1 attributes backends bibtex blobs
boolean buffers builders caches callback
callbacks catcodes characters chemicals
commands containers context converters
coroutine debug dir directives document
documentdata environment epdf experiments
figures file floats font fontloader fonts
global 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 | io | table |
| arg | table | ipairs | function |
| assert | function | job | table |
| attributes | table | lang | table |
| backends | table | languages | table |
| beginpage | function | layouts | table |
| bibtex | table | lfs | table |
| blobs | table | libraries | table |
| boolean | table | lmx | table |
| buffers | table | load | function |
| builders | table | loadfile | function |
| caches | table | loadstring | function |
| callback | table | logs | table |
| callbacks | table | lpdf | table |
| catcodes | table | lpeg | table |
| characters | table | ltn12 | table |
| chemicals | table | lua | table |
| collectgarbage | function | luatex | table |
| commands | table | lxml | table |
| containers | table | math | table |
| context | function | mathematics | table |
| converters | table | md5 | table |
| coroutine | table | metapost | table |
| debug | table | mime | table |
| dimen | function | module | function |
| dir | table | moduledata | table |
| directives | table | modules | table |
| document | table | mplib | table |
| documentdata | table | newline | function |
| dofile | function | newproxy | function |
| endpage | function | next | function |
| environment | table | noads | table |
| epdf | table | node | table |
| error | function | nodes | table |
| experiments | table | number | table |
| figures | table | os | table |
| file | table | outputpagestree | function |
| floats | table | package | table |
| font | table | pairs | function |
| fontloader | table | parametersets | table |
| fonts | table | pcall | function |
| gcinfo | function | pdf | table |
| getfenv | function | physics | table |
| getmetatable | function | print | function |
| getreadfilename | function | profiler | table |
| global | table | protect | function |
| gzip | table | rawequal | function |
| img | table | rawget | function |
| inspect | function | rawset | function |
| interactions | table | regimes | table |
| interfaces | table | report_characters | function |

| | | | |
|---|---|---|---|
| require | function | toboolean | function |
| resolvers | table | tocontext | function |
| scripts | table | token | table |
| select | function | tokens | table |
| set | table | tonumber | function |
| setfenv | function | tostring | function |
| setmetatable | function | trace_characters | boolean |
| short_operators | table | traceback | function |
| short_prefixes | table | tracers | table |
| short_units | table | trackers | table |
| socket | table | type | function |
| sorters | table | typesetters | table |
| statistics | table | unicode | table |
| status | table | unpack | function |
| storage | table | url | table |
| streams | table | utf | table |
| string | table | utilities | table |
| stripmath | function | visualizers | table |
| structures | table | xml | table |
| table | table | xpcall | function |
| tex | table | zip | table |
| texconfig | table | zlib | table |
| texio | 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
- U none
- F register
- D registered
- F registerspotcolor
- F rgb
- F rgbtocmyk
- F rgbtogray
- F rgbtohsv
- N selector
- F setmodel
- 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

**states**    table
- F disabletriggering
- F enabletriggering
- F finalize
- F initialize
- F process
- F selective
- F stacked

**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                          D listwise
unsetvalue      number                F register
viewerlayers    table                 D registered
    N attribute                       D scopes
    D data                            F setfeatures
    F define                          F start
    F enable                          F stop
    F forcesupport                    B supported
    F handler                         D values
    B hasorder
```

# backends (context)

```
codeinjections   table                         F setxmpfile
current           string                        F startlayer
defaults          table                         F stoplayer
    T codeinjections                            F supportedformats
    T nodeinjections                            F useviewerlayer
    T registrations                             F validfield
    D tables                                    F validfieldcategory
install           function                      F validfieldset
nodeinjections    table                     S comment
nothing           function                  T nodeinjections
pdf               table                         F addtags
    T codeinjections                            F attachfile
        F addbookmarks                          F cmykcolor
        F addtransparencygroup                  F comment
        F attachmentid                          F destination
        F clonefield                            F effect
        F definefield                           F graycolor
        F definefieldset                        F injectbitmap
        F defineviewerlayer                     F insertmovie
        F embedfile                             F insertsound
