

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

# backends (context)

<b>codeinjections</b>	table	F registeredsymbol
F synchronizecolormodel		F registerpagecloseaction
<b>current</b>	string	F registerpageopenaction
<b>defaults</b>	table	F registersymbol
T codeinjections		F setfieldcalulationset
T nodeinjections		F setfigurealternative
T registrations		F setfigurecolorspace
D tables		F setfiguremask
<b>install</b>	function	F setformat
<b>nodeinjections</b>	table	F setformsmethod
F restore		F setpagetransition
F save		F setupcanvas
F transform		F setupidentity
<b>nothing</b>	function	F setxmpfile
<b>pdf</b>	table	F startlayer
T codeinjections		F stoplayer
F addbookmarks		F supportedformats
F attachmentid		F useviewerlayer
F clonefield		F validfield
F definefield		F validfieldcategory
F definefieldset		F validfieldset
F defineviewerlayer		S comment
F embedfile		T nodeinjections
F enabletags		F addtags
F exportformdata		F attachfile
F finalizepage		F cmykcolor
F finishreference		F comment
F getdefaultfieldvalue		F destination
F getfieldcategory		F effect
F getfieldset		F graycolor
F getformatoption		F injectbitmap
F getoutputfilename		F insertmovie
F getpreviewfigure		F insertsound
F insertrenderingwindow		F insertswf
F mergereferences		F insertu3d
F mergeviewerlayers		F knockout
F prerollreference		F negative
F presetsymbol		F overprint
F presetsymbollist		F positive
F processrendering		F reference
F registerdocumentcloseaction		F rgbcolor
F registerdocumentopenaction		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)

<b>authorref</b>	function		F flush	
<b>authors</b>	table		F nofregistered	
F concat			F process	
F inverted			F register	
F invertedshort			F registerplaced	
F normal			F reset	
F normalshort			F resolve	
F setsettings			<b>load</b>	function
F short			<b>new</b>	function
<b>authoryearref</b>	function		<b>singularorplural</b>	function
<b>authoryearsref</b>	function		<b>statistics</b>	table
<b>convert</b>	function		N nofbytes	
<b>hacks</b>	table		N nofdefinitions	
F add			N nofshortcuts	
F doifalreadyplaced			<b>toxml</b>	function
F filterall				



## 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 define
  - F disable
  - F enable
  - F handler
  - T methods
    - F default
    - F oneline
  - D names
  - D numbers
  - F set
  - F start
  - F stop
- F kepttogether
- F registertogether
- T solutions
  - T splitters
    - F define

- F optimize
- T registered
- F reset
- F set
- F split
- F start
- F stop

- F tag

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)

<code>find</code>	function
<code>list</code>	function
<code>register</code>	overloaded function

## callbacks (context)

<code>freeze</code>	function
<code>known</code>	function
<code>list</code>	data table
<code>pop</code>	function

<code>push</code>	function
<code>register</code>	function
<code>report</code>	function
<code>table</code>	function

## catcodes (context)

<code>names</code>	data table
<code>numbers</code>	data table
<code>register</code>	function



# characters (context)

activeoffset	number	is_mark	data table
adobename	function	is_spacing	data table
bidirectional	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	cleanupplayers	function
MPur	function	clonefield	function
MPw	function	collectfloat	function
MPx	function	collecthelp	function
MPxy	function	colorcomponents	function
MPxywhd	function	consultfloat	function
MPy	function	copyfileto log	function
Romannumerals	function	copyposition	function
abjadnodotnumerals	function	countervalue	function
abjadnumerals	function	counttwopassdata	function
addcounter	function	currentcomponent	function
addff	function	currentdate	function
addfs	function	currentenvironment	function
addlinklistelement	function	currentproduct	function
addtojavascriptpreamble	function	currentproject	function
addtolist	function	currentreferenceorder	function
allinputpaths	function	currentregime	function
alphabetic	function	datasetvariable	function
analysefloatmethod	function	dayname	function
analyzelist	function	defineattribute	function
applytochars	function	definebibtexsession	function
applytowords	function	definebreakpoint	function
assignbuffer	function	definebreakpoints	function
autofinishstructurelevels	function	definecharacterspacing	function

