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

# ConTEXt MkIV

# global (alias: _G)

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

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

# attributes (context)

**colorintents** table
- N attribute
- D data
- F enable
- F handler
- F register
- D registered

**colors** table
- N attribute
- F cmyk
- F cmyktogray
- F cmyktorgb
- F colorcomponents
- B couple
- D data
- N default
- F defineintermediatecolor
- F definemixcolor
- F definemultitonecolor
- F defineprocesscolor
- F definesimplegray
- F definespotcolor
- F definetransparency
- F enable
- F filter
- F forcedmodel
- F forcesupport
- F formatcolor
- F formatgray
- F gray
- F graytohsv
- F handler
- F hsvtogray
- F hsvtorgb
- F iccprofile
- F isblack
- N main
- S model
- F mpcolor
- F mpoptions
- U none
- F popset
- F pushset
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbtocmyk
- F rgbtogray
- F rgbtohsv
- N selector
- F setlist
- F setmodel
- D sets
- F spot
- F spotcolorname
- F spotcolorparent
- F spotcolorvalue
- B supported
- F transparencycomponents
- B triggering
- F usecolors
- F value
- D values
- B weightgray

**define** function

**effects** table
- N attribute
- D data
- F enable
- F handler
- F register
- D registered
- D values

**handlers** table

**list** data table

**names** data table

**negatives** table
- N attribute
- D data
- F enable
- F handler
- F register
- D registered

**numbers** data table
**ofnode** function
**private** function
**showcurrent** function
**states** table
F disabletriggering
F enabletriggering
F finalize
F initialize
F process
F selective
F stacked
F stacker
**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)

**codeinjections** table
- F synchronizecolormodel

**current** string

**defaults** table
- T codeinjections
- T nodeinjections
- T registrations
- D tables

**install** function

**nodeinjections** table
- F restore
- F save
- F transform

**nothing** function

**pdf** table
- T codeinjections
  - F addbookmarks
  - F attachmentid
  - F clonefield
  - F definefield
  - F definefieldset
  - F defineviewerlayer
  - F embedfile
  - F enabletags
  - F exportformdata
  - F finalizepage
  - F finishreference
  - F getdefaultfieldvalue
  - F getfieldcategory
  - F getfieldset
  - F getformatoption
  - F getoutputfilename
  - F getpreviewfigure
  - F insertrenderingwindow
  - F mergereferences
  - F mergeviewerlayers
  - F prerollreference
  - F presetsymbol
  - F presetsymbollist
  - F processrendering
  - F registerdocumentcloseaction
  - F registerdocumentopenaction
  - F registeredsymbol
  - F registerpagecloseaction
  - F registerpageopenaction
  - F registersymbol
  - F setfieldcalculationset
  - F setfigurealternative
  - F setfigurecolorspace
  - F setfiguremask
  - F setformat
  - F setformsmethod
  - F setpagetransition
  - F setupcanvas
  - F setupidentity
  - F setxmpfile
  - F startlayer
  - F stoplayer
  - F supportedformats
  - F useviewerlayer
  - F validfield
  - F validfieldcategory
  - F validfieldset
- S comment
- T nodeinjections
  - F addtags
  - F attachfile
  - F cmykcolor
  - F comment
  - F destination
  - F effect
  - F graycolor
  - F injectbitmap
  - F insertmovie
  - F insertsound
  - F insertswf
  - F insertu3d
  - F knockout
  - F negative
  - F overprint
  - F positive
  - F reference
  - F rgbcolor
  - F spotcolor

```
  F startlayer
  F stoplayer
  F switchlayer
  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
  T vfspecials
    T black
    T blue
    T gray
    T green
    T red
    T rulecolors
      T black
      T blue
      T gray
      T green
      T paleblue
      T palegray
      T palegreen
      T palered
      T red
    F startslant
    T stopslant
```

**registrations** table
**tables** table

# bibtex (context)

**authorref** function
**authors** table
- F concat
- F inverted
- F invertedshort
- F normal
- F normalshort
- F setsettings
- F short

**authoryearref** function
**authoryearsref** function
**convert** function
**hacks** table
- F add
- F doifalreadyplaced
- F filterall
- F flush
- F nofregistered
- F process
- F register
- F registerplaced
- F reset
- F resolve

**load** function
**new** function
**singularorplural** function
**statistics** table
- N nofbytes
- N nofdefinitions
- N nofshortcuts

**toxml** function

# blobs (context)

| | | | |
|---|---|---|---|
| **append** | function | **new** | function |
| **dimensions** | function | **pack** | function |
| **dispose** | function | **write** | function |

# boolean (context)

**tocontext** function
**tonumber** function

# buffers (context)

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

# builders (context)

**kernel** table
- F hyphenation
- F kerning
- F ligaturing
- F mlist_to_hlist

**paragraphs** table
- T constructors
  - N attribute
  - F define
  - F disable
  - F enable
  - F handler
  - T methods
    - F default
    - F oneline
  - D names
  - D numbers
  - F set
  - F start
  - F stop
- F 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 setmap
- F setskip
- F snapbox
- F tocategories
- F tocategory
- F vboxhandler

# caches (context)

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

# callback (basic tex)

| | |
|---|---|
| **find** | function |
| **list** | function |
| **register** | overloaded function |