        F enabletags                            F insertswf
        F finalizepage                          F insertu3d
        F finishreference                       F knockout
        F getdefaultfieldvalue                  F negative
        F getfieldcategory                      F overprint
        F getfieldset                           F positive
        F getformatoption                       F reference
        F getoutputfilename                     F rgbcolor
        F getpreviewfigure                      F spotcolor
        F insertrenderingwindow                 F startlayer
        F mergereferences                       F stoplayer
        F mergeviewerlayers                     F switchlayer
        F prerollreference                      F transparency
        F presetsymbol                          F typesetfield
        F presetsymbollist                  T registrations
        F processrendering                      F cmykindexcolor
        F registerdocumentcloseaction           F cmykspotcolor
        F registerdocumentopenaction            F getspotcolorreference
        F registeredsymbol                      F grayindexcolor
        F registerpagecloseaction               F grayspotcolor
        F registerpageopenaction                F rgbindexcolor
        F registersymbol                        F rgbspotcolor
        F setfieldcalculationset                F spotcolorname
        F setfigurealternative                  F transparency
        F setfigurecolorspace               T tables
        F setfiguremask                         T vfspecials
        F setformat                                 T black
        F setformsmethod                            T blue
        F setpagetransition                         T green
        F setupcanvas                               T red
        F setupidentity                             F startslant
```

T stopslant
**registrations** table
**tables** table

# bibtex (context)

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

# 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 disable
  -    F enable
  -    F handler
  -    T methods
    -    F default
    -    F oneline
  -    D names
  -    D numbers
  -    F register
  -    F set
-    T solutions
  -    T splitters
    -    F define
    -    F disable

-    F enable
-    F optimize
-    F setup
-    F split
-    F tag

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

# 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 |
| **contextname** | function | **math** | table |
| **data** | data table | **mathpairs** | data table |
| **decomposed** | data table | **ranges** | data table |
| **define** | function | **registerentities** | 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 | **subscripts** | table |
| **fromnumber** | function | **superscripts** | table |
| **fschars** | data table | **synonyms** | data table |
| **fscodes** | data table | **tex** | table |
| **getrange** | function |     D accentmapping | |
| **graphemes** | data table |     F defineaccents | |
| **hangul** | table |     F toutf | |
|     F decomposed | | **tonumber** | function |
|     F description | | **ucchars** | data table |
|     F leadconsonant | | **uccode** | function |
|     T remapped | | **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 | collecthelp | function |
| Character | function | colorcomponents | function |
| Characters | function | consultfloat | function |
| MPd | function | copyfiletolog | function |
| MPh | function | copyposition | function |
| MPll | function | counttwopassdata | function |
| MPlr | function | currentcomponent | function |
| MPp | function | currentdate | function |
| MPplus | function | currentenvironment | function |
| MPpos | function | currentproduct | function |
| MPrest | function | currentproject | function |
| MPul | function | currentregime | function |
| MPur | function | dayname | function |
| MPw | function | defineattribute | function |
| MPx | function | definebibtexsession | function |
| MPxy | function | defineconversion | function |
| MPy | function | definefield | function |
| Romannumerals | function | definefieldset | function |
| abjadnodotnumerals | function | definefilefallback | function |
| abjadnumerals | function | definefilesynonym | function |
| addff | function | definefont_one | function |
| addfs | function | definefont_two | function |
| addlinklistelement | function | definefontcollection | function |
| addstructurecounter | function | defineintermediatecolor | function |
| allinputpaths | function | definelinkedlist | function |
| alphabetic | function | definemarking | function |
| analysefloatmethod | function | definemultitonecolor | function |
| applytochars | function | defineparallel | function |
| applytowords | function | defineprocesscolor | function |
| assignbuffer | function | definespotcolor | function |
| autofinishstructurelevels | function | definestructureblock | function |
| autonextspace | function | definestructurecounter | function |
| autonextstructurelevel | function | definestructureset | function |
| autosetups | function | definetransparency | function |
| autostarttext | function | definetwopasslist | function |
| autostoptext | function | defineviewerlayer | function |
| boolcase | function | defrostrandomseed | function |
| character | function | digits | function |
