

1 attributes backends bibtex blobs  
boolean buffers builders caches **callback**  
callbacks catcodes characters chemicals  
commands containers context converters  
**coroutine** **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	getfen	function
arg	table	getmetatable	function
assert	function	getreadfilename	function
attributes	table	global	table
backends	table	graphics	table
beginpage	function	gzip	table
bibtex	table	img	table
blobs	table	inspect	function
boolean	table	interactions	table
buffers	table	interfaces	table
builders	table	io	table
caches	table	ipairs	function
callback	table	job	table
callbacks	table	lang	table
catcodes	table	languages	table
characters	table	layouts	table
chemicals	table	lfs	table
collectgarbage	function	libraries	table
commands	table	lmx	table
containers	table	load	function
context	function	loadfile	function
converters	table	loadstring	function
coroutine	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
gcinfo	function	noads	table

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

# attributes (context)

## colorintents table

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

## colors table

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

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

## define function

## effects table

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

## handlers table

## list data table

## names data table

## negatives table

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

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

# backends (context)

**codeinjections** table

F synchronizecolormodel

**current** string

**defaults** table

T codeinjections

T nodeinjections

T registrations

D tables

**install** function

**nodeinjections** table

F restore

F save

F transform

**nothing** function

**pdf** table

T codeinjections

F addbookmarks

F attachmentid

F clonefield

F definefield

F definefieldset

F defineviewerlayer

F embedfile

F enabletags

F exportformdata

F finalizepage

F finishreference

F getdefaultfieldvalue

F getfieldcategory

F getfieldset

F getformatoption

F getoutputfilename

F getpreviewfigure

F insertrenderingwindow

F mergereferences

F mergeviewerlayers

F prerollreference

F presetsymbol

F presetsymbollist

F processrendering

F registerdocumentcloseaction

F registerdocumentopenaction

F registeredsymbol

F registerpagecloseaction

F registerpageopenaction

F registersymbol

F setfieldcalculationset

F setfigurealternative

F setfigurecolorspace

F setfiguremask

F setformat

F setformsmethod

F setpagetransition

F setupcanvas

F setupidentity

F setxmpfile

F startlayer

F stoplayer

F supportedformats

F useviewerlayer

F validfield

F validfieldcategory

F validfieldset

S comment

T nodeinjections

F addtags

F attachfile

F cmykcolor

F comment

F destination

F effect

F graycolor

F injectbitmap

F insertmovie

F insertsound

F insertswf

F insertu3d

F knockout

F negative

F overprint

F positive

F reference

F rgbcolor

F spotcolor

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

# bibtex (context)

**authorref**            function

**authors**            table

    F concat

    F inverted

    F invertedshort

    F normal

    F normalshort

    F setsettings

    F short

**authoryearref**        function

**authoryearsref**      function

**convert**            function

**hacks**            table

    F add

    F doifalreadyplaced

    F filterall

    F flush

    F nofregistered

    F process

    F register

    F registerplaced

    F reset

    F resolve

**load**            function

**new**            function

**singularorplural**    function

**statistics**        table

    N nofbytes

    N nofdefinitions

    N nofshortcuts

**toxml**            function



## blobs (context)

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

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

# boolean (context)

tocontext function

tonumber function

## buffers (context)

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

# builders (context)

## kernel table

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

## paragraphs table

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

- F disable

- F enable

- F optimize

- F setup

- F split

- F tag

## vspacing table

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

## cache (context)

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

## callback (basic tex)

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

## callbacks (context)

freeze	function
known	function
list	data table
pop	function

push	function
register	function
report	function
table	function

## catcodes (context)

`names` data table

`numbers` data table

`register` function



# characters (context)

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

## chemicals (context)

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

## commands (context)

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

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

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

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

resetstructureprocessor	function	setopenpageaction	function
resettimer	function	setowncounter	function
restartcounter	function	setpagestate	function
restorecounter	function	setpagestaterealpageno	function
restorecurrentattributes	function	setpagetransition	function
romannumerals	function	setpos	function
runbuffer	function	setrandomseed	function
savebuffer	function	setrealign	function
savecounter	function	setreferencearguments	function
savecurrentattributes	function	setreferenceoperation	function
savelistnumber	function	setstructureblockstate	function
savelistprefixednumber	function	settagcombination	function
savelisttitle	function	settagdescription	function
savefloat	function	settagdescriptionsymbol	function
saveparallel	function	settagfigure	function