# callbacks (context)

| | | | |
|---|---|---|---|
| **freeze** | function | **push** | function |
| **known** | function | **register** | function |
| **list** | data table | **report** | function |
| **pop** | function | **table** | function |

# catcodes (context)

| | |
|---|---|
| **names** | data table |
| **numbers** | data table |
| **register** | function |

# characters (context)

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

# chemicals (context)

| | | | |
|---|---|---|---|
| **component** | function | **moleculeparser** | userdata |
| **define** | function | **start** | function |
| **format** | string | **stop** | function |
| **inline** | function | **structures** | number |
| **instance** | string | **undefine** | function |
| **molecule** | function | | |

# commands (context)

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

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

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

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

| | | | |
|---|---|---|---|
| rawcountervalue | function | savecounter | function |
| rawdate | function | savecurrentattributes | function |
| referencepagestate | function | savedlistnumber | function |
| referencerealpage | function | savedlistprefixednumber | function |
| registerattachment | function | savedlisttitle | function |
| registerbibtexentry | function | savefloat | function |
| registerbibtexfile | function | saveobject | function |
| registerbookmark | function | saveparallel | function |
| registerbuttons | function | savestructureblock | function |
| registercolor | function | savetaggedtwopassdata | function |
| registercolorintent | function | savetwopassdata | function |
| registeredviewerlayer | function | second | function |
| registerhelp | function | selectstructureblock | function |
| registeritemgroup | function | setbreakpoints | function |
| registerlinenumbering | function | setcharactercasing | function |
| registermaintextcolor | function | setcharactercleaning | function |
| registernamespace | function | setcharacterkerning | function |
| registerpostponedblock | function | setcharacterspacing | function |
| registerrendering | function | setcharacterstripping | function |
| registersoundclip | function | setclosedocumentaction | function |
| registerstructureprocessor | function | setclosepageaction | function |
| registertransparency | function | setcolormodel | function |
| registerunit | function | setcounter | function |
| relatemarking | function | setdataset | function |
| removemissingcharacters | function | setdigitsmanipulation | function |
| renderingvar | function | setdirection | function |
| replacemissingcharacters | function | setdocumentenvironments | function |
| replacepospxywhd | function | setdocumentmodes | function |
| resavefloat | function | setdocumentmodules | function |
| resetcounter | function | setfigurelookuporder | function |
| resetfontfeature | function | setfontfeature | function |
| resetfontsolution | function | setfontofid | function |
| resetmarking | function | setfontsolution | function |
| resetmathitalics | function | setformat | function |
| resetnullfont | function | setformsmethod | function |
| resetparallel | function | setinternalreference | function |
| resetreference | function | setlayer | function |
| resetstructureprocessor | function | setmarking | function |
| resettimer | function | setmathalphabet | function |
| restartcounter | function | setmathalternate | function |
| restorecounter | function | setmathattribute | function |
| restorecurrentattributes | function | setmathitalics | function |
| romannumerals | function | setmathstyle | function |
| runbuffer | function | setnextinternalreference | function |
| savebuffer | function | setobject | function |

| | | | |
|---|---|---|---|
| setopendocumentaction | function | spotcolorparent | function |
| setopenpageaction | function | spotcolorvalue | function |
| setowncounter | function | startcolorset | function |
| setpagestate | function | startcomponent | function |
| setpagestaterealpageno | function | startenvironment | function |
| setpagetransition | function | startfontsolution | function |
| setparbuilder | function | startparbuilder | function |
| setpos | function | startproduct | function |
| setrandomseed | function | startproject | function |
| setrealign | function | startregime | function |
| setreferencearguments | function | startsectionlevel | function |
| setreferenceattribute | function | starttag | function |
| setreferenceoperation | function | starttext | function |
| setsectionblock | function | startviewerlayer | function |
| setstructureblockstate | function | stopcolorset | function |
| settagcombination | function | stopcomponent | function |
| settagdescription | function | stopenvironment | function |
| settagdescriptionsymbol | function | stopfontsolution | function |
| settagfigure | function | stopparbuilder | function |
| settaghighlight | function | stopproduct | function |
| settagitemgroup | function | stopproject | function |
| settagproperty | function | stopregime | function |
| settagsorting | function | stopsectionlevel | function |
| settagsynonym | function | stoptag | function |
| settagtablecell | function | stoptext | function |
| settagtabulatecell | function | stopviewerlayer | function |
| setupbookmarks | function | storejavascriptcode | function |
| setupcanvas | function | storejavascriptpreamble | function |
| setupcharacterspacing | function | structureautocatcodedget | function |
| setupexport | function | structurecatcodedget | function |
| setupfontexpansion | function | structuregivencatcodedget | function |
| setupfontprotrusion | function | structurenumber | function |
| setupidentity | function | structuretitle | function |
| setupitaliccorrection | function | structureuservariable | function |
| setuplinenumbering | function | structurevariable | function |
| setvisual | function | subcountervalues | function |
| setxmpfile | function | subff | function |
| showassignerror | function | subfs | function |
| showattributes | function | synchronizecolormodel | function |
| showchardata | function | synchronizemarking | function |
| showcounter | function | taggedmathfunction | function |
| showfontparameters | function | testcase | function |
| showhyphenatedinlist | function | textime | function |
| splitfilename | function | transparencycomponents | function |
| spotcolorname | function | triggereffect | function |