| characters | function | disableregime | function |
| checkcharactersinfont | function | doanalyzeframedbox | function |
| checkedconversion | function | doif | function |
| checkedpagefloat | function | doifblackelse | function |
| checktwopassdata | function | doifcommonelse | function |
| chineseallnumerals | function | doifdimenstringelse | function |
| chinesecapnumerals | function | doifdrawingblackelse | function |
| chinesenumerals | function | doifelse | function |
| cleanfontname | function | doifelsebuffer | function |
| clonefield | function | doifelsecurrentfonthasfeature | function |
| clonefontcollection_one | function | doifelseintwopassdata | function |
| clonefontcollection_two | function | doifelsemarking | function |
| collectfloat | function | doifelseparallel | function |

| | | | |
|---|---|---|---|
| doifelsesavedfloat | function | format | function |
| doifelsespaces | function | formatcolor | function |
| doifelsestructurecounter | function | formatgray | function |
| doifelsevisualizer | function | freezerandomseed | function |
| doiffieldcategoryelse | function | getbuffer | function |
| doiffieldelse | function | getbufferctxlua | function |
| doiffieldsetelse | function | getbuffermkvi | function |
| doiffiledefineelse | function | getdefaultfieldvalue | function |
| doiffileexistelse | function | getfieldcategory | function |
| doiffirstcharelse | function | getfirstcharacter | function |
| doifinputfileelse | function | getfirsttwopassdata | function |
| doifinsetelse | function | getfloatvariable | function |
| doifleapyearelse | function | getlasttwopassdata | function |
| doiflocfileelse | function | getmarking | function |
| doifnot | function | getprivateattribute | function |
| doifnotstructurecounter | function | getrandomcounta | function |
| doifolderversionelse | function | getrandomcountb | function |
| doifoverlappingelse | function | getrandomseed | function |
| doifparentfileelse | function | getreadfilename | function |
| doifpositionelse | function | gettwopassdata | function |
| doifpositionsonsamepageelse | function | gettwopassdatalist | function |
| doifpositionsonthispageelse | function | grabbuffer | function |
| doifstructurecounter | function | helpaction | function |
| doifurldefinedelse | function | helpreference | function |
| doprocesstypescriptfile | function | hexstringtonumber | function |
| doreshapeframedbox | function | hour | function |
| dostarttextfile | function | hyphenatedlist | function |
| dostoptextfile | function | hyphenatedurl | function |
| elapsedtime | function | | |
| enablecolor | function | D characters | |
| enablecolorintents | function | N lefthyphenmin | |
| enablefontcolorschemes | function | D mapping | |
| enableregime | function | N righthyphenmin | |
| enabletransparency | function | F setcharacters | |
| enhancelinkedlist | function | incrementedstructurecounter | function |
| erasebuffer | function | insertattachment | function |
| featureattribute | function | insertcomment | function |
| feedback | function | insertfield | function |
| fetchallmarks | function | insertrenderingwindow | function |
| fetchonemark | function | insertsoundclip | function |
| fetchtwomarks | function | isleapyear | function |
| filterreference | function | languagenumber | function |
| findtwopassdata | function | laststructurecounter | function |
| firstinlist | function | lchexnumber | function |
| firststructurecounter | function | lchexnumbers | function |
| flushfloat | function | leapyear | function |
| fontchar | function | loadctxpreplist | function |
| fontcollectionmessage | function | loadexamodes | function |
| fontlookupgetkey | function | loadfontgoodies | function |
| fontlookupgetkeyofindex | function | loadvisualizer | function |
| fontlookupinitialize | function | locatefilepath | function |
| fontlookupnoffound | function | locfilename | function |
| forceendjob | function | maxitemwidth | function |
| forcequitjob | function | minute | function |
| | | molecule | function |

| | | | |
|---|---|---|---|
| month | function | resetnullfont | function |
| monthmnem | function | resetparallel | function |
| monthname | function | resetstructurecounter | function |
| mpcolor | function | resetstructureprocessor | function |
| nbfs | function | resettimer | function |
| nextparallel | function | restartstructurecounter | function |
| nextstructurecounter | function | restorestructurecounter | function |
| nofdays | function | romannumerals | function |
| nofitems | function | runbuffer | function |
| nofstackedfloats | function | savebuffer | function |
| number | function | savefloat | function |
| octnumber | function | saveparallel | function |
| octstringtonumber | function | savestructureblock | function |
| ordinal | function | savestructurecounter | function |
| overloadbookmark | function | savetaggedtwopassdata | function |
| percentageof | function | savetwopassdata | function |
| placeparallel | function | second | function |
| popfloat | function | selectstructureblock | function |
| prepareMPvariable | function | setclosedocumentaction | function |
| preparebibtexsession | function | setclosepageaction | function |
| preparedfile | function | setcolormodel | function |
| preparefontcollection | function | setfontfeature | function |
| presetsymbollist | function | setformat | function |
