MP attributes backends bit bit32 blobs boolean buffers builders caches callbacks catcodes characters chemistry commands containers context converters coroutine ctxrunner debug dir directives document documentdata environment epdf experiments figures file floats fontloader fonts functions global graphics gzip immg interactions interfaces io jit job languages layouts lfs libraries lmx logs lpdf lpeg ltn12 lua luatex lxml math mathematics mbox md5 metapost mime moduledata modules mp mplib noads mode nodes number os package pagebuilders parametersets pdfscanner physics profiler publications regimes resolvers scripts set socket sorters statistics storage streams string structures thirddata tok tokens tracers trackers typesetters unicode url userdata utilities vf visualizers xml zip zlib

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

## global (alias: \_G)

MP	table	environment	table
_LUAVERSION	number	epdf	table
MAJORVERSION	number	error	function
_MINORVERSION	number	experiments	table
_cldo_	function	figures	table
arg	table	file	table
assert	function	floats	table
attributes	table	font	table
backends	table	fontloader	table
beginpage	function	fonts	table
bit	table	format_n	function
bit32	table	frozen	boolean
blobs	table	functions	table
boolean	table	gcinfo	function
border_set	boolean	getfenv	function
buffers	table	getmetatable	function
builders	table	getreadfilename	function
caches	table	global	table
callback	table	graphics	table
callbacks	table	gzip	table
catcodes	table	img	table
characters	table	inspect	function
chemistry	table	interactions	table
collectgarbage	function	interfaces	table
commands	table	io	table
containers	table	ipairs	function
context	function	jit	table
context_applyprocessor	function	job	table
<pre>context_firstofoneargument</pre>	function	lang	table
converters	table	languages	table
coroutine	table	layouts	table
ctxrunner	table	lfs	table
debug	table	libraries	table
delta	number	lmx	table
dimen	function	lmxconvert	function
dir	table	lmxnew	function
directives	table	load	function
document	table	loadfile	function
documentdata	table	loadstring	function
dofile	function	logs	table
endpage	function	lp_fastpos_n	userdata

		_	
lp_fastpos_p	userdata	rawlen	function
lpdf	table	rawset	function
lpeg	table	regimes	table
ltn12	table	report_characters	function
lua	table	require	function
luatex	table	resolve_fences	function
lxml	table	resolvers	table
math	table	scripts	table
mathematics	table	select	function
mbox	table	set	table
md5	table	setcharacteralign	function
metapost	table	setfenv	function
mime	table	setinspector	function
module	function	setmetatable	function
moduledata	table	socket	table
modules	table	sorters	table
mp	table	statistics	table
mplib	table	status	table
newline	function	storage	table
newproxy	function	streams	table
next	function	string	table
noads	table	stripmath	function
node	table	structures	table
nodes	table	swiglib	function
number	table	table	table
optionalrequire	function	tex	table
os	table	texconfig	table
outputpagestree	function	texio	table
package	table	thirddata	table
pagebuilders	table	toboolean	function
pairs	function	token	table
parametersets	table	tokens	table
pattern	userdata	tonumber	function
pcall	function	tostring	function
pdf	table	trace_characters	boolean
pdfborder	function	tracers	table
pdfscanner	table	trackers	table
physics	table	type	function
print	function	typesetters	table
profiler	table	unicode	table
protect	function	unpack	function
publications	table	url	table
rawequal	function	userdata	table
rawget	function	utf	table

utilities table vf table visualizers table xml table xmlconvert function xpcall function zip table zlib table

## attributes (context)

colorintents	table	F mpoptions	
N attribute		U none	
D data		F popset	
F enable		F processcolorc	omponents
F handler		F pushset	
F register		F register	
D registered		D registered	
colors	table	F registerspotc	olor
N attribute		F rgb	
F cmyk		F rgbtocmyk	
F cmyktogray		F rgbtogray	
F cmyktorgb		F rgbtohsv	
F colorcomponer	nts	N selector	
B couple		F setlist	
D data		F setmodel	
N default		D sets	
F defineinterme	ediatecolor	F spec	
F definemixcolo	or	F spot	
F definemultito	onecolor	F spotcolorname	
F defineprocess	scolor	F spotcolorpare	nt
F definesimple	gray	F spotcolorvalu	е
F definespotcol	lor	B supported	
F definetranspa	arency	F transparencyc	omponents
F enable		B triggering	
F filter		F usecolors	
F forcedmodel		F value	
F forcesupport		D values	
F formatcolor		B weightgray	
F formatgray		define	function
F gray		effects	table
F graytohsv		N attribute	
F handler		D data	
F hsvtogray		F enable	
F hsvtorgb		F handler	
F iccprofile		F register	
F isblack		D registered	
N main		D values	
S model		handlers	table
D models		list	data table
F mpcolor		names	data table
F mpnamedcolor		negatives	table

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

F enable
F forcesupport
F handler
B hasorder
D listwise

F register
D registered
F resolve\_begin
F resolve\_end
F resolve\_step
D scopes
F setfeatures
F start
F stop
B supported
D values

#### backends (context)

F hasmatrix

codeinjections table F insertrenderingwindow F synchronizecolormodel F mergereferences current strina F mergeviewerlavers defaults table F prerollreference T codeinjections F presetsymbol F aethpos F presetsymbollist F getmatrix F processrendering F getpos F registerdocumentcloseaction F registerdocumentopenaction F getypos F hasmatrix F registeredsymbol T nodeiniections F registerpagecloseaction T registrations F registerpageopenaction D tables F registersymbol install function F setfieldcalculationset nodeinjections table F setfigurealternative F restore F setfigurecolorspace F save F setfiguremask F transform F setformat nothina function F setformsmethod table pdf F setpagetransition T codeiniections F setupcanvas F addbookmarks F setupidentity F attachmentid F setxmpfile F clonefield F startlayer F definefield F stoplayer F definefieldset F supportedformats F defineviewerlayer F unicodetoactualtext F embedfile F useviewerlaver F enabletags F validfield F exportformdata F validfieldcategory F validfieldset F getdefaultfieldvalue F getfieldcategory S comment F getfieldset T nodeinjections F getformatoption F addtags F gethpos F annotation F attachfile F getmatrix F getoutputfilename F changestackedlayer F cmykcolor F getpos F comment F getpreviewfigure F destination F getypos

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
- F startstackedlayer
- F stoplayer
- F stopstackedlayer
- F transparency
- F typesetfield
- T registrations
  - F cmykindexcolor
  - F cmykspotcolor
  - F getspotcolorreference
  - F grayindexcolor
  - F grayspotcolor
  - F rgbindexcolor
  - F rgbspotcolor
  - F spotcolorname
  - F transparency
- T tables
  - D vfspecials

registrations table
tables table

## bit (context)

```
arshift function
band
        function
        function
bnot
        function
bor
        function
bswap
        function
bxor
        function
lshift
rol
        function
ror
        function
rshift
        function
tobit
        function
tohex
        function
```

## bit32 (basic lua)

```
arshift function
band
       function
       function
bnot
bor
       function
       function
btest
bxor function
extract function
lrotate function
lshift function
replace function
rrotate function
rshift function
```

## blobs (context)

append	function
dimensions	function
dispose	function
new	function
pack	function
strdp	function
strhd	function
strht	function
strwd	function
tohpack	function
tohpackfast	function
tonodes	function
tovpack	function
tovpackfast	function
write	function

## boolean (context)

tocontext function
tonumber function

## buffers (context)

append function assign function collectcontent function erase function function exists function getcontent function getlines loadcontent function parallel table

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function

#### builders (context)

#### kernel table F hyphenation F kernina F ligaturing F mlist\_to\_hlist paragraphs table T constructors N attribute F define F disable F enable F handler T methods F basic F default F oneline D names D numbers F set F start F stop T expansion F trace F keeptogether F registertogether T solutions T splitters F define F optimize T registered F reset F set F split F start F stop F tag vspacing table F analyze D categories F collapsevbox

T data

D map D skip D snapmethods F definesnapmethod B fixed F pagehandler F resetprevdepth F setmap F setskip F snapbox F tocategories F tocategory F vboxhandler

#### caches (context)

ask boolean base string collapsecontent function configfiles function function contentstate defaults table define function direct boolean force boolean **getfirstreadablefile** function getfirstreadablefile\_TEST\_ME\_FIRST function getreadablepaths function getwritablepath function hashed function is writable function loadcontent function loaddata function strina more relocate boolean savecontent function function savedata setfirstwritablefile function setluanames function tree string treehash function function usedpaths

## callback (basic tex)

find function
list function

register overloaded function

## callbacks (context)

freeze
known function
list data table
pop function
push function
register function
report function

## catcodes (context)

## characters (context)

activeoffset	number
adobename	function
bidi	data table
blockrange	function
blocks	data table
casemap	table
categories	data table
category	function
categorytags	data table
checkedlower	function
collapsed	data table
combined	data table
contextname	function
data	data table
decomposed	data table
define	function
description	function
descriptions	data table
directions	table
enccodes	data table
entities	data table
fallbacks	data table
filters	data table
fromnumber	function
fschars	data table
fscodes	data table
getrange	function
graphemes	data table
hangul	data table
initialize	function
is_character	data table
is_command	data table
is_letter	data table
is_mark	data table
is_punctuation	data table
is_spacing	data table
lcchars	data table
lccode	function
lccodes	data table
lettered	function
lower	function

math	table
mathpairs	data table
mirrors	table
otfscripts	data table
ranges	data table
registerentities	function
remap_hangul_syllabe	function
safechar	function
setcodes	function
shape	function
shaped	function
shchars	data table
shcodes	data table
showstring	function
specialchars	data table
specials	data table
subscripts	table
superscripts	table
synonyms	data table
tex	table

D accentmapping F defineaccents

textclasses
tonumber
ucchars
uccode
uccodes
unicodechar
upper

F toutf

table function data table function data table function function

## chemistry (context)

component function define function definitions data table format string instance string molecule function moleculeparser userdata start function stop function number structures undefine function

## commands (context)

Alphabetic	function	assignbuffer	function
Character	function	attachproperty	function
Characters	function	autofinishstructurelevels	function
MPc	function	autonextspace	function
MPd	function	autonextstructurelevel	function
MPh	function	autosetups	function
MPll	function	autostarttext	function
MPlr	function	autostoptext	function
MPls	function	averagecharwidth	function
MPn	function	bcolumn	function
MPp	function	boolcase	function
MPpardata	function	boxtostring	function
MPplus	function	btxaddfield	function
MPpos	function	btxauthor	function
MPposset	function	btxcitereference	function
MPr	function	btxcollectlistentries	function
MPrest	function	btxdetail	function
MPrs	function	btxdoif	function
MPul	function	btxdoifelse	function
MPur	function	btxdoifelselistentryplaced	function
MPw	function	btxdoifnot	function
MPx	function	btxfetchlistentries	function
MPxy	function	btxfield	function
MPxywhd	function	btxflush	function
MPy	function	btxflushlistentries	function
Romannumerals	function	btxhandlecite	function
abjadnodotnumerals	function	btxhandlenocite	function
abjadnumerals	function	btxlistreference	function
addbtxentry	function	btxlistvariant	function
addcounter	function	btxregisterlistentry	function
addlinklistelement	function	btxsetlistmethod	function
addreplacements	function	btxsingularorplural	function
addtojavascriptpreamble	function	buildtextaccent	function
addtolist	function	character	function
allinputpaths	function	characters	function
alphabetic	function	chardescription	function
analysefloatmethod	function	checkcharactersinfont	function
analyzelist	function	checkcountersetup	function
applytochars	function	checkedconversion	function
applytofirstcharacter	function	checkedpagefloat	function
applytowords	function	checktwopassdata	function

chemicalcomponent	function	definefilefallback	function
chineseallnumerals	function	definefilesynonym	function
chinesecapnumerals	function	definefort one	function
chinesenumerals	function	definefont two	function
cleanfontname	function	definefontfamily	function
cleanupbox	function	definefontfeature	function
cleanuplayers	function	definefontsolution	function
clonefield	function	defineinsertion	function
collectfloat	function	defineintermediatecolor	function
collecthelp	function	definelabels	function
colorcomponents	function	definelanguage	function
concatcommalist	function	definelinkedlist	function
consultfloat	function	definemarking	function
convertbtxdatasettoxml	function	definemetafont	function
copyposition	function	definemultitonecolor	function
copyposition	function	definemattitomecotor	function
cosd	function	defineparallel	function
countervalue	function	defineparbuilder	function
counttwopassdata	function	defineprocesscolor	function
ctxfunction	function	defineprogram	function
currentcomponent	function	definereference	function
currentdate	function	defineregister	function
currentenvironment	function	definesectionlevels	function
currentproduct	function	defineselectfont	function
currentproject	function	definesnapmethod	function
currentreferencedefault	function	definespotcolor	function
currentreferenceorder	function	definestructureblock	function
currentregime	function	definestructureset	function
currentsectiontolist	function	definetransparency	function
datasetvariable	function	definetwopasslist	function
dayname	function	defineviewerlayer	function
deferredproperty	function	defrostrandomseed	function
defineattribute	function	depthnumber	function
definebreakpoint	function	digits	function
definebreakpoints	function	disableautofontscript	function
definecatcodetable	function	disableparbuilder	function
definecharacterspacing	function	disableregime	function
definechemical	function	disablespellchecking	function
defineconversion	function	discardfromlist	function
defineconversion	function	doanalyzeframedbox	function
definedviewerlayer	function	doif	function
definefallbackfamily	function	doifblackelse	function
definefield	function	doifcommonelse	function
definefieldset		doifcounter	
ueilnetletaset	function	uoitcounter	function