| | | | |
|---|---|---|---|
| triggernegative | function | usezipfile | function |
| truefilename | function | utfchar | function |
| typebuffer | function | utfmathclass | function |
| typefile | function | utfmathcommand | function |
| typestring | function | utfmathfiller | function |
| uchexnumber | function | utfmathstretch | function |
| uchexnumbers | function | visual | function |
| unicodechar | function | vspacing | function |
| unit | function | vspacingcollapse | function |
| updatefilenames | function | vspacingdefine | function |
| useMPlibrary | function | vspacingsetamount | function |
| useanyfile | function | vspacingsnap | function |
| usecldfile | function | weekday | function |
| usecolors | function | weekdayname | function |
| usecomponent | function | widthofstring | function |
| useenvironment | function | writestatus | function |
| usefile | function | x_table_cleanup | function |
| usejavascriptpreamble | function | x_table_construct | function |
| usejavascriptscripts | function | x_table_create | function |
| uselibrary | function | x_table_flush | function |
| useluafile | function | x_table_init_construct | function |
| usemodules | function | x_table_init_reflow_height | function |
| usepath | function | x_table_init_reflow_width | function |
| useproduct | function | x_table_next_row | function |
| useproject | function | x_table_reflow_height | function |
| usesubpath | function | x_table_reflow_width | function |
| usesymbols | function | x_table_set_construct | function |
| usetexfile | function | x_table_set_reflow_height | function |
| useurl | function | x_table_set_reflow_width | function |
| usexmlfile | function | year | function |

# containers (context)

| | | | |
|---|---|---|---|
| **cleanname** | function | **is_valid** | function |
| **content** | function | **read** | function |
| **define** | function | **usecache** | boolean |
| **is_usable** | function | **write** | function |

# converters (context)

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

# coroutine (basic lua)

| | | | |
|---|---|---|---|
| **coco** | boolean | **running** | function |
| **create** | function | **status** | function |
| **cstacksize** | function | **wrap** | function |
| **resume** | function | **yield** | function |

# ctxrunner (context)

| | |
|---|---|
| **load** | function |
| **prepfiles** | data table |
| **resolve** | function |

# debug (basic lua)

| | | | |
|---|---|---|---|
| debug | function | getupvalue | function |
| getfenv | function | setfenv | function |
| gethook | function | sethook | function |
| getinfo | function | setlocal | function |
| getlocal | function | setmetatable | function |
| getmetatable | function | setupvalue | function |
| getregistry | function | traceback | function |

# dir (context)

| | | | |
|---|---|---|---|
| **collectpattern** | function | **ls** | function |
| **current** | function | **makedirs** | function |
| **expandname** | function | **mkdirs** | function |
| **glob** | function | **pop** | function |
| **globfiles** | function | **push** | function |
| **globpattern** | function | | |

# directives (context)

| | | | |
|---|---|---|---|
| **data** | data table | **name** | string |
| **disable** | function | **register** | function |
| **enable** | function | **report** | function |
| **list** | function | **show** | 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

# environment (context)

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

# epdf (extra tex)

| | | | |
|---|---|---|---|
| Array | function | PDFRectangle | function |
| Dict | function | open | function |
| Object | function | type | function |

# experiments (context)

| | | | |
|---|---|---|---|
| **data** | data table | **name** | string |
| **disable** | function | **register** | function |
| **enable** | function | **report** | function |
| **list** | function | **show** | function |

# figures (context)

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

# file (basic lua)

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

# floats (context)

| | | | |
|---|---|---|---|
| **analysemethod** | function | **nofstacked** | function |
| **checkedpagefloat** | function | **pop** | function |
| **collect** | function | **push** | function |
| **consult** | function | **resave** | function |
| **flush** | function | **save** | function |
| **getvariable** | function | **stacked** | function |

# font (basic tex)

| | | | |
|---|---|---|---|
| **current** | function | **id** | function |
| **define** | function | **max** | function |
| **each** | function | **nextid** | function |
| **fonts** | table | **read_tfm** | function |
| **frozen** | function | **read_vf** | function |
| **getfont** | function | **setfont** | function |