defineconversion	function	doifelsemarking	function
definecounter	function	doifelsemultipar	function
definedviewerlayer	function	doifelseparallel	function
definefield	function	doifelsepositionsused	function
definefieldset	function	doifelserangeonpage	function
definefilefallback	function	doifelserreference	function
definefilesynonym	function	doifelsesavedfloat	function
definefont_one	function	doifelsespaces	function
definefont_two	function	doifelsevisualizer	function
definefontfeature	function	doiffieldcategoryelse	function
definefontsolution	function	doiffieldelse	function
defineintermediatecolor	function	doiffieldsetelse	function
definelinkedlist	function	doiffiledefinedelse	function
definemarking	function	doiffileexistelse	function
definemultitonecolor	function	doiffirstcharelse	function
defineparallel	function	doifinputfileelse	function
defineparbuilder	function	doifinsetelse	function
defineprocesscolor	function	doifleapyearelse	function
defineprogram	function	doiflisthasentry	function
definereference	function	doiflisthasnumberelse	function
definesectionlevels	function	doiflisthaspageelse	function
definespotcolor	function	doiflisthastitleelse	function
definestructureblock	function	doiflocfileelse	function
definestructureset	function	doifnot	function
definetransparency	function	doifnotcounter	function
definetwopasslist	function	doifobjectreferencefoundelse	function
defineviewerlayer	function	doifolderversionelse	function
defrostrandomseed	function	doifoverlappingelse	function
digits	function	doifparentfileelse	function
disableparbuilder	function	doifposition	function
disableregime	function	doifpositionelse	function
disablesPELLchecking	function	doifpositiononpage	function
discardfromlist	function	doifpositionsonsamepageelse	function
doanalyzeframedbox	function	doifpositionsonthispageelse	function
doif	function	doifurldefinedelse	function
doifblackelse	function	doprocесstypescriptfile	function
doifcommonelse	function	doreshapeframedbox	function
doifcounter	function	dostarttextfile	function
doifdimenstringelse	function	dostoptextfile	function
doifdrawingblackelse	function	ecolumn	function
doifelse	function	elapsedtime	function
doifelsebuffer	function	enablecolor	function
doifelsecounter	function	enablecolorintents	function
doifelsecurrentfontasfeature	function	enablefontcolor schemes	function
doifelseintwopassdata	function	enableparbuilder	function

enableregime	function	getbuffer	function
enablesPELLchecking	function	getbufferctxlua	function
enabletransparency	function	getbuffermkvi	function
enhancelinkedlist	function	getcommandline	function
enhancelist	function	getctxfile	function
enhancereference	function	getcurrentprefixspec	function
erasebuffer	function	getcurrentreferencemetadata	function
expandcurrentreference	function	getdefaultfieldvalue	function
exportformdata	function	getfieldcategory	function
exportreferences	function	getfirstcharacter	function
featureattribute	function	getfirsttwopassdata	function
featurelist	function	getfloatvariable	function
feedback	function	getinternalreference	function
fetchhallmarks	function	getlasttwopassdata	function
fetchmultipar	function	getmarking	function
fetchmultishape	function	getprivateattribute	function
fetchonemark	function	getprivatechar	function
fetchposboxes	function	getprogram	function
fetchtwomarks	function	getrandomcounta	function
filterdefaultreference	function	getrandomcountb	function
filterreference	function	getrandomseed	function
finalizebox	function	getreadfilename	function
findtwopassdata	function	gettexbuffer	function
firstcountervalue	function	gettwopassdata	function
firstinset	function	gettwopassdatalist	function
flushfloat	function	geturl	function
flushpostponedblocks	function	grabbuffer	function
fontchar	function	helpaction	function
fontcollectionclone	function	helpreference	function
fontcollectiondefine	function	hexstringtonumber	function
fontcollectionprepare	function	hour	function
fontcollectionregister	function	hyphenatedlist	function
fontcollectionreport	function	hyphenatedurl	function
fontcollectionreset	function	D characters	
fontlookupgetkey	function	N lefthyphenmin	
fontlookupgetkeyofindex	function	D mapping	
fontlookupinitialize	function	N righthyphenmin	
fontlookupnoffound	function	F setcharacters	
forceendjob	function	incrementedcounter	function
forcequitjob	function	injectcurrentreference	function
format	function	injectreference	function
formatcolor	function	insertattachment	function
formatgray	function	insertcomment	function
freezerandomseed	function	insertfield	function
from	function	insertrenderingwindow	function