doifdimenstringelse	function	doifpositionelse	function
doifdrawingblackelse	function	doifpositiononpage	function
doifelse	function	doifpositionsonsamepageelse	function
doifelsebuffer	function	doifpositionsonthispageelse	function
doifelsecontinuewithfile	function	doifurldefinedelse	function
doifelsecounter	function	doprocesstypescriptfile	function
doifelsecurrentfonthasfeature	function	doreshapeframedbox	function
doifelseintwopassdata	function	dostarttextfile	function
doifelsemarking	function	dostoptextfile	function
doifelsemessage	function	ecolumn	function
doifelsemultipar	function	elapsedtime	function
doifelseparallel	function	enableautofontscript	function
doifelsepositionsused	function	enablecolor	function
doifelserangeonpage	function	enablecolorintents	function
doifelsereference	function	enablefontcolorschemes	function
doifelsesavedfloat	function	enableparbuilder	function
doifelsespaces	function	enableregime	function
doifelseutfmathabove	function	enablespellchecking	function
doifelseutfmathaccent	function	enabletransparency	function
doifelseutfmathbelow	function	enhancelinkedlist	function
doifelsevisualizer	function	enhancelist	function
doiffieldcategoryelse	function	enhancereference	function
doiffieldelse	function	enhanceregister	function
doiffieldsetelse	function	erasebuffer	function
doiffiledefinedelse	function	expandcurrentreference	function
doiffileexistelse	function	exportformdata	function
doiffirstcharelse	function	exportreferences	function
doifinputfileelse	function	extendregister	function
doifinsetelse	function	extensiblecode	function
doifleapyearelse	function	feature	function
doiflisthasentry	function	featureattribute	function
doiflisthasnumberelse	function	featurelist	function
doiflisthaspageelse	function	feedback	function
doiflisthastitleelse	function	fetchallmarks	function
doiflocfileelse	function	fetchmultipar	function
doifnot	function	fetchmultishape	function
doifnotcounter	function	fetchonemark	function
doifnotecontent	function	fetchposboxes	function
doifnoteonsamepageasprevious	function	fetchtwomarks	function
doifobjectreferencefoundelse	function	figurefilename	function
doifolderversionelse	function	figurefilepath	function
doifoverlappingelse	function	figurefiletype	function
doifparentfileelse	function	figurerequest	function
doifposition	function	figurestatus	function

figureused	function	getfloatvariable	function
figurevariable	function	getfullsectionnumber	function
filterdefaultreference	function	getinternallistreference	function
filterreference	function	getinternalreference	function
finalizebox	function	getlasttwopassdata	function
findtwopassdata	function	getmarking	function
firstcountervalue	function	getmessage	function
firstinrange	function	getmpextensions	function
firstinset	function	getnotestate	function
flushfloat	function	getplaceholderchar	function
flushnotes	function	getprivatechar	function
flushpostponedblocks	function	getprogram	function
flushpostponednotes	function	getrandomcounta	function
fontchar	function	getrandomcountb	function
fontcollectionclone	function	getrandomseed	function
fontcollectiondefine	function	getreadfilename	function
fontcollectionprepare	function	getsectionnumber	function
fontcollectionregister	function	getstructuredata	function
fontcollectionreport	function	getsubstring	function
fontcollectionreset	function	gettexbuffer	function
fontlookupgetkey	function	gettwopassdata	function
fontlookupgetkeyofindex	function	gettwopassdatalist	function
fontlookupinitialize	function	geturl	function
fontlookupnoffound	function	grabbuffer	function
forceendjob	function	hboxtovbox	function
forcequitjob	function	helpaction	function
format	function	helpreference	function
formatcolor	function	hexstringtonumber	function
formatgray	function	horizontalcode	function
freezerandomseed	function	hour	function
from	function	hyphenatedlist	function
getbidimode	function	hyphenatedurl	function
getbuffer	function	D characters	
getbufferctxlua	function	N lefthyphenmin	
getbuffermkvi	function	D mapping	
getcommandline	function	N righthyphenmin	
getctxfile	function	F setcharacters	
getcurrentprefixspec	function	immediateproperty	function
getcurrentreferencemetadata	function	incrementedcounter	function
getcurrentsectionlevel	function	initializetexdirectives	function
getdefaultfieldvalue	function	initializetextrackers	function
getfieldcategory	function	injectcurrentreference	function
getfirstcharacter	function	injectreference	function
getfirsttwopassdata	function	inlinechemical	function

insertattachment	function	mixcleanup	function
insertcomment	function	mixfinalize	function
insertfield	function	mixflushlist	function
insertionnumber	function	mixflushrest	function
insertrenderingwindow	function	mixgetsplit	function
insertsoundclip	function	mixsetsplit	function
installedlanguages	function	mixstate	function
installtexdirective	function	molecule	function
installtextracker	function	month	function
languagenumber	function	monthmnem	function
lastcountervalue	function	monthname	function
lchexnumber	function	mpcolor	function
lchexnumbers	function	mpoptions	function
leapyear	function	mprunvar	function
linenumbersstageone	function	namedstructureuservariable	function
linenumbersstagetwo	function	namedstructurevariable	function
listgroupindex	function	nbfs	function
listlabel	function	nextcountervalue	function
listlocation	function	nextparallel	function
listprefixednumber	function	nofdays	function
listprefixedpage	function	nofitems	function
listrealpage	function	nofstackedfloats	function
listsize	function	notedeltapage	function
listtitle	function	notelistindex	function
listuserdata	function	notenumberpage	function
loadbtxdefinitionfile	function	noteprefixednumber	function
loadexamodes	function	notesymbolpage	function
loadfontgoodies	function	notetitle	function
loadspellchecklist	function	ntimes	function
loadtypescriptfile	function	number	function
loadvisualizer	function	F C	
locatefilepath	function	F FL	
locfilename	function	F HL	
lower	function	FL	
makeactive	function	F LL	
manipulated	function	F LuaSnippet	
markfonts	function	F LuaSnippetBoundary	
markingnumber	function	F LuaSnippetComment	
markingtitle	function	F LuaSnippetName	
markregionbox	function	F LuaSnippetNameBase	
math_frac	function	F LuaSnippetNameCore	
mathrenderset	function	F LuaSnippetNameLibraries	
maxitemwidth	function	F LuaSnippetQuote	
minute	function	F LuaSnippetSpecial	

F LuaSnippetString F addaskedblankskip F addpredefinedblankskip E MI F MPLIBsetCtext F applyprocessor F b F MPLIBsetNtext F MPcolor F beginhbox F MetapostSnippet F beginvbox F MetapostSnippetBoundary F bf F MetapostSnippetComment F baroup F MetapostSnippetConstructor F hlank F hold F MetapostSnippetName F MetapostSnippetNameMetafun F btxchecklistcombi F MetapostSnippetNamePlain F btxchecklistentry F MetapostSnippetNamePrimitive F btxcitesetup F MetapostSnippetQuote F btxcitevariantparameter F MetapostSnippetSpecial F btxdirectlink F MetapostSnippetString F btxdomarkcitation F NC F btxhandlelistentry F NR F btxlistparameter F ParsedXmlSnippetCdata F btxlistvariantparameter F ParsedXmlSnippetComment F btxmissing F ParsedXmlSnippetDoctvpe F btxsetcategory F ParsedXmlSnippetElement F btxsetcitereference F ParsedXmlSnippetInstruction F btxsetcombis F ParsedXmlSnippetKey F btxsetconcat F ParsedXmlSnippetValue F htxsetfirst F TexSnippet F htxsetindex F btxsetinternal F TexSnippetBoundary F TexSnippetComment F btxsetlanguage F btxsetlistreference F TexSnippetGroup F TexSnippetName F btxsetsecond F TexSnippetSpecial F btxsettag F XmlSnippet E htxstartsubcite F XmlSnippetBoundary F btxstopsubcite Fc F XmlSnippetCdata F XmlSnippetComment F callfunctiononce F XmlSnippetEntity F char F XmlSnippetEqual F chardef F XmlSnippetKey F color F XmlSnippetName F colordefage F XmlSnippetString F colordefagt F \_\_flush F colordefalc F \_\_flushdirect F colordefalt F flushlines F colordeffgc Fa F colordeffqt

F colordefflc F dofromfileliteral F colordefflt F dofromurldescription F colordefrac F dofromurlliteral F colordefrat F doinlineverbatimbeginline F colordefrlc F doinlineverbatimemptyline F colordefrlt F doinlineverbatimnewline F concat F doinlineverbatimstart F doinlineverbatimstop F constructes F constructcsonly F donestedtypingstart F convertnumber F donestedtypingstop F ctxreport F dostarttext F d F doverbatimspace F darkblue F egroup F darkgreen F emptyreference F darkred F enablemode F definefontsynonym F endhbox T delayed F endybox F digitsdigit F environment F digitsfinalcomma F expandreferencearguments F digitsfinalperiod F expandreferenceoperation F digitshighspace F finalizeautostructurelevel F digitsintermediatecomma F finishiob F digitsintermediateperiod F firstofoneargument F digitsminus F firstoftwoarguments F digitsnegative F fixedblankskip F digitsplus F flexibleblankskip F flushblankhandling F digitspositive F digitspower F flushboxregister F flushnode F digitspowerminus F digitspowerplus F fntsetdefname F digitsseparatorspace F fntsetnopsize F digitssignspace F fntsetsomename F digitsspace F fntsetsomesize T formatted F digitszeropadding F direct F fprint F dodisplayverbatimbeginline T generics F dodisplayverbatimemptyline S starttabulate F dodisplayverbatiminitialize S stoptabulate F dodisplayverbatimnewline F getlogger F dodisplayverbatimstart F getreferencestructureprefix F dodisplayverbatimstop F getvalue F dofastdefinetypeface F glyph F dofinishsomereference F gobbleoneargument

F goto

F dofromfiledescription

F hrule F pushlogger F registerentry F input T knownfunctions F registerfunction F 1 F registeronepage F lateluafunction F registerpagerange F letvaluerelax F registerseeword F llap F reservefunction F loadfile F rlan F loadfoundtypescriptfile F rotate F runfile F luasetup Fm F secondoftwoarguments F makelinenumber F setblankcategory T metafun F setblankorder F color F setblankpenalty T delayed F setconditional F start F setfalsevalue F stop F sethboxregister F setsomevalue T nested F markingcommand F settabulateentry F markingseparator F settabulatelastentry F newbox F settracing F newcount F setupsystem F newdimen F setupwithargument F newindexer F setvalue F newmuskip F setyboxregister F newskip F setxvalue F newtexthandler F space F newtoks F sprint F newverbosehandler F startLuaSnippet F nointerlineskip F startMetapostSnippet F normalatop F startParsedXmlSnippet F normalover F startTexSnippet F overstrike F startXmlSnippet F par F startblankhandling F startcolumns F pdfliteral F popcatcodes F startcomponentindeed F poplogger F startenvironmentindeed F printlines F startfontclass F processfilemany F starthboxregister F processfilenone F startproductindeed F processfileonce F startprojectindeed F protect F startreadingfile F startregisterentries T puretext

F startregisterentry

F pushcatcodes

F startregisteroutput F tocontext F tolines F startregisterpages F startregistersection F unitsC F startregisterseewords F unitsN F starttabulate F unitsNspace F starttext F unitsNstart F starttitle F unitsNstop F startyboxregister F units0 F startxtitle FunitsP F unitsPS F stopLuaSnippet F stopMetapostSnippet F unitsPU F stopParsedXmlSnippet F unitsPUS F stopTexSnippet F units0 F stopXmlSnippet F unitsS F stopblankhandling F unitsU F stopcolumns F unitsUS F stopcomponentindeed F unprotect F stopenvironmentindeed F unregisterfunction F usemodule F stopfontclass F utfchar F stophboxregister F stopproductindeed T verbatim F stopprojectindeed F LuaSnippetBoundary F stopreadingfile F LuaSnippetComment F LuaSnippetName F stopregisterentries F stopregisterentry F LuaSnippetNameBase F stopregisteroutput F LuaSnippetNameCore F stopregisterpages F LuaSnippetNameLibraries F stopregistersection F LuaSnippetQuote F LuaSnippetSpecial F stopregisterseewords F stoptabulate F LuaSnippetString F stoptext F MetapostSnippetBoundary F stoptitle F MetapostSnippetComment F stopvboxregister F MetapostSnippetConstructor F stopxtitle F MetapostSnippetName F storenode F MetapostSnippetNameMetafun F synonymentry F MetapostSnippetNamePlain F tabulaterow F MetapostSnippetNamePrimitive F tabulaterowbold F MetapostSnippetQuote F MetapostSnippetSpecial F tabulaterowtyp F tabulaterowtype F MetapostSnippetString F template F ParsedXmlSnippetCdata F ParsedXmlSnippetComment T templates F ParsedXmlSnippetDoctype F texsetup

