	
F sub		F sub	
F upper		F toentities	
		F upper	
<b>latin1</b>	<b>table</b>	utf8_to_utf16	<b>function</b>
F byte		utf8_to_utf8	<b>function</b>
F char		utffcodes	<b>function</b>
F dump		utfname	<b>table</b>
F find		utftype	<b>function</b>
F format		xstring	<b>function</b>
F gfind			

## url (context)

`addscheme` function  
`construct` function  
`filename` function  
`hashed` function

`hasscheme` function  
`query` function  
`split` function

# utilities (context)

## debugger table

F disable  
F enable  
F savestats  
F showstats

## formatters table

F formatcolumns  
F list  
F stripzeros

## garbagecollector table

F check  
N criterium  
B enabled

## lua table

F compile

## packers table

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

## parsers table

F add\_settings\_to\_array  
F arguments\_to\_table  
F array\_to\_string  
F getparameters  
F hash\_to\_string  
F listitem  
F make\_settings\_to\_hash\_pattern  
T patterns  
  U settings\_to\_array  
  U settings\_to\_hash\_a  
  U settings\_to\_hash\_b  
  U settings\_to\_hash\_c  
F settings\_to\_array  
F settings\_to\_hash  
F settings\_to\_hash\_strict  
F settings\_to\_hash\_tolerant  
F settings\_to\_set  
F simple\_hash\_to\_string

## report function

### sequencers table

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

### setters table

F disable  
F enable  
F initialize  
F list  
F new  
F register  
F reset  
F show

### storage table

F allocate  
F checked  
F mark  
F marked  
F setinitializer  
F sparse

### strings table

F collapseCrLf  
F newrepeater  
F nice  
F striplong  
F tabtospace

### tables table

F accesstable

F definetable  
F encapsulate  
F insertaftervalue

F insertbeforevalue  
F migratetable  
F removevalue

## visualizers (context)

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



## xml (context)

addentitiesdoctype	function	D texspace	
after	function	D verbose	
all	function	defaultprotocol	string
applylpath	function	delete	function
assign	function	delete_element	function
attribute	function	each	function
before	function	each_element	function
body	function	elements	function
builtinentities	table	elementtocdata	function
B amp		empty	function
B apos		entities	data table
B gt		erase	function
B lt		errorhandler	function
B quot		escaped	function
cdata	function	expressions	table
cdatatotext	function	F boolean	
checkbom	function	F child	
checkerror	function	F contains	
checknamespace	function	F count	
checkns	function	F error	
cleansed	function	F find	
collect	function	F lower	
collect_elements	function	F name	
collect_tags	function	F number	
collect_texts	function	F oneof	
collected	function	F print	
collecttexts	function	F quit	
content	function	F tag	
convert	function	F text	
copy	function	F undefined	
count	function	F upper	
cprint	function	fillin	function
css	table	filter	function
F colorspecification		finalizers	table
F fontspecification		T tex	
F padding		F all	
defaulthandlers	table	F attribute	
D file		F bibtexconcat	
D parsedxml		F bibtexshort	
D string		F chainattribute	
D tex		F command	
D texline		F concat	

F concatrange	F text	
F context	F texts	
F count	F upperall	
F ctxtext	first	function
F default	found	function
F first	functions	table
F function	getbuffer	function
F index	gethandlers	function
F last	gethandlersfunction	function
F lettered	include	function
F lower	index	function
F lowerall	inheritedconvert	function
F match	inject	function
F name	inject_element	function
F position	inject_element_after	function
F reverse	inject_element_before	function
F stripped	injectafter	function
F tag	injectbefore	function
F tags	insert	function
F text	insert_element	function
F upper	insert_element_after	function
F upperall	insert_element_before	function
T xml	insertafter	function
F all	insertbefore	function
F att	insertcomment	function
F attribute	inspect	function
F attributes	is_valid	function
F cdata	kind	function
F chainattribute	last	function
F count	load	function
F default	lpath	function
F elements	lpathcached	function
F empty	lpathcalls	function
F first	lshow	function
F function	makestandalone	function
F index	match	function
F last	name	function
F lowerall	newhandlers	function
F match	nodesettostring	function
F name	originalload	function
F position	package	function
F reverse	parent	function
F table	parsedentitylpeg	userdata
F tag	pihandlers	table
F tags	placeholders	table

F unknown_any_entity		serialize	function
F unknown_dec_entity		setcdata	function
F unknown_hex_entity		sethandlersfunction	function
position	function	setProperty	function
privatecodes	table	settings	function
privatetoken	function	specialhandler	table
process	function	sprint	function
process_attributes	function	string	function
process_elements	function	strip	function
processattributes	function	strip_whitespace	function
profiled	table	stripelement	function
raw	function	stripleadingspaces	function
registerentity	function	table	function
registers	function	text	function
remap_name	function	textonly	function
remap_namespace	function	texttocdata	function
remap_tag	function	tocdata	function
remapname	function	toelement	function
remapnamespace	function	tostring	function
remaptag	function	toxml	function
renamespace	function	tprint	function
replace	function	traverse	function
replace_element	function	unescaped	function
resolvns	function	unprivatized	function
root	function	withelement	function
save	function	withelements	function
selection	function	wrap	function
separate	function	xmlns	table

## zip (extra lua)

archives	table	openarchive	function
close	function	openfile	function
closearchive	function	registeredfiles	table
open	function	type	function

## zlib (extra lua)

<code>adler32</code>	<code>function</code>	<code>decompress</code>	<code>function</code>
<code>compress</code>	<code>function</code>	<code>decompressobj</code>	<code>function</code>
<code>compressobj</code>	<code>function</code>	<code>version</code>	<code>function</code>
<code>crc32</code>	<code>function</code>		