insertsoundclip	function	objectnumber	function
isleapyear	function	objectpage	function
languagenumber	function	octnumber	function
lastcountervalue	function	octstringtonumber	function
lchexnumber	function	ordinal	function
lchexnumbers	function	overloadbookmark	function
leapyear	function	pagestaterealpage	function
listlabel	function	parpos	function
listlocation	function	pdfrotation	function
listprefixednumber	function	percentageof	function
listprefixedpage	function	pgfxcolorspec	function
listrealpage	function	placeparallel	function
listsize	function	popfloat	function
listtitle	function	popitaliccorrection	function
listuserdata	function	poplist	function
loadexamodes	function	popsectionblock	function
loadfontgoodies	function	pos	function
loadspellchecklist	function	posplus	function
loadtypescriptfile	function	posstrut	function
loadvisualizer	function	poswhd	function
locatefilepath	function	posxy	function
locfilename	function	prepareMPvariable	function
logoptions	function	preparebibtexsession	function
markregionbox	function	preparedfile	function
mathrenderset	function	presetsymbolist	function
maxitemwidth	function	presettabulate	function
minute	function	prevcountervalue	function
molecule	function	processbuffer	function
month	function	processedfile	function
monthmnem	function	processedfiles	function
monthname	function	processfile	function
mpcolor	function	processfilemany	function
mpoptions	function	processfilenone	function
namedstructureuservariable	function	processfileonce	function
namedstructurevariable	function	processlist	function
nbfs	function	pushfloat	function
nextcountervalue	function	pushitaliccorrection	function
nextparallel	function	pushlist	function
nofdays	function	pushsectionblock	function
nofitems	function	rawcharacter	function
nofstackedfloats	function	rawcountervalue	function
noteprefixednumber	function	rawdate	function
notetitle	function	referencepagestate	function
ntimes	function	referencerealpage	function
number	function	registerattachment	function

registerbibtexentry	function	savestructureblock	function
registerbibtexfile	function	save tagged twopass data	function
registerbookmark	function	save twopass data	function
registerbuttons	function	second	function
registercolor	function	select structure block	function
registercolorintent	function	set breakpoints	function
registeredviewerlayer	function	set character casing	function
registerhelp	function	set character cleaning	function
registeritemgroup	function	set character kerning	function
registermaintextcolor	function	set character spacing	function
registernamespace	function	set character stripping	function
registerpostponedblock	function	set closed document action	function
registersoundclip	function	set close page action	function
registerstructureprocessor	function	set color model	function
registertransparency	function	set counter	function
registerunit	function	set dataset	function
relate marking	function	set digits manipulation	function
remove missing characters	function	set direction	function
replace missing characters	function	set document environments	function
replace pos pxy whd	function	set document modes	function
resave float	function	set document modules	function
reset counter	function	set figure lookup order	function
reset font feature	function	set font feature	function
reset font solution	function	set font of id	function
reset marking	function	set font solution	function
reset math italics	function	set format	function
reset null font	function	set forms method	function
reset parallel	function	set internal reference	function
reset reference	function	set marking	function
reset structure processor	function	set math alphabet	function
reset timer	function	set math alternate	function
restart counter	function	set math attribute	function
restore counter	function	set math italics	function
restore current attributes	function	set math style	function
roman numerals	function	set next internal reference	function
run buffer	function	set object	function
save buffer	function	set open document action	function
save counter	function	set open page action	function
save current attributes	function	set own counter	function
saved list number	function	set page state	function
saved list prefixed number	function	set page state real page no	function
saved list title	function	set page transition	function
save float	function	set par builder	function
save object	function	set pos	function
save parallel	function	set random seed	function