F ParsedXmlSnippetElement

F tobuffer

${\sf F} \ {\sf ParsedXmlSnippetInstruction}$		F MetapostSnippetBoundary
F TexSnippetBoundary		F MetapostSnippetComment
F TexSnippetComment		F MetapostSnippetConstructor
F TexSnippetGroup		F MetapostSnippetName
F TexSnippetName		F MetapostSnippetNameMetafun
F TexSnippetSpecial		F MetapostSnippetNamePlain
F XmlSnippetBoundary		F MetapostSnippetNamePrimitive
F XmlSnippetCdata		F MetapostSnippetQuote
F XmlSnippetComment		F MetapostSnippetSpecial
F XmlSnippetEntity		F MetapostSnippetString
F XmlSnippetEqual		F NC
F XmlSnippetKey		F NR
F XmlSnippetName		F ParsedXmlSnippetCdata
F XmlSnippetString		F ParsedXmlSnippetComment
F ctxreport		F ParsedXmlSnippetDoctype
F viafile		F ParsedXmlSnippetElement
F vrule		${\sf F} \ {\sf ParsedXmlSnippetInstruction}$
F xmlcdataafter		F ParsedXmlSnippetKey
F xmlcdatabefore		F ParsedXmlSnippetValue
F xmlcdataobeyedline		F TexSnippet
F xmlcdataobeyedspace		F TexSnippetBoundary
F1		F TexSnippetComment
F xmlprocessbuffer		1 Texanippe recomment
F xmlprocessburrer F xmlsetup		F TexSnippetGroup
·	function	
F xmlsetup	function	F TexSnippetGroup
F xmlsetup numbers	function	F TexSnippetGroup F TexSnippetName
F xmlsetup numbers F C	function	<pre>F TexSnippetGroup F TexSnippetName F TexSnippetSpecial</pre>
F xmlsetup numbers F C F FL	function	<pre>F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet</pre>
F xmlsetup numbers F C F FL F HL	function	<pre>F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary</pre>
F xmlsetup numbers  F C  F FL  F HL  F L	function	<pre>F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata</pre>
F xmlsetup numbers  F C  F FL  F HL  F L  F LL	function	<pre>F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment</pre>
F xmlsetup numbers  F C  F FL  F HL  F L  F LL  F LuaSnippet	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity
F xmlsetup numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual
F xmlsetup numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetKey
F xmlsetup numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment F LuaSnippetName	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName
F xmlsetup numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment F LuaSnippetName F LuaSnippetNameBase	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName F XmlSnippetString
F xmlsetup numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment F LuaSnippetName F LuaSnippetNameBase F LuaSnippetNameCore	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName F XmlSnippetString Fflush
F xmlsetup  numbers  F C  F FL  F HL  F L  F LuaSnippet  F LuaSnippetBoundary  F LuaSnippetComment  F LuaSnippetName  F LuaSnippetName  F LuaSnippetNameCore  F LuaSnippetNameLibraries	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName F XmlSnippetString Fflush Fflushdirect
F xmlsetup numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment F LuaSnippetName F LuaSnippetName F LuaSnippetNameCore F LuaSnippetNameLibraries F LuaSnippetQuote	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName F XmlSnippetString Fflush Fflushlines
<pre>numbers  F C F FL F HL F L F LL F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment F LuaSnippetName F LuaSnippetName F LuaSnippetName F LuaSnippetNameCore F LuaSnippetNameCore F LuaSnippetNameLibraries F LuaSnippetQuote F LuaSnippetQuote F LuaSnippetQuote F LuaSnippetSpecial</pre>	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName F XmlSnippetString Fflush Fflushdirect Fflushlines F a F addaskedblankskip F addpredefinedblankskip
F xmlsetup  numbers  F C  F FL  F HL  F L  F LL  F LuaSnippet  F LuaSnippetBoundary  F LuaSnippetComment  F LuaSnippetName  F LuaSnippetName  F LuaSnippetName  F LuaSnippetNameCore  F LuaSnippetNameLibraries  F LuaSnippetNameLibraries  F LuaSnippetSpecial  F LuaSnippetSpecial  F LuaSnippetString  F ML  F MPLIBsetCtext	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetEqual F XmlSnippetKey F XmlSnippetString Fflush Fflush Fflushdirect Fflushlines F a F addaskedblankskip F addpredefinedblankskip F applyprocessor
<pre>numbers  F C F FL F HL F L F LuaSnippet F LuaSnippetBoundary F LuaSnippetComment F LuaSnippetName F LuaSnippetName F LuaSnippetName F LuaSnippetNameCore F LuaSnippetNameCore F LuaSnippetNameLibraries F LuaSnippetNameLibraries F LuaSnippetSpecial F LuaSnippetSpecial F LuaSnippetSpecial F ML F MPLIBsetCtext F MPLIBsetNtext</pre>	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetEqual F XmlSnippetKey F XmlSnippetName F XmlSnippetName F TmlSnippetString Fflush Fflush Fflushdirect Fflushlines F a F addaskedblankskip F addpredefinedblankskip F applyprocessor F b
F xmlsetup  numbers  F C  F FL  F HL  F L  F LL  F LuaSnippet  F LuaSnippetBoundary  F LuaSnippetComment  F LuaSnippetName  F LuaSnippetName  F LuaSnippetName  F LuaSnippetNameCore  F LuaSnippetNameLibraries  F LuaSnippetNameLibraries  F LuaSnippetSpecial  F LuaSnippetSpecial  F LuaSnippetString  F ML  F MPLIBsetCtext	function	F TexSnippetGroup F TexSnippetName F TexSnippetSpecial F XmlSnippet F XmlSnippetBoundary F XmlSnippetCdata F XmlSnippetComment F XmlSnippetEntity F XmlSnippetEqual F XmlSnippetEqual F XmlSnippetKey F XmlSnippetString Fflush Fflush Fflushdirect Fflushlines F a F addaskedblankskip F addpredefinedblankskip F applyprocessor

F bf F concat F constructcs F bgroup F constructcsonly F blank F bold F convertnumber F btxchecklistcombi F ctxreport F btxchecklistentry F d F btxcitesetup F darkblue F btxcitevariantparameter F darkgreen F btxdirectlink F darkred F htydomarkcitation F definefontsynonym F btxhandlelistentrv T delayed F btxlistparameter F digitsdigit F btxlistvariantparameter F digitsfinalcomma F btxmissing F digitsfinalperiod F btxsetcategory F digitshighspace F btxsetcitereference F digitsintermediatecomma F btxsetcombis F digitsintermediateperiod F btxsetconcat F digitsminus F btxsetfirst F digitsnegative F btxsetindex F digitsplus F btxsetinternal F digitspositive F btxsetlanguage F digitspower F digitspowerminus F btxsetlistreference F btxsetsecond F digitspowerplus F btxsettag F digitsseparatorspace F btxstartsubcite F digitssignspace F btxstopsubcite F digitsspace F c F digitszeropadding F callfunctiononce F direct F char F dodisplayverbatimbeginline F chardef F dodisplayverbatimemptyline F color F dodisplayverbatiminitialize F colordefage F dodisplayverbatimnewline F colordefagt F dodisplayverbatimstart F colordefalc F dodisplayverbatimstop F colordefalt F dofastdefinetypeface F colordeffqc F dofinishsomereference F dofromfiledescription F colordeffqt F colordefflc F dofromfileliteral F colordefflt F dofromurldescription F colordefrqc F dofromurlliteral F colordefrat F doinlineverbatimbeginline

F doinlineverbatimemptyline

F doinlineverbatimnewline

F colordefrlc

F colordefrlt

F doinlineverbatimstart F llap F doinlineverbatimstop F loadfile F donestedtypingstart F loadfoundtypescriptfile F donestedtypingstop F luasetup F dostarttext F m F makelinenumber F doverbatimspace F earoup T metafun F emptyreference F color F enablemode T delayed F endhhox F start F stop F endvbox F environment T nested F expandreferencearguments F markingcommand F expandreferenceoperation F markingseparator F finalizeautostructurelevel F newbox F finishiob F newcount F firstofoneargument F newdimen F firstoftwoarguments F newindexer F fixedblankskip F newmuskip F flexibleblankskip F newskip F flushblankhandling F newtexthandler F flushboxregister F newtoks F flushnode F newverbosehandler F fntsetdefname F nointerlineskip F fntsetnopsize F normalatop F normalover F fntsetsomename F fntsetsomesize F overstrike T formatted F par F fprint F pdfliteral T generics F popcatcodes S starttabulate F poplogger F printlines S stoptabulate F getlogger F processfilemany F processfilenone F getreferencestructureprefix F processfileonce F getvalue F glyph F protect F gobbleoneargument T puretext F goto F pushcatcodes F hrule F pushlogger F input F registerentry T knownfunctions F registerfunction Fι F registeronepage F lateluafunction F registerpagerange

F registerseeword

F letvaluerelax

F reservefunction F starttitle F startvboxregister F rlap F startxtitle F rotate F runfile F stopLuaSnippet F secondoftwoarguments F stopMetapostSnippet F setblankcategory F stopParsedXmlSnippet F setblankorder F stopTexSnippet F sethlanknenalty F stopXmlSnippet F setconditional F stopblankhandling F setfalsevalue F stopcolumns F sethboxregister F stopcomponentindeed F setsomevalue F stopenvironmentindeed F settabulateentry F stopfontclass F settabulatelastentry F stophboxregister F settracing F stopproductindeed F setupsystem F stopprojectindeed F setupwithargument F stopreadingfile F setvalue F stopregisterentries F stopregisterentry F setvboxregister F setxvalue F stopregisteroutput F space F stopregisterpages F sprint F stopregistersection F stopregisterseewords F startLuaSnippet F stoptabulate F startMetapostSnippet F startParsedXmlSnippet F stoptext F startTexSnippet F stoptitle F startXmlSnippet F stopyboxregister F startblankhandling F stopxtitle F startcolumns F storenode F startcomponentindeed F synonymentry F startenvironmentindeed F tabulaterow F tabulaterowbold F startfontclass F starthboxregister F tabulaterowtyp F startproductindeed F tabulaterowtype F startprojectindeed F template F startreadingfile T templates F startregisterentries F texsetup F startregisterentry F tobuffer F tocontext F startregisteroutput F startregisterpages F tolines F startregistersection F unitsC F startregisterseewords F unitsN F starttabulate F unitsNspace F starttext F unitsNstart

F unitsNstop	F XmlSnippetBoundary	
F units0	F XmlSnippetCdata	
F unitsP	F XmlSnippetComment	
F unitsPS	F XmlSnippetEntity	
F unitsPU	F XmlSnippetEqual	
F unitsPUS	F XmlSnippetKey	
F unitsQ	F XmlSnippetName	
F unitsS	F XmlSnippetString	
F unitsU	F ctxreport	
F unitsUS	F viafile	
F unprotect	F vrule	
F unregisterfunction	F xmlcdataafter	
F usemodule	F xmlcdatabefore	
F utfchar	F xmlcdataobeyedline	
T verbatim	F xmlcdataobeyedspace	
F LuaSnippetBoundary	F xmlprocessbuffer	
F LuaSnippetComment	F xmlsetup	
F LuaSnippetName	objectnumber	function
F LuaSnippetNameBase	objectpage	function
F LuaSnippetNameCore	octnumber	function
F LuaSnippetNameLibraries	octstringtonumber	function
F LuaSnippetQuote	oneorrange	function
F LuaSnippetSpecial	ordinal	function
F LuaSnippetString	overloadbookmark	function
F MetapostSnippetBoundary	page_injections_flush_after	function
F MetapostSnippetComment	<pre>page_injections_flush_before</pre>	function
F MetapostSnippetConstructor	page_injections_save	function
F MetapostSnippetName	pagestaterealpage	function
F MetapostSnippetNameMetafun	parpos	function
F MetapostSnippetNamePlain	pdfrotation	function
F MetapostSnippetNamePrimitive	pdfstartmatrix	function
F MetapostSnippetQuote	pdfstartmirroring	function
F MetapostSnippetSpecial	pdfstartrotation	function
F MetapostSnippetString	pdfstartscaling	function
F ParsedXmlSnippetCdata	pdfstopmatrix	function
F ParsedXmlSnippetComment	pdfstopmirroring	function
F ParsedXmlSnippetDoctype	pdfstoprotation	function
F ParsedXmlSnippetElement	pdfstopscaling	function
F ParsedXmlSnippetInstruction	percentageof	function
F TexSnippetBoundary	pgfxcolorspec	function
F TexSnippetComment	placeparallel	function
F TexSnippetGroup	popfloat	function
F TexSnippetName	popitaliccorrection	function
F TexSnippetSpecial	poplist	function