savestructureblock	function	settaghighlight	function
savetaggedtwopassdata	function	settagitemgroup	function
savetwopassdata	function	settagproperty	function
second	function	settagsorting	function
selectstructureblock	function	settagsynonym	function
setbreakpoints	function	settagtablecell	function
setcharactercasing	function	settagtabulatecell	function
setcharactercleaning	function	setupbookmarks	function
setcharacterkerning	function	setupcanvas	function
setcharacterspacing	function	setupcharacterspacing	function
setcharacterstripping	function	setupexport	function
setclosedocumentaction	function	setupfontexpansion	function
setclosepageaction	function	setupfontprotrusion	function
setcolormodel	function	setupidentity	function
setcounter	function	setupitaliccorrection	function
setdataset	function	setxmpfile	function
setdigitsmanipulation	function	showattributes	function
setdirection	function	showchardata	function
setfontfeature	function	showcounter	function
setfontofid	function	showfontparameters	function
setformat	function	showhyphenatedinlist	function
setformsmethod	function	splitfilename	function
setinternalreference	function	spotcolorname	function
setmarking	function	spotcolorparent	function
setmathalphabet	function	spotcolorvalue	function
setmathalternate	function	startcolorset	function
setmathattribute	function	startcomponent	function
setmathitalics	function	startenvironment	function
setmathstyle	function	startproduct	function
setopendocumentaction	function	startproject	function

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



<code>x_table_set_reflow_height</code>	function
<code>x_table_set_reflow_width</code>	function
<code>year</code>	function

## containers (context)

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

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

## converters (context)

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

## coroutine (basic lua)

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

## debug (basic lua)

<code>debug</code>	function
<code>getfenv</code>	function
<code>gethook</code>	function
<code>getinfo</code>	function
<code>getlocal</code>	function
<code>getmetatable</code>	function
<code>getregistry</code>	function

<code>getupvalue</code>	function
<code>setfenv</code>	function
<code>sethook</code>	function
<code>setlocal</code>	function
<code>setmetatable</code>	function
<code>setupvalue</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)

<code>arguments</code>	data table	<code>setargument</code>	function
<code>files</code>	table	<code>setdefaultargument</code>	function
<code>getargument</code>	function	<code>setfilename</code>	function
<code>getfilename</code>	function		



## environment (context)

argument	function	luafilechunk	function
arguments	data table	originalarguments	data table
engineflags	data table	outputfilename	string
files	table	ownbin	string
filesynonyms	data table	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
luafile	function		

## epdf (extra tex)

**Array**            **function**  
**Dict**            **function**  
**Object**          **function**

**PDFRectangle** **function**  
**open**           **function**  
**type**           **function**

## experiments (context)

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

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

## figures (context)

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

## file (basic lua)

<code>addsuffix</code>	function	<code>joinpath</code>	function
<code>basename</code>	function	<code>loadchecksum</code>	function
<code>checksum</code>	function	<code>nameonly</code>	function
<code>collapsepath</code>	function	<code>nametotable</code>	function
<code>copy</code>	function	<code>needs Updating</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

## floats (context)

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

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

## font (basic tex)

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

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

## fontloader (extra tex)

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



# fonts (context)

## **analyzers**            table

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

## **checkers**            table

- F missing

## **cid**                    table

- F getmap
- F loadfile

## **collections**        table

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

## **constructors**        table

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

- F virtual

- F initializefeatures

- T keys

- T character

- S depth

- S height

- S italic

- S width

- T description

- T boundingbox

- S depth

- S height

- S width

- T parameters

- S ascender

- S descender

- S designsize

- T expansion

- S auto

- S shrink

- S step

- S stretch

- S extendfactor

- S factor

- S hfactor

- S mathsize

- T protrusion

- S auto

- S quad

- S scaledpoints

- S scriptpercentage

- S scriptscriptpercentage

- S size

- S slantfactor

- S slantperpoint

- T spacing

- S extra

- S shrink

- S stretch

- S width

- T synonyms

- S em

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

- D data
- F filename
- F register
- F getcompositions
- T list
  - F compositions
  - F designsizes
  - F expansions
  - F featureset
  - F files
  - F mathematics
  - F protrusions
  - F solutions
  - F typefaces
- F load
- F prepare\_features
- F register
- F registerpostprocessor
- F report

**handlers**                      **table**

- T afm
  - B addkerns
  - B addligatures
  - B addtexligatures
  - B autoprefixed
- D cache
- D features
- F load
- F setfeatures
- B syncspace
- N version
- T otf
  - F addfeature
- D cache
- T chainhandlers
  - F normal
  - F verbose
- F collectlookups
- F dataset
- S defaultbasealternate
- S defaultnodealternate
- D enhancers
- D features
- F getalternate
- T glists