setrealign	function	starttag	function
setreferencearguments	function	starttext	function
setreferenceattribute	function	startviewerlayer	function
setreferenceoperation	function	stopcolorset	function
setsectionblock	function	stopcomponent	function
setstructureblockstate	function	stopenvironment	function
settagcombination	function	stopfontsolution	function
settagdescription	function	stopparbuilder	function
settagdescriptionsymbol	function	stopproduct	function
settagfigure	function	stopproject	function
settaghighlight	function	stopregime	function
settagitemgroup	function	stopsectionlevel	function
settagproperty	function	stoptag	function
settagsorting	function	stoptext	function
settagsynonym	function	stopviewerlayer	function
settagtablecell	function	storejavascriptcode	function
settagtabulatecell	function	storejavascriptpreamble	function
setupbookmarks	function	structureautocatcodedget	function
setupcanvas	function	structurecatcodedget	function
setupcharacterspacing	function	structuregivencatcodedget	function
setupexport	function	structurenumber	function
setupfontexpansion	function	structuretitle	function
setupfontprotrusion	function	structureuservariable	function
setupidentity	function	structurevariable	function
setupitaliccorrection	function	subcountervalues	function
setxmpfile	function	subff	function
showassignerror	function	subfs	function
showattributes	function	synchronizecolormodel	function
showchardata	function	synchronizemarking	function
showcounter	function	taggedmathfunction	function
showfontparameters	function	testcase	function
showhyphenatedinlist	function	textime	function
splitfilename	function	transparencycomponents	function
spotcolorname	function	triggereffect	function
spotcolorparent	function	triggernegative	function
spotcolorvalue	function	truefilename	function
startcolorset	function	typebuffer	function
startcomponent	function	typefile	function
startenvironment	function	typestring	function
startfontsolution	function	uchexnumber	function
startparbuilder	function	uchexnumbers	function
startproduct	function	unicodechar	function
startproject	function	unit	function
startregime	function	updatefilenames	function
startsectionlevel	function	useMPLibrary	function



useanyfile	function	utfmathstretch	function
usecldfilename	function	vspacing	function
usecolors	function	vspacingcollapse	function
usecomponent	function	vspacingdefine	function
useenvironment	function	vspacingsetamount	function
usefile	function	vspacingsnap	function
usejavascriptpreamble	function	weekday	function
usejavascriptscripts	function	weekdayname	function
uselibrary	function	widthofstring	function
useluafile	function	writestatus	function
usemodules	function	x_table_cleanup	function
usepath	function	x_table_construct	function
useproduct	function	x_table_create	function
useproject	function	x_table_flush	function
usesubpath	function	x_table_init_construct	function
usesymbols	function	x_table_init_reflow_height	function
usetexfile	function	x_table_init_reflow_width	function
useurl	function	x_table_next_row	function
usexmlfile	function	x_table_reflow_height	function
usezipfile	function	x_table_reflow_width	function
utfchar	function	x_table_set_construct	function
utfmathclass	function	x_table_set_reflow_height	function
utfmathcommand	function	x_table_set_reflow_width	function
utfmathfiller	function	year	function

## containers (context)

<code>cleanname</code>	function
<code>content</code>	function
<code>define</code>	function
<code>is_usable</code>	function

<code>is_valid</code>	function
<code>read</code>	function
<code>usecache</code>	boolean
<code>write</code>	function

## converters (context)

Alphabetic	function	leapyear	function
Character	function	maxchr	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)

coco	boolean	running	function
create	function	status	function
cstacksize	function	wrap	function
resume	function	yield	function