| presettabulate | function | setformsmethod | function |
| prevstructurecounter | function | setmarking | function |
| processbuffer | function | setmathalphabet | function |
| processedfile | function | setmathalternate | function |
| processedfiles | function | setmathattribute | function |
| processfile | function | setmathstyle | function |
| processfilemany | function | setopendocumentaction | function |
| processfilenone | function | setopenpageaction | function |
| processfileonce | function | setownstructurecounter | function |
| pushfloat | function | setpagetransition | function |
| rawcharacter | function | setrandomseed | function |
| registerattachment | function | setrastercolor | function |
| registerbibtexentry | function | setrealign | function |
| registerbibtexfile | function | setreferencearguments | function |
| registerbookmark | function | setreferenceoperation | function |
| registerbuttons | function | setstructureblockstate | function |
| registercolor | function | setstructurecounter | function |
| registercolorintent | function | settagcombination | function |
| registerhelp | function | settagdescription | function |
| registeritemgroup | function | settagdescriptionsymbol | function |
| registermaintextcolor | function | settagfigure | function |
| registersoundclip | function | settaghighlight | function |
| registerstructureprocessor | function | settagitemgroup | function |
| registertransparency | function | settagproperty | function |
| relatemarking | function | settagsorting | function |
| removemissingcharacters | function | settagsynonym | function |
| replacepospxywhd | function | settagtablecell | function |
| resavefloat | function | settagtabulatecell | function |
| resetfontcollection | function | setupbookmarks | function |
| resetfontfeature | function | setupcanvas | function |
| resetmarking | function | setupexport | function |

| | | | |
|---|---|---|---|
| setupfontexpansion | function | taggedmathfunction | function |
| setupfontprotrusion | function | testcase | function |
| setupidentity | function | textime | function |
| setxmpfile | function | transparencycomponents | function |
| showchardata | function | triggereffect | function |
| showfontparameters | function | triggernegative | function |
| showhyphenatedinlist | function | truefilename | function |
| showstructurecounter | function | typebuffer | function |
| splitfilename | function | typefile | function |
| spotcolorname | function | typestring | function |
| spotcolorparent | function | uchexnumber | function |
| spotcolorvalue | function | uchexnumbers | function |
| startcomponent | function | unicodechar | function |
| startenvironment | function | unit | function |
| startproduct | function | updatefilenames | function |
| startproject | function | useMPlibrary | function |
| startregime | function | useanyfile | function |
| starttag | function | usecldfile | function |
| starttext | function | usecolors | function |
| stopcomponent | function | usecomponent | function |
| stopenvironment | function | useenvironment | function |
| stopproduct | function | uselibrary | function |
| stopproject | function | useluafile | function |
| stopregime | function | usemodules | function |
| stoptag | function | usepath | function |
| stoptext | function | useproduct | function |
| structureautocatcodedget | function | useproject | function |
| structurecatcodedget | function | usesubpath | function |
| structurecountersubs | function | usesymbols | function |
| structurecountervalue | function | usetexfile | function |
| structuregivencatcodedget | function | usexmlfile | function |
| structurenumber | function | usezipfile | function |
| structuretitle | function | utfchar | function |
| structureuservariable | function | weekday | function |
| structurevariable | function | weekdayname | function |
| subff | function | widthofstring | function |
| subfs | function | writestatus | function |
| synchronizemarking | 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 |

# 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 | **setargument** | function |
| **files** | table | **setdefaultargument** | function |
| **getargument** | function | **setfilename** | function |
| **getfilename** | 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 |
| **homedir** | string | **ownname** | string |
| **initex** | boolean | **ownpath** | string |
| **initializearguments** | function | **rawarguments** | data table |
| **inputfilebarename** | string | **reconstructcommandline** | function |
| **inputfilename** | string | **setargument** | function |
| **inputfilesuffix** | string | **splitarguments** | function |
| **jobfilename** | string | **texfile** | function |
| **jobfilesuffix** | string | **texmfos** | string |
| **loadedluacode** | function | **texos** | string |
| **loadluafile** | function | **texroot** | string |

# epdf (extra tex)

| | | | |
|---|---|---|---|
| **Annot** | function | **Object** | function |
| **Annots** | function | **PDFRectangle** | function |
| **Array** | function | **open** | function |
| **Dict** | 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 | | | **mergegoodies** | function |
| **bitmapimage** | function | | **nofprocessed** | number |
| **boxnumber** | number | | **order** | data table |
| **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 | | **setpaths** | function |