popreferenceprefix	function	registercolorintent	function
popregime	function	registeredviewerlayer	function
popsectionblock	function	registerhelp	function
pos	function	registeritemgroup	function
posplus	function	registerlanguagefeatures	function
posstrut	function	registerlinenumbering	function
postponenotes	function	registermaintextcolor	function
poswhd	function	registernamespace	function
posxy	function	registerpostponedblock	function
prefixedconverted	function	registerrendering	function
prepareMPvariable	function	registersection	function
preparedfile	function	registersoundclip	function
presetsymbollist	function	registerstructureprocessor	function
presettabulate	function	registersynonym	function
prevcountervalue	function	registertransparency	function
processbuffer	function	registerunit	function
processcolorcomponents	function	registerusedsynonym	function
processedfile	function	registeruserdata	function
processedfiles	function	relatemarking	function
processfile	function	remapentity	function
processfilemany	function	removemissingcharacters	function
processfilenone	function	renderingvar	function
processfileonce	function	replacemissingcharacters	function
processlist	function	replacepospxywhd	function
processregister	function	reportstructure	function
processsplit	function	resavefloat	function
processsynonyms	function	resetcharacteralign	function
purefontname	function	resetcounter	function
pushfloat	function	resetfontfeature	function
pushitaliccorrection	function	resetfontsolution	function
pushlist	function	resetmarking	function
pushreferenceprefix	function	resetmathattributes	function
pushregime	function	resetmathitalics	function
pushsectionblock	function	resetnullfont	function
rawcharacter	function	resetparallel	function
rawcountervalue	function	resetprevdepth	function
rawdate	function	resetreference	function
referencepagestate	function	resetstructureprocessor	function
referencerealpage	function	resettimer	function
registerattachment	function	restartcounter	function
registerbookmark	function	restorecounter	function
registerbuttons	function	restorecurrentattributes	function
registercatcodetable	function	restorenote	function
registercolor	function	romannumerals	function

runbuffer	function	setfontofid	function
safechar	function	setfontsolution	function
savebuffer	function	setformat	function
savecounter	function	setformsmethod	function
savecurrentattributes	function	setinitial	function
savedlistnumber	function	setinsertionlocation	function
savedlistprefixednumber	function	setinterfaceconstant	function
savedlisttitle	function	setinterfaceelement	function
savefloat	function	setinterfacemessage	function
savemargindata	function	setinterfacemessages	function
savenote	function	setinterfacevariable	function
saveobject	function	setinternalreference	function
savepagedata	function	setjobcomment	function
saveparallel	function	setlanguageexceptions	function
savestructureblock	function	setlanguagesynonym	function
savetaggedtwopassdata	function	setlayer	function
savetwopassdata	function	setmarking	function
savevariable	function	setmathalphabet	function
second	function	setmathalternate	function
selectstructureblock	function	setmathattribute	function
setbreakpoints	function	setmathdirection	function
setbtxdataset	function	setmathitalics	function
setbtxentry	function	setmathstyle	function
setcharacteralign	function	setnextinternalreference	function
setcharactercasing	function	setnextreferenceorder	function
setcharactercleaning	function	setnotestate	function
setcharactercodes	function	setnotesymbolpage	function
setcharacterkerning	function	setobject	function
setcharacterspacing	function	setopendocumentaction	function
setcharacterstripping	function	setopenpageaction	function
setclosedocumentaction	function	setowncounter	function
setclosepageaction	function	setpagestate	function
setcolormodel	function	setpagestaterealpageno	function
setcounter	function	setpagetransition	function
setdataset	function	setparbuilder	function
setdigitsmanipulation	function	setpos	function
setdirection	function	setrandomseed	function
setdocumentenvironments	function	setrealign	function
setdocumentfilenames	function	setrealspaces	function
setdocumentmodes	function	setreferencearguments	function
setdocumentmodules	function	setreferenceattribute	function
setfigurelookuporder	function	setreferenceoperation	function
setfirstline	function	setregistermethod	function
setfontfeature	function	setreplacements	function

setsectionblock	function	spotcolorparent	function
setsectionentry	function	spotcolorvalue	function
setsectionlevel	function	startactualtext	function
setsectionnumber	function	startchemical	function
setstructureblockstate	function	startcolorset	function
settagcombination	function	startcomponent	function
settagdescription	function	startenvironment	function
settagdescriptionsymbol	function	startfontsolution	function
settagfigure	function	startparbuilder	function
settaghighlight	function	startproduct	function
settagitemgroup	function	startproject	function
settagproperty	function	startregime	function
settagsorting	function	startsectionlevel	function
settagsynonym	function	starttag	function
settagtablecell	function	starttext	function
settagtabulatecell	function	startviewerlayer	function
setupbookmarks	function	stopactualtext	function
setupcanvas	function	stopchemical	function
setupcharacterspacing	function	stopcolorset	function
setupexport	function	stopcomponent	function
setupfontexpansion	function	stopenvironment	function
setupfontprotrusion	function	stopfontsolution	function
setupidentity	function	stopparbuilder	function
setupinsertion	function	stopproduct	function
setupitaliccorrection	function	stopproject	function
setuplinenumbering	function	stopregime	function
setvisual	function	stopsectionlevel	function
setxmpfile	function	stoptag	function
showassignerror	function	stoptext	function
showattributes	function	stopviewerlayer	function
showbtxdatasetcompleteness	function	storejavascriptcode	function
showbtxdatasetfields	function	storejavascriptpreamble	function
showbtxfields	function	storenote	function
showcallbacks	function	storeregister	function
showchardata	function	strdp	function
showcounter	function	strhd	function
showfontparameters	function	strht	function
showhyphenatedinlist	function	strip	function
showjustification	function	structureautocatcodedget	function
showmessage	function	structurecatcodedget 	function
sin 	function	structuregivencatcodedget	function
sind	function	structurenumber	function
splitfilename	function	structuretitle	function
spotcolorname	function	structureuservariable	function

structurevariable	function	useproduct	function
strwd	function	useproject	function
subcountervalues	function	usesubpath	function
synchronizecolormodel	function	usesymbols	function
synchronizemarking	function	usetexfile	function
synonymmeaning	function	useurl	function
synonymname	function	usexmlfile	function
taggedmathfunction	function	usezipfile	function
tan	function	utfchar	function
tand	function	utfmathclass	function
testcase	function	utfmathcommand	function
textime	function	utfmathcommandabove	function
thefirstcharacter	function	utfmathcommandbelow	function
theremainingcharacters	function	utfmathfiller	function
thetexdefinition	function	utfmathstretch	function
transparencycomponents	function	vboxlisttohbox	function
triggereffect	function	verbose	function
triggernegative	function	visual	function
truefilename	function	vspacing	function
typebuffer	function	vspacingcollapse	function
typefile	function	vspacingdefine	function
typestring	function	vspacingsetamount	function
uchexnumber	function	vspacingsnap	function
uchexnumbers	function	way	function
undefinechemical	function	weekday	function
unicodechar	function	weekdayname	function
unit	function	writestatus	function
unloadlanguage	function	x_table_c	function
upper	function	x_table_cleanup	function
useMPlibrary	function	x_table_construct	function
useanyfile	function	x_table_create	function
usebtxdataset	function	x_table_flush	function
usecldfile	function	<b>x_table_init_construct</b>	function
usecolors	function	x_table_init_reflow_height	function
usecomponent	function	x_table_init_reflow_width	function
useenvironment	function	x_table_next_row	function
usefile	function	x_table_r	function
usejavascriptpreamble	function	x_table_reflow_height	function
usejavascriptscripts	function	x_table_reflow_width	function
uselibrary	function	x_table_set_construct	function
useluafile	function	x_table_set_reflow_height	function
useluamodule	function	<b>x_table_set_reflow_width</b>	function
usemodules	function	year	function
usepath	function		

#### containers (context)

```
cleanname function
content function
define function
is_usable function
read function
usecache boolean
write function
```

#### converters (context)

A	function	ordina
AK	function	r
Alphabetic	function	rawcha
Character	function	romann
Characters	function	second
I	function	sequen
KA	function	textim
KR	function	toabja
R	function	tochin
RK	function	toroma
Romannumerals	function	verbos
Word	function	D da
Words	function	F tr
a	function	weekda
abjadnodotnumerals	function	word
abjadnumerals	function	words
alphabetic	function	year
character	function	
characters	function	
chineseallnumerals	function	
chinesecapnumerals	function	
chinesenumerals	function	
chr	function	
chrs	function	
cn	function	
cn-a	function	
cn-c	function	
convert	function	
define	function	
hexstringtonumber	function	
hour	function	
i	function	
isleapyear	function	
leapyear	function	
maxchrs	function	
minute	function	
month	function	
nofdays	function	
number	function	
numbers	function	
octstringtonumber	function	

al function function aracter function numerals function function nces data table me function ad function function nese function an table se ata ranslate function ay function function

function

## coroutine (basic lua)

```
create function
resume function
running function
status function
wrap function
yield function
```

### ctxrunner (context)

load function
prepfiles data table
resolve function

## debug (basic lua)

debug	function
getfenv	function
gethook	function
getinfo	function
getlocal	function
getmetatable	function
getregistry	function
getupvalue	function
getuservalue	function
setfenv	function
sethook	function
setlocal	function
setmetatable	function
setupvalue	function
setuservalue	function
traceback	function
upvalueid	function
upvaluejoin	function

## dir (context)

collectpattern	function
current	function
expandname	function
found	function
glob	function
globfiles	function
globpattern	function
ls	function
makedirs	function
mkdirs	function
рор	function
push	function

#### directives (context)

data data table default function disable function enable function list function name string register function report function show function value function

#### document (context)

arguments data table
files table
getargument function
getfilename function
options table

T commandline

D environments

D modes

D modules

T ctxfile

D environments

D modes

D modules

setargument function
setdefaultargument function
setfilename function
variables data table

#### environment (context)

function argument arguments data table basicengines data table currentrun number default texmfcnf strina engineflags data table filename strina files table data table filesynonyms number forcedruns getargument function homedir string initex boolean **initializearguments** function initializefilenames function inputfilebarename string inputfilename strina **inputfilesuffix** string **jobfilename** string **jobfilesuffix** string kindofrun number loadluafile function luafile function luafilechunk function maxnofruns number originalarguments data table outputfilename string ownbin string ownmain string ownname string ownpath strina boolean prerollrun data table rawarguments reconstructcommandline function relativepath function setargument function **splitarguments** function suffix string texfile function texmfos string texos string

texroot truefilename validengines string function data table

#### epdf (extra tex)

Array function
Dict function
Object function
PDFRectangle function
open function
type function

#### experiments (context)

data data table default function disable function enable function list function name string register function report function show function value function

#### figures (context)

applyratio bases bitmapimage boxnumber cachepaths check checkers converters current defaultdepth defaultheight defaultsearch defaultwidth done dummy existers exists formats found get auess hash identifiers identify images

data table function number function function number number boolean number function function function function function function function table

function

data table data table data table data table data table data table data table

includers initialize loaded localpaths magics mergegoodies nofprocessed order paths patterns pop preferguality programs push registerpattern registerresource reaistersuffix resources scale setlookups setorder setpaths suffixes used

F write

include

function data table function data table data table data table function number data table data table data table function boolean data table function function function function data table function function function function data table data table

F boxes

F check

F checksize

F clone

F copy

F immediatewrite

F kevs

F new

F node

F ofindex

F package

F print

F scan

F serialize

F totable

F types

## file (basic lua)

addsuffix	function
basename	function
checksum	function
collapsepath	function
сору	function
dirname	function
expandname	function
extname	function
is_qualified_path	function
is_readable	function
is_rootbased_path	function
is_writable	function
isreadable	function
iswritable	function
join	function
joinpath	function
loadchecksum	function
nameonly	function
nametotable	function
needs_updating	function
needsupdating	function
pathpart	function
readdata	function
removesuffix	function
replacesuffix	function
reslash	function
robustname	function
savechecksum	function
savedata	function
size	function
splitbase	function
splitname	function
splitpath	function
strip	function
suffix	function
suffixes	function
suffixesonly	function
suffixonly	function
syncmtimes	function

## floats (context)

analysemethod	function
checkedpagefloat	function
collect	function
consult	function
flush	function
getvariable	function
nofstacked	function
рор	function
push	function
resave	function
save	function
stacked	function

#### font (basic tex)

current function define function each function fonts table frozen function id function

getfont overloaded function

max function nextid function read\_tfm function read\_vf function setfont function

## fontloader (extra tex)

apply_afmfile	function
apply_featurefile	function
close	function
fields	function
fullinfo	function
info	function
open	function
to_table	function
totable	function

## fonts (context)

analyzers	table	F report
T features		F reset
N blwf		T vectors
N fina		constructors table
N half		F aftercopyingcharacters
N init		F applymanipulators
N isol		F assignmathparameters
N medi		B autocleanup
N pref		F beforecopyingcharacters
N pstf		D cache
N rphf		F calculatescale
D initializers		F checkedfeatures
D methods		F checkedfilename
F setstate		F checkvirtualids
T states		F cleanuptable
N blwf		F collectprocessors
N fina		D designsizes
N half		D dontembed
N init		F enhanceparameters
N isol		N factor
N mark		F finalize
N medi		F getfeatureaction
N pref		F hashfeatures
N pstf		F hashinstance
N rest		T hashmethods
N rphf		F normal
B useunicodemar	ks	F virtual
checkers	table	F initializefeatures
F getmissing		T keys
F missing		T character
cid	table	S depth
F getmap		S height
F loadfile		S italic
collections	table	S width
F checkenabled		T description
F clonevector		T boundingbox
F define		S depth
T definitions		S height
F prepare		S width
F process		T parameters
F registermain		S ascender