# fontloader (extra tex)

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

# fonts (context)

**analyzers** table
- D initializers
- D methods
- F setstate
- B useunicodemarks

**checkers** table
- F missing

**cid** table
- F getmap
- F loadfile

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

**constructors** table
- F aftercopyingcharacters
- F applymanipulators
- F assignmathparameters
- B autocleanup
- F beforecopyingcharacters
- D cache
- F calculatescale
- F checkedfeatures
- F checkedfilename
- F cleanuptable
- F collectprocessors
- D designsizes
- D dontembed
- F enhanceparameters
- N factor
- F finalize
- F getfeatureaction
- F hashfeatures
- F hashinstance
- T hashmethods
  - F normal
  - F virtual
- F initializefeatures
- T keys
  - T character
    - S depth
    - S height
    - S italic
    - S width
  - T description
    - T boundingbox
    - S depth
    - S height
    - S width
  - T parameters
    - S ascender
    - S descender
    - S designsize
    - T expansion
      - S auto
      - S shrink
      - S step
      - S stretch
    - S extendfactor
    - S factor
    - S hfactor
    - S mathsize
    - T protrusion
      - S auto
    - S quad
    - S scaledpoints
    - S scriptpercentage
    - S scriptscriptpercentage
    - S size
    - S slantfactor
    - S slantperpoint
    - T spacing
      - S extra
      - S shrink
      - S stretch
      - S width
    - T synonyms
      - S em

```
      S ex
      S extra_space
      S extraspace
      S slant
      S space
      S space_shrink
      S space_stretch
      S spaceshrink
      S spacestretch
      S x_height
    S units
    S vfactor
    S xheight
  T properties
    S autoitalicamount
    T cidinfo
    S embedding
    S encodingbytes
    S filename
    S finalized
    S fontname
    S format
    S fullname
    S hasitalics
    S hasmath
    S mathitalics
    S mode
    S name
    S noglyphnames
    S nostackmath
    S psname
    S textitalics
    S virtualized
D loadedfonts
S namemode
F newfeatures
N privateoffset
F readanddefine
F registerfeature
B resolvevirtualtoo
F scale
F scaled
F setfactor
F setname
N version
```

```
current          function
currentid        function
definers         table
    F addlookup
    F analyze
    F applypostprocessors
    F checkedmode
    F checkedscript
    F current
    S defaultlookup
    F define
    F getspecification
    F loadfont
    F makespecification
    T methods
      F install
      D variants
    F read
    F register
    F registered
    F registersplit
    F resetnullfont
    F resolve
    T resolvers
      F file
      F name
      F spec
definetypeface   function
encodings        table
    T agl
    D cache
    F is_known
    D known
    F load
    F make_unicode_vector
    D math
    N version
expansions       data table
formats          data table
goodies          table
    T colorschemes
      F coloring
      T data
      F enable
    T designsizes
```

```
      D data
      F filename
      F register
    F getcompositions
    T list
      F compositions
      F designsizes
      F expansions
      F featureset
      F files
      F mathematics
      F protrusions
      F solutions
      F typefaces
    F load
    F prepare_features
    F register
    F registerpostprocessor
    F report
handlers        table
    T afm
      B addkerns
      B addligatures
      B addtexligatures
      B autoprefixed
      D cache
      D features
      F load
      F setfeatures
      B syncspace
      N version
    T otf
      F addfeature
      D cache
      T chainhandlers
        F normal
        F verbose
      F collectlookups
      F dataset
      S defaultbasealternate
      S defaultnodealternate
      D enhancers
      D features
      F getalternate
      T glists
      F load
      F scriptandlanguage
      F setcontextchain
      F setdynamics
      F setfeatures
      T tables
        D baselines
        D features
        D languages
        D scripts
      N version
    T pfb
    T tfm
      D features
      F setfeatures
    T vf
      T combinations
      F combine
      T combiner
        D commands
      F find
      D helpers
      D math
      D predefined
      D whatever
hashes          table
    D characters
    D csnames
    D descriptions
    T dynamics
    D emwidths
    D exheights
    D identifiers
    D italics
    D lastmathids
    D marks
    D parameters
    T processes
    D properties
    D quads
    D resources
    T setdynamics
    D xheights
helpers         table
    F addprivate
```

F dimenfactor
F getdigitwidth
F getparameters
F getprivatenode
F hasprivate
F nametoslot
F setdigitwidth

**iterators** table
F characters
F descriptions
F glyphs

**loggers** table
T category_to_placeholder
S ll
S lm
S lo
S lt
S lu
S mc
S me
S mn
S nd
S nl
S no
S pc
S pd
S pe
S pf
S pi
S po
S ps
S sc
S sk
S sm
S so
F format
F onetimemessage
F register
F reportdefinedfonts
F reportusedfeatures

**mappings** table
F addtounicode
F fromunicode16
F loadfile
F loadline
F loadlumtable
F makenameparser
F reset
F tounicode16
F tounicode16sequence

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

F resolvespec
B saved
F specification
D specifications
F splitspec
N version
F writedata

**protrusions** data table

**readers** table

F afm
F check_lua
F check_tfm
F dfont
F lua
F opentype
F otf
F pfb
D sequence
F tfm
F ttc
F ttf

**specifiers** table

D contextmerged
F contextnumber
D contextnumbers
D contextsetups
F contexttostring
F mergecontext
F presetcontext
F registercontext
F showcontext
F splitcontext
D synonyms
D variants

**symbols** table

F uselibrary

**tables** table

**tracers** table

**typefaces** data table

# graphics (context)

**backgrounds** table

F calculatemultipar

F fetchmultipar

F pair

F path

F point

# gzip (extra lua)

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

# img (basic tex)

| | | | |
|---|---|---|---|
| boxes | function | ofindex | function |
| checksize | function | package | function |
| clone | function | print | function |
| copy | function | scan | function |
| immediatewrite | function | serialize | function |
| keys | function | totable | function |
| new | function | types | function |
| node | function | write | function |

# interactions (context)

**attachments** table
- F insert
- F register

**fields** table
- F clone
- F define
- F defineset
- F insert

**general** table
- F getidentity
- F setupidentity

**help** table
- F collect
- F reference
- F register

**javascripts** table
- F addtopreamble
- F code
- D codes
- F flushpreambles
- D functions
- D preambles
- F setpreamble
- F storecode
- F storepreamble
- F usepreamblenow
- F usescripts