| **formats** | data table | | **suffixes** | data table |
| **found** | data table | | **tprint** | function |
| **get** | function | | **used** | data table |

# file (basic lua)

| | | | |
|---|---|---|---|
| **addsuffix** | function | **joinpath** | function |
| **basename** | function | **loadchecksum** | function |
| **checksum** | function | **nameonly** | function |
| **collapsepath** | function | **nametotable** | function |
| **copy** | function | **needs_updating** | 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 |

# 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 | | |

fontloader (extra tex)

# 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 clone_one
    F clone_two
    F define
    T definitions
    F message
    F prepare
    F process
    F reset
    T vectors
**constructors**      table
    F applymanipulators
    F assignmathparameters
    B autocleanup
    D cache
    F calculatescale
    F checkedfeatures
    F checkedfilename
    F cleanuptable
    F collectprocessors
    D designsizes
    D dontembed
    N factor
    F finalize
    F getfeatureaction
    F hashfeatures
    F hashinstance
    T hashmethods
      F normal
      F virtual
    F initializefeatures
    D loadedfonts
    T mathactions
    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 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
    F getcompositions
    T list
      F compositions
      F expansions
      F featureset
      F files

```
      F mathematics                    D math
      F protrusions                    D predefined
      F solutions                      D whatever
      F typefaces              hashes          table
    F load                        D characters
    F prepare_features           D csnames
    F register                   T dynamics
    F report                     D identifiers
handlers        table            D marks
    T afm                        D parameters
      B addkerns                 T processes
      B addligatures             D quads
      B addtexligatures          T setdynamics
      B autoprefixed             D xheights
      D cache                helpers          table
      D features                 F dimenfactor
      F load                     F getdigitwidth
      F setfeatures              F getparameters
      B syncspace                F nametoslot
      N version                  F setdigitwidth
    T otf                    iterators        table
      F addfeature               F characters
      D cache                    F descriptions
      T chainhandlers            F glyphs
        F normal             loggers          table
        F verbose                F format
      F collectlookups           F onetimemessage
      F dataset                  F register
      D enhancers                F reportdefinedfonts
      D features                 F reportusedfeatures
      F getalternate         mappings         table
      T glists                   F addtounicode
      F load                     F loadfile
      F scriptandlanguage        F loadline
      F setcontextchain          F loadlumtable
      F setdynamics              F makenameparser
      F setfeatures              F reset
      T tables                   F tounicode16
        D baselines              F tounicode16sequence
        D features           names            table
        D languages              S basename
        D scripts                B be_clever
      N version                  D cache
    T pfb                        F cleanfilename
    T tfm                        F cleanname
      D features                 F collect
      F setfeatures              F collectfiles
    T vf                         F collectspec
      T combinations             T data
      F combine                  B enabled
      T combiner                 F exists
        D commands               T filters
      F find                       F afm
      D helpers                    F dfont
```

```
    T list                          protrusions     data table
    T names                         readers         table
    F otf                               F afm
    T paths                             F check_lua
    F pfb                               F check_tfm
    F ttc                               F dfont
    F ttf                               F lua
S fontconfigfile                        F opentype
F getfilename                           F otf
F getlookupkey                          F pfb
F getlookups                            D sequence
F getpaths                              F tfm
F identify                              F ttc
F is_permitted                          F ttf
F list                           specifiers      table
F load                                  D contextmerged
B loaded                                F contextnumber
F lookup                                D contextnumbers
F nolookups                             D contextsetups
S osfontdirvariable                     F contexttostring
F readdata                              F mergecontext
F register                              F presetcontext
F registered                            F registercontext
F resolve                               F showcontext
F resolvedspecification                 F splitcontext
F resolvespec                           D synonyms