- F load
- F scriptandlanguage
- F setcontextchain
- F setdynamics
- F setfeatures
- T tables
  - D baselines
  - D features
  - D languages
  - D scripts
- N version
- T pfb
- T tfm
  - D features
- F setfeatures
- T vf
  - T combinations
- F combine
- T combiner
  - D commands
- F find
- D helpers
- D math
- D predefined
- D whatever

**hashes**                      **table**

- D characters
- D csnames
- D descriptions
- T dynamics
- D identifiers
- D italics
- D marks
- D parameters
- T processes
- D properties
- D quads
- D resources
- T setdynamics
- D xheights

**helpers**                      **table**

- F addprivate
- F dimenfactor
- F getdigitwidth
- F getparameters

```

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

```

```

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

```

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

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

# graphics (context)

backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

## gzip (extra lua)

```
close function  
lines function  
open  function
```

## img (basic tex)

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

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



# interactions (context)

## attachments table

- F insert
- F register

## fields table

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

## general table

- F getidentity
- F setupidentity

## help table

- F collect
- F reference
- F register

## javascripts table

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

- F setpreamble

- F storecode

- F storepreamble

- F usepreamblenow

- F usescripts

## linkedlists table

## pages table

- F setpagetransition

- F setupcanvas

## references table

- F setclosedocument

- F setclosepage

- F setopendocument

- F setopenpage

## renderings table

- F register

- F rendering

- F var

## soundclips table

- F insert

- F register

## interfaces (context)

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

## io (basic lua)

ask	function
bytes	function
characters	function
close	function
exists	function
fileseparator	string
flush	function
i_limiter	function
i_limiters	table

T paranoid

input	function
limiter	function
lines	function
loaddata	function
noflines	function
o_limiter	function
o_limiters	table

T paranoid

open	overloaded function
open_ro	function
output	function
pathseparator	string
popen	overloaded function
read	function
readnumber	function
readstring	function
savedata	function
size	function
stderr	userdata
stdin	userdata
stdout	userdata
tmpfile	function
type	function
write	function

# job (context)

**comment**        **function**

**datasets**      **table**

D collected

F extend

F getdata

F setdata

D tobesaved

**disablesave** **function**

**files**          **table**

D collected

F context

B forcerun

F run

D tobesaved

**initialize** **function**

**load**           **function**

**loadother**    **function**

**objects**       **table**

D collected

F doifelse

F get

F number

F page

F save

F set

D tobesaved

**pack**           **boolean**

**pagestates**   **table**

D collected

F extend

F realpage

F setstate

D tobesaved

**passes**        **table**

F check

D collected

F count

F define

F find

F first

F get

F getcollected

F getdata

F getfield

F gettobesaved

F inlist

F last

F list

F save

F savetagged

D tobesaved

**positions**    **table**

F b\_col

F b\_region

F c

D collected

F column

F copy

F depth

F e\_col

F e\_region

F enhance

F extra

F get

F getreserved

F hangafter

F hangindent

F height

F hsize

F leftskip

F lowerleft

F lowerright

F markregionbox

F n

F onsamepage

F overlapping

F p

F page

F paragraph

F parindent

F position

F r

F region

F replace

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

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

## lang (basic tex)

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

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

# languages (context)

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

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

# layouts (context)

status table

F isleftpage

F lefttorrightpagection



## lfs (extra lua)

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

# ltn12 (extra lua)

**BLOCKSIZE** number

**filter** table

F chain

F cycle

**pump** table

F all

F step

**sink** table

F chain

F error

F file

F null

F simplify

F table

**source** table

F cat

F chain

F empty

F error

F file

F rewind

F simplify

F string

## lua (basic tex)

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



## luatex (context)

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

## lxml (context)

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

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

## math (basic lua)

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

## md5 (extra lua)

HEX      function

crypt    function

dec      function

decrypt   function

exor     function

hex      function

sum      function

sumhexa   function

# metapost (context)

<b>analyzeplugins</b>	function
<b>checkformat</b>	function
<b>checktexts</b>	function
<b>colorinitializer</b>	function
<b>convert</b>	function
<b>defaultformat</b>	string
<b>directrun</b>	function
<b>edefsxxy</b>	function
<b>escaped</b>	function
<b>exectime</b>	table
<b>filterclippath</b>	function
<b>finder</b>	function
<b>flush</b>	function
<b>flushers</b>	table
T pdf	
F comment	
F flushfigure	
F startfigure	
F stopfigure	
F textfigure	
<b>flushliteral</b>	function
<b>flushnormalpath</b>	function
<b>flushreset</b>	function
<b>format</b>	function
<b>formatnumber</b>	function
<b>getclippath</b>	function
<b>gettext</b>	function
<b>graphic</b>	function
<b>graphic_base_pass</b>	function
<b>graphic_extra_pass</b>	function
<b>intermediate</b>	table
T actions	
F makempy	
B needed	
<b>lastlog</b>	string
<b>load</b>	function