## ctxrunner (context)

load	function
prepfiles	data table
resolve	function

## debug (basic lua)

<code>debug</code>	function	<code>getupvalue</code>	function
<code>getfenv</code>	function	<code>setfenv</code>	function
<code>gethook</code>	function	<code>sethook</code>	function
<code>getinfo</code>	function	<code>setlocal</code>	function
<code>getlocal</code>	function	<code>setmetatable</code>	function
<code>getmetatable</code>	function	<code>setupvalue</code>	function
<code>getregistry</code>	function	<code>traceback</code>	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	PDFRectangle	function
Dict	function	open	function
Object	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	paths	data table
check	function	patterns	data table
checkers	data table	pop	function
converters	data table	preferquality	boolean
current	function	programs	data table
defaultdepth	number	push	function
defaultheight	number	registerpattern	function
defaultsearch	boolean	registerresource	function
defaultwidth	number	registersuffix	function
done	function	resources	data table
dummy	function	scale	function
exists	data table	setlookups	function
exists	function	setorder	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>nofstacked</code>	<code>function</code>
<code>checkedpagefloat</code>	<code>function</code>	<code>pop</code>	<code>function</code>
<code>collect</code>	<code>function</code>	<code>push</code>	<code>function</code>
<code>consult</code>	<code>function</code>	<code>resave</code>	<code>function</code>
<code>flush</code>	<code>function</code>	<code>save</code>	<code>function</code>
<code>getvariable</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 emwidths
- D exheights
- D identifiers
- D italics
- D lastmathids
- 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  
**protrusions**      data table  
**readers**            table  
 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  
**specifiers**            table  
 D contextmerged  
 F contextnumber  
 D contextnumbers  
 D contextsetups  
 F contexttostring  
 F mergecontext  
 F presetcontext  
 F registercontext  
 F showcontext  
 F splitcontext  
 D synonyms  
 D variants  
**symbols**              table  
 F uselibrary  
**tables**                table  
**tracers**               table  
**typefaces**            data table

# 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)

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

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

# 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	savadata	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 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		D collected	
F setall		T components	
F setdim		T tobesaved	
D tobesaved		T branches	
F upperleft		S name	
F upperright		S type	
F width		variables	table
F x		D checksums	
F xy		D collected	
F y		F save	
register	function	D tobesaved	
save	function	version	number
structure	table		

## 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	numbers	data table
associated	data table	posthyphenchar	function
association	function	prehyphenchar	function
counters	data table	registered	data table
current	function	righthyphenmin	function
data	data table	setdirty	function
define	function	synonym	function
exceptions	function	version	number
getnumber	function	words	table
hyphenate	function		
installed	function	F check	
labels	table	T data	
F define		F disable	
F split		F enable	
lefthyphenmin	function	T enablers	
loadable	function	B enables	
loadwords	function	F found	
logger	table	F load	
F report		T methods	
		N threshold	



# layouts (context)

status table

F isleftpage

F lefttorrightpagection

## lfs (extra lua)

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

# 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	endstripper	function
<b>Carg</b>	function	firstofsplit	function
<b>Cb</b>	function	frontstripper	function
<b>Cc</b>	function	is_lpeg	function
<b>Cf</b>	function	keeper	function
<b>Cg</b>	function	locale	function
<b>Cmt</b>	function	match	function
<b>Cp</b>	function	oneof	function
<b>Cs</b>	function	patterns	data table
<b>Ct</b>	function	print	function
<b>P</b>	function	replacer	function
<b>R</b>	function	secondofsplit	function
<b>S</b>	function	span	function
<b>UP</b>	function	split	function
<b>UR</b>	function	splitat	function
<b>US</b>	function	splitter	function
<b>V</b>	function	stripper	function
anywhere	function	tsplitat	function
append	function	tsplitter	function
balancer	function	type	function
checkedsplit	function	utfchartabletopattern	function
count	function	version	function
counter	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>	data table
<b>bytedata</b>	data table	<b>name</b>	<b>table</b>
<b>bytdone</b>	table	<b>numbers</b>	data table
<b>collectgarbage</b>	function	<b>registercode</b>	function
<b>delay</b>	function	<b>registeredcodes</b>	function
<b>finalize</b>	function	<b>registerfinalizer</b>	function
<b>firstbytecode</b>	number	<b>registername</b>	function
<b>flush</b>	function	<b>setbytecode</b>	<b>function</b>
<b>flushdelayed</b>	function	<b>setluaname</b>	<b>function</b>
<b>getbytecode</b>	<b>function</b>	<b>startupfile</b>	string
<b>getluaname</b>	<b>function</b>	<b>version</b>	string
<b>lastbytecode</b>	number		