S descender	S encodingbyt	es
S designsize	S filename	
T expansion	S finalized	
S auto	S fontname	
S shrink	S format	
S step	S fullname	
S stretch	S hasitalics	
S extendfactor	S hasmath	
S factor	S mathitalics	
S hfactor	S mode	
S mathsize	S name	
T protrusion	S noglyphname	S
S auto	S nostackmath	
S quad	S psname	
S scaledpoints	S textitalics	
S scriptpercentage	S virtualized	
S scriptscriptpercentage	D loadedfonts	
S size	S namemode	
S slantfactor	F newfeatures	
S slantperpoint	F newhandler	
T spacing	N noffontsloaded	
S extra	N nofsharedfonts	
S shrink	N nofsharedhashe	s
S stretch	N nofsharedvecto	rs
S width	N privateoffset	
T synonyms	F readanddefine	
S em	F registerfeatur	e
S ex	B resolvevirtual	too
S extra_space	F scale	
S extraspace	F scaled	
S slant	F setfactor	
S space	F setname	
S space_shrink	B sharefonts	
S space_stretch	F trytosharefont	
S spaceshrink	N version	
S spacestretch	current	function
S x_height	currentid	function
S units	definers	table
S vfactor	F addlookup	
S xheight	F analyze	
T properties	F applypostproce	ssors
S autoitalicamount	F checkedmode	
T cidinfo	F checkedscript	
S embedding	F current	

C d-f1+1l		C mathamatica
S defaultlookup		F mathematics
F define		F protrusions
F getspecificat	ion	F solutions
F internal		F treatments
F loadfont		F typefaces
F makespecifica	tion	F load
T methods		F prepare_features
F install		F register
D variants		F registerpostprocessor
F read		F report
F register		<b>handlers</b> table
F registered		T afm
F registersplit		B addkerns
F resetnullfont		B addligatures
F resolve		B addtexligatures
T resolvers		B autoprefixed
F file		D cache
F name		D features
F spec		T helpdata
definetypeface	function	D bothkerned
encodings	table	D leftkerned
T agl		D ligatures
D cache		D rightkerned
F is_known		D texligatures
D known		F load
F load		F setfeatures
F make_unicode_	vector	B syncspace
D math		N version
N version		T otf
expansions	data table	F addfeature
formats	data table	D cache
goodies	table	T chainhandlers
D colorschemes		F normal
D data		F verbose
D designsizes		F collectlookups
D filenames		F dataset
F getcompositions		S defaultbasealternate
T list		S defaultnodealternate
F compositions	5	D enhancers
F designsizes		D features
F expansions		F fileformat
F featureset		F getalternate
F filenames		T glists
F files		T handlers

F contextchain	D math	
F devanagari_remove_joiners	D predefined	
F devanagari_reorder_matras	D whatever	
F devanagari_reorder_pre_base_reordering_consonants	hashes	table
F devanagari_reorder_reph	D characters	
F gpos_context	D csnames	
F gpos_contextchain	D descriptions	
F gpos_cursive	D dynamics	
F gpos_mark2base	D emwidths	
F gpos_mark2ligature	D exheights	
F gpos_mark2mark	D extensibles	
F gpos_pair	D features	
F gpos_single	D identifiers	
F gsub_alternate	D italics	
F gsub_context	D lastmathids	
F gsub_contextchain	D marks	
F gsub_ligature	D parameters	
F gsub_multiple	T processes	
F gsub_reversecontextchain	D properties	
F gsub_single	D quads	
F load	D resources	
F scriptandlanguage	T setdynamics	
F setcontextchain	D spaces	
F setdynamics	D spacings	
F setfeatures	D unicodes	
T statistics	D xheights	
D usedfeatures	helpers	table
T tables	F addprivate	
D baselines	F dimenfactor	
D features	F expandglyph	
D languages	F fontpatternha	ssize
D scripts	F getdigitwidth	
N version	F getparameters	
T pfb	F getprivatenod	е
T tfm	F hasprivate	
D features	F name	
F setfeatures	F nametoslot	
T vf	F setdigitwidth	
T combinations	F splitfontpatt	ern
F combine	iterators	table
T combiner	F characters	
D commands	F descriptions	
F find	F glyphs	
D helpers	loggers	table

F add_placeholde T category_to_pl S ll S lm S lo S lt S lu		nulldata protrusions readers F afm F check_lua F check_tfm F dfont	data table data table table
S mc S me S mn S nd S nl S no S pc		F lua F opentype F otf F pfb D sequence F tfm F ttc	
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 reportdefinedf		F ttf  select  T data F definetypeface T fallbacks F filterinput T methods F default F features F file F goodies F name F selectfont F simplefonts	table
F reportusedfeat mappings  F addtounicode F fromunicode16 F loadfile F loadline F loadlumtable F makenameparser F reset F tounicode16 F tounicode16sec mp  D cache B inline	table	F spec F style F registerfalls: F searchfiles  Specifiers D contextmerged F contextnumber: D contextsetups F contexttostrin F definecontext F mergecontext F presetcontext	table s
N version names	data table	F showcontext F splitcontext	

D synonyms

D variants

symbols table

F uselibrary

tables table
tracers table
treatments table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

typefaces data table

## functions (context)

**dummy** function

### graphics (context)

#### backgrounds table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

### gzip (extra lua)

```
close function
lines function
load function
open function
save function
suffix function
```

## img (basic tex)

boxes	function
check	function
checksize	function
clone	function
сору	function
immediatewrite	function
keys	function
new	function
node	function
ofindex	function
package	function
print	function
scan	function
serialize	function
totable	function
types	function
write	function

#### interactions (context)

```
attachments data table
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 data table
               table
pages
   F setpagetransition
   F setupcanvas
references table
   F setclosedocument
   F setclosepage
   F setopendocument
   F setopenpage
              data table
renderings
soundclips data table
```

#### interfaces (context)

addvalidkeys function cachedsetups data table cachesetup function checkedspecification function complete data table constants data table corenamespaces data table definecommand function doifelsemessage function elements data table formats data table getcheckedparameters function function getmessage data table hashedsetups interfacedcommand function interfaces table invalidkev function function is command table namespaces

F define F list

registernamespace function setconstant function setelement function setformat function setmessage function function setmessages settranslation function function setuserinterface setvalidkeys function setvariable function function showmessage data table syntax tolist function translations data table 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 loadchunk function loaddata function loadlines function noflines function function o limiter o limiters table

T paranoid

output function
pathseparator string

function read readall function readnumber function readstring function savedata function size function stderr userdata stdin userdata stdout userdata **tmpfile** function function type write function

#### jit (context)

arch string
attach function
flush function
off function
on function
opt table

F start

os string
status function
util table

F funcbc

F funcinfo

F funck

F funcuvname

F ircalladdr

F traceexitstub

F traceinfo

F traceir

F tracek

F tracemc

F tracesnap

version string
version\_num number

## job (context)

commont	function	-	+11+-	a.
comment datasets	table		getcollecte	a
	table		getdata	
D collected			getfield	
F extend			gettobesave	a
F getdata			inlist	
F setdata			last	
D tobesaved	£		list	
disablesave	function		save	
files	table		savetagged	
D collected			tobesaved	4-61-
F context		-		table
B forcerun			b_col	
F run			b_region	
D tobesaved			С	
initialize	function		collected	
load	function		column	
loadother	function		сору	
objects	table		depth	
D collected			e_col	
F get			e_region	
F number		F	enhance	
F page		F	extra	
F save		F	get	
F set		F	getreserved	l
D tobesaved		F	hangafter	
pack	boolean	F	hangindent	
packversion	number	F	height	
pagestates	table	F	hsize	
D collected		F	leftskip	
F extend		F	lowerleft	
F realpage		F	lowerright	
F setstate		F	markregionb	ox
D tobesaved		F	n	
passes	table	F	onsamepage	
F check		F	overlapping	l
D collected		F	p	
F count		F	page	
F define		F	paragraph	
F find		F	parindent	
F first		F	position	
F get		F	r	

- F region
- F replace
- F rightskip
- F set
- F setall
- F setdim
- D tobesaved
- F upperleft
- F upperright
- F width
- Fχ
- F xy
- Fу

# register function save function

table

- structure
  D collected
  - T components
  - T tobesaved
    - T branches
    - S name
    - S type

#### variables table

- D checksums
- D collected
- F getchecksum
- F makechecksum
- F restore
- F save
- F setchecksum
- D tobesaved

#### version number

## lang (basic tex)

clean	function
clear_hyphenation	function
clear_patterns	function
exceptions	function
hyphenate	function
hyphenation	function
id	function
new	function
patterns	function
postexhyphenchar	function
posthyphenchar	function
preexhyphenchar	function
prehyphenchar	function

#### languages (context)

associate function associated data table association function counters data table function current data data table define function table frequencies F averagecharwidth

F getdata

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
replacements table

F add F handler F set

righthyphenmin function setexceptions function setsynonym function unload function version number words table

T data
F disable
F enable
T enablers

B enables

F check

F found

F load

T methods

N threshold

# layouts (context)

#### **status** table

F isleftpage

F leftorrightpagection

#### lfs (extra lua)

attributes function chdir function currentdir function dir function

isfile function lock function lock dir function mkdir function mkdirs function readlink function rmdir function function setmode function shortname symlinkattributes function touch function unlock function

### libraries (context)

```
basiclua data table
basictex data table
builtin data table
extralua data table
extratex data table
functions data table
globals data table
```

#### lmx (context)

color function convert function convertfile function function convertstring einject function eprint function escape function finalized function finject function fprint function get function getvariables function htmfile function html table

Fa

F td F th

include function
inherited table

S color-background-four

S color-background-one

S color-background-three

S color-background-two

S title

initialize function inject function **lmxfile** function loadedfile function function new overloaderror function popupfile function print function pν function report function reset function result function function set show function showdebuginfo function showerror function stripcss function tv function
type function
urlescape function
variable function
variables table

S color-background-blue

S color-background-body

S color-background-green

S color-background-main

S color-background-purple

S color-background-yellow

S title-default

### logs (context)

application function categories function direct function disable function function enable exporters table extendbanner function flush function function help function messenger new function newline function function poptarget function pushtarget report function reportbanner function function reporter table reporters

> F banner F export

F help

F info

F lines

F version

function reportline reportlines function setformats function setformatters function setlogfile function setmessenger function setprocessor function function setprogram settarget function settimedlog function settranslations function show function show close function show load function function show open simple function simpleline function

simplelines function function start page number status function function stop\_page\_number subdirect function subreport function system function function texerrormessage writer function

# lpdf (context)

action	function	gethpos	function
adddocumentcolorspace	function	qetmatrix	function
adddocumentextgstate	function	getpos	function
adddocumentpattern	function	getvpos	function
adddocumentshade	function	graycode	function
addtocatalog	function	hasmatrix	function
addtoinfo	function	id	function
addtonames	function	injectxmpinfo	function
addtopageattributes	function	insertxmpinfo	function
addtopageresources	function	layerreference	function
addtopagesattributes	function	limited	function
addxmpinfo	function	linearshade	function
annotationspecification	function	nametree	function
array .	function	null	function
boolean	function	number	function
border	function	pagedestinations	data table
checkedkey	function	pagereference	function
checkedvalue	function	pagereferences	data table
circularshade	function	pdfcolor	function
cmykcode	function	pdftimestamp	function
collectedresources	function	protectresources	boolean
color	function	rectangle	function
colorspace	function	reference	function
colorspaceconstants	data table	registerannotation	function
colorspec	function	registerdestination	function
colorvalue	function	registerdocumentfinalizer	function
colorvalues	function	registerpagefinalizer	function
constant	function	reserveobject	function
delayedobject	function	rgbcode	function
destinationspecification	function	rotationcm	function
dictionary	function	shareobject	function
epdf	table	shareobjectreference	function
F expand		spotcode	function
Fload		stream	function
finalizedocument	function	string	function
finalizepage	function	timestamp	function
finishtransparencycode	function	toeight	function
flushobject	function	tosixteen	function
flushstreamfileobject	function	transform	function
flushstreamobject	function	transparency	function
formats	data table	transparencycode	function

transparencygroups table

B none

transparencyvalue function
unicode function
verbose function

# lpeg (basic lua)

В	function
C	function
Carg	function
Cb	function
Cc	function
Cf	function
Cg	function
Cmt	function
Ср	function
Cs	function
Ct	function
P	function
R	function
S	function
UP	function
UR	function
US	function
V	function
afterprefix	function
anywhere	function
append	function
balancer	function
beforesuffix	function
checkedsplit	function
counter	function
endstripper	function
finder	function
firstofsplit	function
frontstripper	function
instringchecker	function
is_lpeg	function
keeper	function
locale	function
match	function
oneof	function
patterns	data table
pcode	function
print	function
ptree	function
replacer	function
secondofsplit	function

setmaxstack	function
split	function
splitat	function
splitter	function
stripper	function
times	function
tsplitat	function
tsplitter	function
type	function
${\tt utfchartabletopattern}$	function
version	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)

bytecode table bytedata data table bytedone table collectgarbage function function delay finalize function firstbytecode number flush function flushdelayed function get\_functions\_table function getbytecode function function getluaname lastbytecode number string mask messages data table name table numbers data table registercode function registeredcodes function registerfinalizer function registername function setbytecode function setluaname function startupfile string version string