<b>makempy</b>	table
N nofconverted	
F processgraphics	
<b>metafun</b>	table
F interpolate	
F topath	
<b>method</b>	number
<b>mptopdf</b>	table
F convertmpstopdf	
N nofconverted	
<b>multipass</b>	boolean
<b>n</b>	number
<b>optimize</b>	boolean
<b>parse</b>	function
<b>pdfliterals</b>	function
<b>pluginactions</b>	function
<b>process</b>	function
<b>processplugins</b>	function
<b>reducetogray</b>	boolean
<b>reporterror</b>	function
<b>reset</b>	function
<b>resetlastlog</b>	function
<b>resetplugins</b>	function
<b>resettex texts</b>	function
<b>setoutercolor</b>	function
<b>settext</b>	function
<b>showlog</b>	boolean
<b>tex</b>	table
F get	
F reset	
F set	
<b>texerrors</b>	boolean
<b>texttextsdata</b>	function
<b>theclippath</b>	function
<b>totable</b>	function
<b>unload</b>	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)

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

# 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	
texthdir_is_equal	data table	F nofsteps	
texthdir_is_is	data table	F register	
texthdir_is_opposite	data table	F reset	
texthdir_is_parallel	data table	F start	
tonodes	function	F stop	
tosequence	function	F stop	
totable	function	unsetattribute	function
toutf	function	unsetattributes	function
tracers	table	visualizebox	function
T characters		whatcodes	data table
F collect		whatsitcodes	data table
F equal		writable_spec	function
F indices			

## number (context)

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

## os (basic lua)

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



## package (basic lua)

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

## pdf (basic tex)

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

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

# physics (context)

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

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

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

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

## profiler (extra lua)

pause function  
resume function

start function  
stop function

## regimes (context)

<code>disable</code>	function
<code>enable</code>	function
<code>pop</code>	function
<code>process</code>	function

<code>push</code>	function
<code>toregime</code>	function
<code>translate</code>	function

# resolvers (context)

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



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

## scripts (context)

**categorytonumber** data table

**colors** data table

**defaults** table

N inter\_char\_half\_shrink\_factor

N inter\_char\_half\_stretch\_factor

N inter\_char\_hangul\_penalty

N inter\_char\_quarter\_shrink\_factor

N inter\_char\_quarter\_stretch\_factor

N inter\_char\_shrink\_factor

N inter\_char\_stretch\_factor

**handlers**

data table

**hash**

table

**installdataset**

function

**installmethod**

function

**numbertocategory**

data table

**numbertodataset**

data table

**preprocess**

function

**reset**

function

**set**

function

# set (context)

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

`tonumber` function  
`totable` function

# socket (extra lua)

<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 digitsmaximum

    N digitsoffset

    N ignoredoffset

    N replacementoffset

**definitions**    data table

**firstofsplit**    function

**setlanguage**    function

**sort**            function

**splitters**      table

    F utf

**strip**           function

**tracers**        data table

**update**          function

## statistics (context)

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

status (basic tex)

list function

## storage (context)

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

min	number
nofmodules	number
noftables	number
register	function
shared	data table



## streams (context)

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

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

## string (basic lua)

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

# structures (context)

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

F nofitems	
F register	
<b>lists</b>	<b>table</b>
F addto	
F analyze	
D cached	
D collected	
F discard	
F enhance	
T enhancers	
F filter	
F filtercollected	
F formulanumber	
F hasnumberdata	
F haspagedata	
F hastitledata	
D internals	
F iscached	
F label	
F location	
F number	
D ordered	
F page	
F popnesting	
F prefix	
F prefixednumber	
F prefixedpage	
F process	
D pushed	
F pushnesting	
F realpage	
T result	
F sectionnumber	
F size	
F title	
D tobесaved	
F userdata	
F uservalue	
<b>marks</b>	<b>table</b>
D data	
F define	
F exists	
F fetch	
F fetchallmarks	
F fetched	