# luatex (context)

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

# 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	function	F flush	
getid	function	F reset	

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

## math (basic lua)

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

# mathematics (context)

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

## 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 convertmptstopdf	
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		texttextsdata	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 baselineskip		F pre_linebreak_filter	
F cleanup		F tracer	
F disc		processwords	function
F fontkern		reference	function
F glue		references	table
F gluespec		N attribute	
F glyph		T done	
F kern		F handler	
F latelua		T stack	
F leftmarginkern		remove	function
F leftskip		repackhlist	function
F lineskip		replace	function
F noad		report	function
F pdfannotation		rightmarginwidth	function
F pdfdestination		rules	table
F pdfdirect		D data	
F pdfliteral		F define	
F pdfrestore		F enable	
F pdfsave		F handler	
F pdfsetmatrix		save	function
F penalty		serialize	function
F register		serializebox	function
F rightmarginkern		setattribute	function
F rightskip		setattributes	function
F rule		setunsetattributes	function
F shrink		shifts	table
F special		D data	
F stretch		F define	
F temp		F enable	
F textdir		F handler	
F usage		show	function
T userids		showboxes	function
N margins.inline		showcodes	function
N splitters.one		showlist	function
N splitters.two		showsimplelist	function
F userlist		skipcodes	data table
F usernumber		somepenalty	function
F userstring		somespace	function
F usertokens		stripping	table
F zeroglue		T glyphs	
print	function	F set	
processors	table	striprange	function

<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
bit	function
bits	function
clearbit	function
dimenfactors	data table
hasbit	function
maxdimen	number
nopts	function
percent	function
points	function
pts	function
setbit	function
tobasepoints	function
tobitstring	function
tocentimeters	function

tociceros	function
todidots	function
todimen	function
toevenhex	function
toinches	function
tomillimeters	function
tonewciceros	function
tonewdidots	function
tonumberf	function
tonumberg	function
topicas	function
topoints	function
toscaled	function
toscaledpoints	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>pageresources</code>	<code>string</code>
<code>mapfile</code>	<code>function</code>	<code>pagesattributes</code>	<code>string</code>
<code>mapline</code>	<code>function</code>	<code>pdfmapfile</code>	<code>function</code>
<code>maxobjnum</code>	<code>function</code>	<code>pdfmapline</code>	<code>function</code>
<code>obj</code>	<code>function</code>	<code>print</code>	<code>function</code>
<code>objtype</code>	<code>function</code>	<code>refobj</code>	<code>function</code>
<code>pageattributes</code>	<code>string</code>	<code>registerannot</code>	<code>function</code>
<code>pageref</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	inputstack	table
dowithpath	function	installinputfilehandler	function
dowithvariable	function	installinputlinehandler	function
env	function	instance	table
executers	table	D data	
F check		B diskcache	
F exec		D environment	
F execute		D expansions	
F finalize		D fakepaths	
F popen		D files	
F register		B force_suffixes	
F spawn		D found	
expandbraces	function	D foundintrees	
expandedpathfromlist	function	D hashed	
expandedpathlist	function	D hashes	
expandedpathlistfromvariable	function	D lists	
expandpath	function	B loadererror	
expandpathfromvariable	function	D order	
expansion	function	B remember	
extendtexmfvariable	function	B renewcache	
find_file	function	B renewtree	
find_files	function	B savelists	
findbinfile	function	D setups	
findctxfile	function	D specification	
finders	data table	D variables	
findfile	function	jobs	table

F currentcomponent		registerzipfile	function
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

## scripts (context)

<b>categorytonumber</b>	data table	<b>handlers</b>	data table
<b>colors</b>	data table	<b>hash</b>	table
<b>defaults</b>	table	<b>installdataset</b>	function
N inter_char_half_shrink_factor		<b>installmethod</b>	function
N inter_char_half_stretch_factor		<b>numbertocategory</b>	data table
N inter_char_hangul_penalty		<b>numbertodataset</b>	data table
N inter_char_quarter_shrink_factor		<b>preprocess</b>	function
N inter_char_quarter_stretch_factor		<b>reset</b>	function
N inter_char_shrink_factor		<b>set</b>	function
N inter_char_stretch_factor			