### luatex (context)

cleanuptempfiles function
registerstartactions function
registerstopactions
registertempfile function
starttime number

# lxml (context)

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

F compare F flush

F reset

F show

verbatim

withindex

xmltexhandler

F sort splitid function startraw function function stopraw function store strip function stripped function tag function text function tofile function toparameters function toverbatim function

function

function

data table

# math (basic lua)

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

#### mathematics (context)

addfallbacks function alphabets data table alternatives data table bia function data table boldmap categories table D functions charactersets data table checkaccentbaseheight function checkprivateparameters function classes data table codes data table define function dimensions function extensiblecode function extensibles data table extrabase number table extras F add F copy

table

resetitalics scaleparameters setalternate setitalics sets stvles svncboth synchame syncstyle toname tostyle tweakaftercopyingfont tweakbeforecopyingfont tweaks utfmathaccent utfmathclass utfmathcommand utfmathfiller utfmathstretch

function function function function data table data table function function function function function function function table function function function function function

fallbackstyleattr function **families** data table gaps data table function getboth function getstyle function initializeparameters injectfallbacks function function makefont data table mapremap **overloaddimensions** function **overloadparameters** function privatebase number function remapalphabets table renderings

fallbacks

F apply
F install

D mappings D numbers

### mbox (context)

```
parse function
parse_from function
parse_header function
parse_message function
split_headers function
split_mbox function
split_message function
```

# md5 (extra lua)

```
HEX function
crypt function
dec function
exor function
hex function
sum function
sumhexa function
```

# metapost (context)

	£atian		£
analyzeplugins checkformat	function function	getstatistics gettext	function function
checktexts	function	graphic	function
collapse	boolean	graphic base pass	function
colorinitializer	function	initializescriptrunner	function
convert	function	instance	function
defaultformat	string	intermediate	table
defaultinstance	•	T actions	table
defaultmethod	string string	F makempy	
directrun	function	lastlog	string
edefsxsy	function	load	function
escaped	function	makempy	table
exectime	table	N nofconverted	table
extensiondata	data table	F processgraphics	
filterclippath	function	F registerfile	
finder	function	metafun	table
flush	function	F interpolate	tabte
flushers	table	F topath	
T pdf	tubte	method	number
F comment		mptopdf	table
F flushfigure		F convertmpstopdf	cabic
F startfigure		N nofconverted	
F stopfigure		multipass	boolean
F textfigure		n	number
flushliteral	function	nvformat	function
flushnormalpath	function	optimize	boolean
flushreset	function	parse	function
fonts	table	pdfliterals	function
F define		pluginactions	function
T flusher		process	function
F flushfigure		processplugins	function
F startfigure		processspecial	function
F stopfigure		properties	table
N instances		quickanddirty	function
F process		reducetogray	boolean
format	function	reporterror	function
format_number	function	reset	function
format_string	function	resetlastlog	function
formatnumber	function	resetplugins	function
getclippath	function	resettextexts	function
getextensions	function	runscript	function

scripterror function setextensions function setoutercolor function function settext settextexts function showlog boolean svformat function table tex

F get
F reset
F set

texerrorsbooleantextextsdatafunctiontheclippathfunctiontotablefunctionunloadfunctionuntagvariablefunctionvariablestable

#### mime (extra lua)

```
b64
           function
           function
decode
decodet
           table
   F base64
   F quoted-printable
dot
           function
encode
           function
encodet
           table
   F base64
   F quoted-printable
eol
           function
normalize function
           function
qp
           function
qpwrp
stuff
           function
unb64
           function
           function
unqp
           function
wrap
           table
wrapt
   F base64
   F default
   F quoted-printable
   F text
           function
wrp
```

### mp (context)

\_f\_ function boolean function format function number function numeric function pair function print function quadruple function quoted function string function triplet function

### mplib (extra tex)

fields function finders table F file get\_boolean function get number function get\_numeric function get\_string function new function pen info function preprocessed function version function

### noads (context)

#### handlers table F check F classes F collapse F families F italics F relocate F render F resize F showtree F tags F unscript F variants function process processors table T collapse F mlist\_to\_hlist T relocate T render T resize

T unscript

# node (basic tex)

сору	function	F protect_glyphs	
copy_list	function	F protrusion_skippable	
count	function	F remove	
current_attr	function	F set_attribute	
dimensions	function	F set_properties_mode	
direct	table	F setbox	
F copy		F setfield	
F copy_list		F setproperty	
F count		F slide	
F current_attr		F tail	
F dimensions		F todirect	
F do_ligature_n		F tonode	
F end_of_math		F tostring	
F first_glyph		F traverse	
F flush_list		F traverse_id	
F flush_node		F unprotect_glyphs	
F flush_properties_table		F unset_attribute	
F free		F usedlist	
F get_properties_table		F vpack	
F getbox		F write	
F getchar		do_ligature_n	function
F getfield		end_of_math	function
F getfont		family_font	function
F getid		fields	function
F getleader		first_character	function
F getlist		first_glyph	function
F getnext		flush_list	function
F getprev		flush_node	function
F getproperty		flush_properties_table	function
F getsubtype		free	function
F has_attribute		get_properties_table	function
F has_field		getchar	function
F has_glyph		getfield	function
F hpack		getfont	function
F insert_after		getid	function
F insert_before		getleader	function
F is_direct		getlist	function
F is_node		getnext	function
F last_node		getprev	function
F length		getproperty	function
F new		getsubtype	function

function
function

### nodes (context)

		•	
accentcodes	data table	free_spec	function
aligned	function	getattr	function
append	function	getattribute	function
astable	function	getbox	function
basepoints	function	getchar	function
builders	table	getfield	function
F buildpage_filter		getfont	function
F vpack_filter		getid	function
codes	data table	getleader 	function
concat	function	getlist	function
сору	function	getnext	function
copy_list	function	getprev	function
copy_spec	function	getskip	function
count	function	getsubtype	function
current_attr	function	gluecodes	data table
delete	function	glyphcodes	data table
destinations	table	glyphdir_is_equal	data table
N attribute		glyphdir_is_opposite	data table
T done		glyphdir_is_orthogonal	data table
F handler		gonuts	boolean
T stack		handlers	table
dimensionfields	data table	F accessibility	
dimensions	function	F alignbackgrounds	
dir_is_pop	data table	F backgrounds	
dir_negation	data table	F characters	
disccodes	data table	F checkforleaks	
discretionarycodes	data table	F checkglyphs	
do_ligature_n	function	F cleanupbox	
end_of_math	function	F cleanuppage	
fasthpack	function	F export	
fencecodes	data table	F finalize	
fields	function	F migrate	
fillcodes	data table	F protectglyphs	
first_character	function	F stripping	
first_glyph	function	F unprotectglyphs	
first_glyph firstcharacter	function function	F unprotectglyphs has_attribute	function
			function function
firstcharacter	function	has_attribute	
firstcharacter firstcharinbox	function function	has_attribute has_field	function
firstcharacter firstcharinbox firstglyph	function function function	has_attribute has_field has_glyph	function function
firstcharacter firstcharinbox firstglyph flush_list	function function function function	has_attribute has_field has_glyph hpack	function function function

injections	table	markers
F handler		F get
F installnewkern		mathcodes
F setcursive		maxboxwidth
F setkern		mlist_to_hlist
F setmark		new
F setpair		noadcodes
insert_after	function	nodecodes
insert_before	function	nopts
insert_list_after	function	nuts
installattributehandler	function	F append
is_direct	function	F concat
is_display_math	function	F copy
is_mirrored	data table	F copy_list
is_node	function	F count
is_nut	function	F current_attr
is_rotated	data table	F delete
kerncodes	data table	F dimensions
kerning	function	F do_ligature_n
keys	table	F end_of_math
T whatsit		F fasthpack
last_node	function	F first_glyph
leftmarginwidth	function	F firstcharacter
ligaturing	function	F firstcharinbox
lines	table	F firstglyph
T boxed		F flush_list
F register		F flush_node
F setup		F free
F stage_one		F getattr
F stage_two		F getattribute
F stage_zero		F getbox
D data		F getchar
F finalize		F getfield
F number		F getfont
N scratchbox		F getid
link	function	F getleader
linked	function	F getlist
list	function	F getnext
listablefields	data table	F getprev
listcodes	data table	F getprop
listtoutf	function	F getskip
load	function	F getsubtype
locate	function	F has_attribute
margincodes	data table	F has_field

data table function function function data table data table function

table

table

F has glyph F register F hpack F rightmarginkern F insert\_after F rightskip F insert before F rule F insert list after F shrink F special F is direct F is\_display\_math F stretch F is node F temp F textdir F is\_nut F kerning F usage F last node T userids F leftmarginwidth N margins.inline F ligaturing N property F link N splitters.one F linked N splitters.two F locate F userlist F mlist\_to\_hlist F usernumber F nestedtracedslide F userstring F usertokens F new F vlist T pool F baselineskip F zeroalue F cleanup F prepend F disc F protect\_glyphs F fontkern F protrusion\_skippable F glue F reference F gluespec F remove F glyph F repackhlist F hlist F replace F kern F rightmarginwidth F latelua F set attribute F lateluafunction F setattr F leftmarginkern E setattribute F leftskip F setattributes F lineskip F setbox F negatedglue F setfield F noad F setprop F pdfannotation F setunsetattributes F pdfdestination F slide F pdfdirect F somepenalty F pdfliteral F somespace F pdfrestore F tail F pdfsave F takebox F pdfsetmatrix F tonode F penalty F tonodes

F tonut		points	function
F tostring		pool	table
F tracedslide		F baselineskip	
F traverse		F cleanup	
F traverse_id		F glyph	
T typesetters		F kern	
F fast_hpack		F latelua	
F hpack		F lateluafunction	
F tohpack		F lineskip	
F tohpackfast		F pdfdirect	
F tonodes		F pdfliteral	
F tovpack		F pdfrestore	
F tovpackfast		F pdfsave	
F vpack		F pdfsetmatrix	
F unprotect_glyphs		F register	
F unset_attribute		F rule	
F unsetattribute		F special	
F unsetattributes		F usage	
F untracedslide		T userids	
F usedlist		N margins.inline	
F vianodes		N property	
F vianuts		N splitters.one	
F vpack		N splitters.two	
F writable_spec		F usernumber	
F write		prepend	function
packlist	function	print	function
pardir_is_equal	data table	processors	table
pardir_is_opposite	data table	B enabled	
pardir_is_parallel	data table	F hpack_filter	
partextdir_is_equal	data table	F post_linebreak_filter	
penaltycodes	data table	F pre_linebreak_filter	
plugindata	table	F tracer	
F finalizer		processwords	function
F initializer		properties	table
S name		T actions	
T namespace		F delayed	
N attribute		F fdelayed	
D data		F immediate	
F enable		F attach	
F handler		T data	
F register		F delayed	
D registered		protect_glyphs	function
D values		protrusion_skippable	function
F processor		pts	function

reference	function	somespace	function
references	table	stripping	table
N attribute		T glyphs	
T done		F set	
F handler		striprange	function
T stack		tail	function
remove	function	takebox	function
repackhlist	function	tasks	table
replace	function	F actions	
report	function	F appendaction	
rightmarginwidth	function	F disableaction	
rules	table	F disablegroup	
D data		F enableaction	
F define		F enablegroup	
F enable		F freeze	
F handler		F freezegroup	
save	function	F new	
serialize	function	F prependaction	
serializebox	function	F removeaction	
set_attribute	function	F restart	
setattr	function	F setaction	
setattribute	function	F showactions	
setattributes	function	F table	
setbox	function	textdir_is_equal	data table
setfield	function	textdir_is_is	data table
setunsetattributes	function	textdir_is_opposite	data table
shifts	table	textdir_is_parallel	data table
D data		tobasepoints	function
F define		tocentimeters	function
F enable		tociceros	function
F handler		todidots	function
show	function	todimen	function
showboxes	function	toinches	function
showcodes	function	tomillimeters	function
showlist	function	tonewciceros	function
showsimplelist	function	tonewdidots	function
skipcodes	data table	tonode	function
slide	function	tonodes	function
snapshots	table	tonut	function
F getparameters		topicas	function
F getsamples		topoints	function
F resetsamples		toscaledpoints	function
F takesample		tosequence	function
somepenalty	function	tostring	function

totable	function	F set	
totree	function	F setlist	
toutf	function	traverse	function
tracers	table	traverse_id	function
T characters		typesetters	table
F collect		F hpack	
F equal		F tohpack	
F indices		F tohpackfast	
F start		F tonodes	
F string		F tovpack	
F unicodes		F tovpackfast	
T colors		F vpack	
F reset		unprotect_glyphs	function
F set		unset_attribute	function
F setlist		unsetattribute	function
F fontchar		unsetattributes	function
T frequencies		usedlist	function
F register		vianodes	function
T pool		vianuts	function
T nodes		visualizebox	function
F rule		visualizers	table
T nuts		F box	
F rule		F handler	
F resetproperties		F markfonts	
F rule		F setfont	
F setlist		F setlayer	
F setproperties		F setvisual	
F start		vpack	function
T steppers		whatcodes	data table
F check		whatsitcodes	data table
F codes		writable_spec	function
F features		write	function
F font			
F glyphs			
F message			
F messages			
F nofsteps			
F register			
F reset			
F start			
F stop			
F stop			
T transparencies			
F reset			