F fetchonemark	
F fetchtwomarks	
F get	
F number	
F relate	
F reset	
F set	
F show	
F synchronize	
F title	
T tracers	
F showtable	
<b>notes</b>	<b>table</b>
F checkpagechange	
F define	
F deltapage	
F doifcontent	
F doifonsamepageasprevious	
F flush	
F flushpostponed	
F get	
F getn	
F getnumberpage	
F getstate	
F getsymbolpage	
F internal	
F internalid	
F listindex	
F ordered	
F postpone	
F resetpostponed	
F restore	
F save	
F setstate	
F setsymbolpage	
D states	
F store	
<b>pages</b>	<b>table</b>
F analyze	
D collected	
F is_odd	
F number	
F save	
D tobесaved	
<b>references</b>	<b>table</b>

F analyze  
F checkedfile  
F checkedfileorurl  
F checkedprogram  
F checkedrealpage  
F checkedurl  
D collected  
U componentsplitter  
F currentmetadata  
F currentorder  
D currentset  
F define  
D defined  
D derived  
F doifelse  
F enableinteraction  
F enhance  
D executers  
F expandcurrent  
F export  
T files  
    T data  
        F define  
        F get  
F filter  
D filters  
F from  
F get  
F getcurrentmetadata  
F getcurrentprefixspec  
F getinnermethod  
F getinternalreference  
D handlers  
F identify  
F import  
F inject  
F injectcurrentset  
D internals  
F load  
F loadpresets  
F mark  
D pages  
U prefixsplitter  
D productdata  
T programs

T data  
F define  
F get  
F realpageofpage  
U referencesplitter  
D referred  
F referredpage  
F registerfinalizer  
F registerinitializer  
F registerpage  
F reportproblems  
F reset  
T resolvers  
    F reference  
    F section  
D runners  
F set  
F setandgetattribute  
F setcomponent  
F setinnermethod  
F setinternalreference  
F setnextinternal  
F setnextorder  
D specials  
F splitcomponent  
F splitprefix  
F splitreference  
T testrunners  
    F inner  
    F special  
    F special operation  
    F special operation with arguments  
T testspecials  
    F deltapage  
    F i  
    F internal  
    F page  
    F realpage  
    F section  
    F userpage  
D tobereferred  
D tobesaved  
T urls  
    T data  
    F define

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

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

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

## table (basic lua)

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



## tex (basic tex)

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

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

## texconfig (basic tex)

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

## texio (basic tex)

```
write    function  
write_nl function
```

## token (basic tex)

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

## tokens (context)

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

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

## tracers (context)

count	function
cs	function
dimen	function
knownlist	function
lists	table

T context

T internals

T scratch

name	function
primitive	function
prnterror	function
showlines	function
strings	table

S undefined

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

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

## trackers (context)

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



# typesetters (context)

## **alignments** table

F handler

F set

## **breakpoints** table

N attribute

F define

F handler

D mapping

T methods

T numbers

F set

F setreplacement

## **cases** table

T actions

F handler

F register

F set

## **characters** table

F handler

## **cleaners** table

F handler

F set

## **digits** table

T actions

N attribute

F handler

F set

## **directions** table

F handler

F process

F set

## **hpack** function

## **italics** table

F forcevariant

F handler

F reset

F set

## **kerns** table

D factors

F handler

B keepligature

B keptogether

D mapping

F set

## **margins** table

F finalhandler

F globalhandler

F ha

F localhandler

F save

## **paragraphs** table

N attribute

T droppers

F freeze

F set

F handler

F set

## **processors** table

F apply

F register

F reset

F split

F startapply

F stopapply

F stripped

F tostring

## **spacings** table

N attribute

F define

F handler

D mapping

T numbers

T frenchpunctuation

T characters

S name

N number

F reset

F set

F setup

## **tonodes** function

## **vpack** function

## **xtables** table

F cleanup

F construct

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

# unicode (extra lua)

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

## url (context)

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

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

# utilities (context)

## debugger table

F disable  
F enable  
F savestats  
F showstats

## formatters table

F formatcolumns  
F list  
F stripzeros

## garbagecollector table

F check  
N criterium  
B enabled

## lua table

F compile

## packers table

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

## parsers table

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

## report function sequencers table

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

## setters table

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

## storage table

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

## strings table

F collapseCrLf  
F newrepeater  
F nice  
F striplong  
F tabtospace

## tables table

F accesstable

F definetable  
F encapsulate  
F insertaftervalue

F insertbeforevalue  
F migratetable  
F removevalue

## visualizers (context)

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

## xml (context)

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



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

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

## zip (extra lua)

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

## zlib (extra lua)

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