## set (context)

**contains**    function  
**create**     function  
**tolist**     function

**tonumber**   function  
**totable**    function

# socket (extra lua)

<b>BLOCKSIZE</b>	number	<b>F keep-open</b>	
<b>_DEBUG</b>	boolean	<b>skip</b>	function
<b>bind</b>	function	<b>sleep</b>	function
<b>choose</b>	function	<b>smtp</b>	table
<b>connect</b>	function		
<b>dns</b>	table	<b>S DOMAIN</b>	
<b>F gethostname</b>		<b>N PORT</b>	
<b>F tohostname</b>		<b>S SERVER</b>	
<b>F toip</b>		<b>N TIMEOUT</b>	
<b>ftp</b>	table	<b>S ZONE</b>	
<b>S PASSWORD</b>		<b>F message</b>	
<b>N PORT</b>		<b>F open</b>	
<b>N TIMEOUT</b>		<b>F send</b>	
<b>S USER</b>		<b>source</b>	function
<b>F command</b>		<b>sourcet</b>	table
<b>F get</b>		<b>F by-length</b>	
<b>F open</b>		<b>F default</b>	
<b>F put</b>		<b>F http-chunked</b>	
<b>gettime</b>	function	<b>F until-closed</b>	
<b>http</b>	table	<b>tcp</b>	function
<b>N PORT</b>		<b>tp</b>	table
<b>N TIMEOUT</b>		<b>N TIMEOUT</b>	
<b>S USERAGENT</b>		<b>F connect</b>	
<b>F open</b>		<b>try</b>	function
<b>F request</b>		<b>udp</b>	function
<b>newtry</b>	function	<b>url</b>	table
<b>protect</b>	function	<b>F absolute</b>	
<b>select</b>	function	<b>F build</b>	
<b>sink</b>	function	<b>F build_path</b>	
<b>sinkt</b>	table	<b>F escape</b>	
<b>F close-when-done</b>		<b>F parse</b>	
<b>F default</b>		<b>F parse_path</b>	
<b>F http-chunked</b>		<b>F unescape</b>	

## sorters (context)

**comparers**      table

    F basic

**constants**      table

    S defaultdigits

    S defaultlanguage

    S defaultmethod

    N digitmaximum

    N digitoffset

    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)

checkfmtstatus	function
elapsedindeed	function
elapsedseconds	function
elapsedtime	function
enable	boolean
formatruntime	function
hastiming	function
memused	function
register	function
reportstorage	function

resettiming	function
runtime	function
savefmtstatus	function
show	function
showjobstat	function
starttiming	function
stoptiming	function
threshold	number
timed	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>bytepairs</code>	<code>function</code>
<code>bytes</code>	<code>function</code>
<code>char</code>	<code>function</code>
<code>characterpairs</code>	<code>function</code>
<code>characters</code>	<code>function</code>
<code>checkedsplit</code>	<code>function</code>
<code>count</code>	<code>function</code>
<code>dump</code>	<code>function</code>
<code>escapedpattern</code>	<code>function</code>
<code>explode</code>	<code>function</code>
<code>find</code>	<code>function</code>
<code>format</code>	<code>function</code>
<code>gfind</code>	<code>function</code>
<code>gmatch</code>	<code>function</code>
<code>gsub</code>	<code>function</code>
<code>is_boolean</code>	<code>function</code>
<code>is_empty</code>	<code>function</code>
<code>len</code>	<code>function</code>
<code>limit</code>	<code>function</code>
<code>lower</code>	<code>function</code>
<code>match</code>	<code>function</code>

<code>quote</code>	<code>function</code>
<code>quoted</code>	<code>function</code>
<code>rep</code>	<code>function</code>
<code>reverse</code>	<code>function</code>
<code>split</code>	<code>function</code>
<code>splitlines</code>	<code>function</code>
<code>splitup</code>	<code>function</code>
<code>strip</code>	<code>function</code>
<code>sub</code>	<code>function</code>
<code>toboolean</code>	<code>function</code>
<code>tocontext</code>	<code>function</code>
<code>todimen</code>	<code>function</code>
<code>topattern</code>	<code>function</code>
<code>toutf</code>	<code>function</code>
<code>unquote</code>	<code>function</code>
<code>unquoted</code>	<code>function</code>
<code>upper</code>	<code>function</code>
<code>utfcharacters</code>	<code>function</code>
<code>utfsplitlines</code>	<code>function</code>
<code>utfvalues</code>	<code>function</code>
<code>valid</code>	<code>function</code>
<code>validutf</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 tobesaved</b>	
D states		<b>F value</b>	
D tobesaved		<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 tobesaved		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 tobesaved	
F fetched		<b>references</b>	<b>table</b>