#### number (context)

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

#### os (basic lua)

\_\_getenv function setenv function binsuffix string **binsuffixes** table clock function converttime function date function difftime function data table env overloaded function exec execute overloaded function exit function fulltime function overloaded function aetenv gettimeofday function isleapyear function launch function libsuffix strina localtime function name string nofdays function function now string platform function remove function rename resolvers table F bits resultof function runtime function selfdir string seteny overloaded function setlocale overloaded function sleep function spawn overloaded function function time times function timezone function tmpdir function function tmpname

function string

today

type

uname function
uuid function
validdate function
weekday function
where function
which function

# package (basic lua)

config	string
cpath	string
extralibpath	function
extralibpaths	function
extraluapath	function
extraluapaths	function
helpers	table
libpaths	function
loaded	table
loaders	table
loadlib	function
luapaths	function
path	string
preload	table
searchpath	function
seeall	function

### pagebuilders (context)

#### injections table

- F flushafter
- F flushbefore
- F save

#### mixedcolumns table

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

#### pdf (basic tex)

getcatalog function gethpos function aetinfo function function getmatrix function getnames getpageattributes function getpageresources function getpagesattributes function function getpos gettrailer function getvpos function hasmatrix function immediateobi function mapfile function mapline function maxobinum function obj function objtype function pageref function print function function refobj registerannot overloaded function reserveobj function overloaded function setcatalog setinfo overloaded function setnames overloaded function setpageattributes overloaded function overloaded function setpageresources setpagesattributes overloaded function

overloaded function

settrailer

# pdfscanner (context)

scan function

# physics (context)

units table
 D tables

#### profiler (extra lua)

```
pause function
resume function
start function
stop function
```

# publications (context)

F filterall

addtexentry	function	F flushentries	
analyze	function	F nofregistered	
authors	table	F register	
F concat		F registerplaced	
F inverted		F setmethod	
F invertedshort		T sorters	
F name		F author	
F normal		F dataset	
F normalshort		F reference	
F preparedsort		F short	
F setsettings		listvariants	table
F sorted		F default	
F splitstring		F num	
citevariants	table	F short	
F author		load	function
F authornum		loadbibdata	function
F authoryear		loaders	table
F authoryears		F bib	
F category		F endnote	
F default		F lua	
F index		F refman	
F key		F xml	
F num		markasupdated	function
F page		new	function
F serial		parenttag	function
F short		refman_to_btx	function
F tag		search	function
F type		singularorplural	function
F year		statistics	table
collected	data table	N nofbytes	
converttoxml	function	N nofdatasets	
datasets	table	N nofdefinitions	
endnotes_to_btx	function	N nofshortcuts	
enhance	function	tracers	table
finder	function	F addfield	
getindex	function	T categories	
lists	table	T article	
F collectentries		T optional	
F doifalreadyplaced	I	T required	
F fetchentries		T book	

T optional

T booklet T optional T required T inbook T optional T required T incollection T optional T required T inproceedings T optional T required T manual T optional T required T mastersthesis T optional T required T misc T optional T required T phdthesis T optional T required T proceedings T optional

T required

T required
T techreport
T optional
T required
T unpublished

F showdatasetcompleteness

F showdatasetfields

F showfields

#### regimes (context)

```
cleanup function
disable function
enable function
pop function
process function
push function
toregime function
translate function
```

#### resolvers (context)

**finders** 

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

D specification

data table

D variables		registerintrees	function
jobs	table	registermethod	function
F currentcomponent		registerzipfile	function
F currentenvironment		relations	data table
F currentproduct		renew	function
F currentproject		repath	function
F justacomponent		reset	function
D processors		resetextrapath	function
F productcomponent		resetresolve	function
F usefile		resolve	function
joinpath	function	savers	data table
load	function	scandata	function
loadbinfile	function	scanfiles	function
loaders	data table	schemes	table
loadlualib	function	T cleaners	
loadtexfile	function	F md5	
loadtime	function	F none	
locateformat	function	F strip	
locators	data table	F cleanname	
luacnfname	string	F fetchstring	
luacnfspec	string	F fetchtable	
luacnfstate	string	F install	
macros	table	setenv	function
F convertfile		setinstance	function
F decodecomment		showpath	function
F enablecomment		simplescanfiles	function
F encodecomment		splitconfigurationpath	function
F preprocessed		splitexpansions	function
F processmk		splitmethod	function
F processmkvi		splitpath	function
F version		suffixes	data table
maxreadlevel	number	suffixmap	data table
methodhandler	function	suffixofformat	function
newinstance	function	texdatablob	function
openbinfile	function	toppath	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

variableofformatorsuffix function wildcardpattern

function

#### scripts (context)

table

autofontfeature

#### F disable F enable F handler categorytonumber data table colors data table decomposehangul function defaults table N inter\_char\_half\_shrink\_factor N inter\_char\_half\_stretch\_factor N inter\_char\_hangul\_penalty N inter\_char\_quarter\_shrink\_factor N inter char quarter stretch factor N inter char shrink factor N inter\_char\_stretch\_factor N inter\_word\_stretch\_factor handlers data table hash table injectors data table installdataset function installmethod function numbertocategory data table numbertodataset data table numbertohandler data table reset function set function splitters data table

#### set (context)

contains function
create function
tolist function
tonumber function
totable function

#### socket (extra lua)

**BLOCKSIZE** number S connection DEBUG boolean S content-description SETSIZE number S content-disposition bind function S content-encoding choose function S content-id function connect S content-language connect4 function S content-length connect6 function S content-location dns table S content-md5 F getaddrinfo S content-range F gethostname S content-transfer-encoding F getnameinfo S content-type F tohostname S date F toip S diagnostic-code ftp table S dsn-gateway S PASSWORD S etag N PORT S expect N TIMEOUT S expires S USER S final-log-id F command S final-recipient F get S from S host F open S if-match F put gettime function S if-modified-since headers table S if-none-match S if-range T canonic S accept S if-unmodified-since S accept-charset S in-reply-to S accept-encoding S keywords S accept-language S last-attempt-date S last-modified S accept-ranges S action S location S age S max-forwards S allow S message-id S alternate-recipient S mime-version S original-envelope-id S arrival-date S authorization S original-recipient S bcc S pragma S cache-control S proxy-authenticate S cc S proxy-authorization S comments S range

S rece:	ived	sinkt	table	
S rece	ived-from-mta	F close-	F close-when-done	
S refe	rences	F defaul	F default	
S refe	rer	F http-c	nunked	
S remo	te-mta	F keep-o	oen	
S reply	y-to	skip	function	
S repo	rting-mta	sleep	function	
S reser	nt-bcc	smtp	table	
S reser	nt-cc	S DOMAIN		
S reser	nt-date	N PORT		
S reser	nt-from	S SERVER		
S reser	nt-message-id	N TIMEOU	Γ	
S reser	nt-reply-to	S ZONE		
S reser	nt-sender	F message	e	
S reser	nt-to	F open		
S retry	y-after	F send		
S retu	rn-path	source	function	
S sende	er	sourcet	table	
S serve	er	F by-len	F by-length	
S smtp	-remote-recipient	F defaul	F default	
S stati			F http-chunked	
S subje	ect		F until-closed	
S te		tcp	function	
S to		tcp6	function	
S trai	ler	tp	table	
S trans	sfer-encoding	N TIMEOU	N TIMEOUT	
S upgra		F connec		
S user-	-agent	try	function	
S vary		udp	function	
S via		udp6	function	
S warn:		url	table	
	-retry-until	F absolu	te	
S www-authenticate		F build		
S x-ma:		_	F build_path	
http	table	F escape		
N PORT	-	F parse		
N TIMEOUT		F parse_		
S USERAG	ENI	F unesca	be	
F open				
F reques	function			
newtry protect	function			
select	function			
sink	function			
STUK	TUNCTION			

#### sorters (context)

```
basicsorter
                function
comparers
                table
   F basic
constants
                table
   S defaultdigits
   S defaultlanguage
   S defaultmethod
   N digitsmaximum
   N digitsoffset
   N ignoredoffset
   N replacementoffset
   T validmethods
    B ch
    B mc
    B mm
    Врс
    B pm
    B uc
    B zc
    B zm
definitions
                data table
firstofsplit function
setlanguage
                function
                function
sort
splitters
                table
   F utf
strip
                function
tracers
                data table
update
                function
```

## statistics (context)

checkfmtstatus	function
elapsed	function
elapsedindeed	function
elapsedseconds	function
elapsedtime	function
enable	boolean
formatruntime	function
hastiming	function
memused	function
register	function
resettiming	function
runtime	function
savefmtstatus	function
show	function
starttiming	function
stoptiming	function
threshold	number
timed	function
tracefunction	function

## status (basic tex)

list function

#### storage (context)

allocate function data table mark function marked function number max min number **nofmodules** number noftables number register function shared data table strip boolean tofmodules number toftables number

## streams (context)

collect	function
disable	function
enable	function
flush	function
initialize	function
push	function
start	function
stop	function
synchronize	function

# string (basic lua)

autodouble	function
autosingle	function
booleanstring	function
byte	function
bytepairs	function
bytes	function
char	function
characterpairs	function
characters	function
checkedsplit	function
collapsespaces	function
count	function
dump	function
escapedpattern	function
explode	function
find	function
format	function
formatter	function
formatters	function
fullstrip	function
gmatch	function
gsub	function
is_boolean	function
is_empty	function
itself	function
len	function
limit	function
longtostring	function
lower	function
match	function
nspaces	table
quote	function
quoted	function
rep	function
reverse	function
split	function
splitlines	function
splitup	function
strip	function
sub	function
tformat	function

toboolean	function
tocontext	function
todimen	function
tonodes	function
topattern	function
totable	function
toutf	function
tracedchar	function
tracedchars	table
unquote	function
unquoted	function
upper	function
utfcharacters	function
utfvalues	function
valid	function

## structures (context)

atlocation	function	F setlevel	
blocks	table	F setoffset	
D collected		F setown	
F define		F setstate	
F print		F setvalue	
F save		T specials	
F select		F userpage	
F setstate		F subs	
D states		D tobesaved	
D tobesaved		F value	
bookmarks	table	currentsectionnumber	function
F finalize		descriptions	table
F flatten		documents	table
S method		D data	
F overload		F initialize	
F place		F preset	
F register		F reset	
F setup		floats	table
counters	table	formulas	table
F add		F current	
F analyze		F simplify	
F check		F store	
D collected		helpers	table
F compact		F analyze	
F converted		F formulanumber	
F currentvalue		F merged	
D data		F page	
F define		F prefix	
F first		F prefixlastpage	
F get		F prefixpage	
F last		F simplify	
F next		F title	
F prev		F touserdata	
F previous		inserts	table
F raw		D data	
F record		F define	
F reset		F getdata	
F restart		F getlocation	
F restore		F getname	
F save		F getnumber	
F set		F setlocation	

F setup		F uservalue	
D stored		marks	table
itemgroups	table	D data	
F maxwidth		F define	
F nofitems		F exists	
F register		F fetch	
lists	table	F fetchallmarks	
F addto		F fetched	
F analyze		F fetchonemark	
B autoreorder		F fetchtwomarks	
D cached		F get	
D collected		F number	
F discard		F relate	
F enhance		F reset	
T enhancers		F set	
F filter		F show	
F filtercollected		F synchronize	
F formulanumber		F title	
F groupindex		T tracers	
F hasnumberdata		F showtable	
F haspagedata		notes	table
F hastitledata		F checkpagechange	
F iscached		F define	
F label		F doifonsamepageasprevi	ous
F location		F get	
F number		F getdeltapage	
D ordered		F getn	
F page		F getnumberpage	
F popnesting		F getstate	
F prefix		F getsymbolpage	
F prefixednumber		F hascontent	
F prefixedpage		F internal	
F process		F internalid	
D pushed		Flistindex	
F pushnesting		F ordered	
F realpage		F postpone	
F reordered		F resetpostponed	
T result		F restore	
D sectionblocks		F save	
F sectionnumber		F setstate	
F size		F setsymbolpage	
F title		D states	
D tobesaved		F store	+-61-
F userdata		pages	table

F analyze F import D collected F inject F is odd F injectcurrentset N nofpages S innermethod F number D internals F save F load D tobesaved F loadpresets references table F mark F analyze D pages F checkedfile U prefixsplitter F checkedfileorurl D productdata F checkedprogram T programs F checkedrealpage T data F define F checkedurl D collected F get U componentsplitter F realpageofpage F currentmetadata U referencesplitter F currentorder D referred D currentset F referredpage F define F registerfinalizer D defined F registerinitializer D derived F registerpage F enableinteraction F reportproblems F enhance F reset D executers D runners F set F expandcurrent F setandgetattribute F export T files F setcomponent T data F setinnermethod F define F setinternalreference F setnextinternal F get F filter F setnextorder F filterdefault D specials D filters F splitcomponent F splitprefix D flaginternals F splitreference F from T testrunners F get Finner F getcurrentmetadata F getcurrentprefixspec F special F getinnermethod F special operation F getinternallistreference F special operation with arguments F getinternalreference T testspecials D handlers F deltapage F identify Fί