**linkedlists** table

**pages** table
- F setpagetransition
- F setupcanvas

**references** table
- F setclosedocument
- F setclosepage
- F setopendocument
- F setopenpage

**renderings** table
- F register
- F rendering
- F var

**soundclips** table
- F insert
- F register

# interfaces (context)

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

# io (basic lua)

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

# job (context)

**comment** function
**datasets** table
- D collected
- F extend
- F getdata
- F setdata
- D tobesaved

**disablesave** function
**files** table
- D collected
- F context
- B forcerun
- F run
- D tobesaved

**initialize** function
**load** function
**loadother** function
**objects** table
- D collected
- F get
- F number
- F page
- F save
- F set
- D tobesaved

**pack** boolean
**pagestates** table
- D collected
- F extend
- F realpage
- F setstate
- D tobesaved

**passes** table
- F check
- D collected
- F count
- F define
- F find
- F first
- F get
- F getcollected
- F getdata
- F getfield
- F gettobesaved
- F inlist
- F last
- F list
- F save
- F savetagged
- D tobesaved

**positions** table
- F b_col
- F b_region
- F c
- D collected
- F column
- F copy
- F depth
- F e_col
- F e_region
- F enhance
- F extra
- F get
- F getreserved
- F hangafter
- F hangindent
- F height
- F hsize
- F leftskip
- F lowerleft
- F lowerright
- F markregionbox
- F n
- F onsamepage
- F overlapping
- F p
- F page
- F paragraph
- F parindent
- F position
- F r
- F region
- F replace
- F rightskip

F set
F setall
F setdim
D tobesaved
F upperleft
F upperright
F width
F x
F xy
F y

**register** function
**save** function
**structure** table

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

**variables** table
D checksums
D collected
F save
D tobesaved

**version** number

# lang (basic tex)

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

# languages (context)

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

# layouts (context)

**status** table

F isleftpage

F leftorrightpagection

# lfs (extra lua)

| | | | |
|---|---|---|---|
| **attributes** | function | **mkdir** | function |
| **chdir** | function | **readlink** | function |
| **currentdir** | function | **rmdir** | function |
| **dir** | function | **setmode** | function |
| **isdir** | overloaded function | **shortname** | function |
| **isfile** | function | **symlinkattributes** | function |
| **lock** | function | **touch** | function |
| **lock_dir** | function | **unlock** | function |

# libraries (context)

**basiclua** data table
**basictex** data table
**builtin** data table
**extralua** data table
**extratex** data table
**globals** data table

# lmx (context)

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

# logs (context)

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

# lpdf (context)

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

# lpeg (basic lua)

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

# ltn12 (extra lua)

**BLOCKSIZE** number
**filter** table
- F chain
- F cycle

**pump** table
- F all
- F step

**sink** table
- F chain
- F error
- F file
- F null
- F simplify
- F table

**source** table
- F cat
- F chain
- F empty
- F error
- F file
- F rewind
- F simplify
- F string

# lua (basic tex)

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

# luatex (context)

| | | | |
|---|---|---|---|
| **cleanuptempfiles** | function | **showjobstat** | function |
| **registerstartactions** | function | **showtexstat** | function |
| **registerstopactions** | function | **starttime** | number |
| **registertempfile** | function | | |

# lxml (context)

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

F show
F sort

| | | | |
|---|---|---|---|
| **splitid** | function | **tag** | function |
| **startraw** | function | **text** | function |
| **stopraw** | function | **tofile** | function |
| **store** | function | **toparameters** | function |
| **strip** | function | **toverbatim** | function |
| **stripped** | function | **verbatim** | function |
| | | **withindex** | function |
| | | **xmltexhandler** | data table |

# math (basic lua)

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

# mathematics (context)

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

# md5 (extra lua)

| | | | |
|---|---|---|---|
| HEX | function | exor | function |
| crypt | function | hex | function |
| dec | function | sum | function |
| decrypt | function | sumhexa | function |

# metapost (context)

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

# mime (extra lua)

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

# mplib (extra tex)

| | | | |
|---|---|---|---|
| **fields** | function | **pen_info** | function |
| **new** | function | **version** | function |

# noads (context)

**handlers** table
- F check
- F collapse
- F families
- F italics
- F relocate
- F render
- F resize
- F respace
- F tags
- F unscript
- F variants

**process** function

**processors** table
- T collapse
- F mlist_to_hlist
- T relocate
- T render
- T resize
- T respace
- T unscript

# node (basic tex)

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

# nodes (context)

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

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

F set
**striprange** function
**tasks** table
F actions
F appendaction
F disableaction
F disablegroup
F enableaction
F enablegroup
F freeze
F freezegroup
F new
F prependaction
F removeaction
F restart
F showactions
F table
**textdir_is_equal** data table
**textdir_is_is** data table
**textdir_is_opposite** data table
**textdir_is_parallel** data table
**tonodes** function
**tosequence** function
**totable** function
**toutf** function
**tracers** table
T characters
F collect
F equal
F indices
F start
F string
F unicodes
T colors
F reset
F set
F setlist
F fontchar
F start
T steppers
F check
F codes
F features
F glyphs
F message
F messages
F nofsteps
F register
F reset
F start
F stop
F stop
T transparencies
F reset
F set
F setlist
**unsetattribute** function
**unsetattributes** function
**visualizebox** function
**visualizers** table
F box
F handler
F setfont
F setlayer
F setvisual
**whatcodes** data table
**whatsitcodes** data table
**writable_spec** function

# number (context)

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

# os (basic lua)

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

# package (basic lua)

| | | | |
|---|---|---|---|
| appendtolibpath | function | loaders | table |
| clibpaths | function | loadlib | function |
| config | string | path | string |
| cpath | string | preload | table |
| libpaths | function | prependtolibpath | function |
| loaded | table | seeall | function |