F analyze	T data
F checkedfile	F define
F checkedfileorurl	F get
F checkedprogram	F realpageofpage
F checkedrealpage	U referencesplitter
F checkedurl	D referred
D collected	F referredpage
U componentsplitter	F registerfinalizer
F currentmetadata	F registerinitializer
F currentorder	F registerpage
D currentset	F reportproblems
F define	F reset
D defined	T resolvers
D derived	F reference
F enableinteraction	F section
F enhance	D runners
D executers	F set
F expandcurrent	F setandgetattribute
F export	F setcomponent
T files	F setinnermethod
T data	F setinternalreference
F define	F setnextinternal
F get	F setnextorder
F filter	D specials
F filterdefault	F splitcomponent
D filters	F splitprefix
F from	F splitreference
F get	T testrunners
F getcurrentmetadata	F inner
F getcurrentprefixspec	F special
F getinnermethod	F special operation
F getinternalreference	F special operation with arguments
D handlers	T testspecials
F identify	F deltapage
F import	F i
F inject	F internal
F injectcurrentset	F page
D internals	F realpage
F load	F section
F loadpresets	F userpage
F mark	D tobereferred
D pages	D tobesaved
U prefixsplitter	T urls
D productdata	T data
T programs	F define

F get	
F valid	
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	

tags	table	
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)

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

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

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

# 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 keeppligature

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

## url (context)

<code>addscheme</code>	function
<code>construct</code>	function
<code>filename</code>	function
<code>hashed</code>	function

<code>hasscheme</code>	function
<code>query</code>	function
<code>split</code>	function

# utilities (context)

<b>debugger</b>	table	<b>F splitthousands</b>	
F disable		<b>report</b>	function
F enable		<b>sequencers</b>	table
F savestats		F appendaction	
F showstats		F appendgroup	
<b>formatters</b>	table	F compile	
F formatcolumns		F disableaction	
F list		F disablegroup	
F stripzeros		F enableaction	
<b>garbagecollector</b>	table	F enablegroup	
F check		D functions	
N criterium		F localize	
B enabled		F new	
<b>lua</b>	table	F nodeprocessor	
F compile		F prependaction	
<b>packers</b>	table	F prependgroup	
F hashed		F removeaction	
F new		F setkind	
F pack		F tostring	
F simplehashed		<b>setters</b>	table
F strip		F disable	
F unpack		F enable	
N version		F initialize	
<b>parsers</b>	table	F list	
F add_settings_to_array		F new	
F arguments_to_table		F register	
F array_to_string		F reset	
F getparameters		F show	
F hash_to_string		<b>stacker</b>	table
F listitem		F new	
F make_settings_to_hash_pattern		<b>storage</b>	table
T patterns		F allocate	
U settings_to_array		F checked	
U settings_to_hash_a		F mark	
U settings_to_hash_b		F marked	
U settings_to_hash_c		F setinitializer	
F settings_to_array		F sparse	
F settings_to_hash		<b>strings</b>	table
F settings_to_hash_strict		F collapseCrLf	
F settings_to_hash_tolerant		F newrepeater	
F settings_to_set		F nice	
F simple_hash_to_string		F striplong	

F tabtospace		F insertaftervalue
<b>tables</b>	<b>table</b>	F insertbeforevalue
F accesstable		F migratetable
F definetable		F removevalue
F encapsulate		

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

F concat	F tags	
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

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

## zip (extra lua)

<code>archives</code>	<code>table</code>	<code>openarchive</code>	<code>function</code>
<code>close</code>	<code>function</code>	<code>openfile</code>	<code>function</code>
<code>closearchive</code>	<code>function</code>	<code>registeredfiles</code>	<code>table</code>
<code>open</code>	<code>function</code>	<code>type</code>	<code>function</code>

## 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>		