F internal		F findnumber
F page		F fullnumber
F realpage		F getcurrentlevel
F section		F getlevel
F userpage		F getnumber
D tobereferred		F internalreference
D tobesaved		D levelmap
T urls		D levels
T data		F load
F define		F matchingtilldepth
F get		F numberatdepth
D usedinternals		F numbers
D usedviews		F popblock
F valid		F prefixedconverted
F whatfrom		F pushblock
registers	table	F register
F analyze		D registered
D collected		F reportstructure
F compare		F save
F define		T sectionblockdata
F enhance		T bodypart
F extend		S bookmark
F filter		F set
F filtercollected		F setblock
F finalize		F setchecker
F flush		F setentry
F prepare		F setlevel
F process		F setnumber
F setmethod		F structuredata
F sort		F title
F store		D tobesaved
D tobesaved		F typesetnumber
F unique		F userdata
F userdata		B verbose
sections	table se	<b>ts</b> table
F autodepth		F define
F cct		F get
D collected		F getall
F current		D setlist
F currentblock	sp	<b>ecials</b> table
F currentid		D collected
F currentlevel		F retrieve
F depthnumber		F store

D tobesaved

F finddata

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

F stop

## table (basic lua)

allkeys	function
append	function
are_equal	$ \hbox{function} $
autokey	function
compact	$ \hbox{function} $
concat	$ \hbox{function} $
contains	function
сору	function
count	function
derive	function
deserialize	function
drop	function
fastcopy	$ \hbox{function} $
fastserialize	function
flattened	$ \hbox{function} $
foreach	function
foreachi	$ \hbox{function} $
fromhash	function
getmetatablekey	$ \hbox{function} $
getn	function
has_one_entry	function
identical	$ \hbox{function} $
imerge	function
imerged	function
insert	function
is_empty	function
keys	function
load	function
loweredkeys	function
maxn	function
merge	function
merged	function
mirrored	function
pack	function
prepend	function
print	function
remove	function
reverse	function
reversed	function
save	function
sequenced	function

serialize	function
setmetatablecall	function
setmetatableindex	function
setmetatablekey	function
${\tt setmetatable} new index$	function
sort	function
sorted	function
sortedhash	function
sortedhashkeys	function
sortedhashonly	function
sortedindexonly	function
sortedkeys	function
sortedpairs	function
strip	function
sub	function
swapped	function
tocontext	function
tocsv	function
tofile	function
tohandle	function
tohash	function
toxml	function
twowaymapper	function
unique	function
unnest	function
unpack	function
values	function

# tex (basic tex)

attribute	table	isdefined	data table
badness	function	isdimen	function
box	table	isskip	function
catcode	table	istoken	function
conditionals	data table	lccode	table
constants	data table	linebreak	function
count	table	lists	table
ctdcatcodes	number	lua math random	function
ctxcatcodes	number	lua_math_randomseed	function
definefont	function	luacatcodes	number
delcode	table	mathcode	table
dimen	table	modes	data table
directives	data table	nest	table
enableprimitives	function	nilcatcodes	number
error	function	normal rand	function
extraprimitives	function	notcatcodes	number
finish	function	number	function
fontidentifier	function	pdffontname	function
fontname	function	pdffontobjnum	function
fprint	function	pdffontsize	function
get	function	pdfpageref	function
getattribute	function	pdfxformname	function
getbox	function	primitives	function
getcatcode	function	print	function
getcount	function	printlist	function
getdelcode	function	prtcatcodes	number
getdimen	function	romannumeral	function
getlccode	function	round	function
getlist	function	run	function
getmath	function	scale	function
getmathcode	function	set	function
getnest	function	set_experimental_code	function
getsfcode	function	setattribute	function
getskip	function	setbox	function
gettoks	function	setcatcode	function
getuccode	function	setcount	function
hashtokens	function	setdelcode	function
ifs	data table	setdimen	function
inicatcodes	number	setlccode	function
init_rand	function	setlist	function
iscount	function	setmath	function

setmathcode function setnest function setsfcode function setskip function settoks function setuccode function sfcode table shipout function show context function skip table function sp sprint function systemmodes data table takebox function texcatcodes number table toks number **tpacatcodes** tpbcatcodes number tprint function data table trackers txtcatcodes number type function uccode table uniform rand function uniformdeviate function uprint function vrbcatcodes number write function

#### texconfig (basic tex)

error\_line number
expand\_depth number
formatname string
half\_error\_line number
hash\_extra number

kpse init boolean max in open number max print line number max\_strings number nest\_size number param\_size number save size number shell escape string

## texio (basic tex)

write function
write\_nl function

## token (basic tex)

command_id	function
command_name	function
create	function
csname_id	function
csname_name	function
expand	function
get_next	function
is_activechar	function
is_expandable	function
is_protected	function
lookup	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
    Fa
    F b
    F c
   F showtoken
   F test
   F trace
egroup
              table
hbox
              table
letter
              function
              function
letters
other
              function
vbox
              table
```

table

vtop

#### tracers (context)

```
count function
cs function
dimen function
knownlist function
lists table
```

T context
T internals
T scratch

name function
primitive function
printerror function
showlines function
strings table

S undefined

toks function
type function

#### trackers (context)

data data table default function disable function dumphashtofile function function enable list function string name register function report function savehash function show function value function

# typesetters (context)

alignments	table	F installhandler	
F handler		F processmath	
F set		F set	
breakpoints	table	F setcolor	
F define		F setmath	
F handler		F tomode	
D mapping		firstlines	table
T methods		T actions	
T numbers		F default	
F set		F line	
F setreplacement		F word	
cases	table	F handler	
T actions		F set	
F handler		initials	table
F register		T actions	
F set		F default	
characteralign	table	F handler	
F handler		F set	
F resetcharacter	align	italics	table
F setcharacteral	ign	F forcevariant	
characters	table	F handler	
F handler		F reset	
F replacenbsp		F set	
F replacenbspace	s	kerns	table
checkers	table	D factors	
F handler		F handler	
F reset		F keepligature	
F set		B keeptogether	
cleaners	table	D mapping	
F handler		F set	
F set		manipulators	table
digits	table	F apply	
T actions		F applyspecifica	tion
F handler		T methods	
F set		F Word	
directions	table	F Words	
F getfences		F lowercase	
F getglobal		F stripperiod	
F getmethod		F uppercase	
F handler		T patterns	
T handlers		U list	

```
U pair
    F splitspecification
margins
                    table
   F finalhandler
   F globalhandler
   F ha
    F localhandler
    F save
processors
                    table
    F apply
   F register
   F reset
   F split
    F startapply
    F stopapply
    F stripped
    F tostring
spacings
                     table
    F define
   F handler
    D mapping
   T numbers
     T frenchpunctuation
       T characters
       S name
       N number
   F reset
   F set
    F setup
xtables
                    table
    F cleanup
    F construct
    F create
    F flush
    F initialize_construct
    F initialize_reflow_height
    F initialize_reflow_width
    F next_row
   F reflow_height
   F reflow_width
    F set_construct
    F set_reflow_height
    F set_reflow_width
```

# unicode (extra lua)

ascii	table F	len
F byte	F	lower
F char	F	match
F dump	F	rep
F find	F	reverse
F format	F	sub
F gfind	F	upper
F gmatch	utf8	table
F gsub	F	byte
F len	F	char
F lower	F	characters
F match	F	chrlen
F rep	F	count
F reverse	. F	dump
F sub	F	filetype
F upper	F	find
grapheme	table F	format
F byte	F	gfind
F char	F	gmatch
F dump	F	gsub
F find	F	is_valid
F format	F	len
F gfind	F	length
F gmatch	F	lower
F gsub		magic
F len		match
F lower		remapper
F match		rep
F rep		replacer
F reverse		reverse
F sub		split
F upper		splitlines
latin1		sub
F byte		subtituter
F char		tocodes
F dump		toeight
F find		toentities
F format F gfind		tostring totable
F gmatch		upper
F gsub		ustring
i yaub	Γ	as craing

- F utf16\_to\_utf8
- F utf16\_to\_utf8\_be
- F utf16\_to\_utf8\_le
- F utf32\_to\_utf8
- F utf32\_to\_utf8\_be
- F utf32\_to\_utf8\_le
- F utf8\_to\_utf16
- F utf8\_to\_utf16\_be
- F utf8\_to\_utf16\_le
- F utf8\_to\_utf8
- F values
- F xstring

# url (context)

addscheme	function
barepath	function
construct	function
escape	function
filename	function
hashed	function
hasscheme	function
query	function
split	function
toquery	function
unescapeget	function

## utilities (context)

debugger	table	N version	
F disable		parsers	table
F enable		F add_settings_to_array	
F savestats		F arguments_to_table	
F showstats		F array_to_strir	
F showtraceback		F csvsplitter	
formatters	table	F getparameters	
F formatcolumns		F hash_to_string	
F list		F iterator	
F stripzeros		F keq_to_hash	
garbagecollector	table	F listitem	
F check		F make_settings_	to_hash_pattern
N criterium		F mergehashes	
B enabled		F options_to_has	h
lua	table	T patterns	
B alwaysstripcode		U settings_to_	array
F compile		U settings_to_	hash_a
F loadedluacode		U settings_to_	hash_b
F loadstripped		U settings_to_hash_c	
N nofstrippedbytes	i	U unittotex	
N nofstrippedchunk	KS .	F process_stripped_settings	
B stripcode		F rfc4180splitter	
T strippedchunks		F runtime	
F strippedloadstri	.ng	F settings_to_array	
T suffixes		F settings_to_array_with_repeat	
S lua		F settings_to_hash	
S luc		F settings_to_ha	
S lui		F settings_to_ha	sh_tolerant
S luj		F settings_to_se	t
S luv		F simple_hash_to	_string
S tma		F splitthousands	
S tmc		F stepper	
S tua		F stripped_setti	.ngs_to_array
S tuc		F unittotex	
packers	table	F unittoxml	
F hashed		report	function
F new		sequencers	table
F pack		F appendaction	
F simplehashed		F appendgroup	
F strip			
F unpack		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 tostrina setters table F disable F enable F initialize F list F new F register F report F reset F show stacker table F new table storage F allocate F checked F mark F marked F setinitializer F sparse strings table F collapsecrlf T formatters F add F new F newrepeater F nice T striplinepatterns U collapse U prune U prune and collapse

U prune and no empty

U retain

U retain and collapse U retain and no empty F striplines F striplong F tabtospace T tracers tables table F accesstable F definedtable F definetable F encapsulate F insertaftervalue F insertbeforevalue F migratetable F removevalue templates table F load F replace F replacer F resolve

#### vf (context)

```
char
        function
down
        function
fontid
        function
        function
image
        function
node
        function
nop
        function
pop
push
        function
right
        function
rule
        function
special function
```

## visualizers (context)

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

## xml (context)

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

F	command	F table	
F	concat	F tag	
F	concatrange	F tags	
F	context	F text	
F	count	F texts	
F	ctxtext	F upperall	
F	default	first	function
F	first	found	function
F	function	functions	table
F	index	getbuffer	function
F	last	gethandlers	function
F	lettered	gethandlersfunction	function
F	lower	helpers	table
F	lowerall	F recursetext	
F	match	include	function
F	name	index	function
F	position	inheritedconvert	function
F	reverse	inject	function
F	stripped	<pre>inject_element</pre>	function
F	tag	<pre>inject_element_after</pre>	<b>function</b>
F	tags	<pre>inject_element_before</pre>	function
F	text	injectafter	function
F	upper	injectbefore	function
F	upperall	insert	function
T >	kml	insert_element	function
F	all	<pre>insert_element_after</pre>	function
F	att	<pre>insert_element_before</pre>	<del>function</del>
F	attribute	insertafter	function
F	attributes	insertbefore	function
F	cdata	insertcomment	function
F	chainattribute	inspect	function
F	count	is_valid	function
F	default	kind	function
F	elements	last	function
F	empty	load	function
F	first	lpath	function
F	function	lpathcached	function
F	index	lpathcalls	function
F	last	lshow	function
F	lowerall	makestandalone	function
F	match	match	function
F	name	name	function
F	position	newhandlers	function
F	reverse	nodesettostring	function

Т

originalload function package function parent function userdata parsedentitylpeg pihandlers table placeholders table F unknown\_any\_entity F unknown dec entity F unknown hex entity position function privatecodes table privatetoken function function process process attributes function [ ] process elements function. processattributes function profiled table raw function registerentity function registerns function remap name **function function** remap\_namespace

remap tag

remapname

remaptag

renamespace replace

resolvens

separate

serialize

setproperty settings

specialhandler

strip whitespace

setcdata

sprint

string

strip

root

save selection

remapnamespace

replace element

sethandlersfunction

function

function

function

function

function

function

function

function function

function

function

function

function

function

function function

function

function

function

function

**function** 

table

stripelement function stripleadingspaces function table function function text textonly function texttocdata function tocdata function toelement function tostrina function toxml function function tprint function traverse function unescaped unprivatized function withelement function withelements function function wrap xmlns table

#### zip (extra lua)

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

#### zlib (extra lua)

adler32 function
compress function
crc32 function
decompress function
decompressobj function
version function