# pdf (basic tex)

| | | | |
|---|---|---|---|
| immediateobj | function | pageresources | string |
| mapfile | function | pagesattributes | string |
| mapline | function | pdfmapfile | function |
| maxobjnum | function | pdfmapline | function |
| obj | function | print | function |
| objtype | function | refobj | function |
| pageattributes | string | registerannot | function |
| pageref | function | reserveobj | function |

# physics (context)

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

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

S Liter
S Litre
S Lumen
S Lux
S Maxwell
S Meter
S Metre
S Metric Ton
S Minute
S Mol
S Mole
S Nautical Mile
S Neper
S Newton
S Oersted
S Ohm
S Pascal
S Phot
S Poise
S Radian
S Rev
S Revolution
S Second
S Siemens
S Sievert
S Steradian
S Stilb
S Stokes
S Tesla
S Tonne
S Volt
S Watt
S Weber
S eV

# profiler (extra lua)

**pause** function
**resume** function
**start** function
**stop** function

# regimes (context)

| | | | |
|---|---|---|---|
| **disable** | function | **push** | function |
| **enable** | function | **toregime** | function |
| **pop** | function | **translate** | function |
| **process** | function | | |

# resolvers (context)

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

F currentcomponent
F currentenvironment
F currentproduct
F currentproject
F justacomponent
D processors
F productcomponent
F usefile

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

# scripts (context)

| | |
|---|---|
| **categorytonumber** | data table |
| **colors** | data table |
| **defaults** | table |
| N | inter_char_half_shrink_factor |
| N | inter_char_half_stretch_factor |
| N | inter_char_hangul_penalty |
| N | inter_char_quarter_shrink_factor |
| N | inter_char_quarter_stretch_factor |
| N | inter_char_shrink_factor |
| N | inter_char_stretch_factor |
| **handlers** | data table |
| **hash** | table |
| **installdataset** | function |
| **installmethod** | function |
| **numbertocategory** | data table |
| **numbertodataset** | data table |
| **preprocess** | function |
| **reset** | function |
| **set** | function |

# set (context)

| | | | |
|---|---|---|---|
| **contains** | function | **tonumber** | function |
| **create** | function | **totable** | function |
| **tolist** | function | | |

# socket (extra lua)

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

# sorters (context)

**comparers** table
- F basic

**constants** table
- S defaultdigits
- S defaultlanguage
- S defaultmethod
- N digitsmaximum
- N digitsoffset
- N ignoredoffset
- N replacementoffset

**definitions** data table
**firstofsplit** function
**setlanguage** function
**sort** function
**splitters** table
- F utf

**strip** function
**tracers** data table
**update** function

# statistics (context)

| | | | |
|---|---|---|---|
| **checkfmtstatus** | function | **resettiming** | function |
| **elapsedindeed** | function | **runtime** | function |
| **elapsedseconds** | function | **savefmtstatus** | function |
| **elapsedtime** | function | **show** | function |
| **enable** | boolean | **showjobstat** | function |
| **formatruntime** | function | **starttiming** | function |
| **hastiming** | function | **stoptiming** | function |
| **memused** | function | **threshold** | number |
| **register** | function | **timed** | function |
| **reportstorage** | function | | |

# status (basic tex)

**list** function

# storage (context)

| | | | |
|---|---|---|---|
| **allocate** | function | **min** | number |
| **data** | table | **nofmodules** | number |
| **evaluators** | table | **noftables** | number |
| **mark** | function | **register** | function |
| **marked** | function | **shared** | data table |
| **max** | number | | |

# streams (context)

| | | | |
|---|---|---|---|
| **collect** | function | **push** | function |
| **disable** | function | **start** | function |
| **enable** | function | **stop** | function |
| **flush** | function | **synchronize** | function |
| **initialize** | function | | |

# string (basic lua)

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

# structures (context)

**atlocation** function
**blocks** table
- D collected
- F define
- F print
- F save
- F select
- F setstate
- D states
- D tobesaved

**bookmarks** table
- F finalize
- F flatten
- S method
- F overload
- F place
- F register
- F setup

**counters** table
- F add
- F analyze
- F check
- D collected
- F compact
- F converted
- F currentvalue
- D data
- F define
- F first
- F get
- F last
- F next
- F prev
- F previous
- F raw
- F record
- F reset
- F restart
- F restore
- F save
- F set
- F setlevel
- F setoffset
- F setown
- F setstate
- F setvalue
- T specials
  - F userpage
- F subs
- D tobesaved
- F value

**currentsectionnumber** function
**descriptions** table
**documents** table
- T data
  - S block
  - T blocks
  - T checkers
  - N depth
  - T forced
  - T numbers
  - T ownnumbers
  - T status
- F initialize
- F preset
- F reset

**floats** table
**formulas** table
- F current
- F simplify
- F store

**helpers** table
- F analyze
- F formulanumber
- F merged
- F page
- F prefix
- F prefixlastpage
- F prefixpage
- F simplify
- F title
- F touserdata

**itemgroups** table
- F maxwidth

F nofitems
F register

**lists** table
F addto
F analyze
D cached
D collected
F discard
F enhance
T enhancers
F filter
F filtercollected
F formulanumber
F hasnumberdata
F haspagedata
F hastitledata
D internals
F iscached
F label
F location
F number
D ordered
F page
F popnesting
F prefix
F prefixednumber
F prefixedpage
F process
D pushed
F pushnesting
F realpage
T result
F sectionnumber
F size
F title
D tobesaved
F userdata
F uservalue

**marks** table
D data
F define
F exists
F fetch
F fetchallmarks
F fetched
F fetchonemark
F fetchtwomarks
F get
F number
F relate
F reset
F set
F show
F synchronize
F title
T tracers
F showtable

**notes** table
F checkpagechange
F define
F deltapage
F doifcontent
F doifonsamepageasprevious
F flush
F flushpostponed
F get
F getn
F getnumberpage
F getstate
F getsymbolpage
F internal
F internalid
F listindex
F ordered
F postpone
F resetpostponed
F restore
F save
F setstate
F setsymbolpage
D states
F store

**pages** table
F analyze
D collected
F is_odd
F number
F save
D tobesaved

**references** table

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

F get
F valid
F whatfrom

**registers** table
F analyze
F analyzed
D collected
F compare
F define
F enhance
F extend
F filter
F filtercollected
F finalize
F flush
F prepare
F process
F sort
F store
D tobesaved
F unique
F userdata

**sections** table
F autodepth
F cct
T collected
F current
F currentblock
F currentid
F currentlevel
F depthnumber
F finddata
F findnumber
F fullnumber
F getcurrentlevel
F getlevel
F getnumber
F internalreference
D levelmap
D levels
F load
F matchingtilldepth
F numberatdepth
F numbers
F popblock
F prefixedconverted
F pushblock
F register
D registered
F reportstructure
F save
F set
F setblock
F setchecker
F setlevel
F setnumber
F somelevel
F structuredata
F title
D tobesaved
F typesetnumber
F userdata
B verbose
F way

**sets** table
F define
F get
F getall
D setlist

**specials** table
D collected
F retrieve
F store
D tobesaved

**synonyms** table
F analyzed
D collected
F compare
F define
F filter
F finalize
F flush
F meaning
F prepare
F process
F register
F registerused
F sort
F synonym
D tobesaved

**tags**

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

table

F setdescription
F setdescriptionsymbol
F setfigure
F sethighlight
F setitemgroup
F setproperty
F setsorting
F setsynonym
F settablecell
F settabulatecell
F start
F stop
D taglist
T userdata

# table (basic lua)

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

# tex (basic tex)

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

| | | | |
|---|---|---|---|
| skip | table | tprint | function |
| sp | function | txtcatcodes | number |
| sprint | function | type | function |
| systemmodes | data table | uccode | table |
| texcatcodes | number | uniformdeviate | function |
| toks | table | uprint | function |
| tpacatcodes | number | vrbcatcodes | number |
| tpbcatcodes | number | write | function |

# texconfig (basic tex)

| | | | |
|---|---|---|---|
| error_line | number | max_print_line | number |
| expand_depth | number | max_strings | number |
| formatname | string | nest_size | number |
| half_error_line | number | param_size | number |
| hash_extra | number | save_size | number |
| init | function | shell_escape | string |
| kpse_init | boolean | stack_size | number |
| max_in_open | number | | |

# texio (basic tex)

```
write     function
write_nl  function
```

# token (basic tex)

| | | | |
|---|---|---|---|
| command_id | function | get_next | function |
| command_name | function | is_activechar | function |
| create | function | is_expandable | function |
| csname_id | function | is_protected | function |
| csname_name | function | lookup | function |
| expand | function | | |

# tokens (context)

**bgroup** table
**collectors** table
T data
F defaultwords
F dowithwords
F flush
F handle
F install
F register
T registered
T remapper
F convert
T data
F store
F show
T show_methods
F a
F b
F c
F showtoken
F test
F trace
**egroup** table
**hbox** table
**letter** function
**letters** function
**other** function
**vbox** table
**vtop** table

# tracers (context)

**count** function
**cs** function
**dimen** function
**knownlist** function
**lists** table
    T context
    T internals
    T scratch
**name** function
**primitive** function
**printerror** function
**showlines** function
**strings** table
    S undefined
**toks** function
**type** function

# trackers (context)

| | | | |
|---|---|---|---|
| **data** | data table | **name** | string |
| **disable** | function | **register** | function |
| **dumphashtofile** | function | **report** | function |
| **enable** | function | **savehash** | function |
| **list** | function | **show** | function |

# typesetters (context)

**alignments** table
- F handler
- F set

**breakpoints** table
- N attribute
- F define
- F handler
- D mapping
- T methods
- T numbers
- F set
- F setreplacement

**cases** table
- T actions
- F handler
- F register
- F set

**characters** table
- F handler

**cleaners** table
- F handler
- F set

**digits** table
- T actions
- N attribute
- F handler
- F set

**directions** table
- F handler
- F process
- F set

**fast_hpack** function

**hpack** function

**italics** table
- F forcevariant
- F handler
- F reset
- F set

**kerns** table
- D factors
- F handler
- B keepligature
- B keeptogether
- D mapping
- F set

**margins** table
- F finalhandler
- F globalhandler
- F ha
- F localhandler
- F save

**paragraphs** table
- N attribute
- T droppers
  - F freeze
  - F set
- F handler
- F set

**processors** table
- F apply
- F register
- F reset
- F split
- F startapply
- F stopapply
- F stripped
- F tostring

**spacings** table
- N attribute
- F define
- F handler
- D mapping
- T numbers
  - T frenchpunctuation
    - T characters
    - S name
    - N number
- F reset
- F set
- F setup

**tonodes** function

**vpack** function

**xtables** table
- F cleanup

F construct
F create
F 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 byte
- F char
- F dump
- F find
- F format
- F gfind
- F gmatch
- F gsub
- F len
- F lower
- F match
- F rep
- F reverse
- F sub
- F upper

**filetype** function

**grapheme** table
- F byte
- F char
- F dump
- F find
- F format
- F gfind
- F gmatch
- F gsub
- F len
- F lower
- F match
- F rep
- F reverse
- F sub
- F upper

**latin1** table
- F byte
- F char
- F dump
- F find
- F format
- F gfind
- F gmatch
- F gsub
- F len
- F lower
- F match
- F rep
- F reverse
- F sub
- F upper

**ustring** function

**utf16_to_utf8** function

**utf16_to_utf8_be** function

**utf16_to_utf8_le** function

**utf32_to_utf8** function

**utf32_to_utf8_be** function

**utf32_to_utf8_le** function

**utf8** table
- F byte
- F char
- F dump
- F find
- F format
- F gfind
- F gmatch
- F gsub
- F len
- F lower
- F match
- F rep
- F reverse
- F string
- F sub
- F toentities
- F upper

**utf8_to_utf16** function

**utf8_to_utf8** function

**utfcodes** function

**utfname** table

**utftype** function

**xstring** function

# url (context)

| | | | |
|---|---|---|---|
| **addscheme** | function | **hasscheme** | function |
| **construct** | function | **query** | function |
| **filename** | function | **split** | function |
| **hashed** | function | | |

# utilities (context)

**debugger** table
- F disable
- F enable
- F savestats
- F showstats

**formatters** table
- F formatcolumns
- F list
- F stripzeros

**garbagecollector** table
- F check
- N criterium
- B enabled

**lua** table
- F compile

**packers** table
- F hashed
- F new
- F pack
- F simplehashed
- F strip
- F unpack
- N version

**parsers** table
- F add_settings_to_array
- F arguments_to_table
- F array_to_string
- F getparameters
- F hash_to_string
- F listitem
- F make_settings_to_hash_pattern
- T patterns
  - U settings_to_array
  - U settings_to_hash_a
  - U settings_to_hash_b
  - U settings_to_hash_c
- F settings_to_array
- F settings_to_hash
- F settings_to_hash_strict
- F settings_to_hash_tolerant
- F settings_to_set
- F simple_hash_to_string
- F splitthousands

**report** function

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

**setters** table
- F disable
- F enable
- F initialize
- F list
- F new
- F register
- F reset
- F show

**stacker** table
- F new

**storage** table
- F allocate
- F checked
- F mark
- F marked
- F setinitializer
- F sparse

**strings** table
- F collapsecrlf
- F newrepeater
- F nice
- F striplong

F tabtospace

**tables** table

F accesstable
F definetable
F encapsulate
F insertaftervalue
F insertbeforevalue
F migratetable
F removevalue

# visualizers (context)

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

# xml (context)


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

```
  F concat
  F concatrange
  F context
  F count
  F ctxtext
  F default
  F first
  F function
  F index
  F last
  F lettered
  F lower
  F lowerall
  F match
  F name
  F position
  F reverse
  F stripped
  F tag
  F tags
  F text
  F upper
  F upperall
T xml
  F all
  F att
  F attribute
  F attributes
  F cdata
  F chainattribute
  F count
  F default
  F elements
  F empty
  F first
  F function
  F index
  F last
  F lowerall
  F match
  F name
  F position
  F reverse
  F table
  F tag
  F tags
  F text
  F texts
  F upperall
```

| | |
|---|---|
| **first** | function |
| **found** | function |
| **functions** | table |
| **getbuffer** | function |
| **gethandlers** | function |
| **gethandlersfunction** | function |
| **include** | function |
| **index** | function |
| **inheritedconvert** | function |
| **inject** | function |
| ~~**inject_element**~~ | ~~function~~ |
| ~~**inject_element_after**~~ | ~~function~~ |
| ~~**inject_element_before**~~ | ~~function~~ |
| **injectafter** | function |
| **injectbefore** | function |
| **insert** | function |
| **insert_element** | function |
| ~~**insert_element_after**~~ | ~~function~~ |
| ~~**insert_element_before**~~ | ~~function~~ |
| **insertafter** | function |
| **insertbefore** | function |
| **insertcomment** | function |
| **inspect** | function |
| **is_valid** | function |
| **kind** | function |
| **last** | function |
| **load** | function |
| **lpath** | function |
| **lpathcached** | function |
| **lpathcalls** | function |
| **lshow** | function |
| **makestandalone** | function |
| **match** | function |
| **name** | function |
| **newhandlers** | function |
| **nodesettostring** | function |
| **originalload** | function |
| **package** | function |
| **parent** | function |
| **parsedentitylpeg** | userdata |
| **pihandlers** | table |

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

# zip (extra lua)

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

# zlib (extra lua)

| | | | |
|---|---|---|---|
| adler32 | function | decompress | function |
| compress | function | decompressobj | function |
| compressobj | function | version | function |
| crc32 | function | | |