B saved                                 D variants
F specification                  symbols         table
D specifications                        F uselibrary
F splitspec                      tables          table
N version                        tracers         table
F writedata                      typefaces       data table
```

# 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

| | | | |
|---|---|---|---|
| **addvalidkeys** | function | F define | |
| **cachedsetups** | data table | F list | |
| **cachesetup** | function | **setconstant** | function |
| **complete** | data table | **setelement** | function |
| **constants** | 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 |
| **namespaces** | table | | |

# io (basic lua)

| | | | | |
|---|---|---|---|---|
| **ask** | function | | **out** | table |
| **bytes** | function | | F inhibit | |
| **characters** | function | | D modes | |
| **checkopeners** | function | | F permit | |
| **close** | function | | **output** | function |
| **exists** | function | | **pathseparator** | string |
| **fileseparator** | string | | **popen** | overloaded function |
| **finalizeopeners** | function | | **read** | function |
| **flush** | function | | **readnumber** | function |
| **inp** | table | | **readstring** | function |
| F inhibit | | | **registeropener** | function |
| D modes | | | **savedata** | function |
| F permit | | | **size** | function |
| **input** | function | | **stderr** | userdata |
| **lines** | function | | **stdin** | userdata |
| **loaddata** | function | | **stdout** | userdata |
| **noflines** | function | | **tmpfile** | function |
| **open** | function | | **type** | function |
| **open_ro** | function | | **write** | function |

# job (context)

**comment**    function
**files**    table
    D collected
    F context
    B forcerun
    F run
    D tobesaved
**initialize**  function
**load**    function
**objects**    table
    D collected
    F doifelse
    F get
    F number
    F page
    F save
    F set
    D tobesaved
**pack**    boolean
**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
    D collected
    F copy
    F depth
    F extra
    F height
    F lowerleft
    F lowerright
    F onsamepage
    F overlapping
    F page
    F position
    F replace
    D tobesaved
    F upperleft
    F upperright
    F width
    F x
    F xy
    F y
**register**  function
**save**    function
**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 | | **posthyphenchar** | function |
| **associated** | data table | | **prehyphenchar** | function |
| **association** | function | | **registered** | data table |
| **counters** | data table | | **righthyphenmin** | function |
| **current** | function | | **setdirty** | function |
| **data** | data table | | **synonym** | function |
| **define** | function | | **version** | number |
| **exceptions** | function | | **words** | table |
| **getnumber** | function | | F check | |
| **hyphenate** | function | | T data | |
| **installed** | function | | F disable | |
| **labels** | table | | F enable | |
| F define | | | T enablers | |
| **lefthyphenmin** | function | | B enables | |
| **loadable** | function | | F found | |
| **loadwords** | function | | F load | |
| **logger** | table | | T methods | |
| F report | | | N threshold | |
| **numbers** | data table | | | |

# 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 | **extralua** | data table |
| **basictex** | data table | **extratex** | data table |
| **builtin** | 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 | **setformats** | function |
| **categories** | function | **setmessenger** | function |
| **direct** | function | **setprogram** | function |
| **disable** | function | **settarget** | function |
| **enable** | function | **settranslations** | function |
| **extendbanner** | function | **show** | function |
| **flush** | function | **show_close** | function |
| **help** | function | **show_load** | function |
| **messenger** | function | **show_open** | function |
| **new** | function | **simple** | function |
| **newline** | function | **simpleline** | function |
| **poptarget** | function | **simplelines** | function |
| **pushtarget** | function | **start_page_number** | function |
| **report** | function | **status** | function |
| **report_job_stat** | function | **stop_page_number** | function |
| **reportbanner** | function | **subdirect** | function |
| **reporter** | function | **subreport** | function |
| **reporters** | function | **system** | function |
| **reportline** | function | **texerrormessage** | function |
| **reportlines** | function | **writer** | function |

# lpdf (context)

| | | | |
|---|---|---|---|
| action | function | id | function |
| adddocumentcolorspace | function | injectxmpinfo | function |
| adddocumentextgstate | function | insertxmpinfo | function |
| adddocumentpattern | function | javascript | function |
| adddocumentshade | function | launch | function |
| addtocatalog | function | layerreference | function |
| addtoinfo | function | limited | function |
| addtonames | function | linearshade | function |
| addtopageattributes | function | link | function |
| addtopageresources | function | null | function |
| addtopagesattributes | function | number | function |
| addxmpinfo | function | pagedestination | function |
| array | function | pagereference | function |
| boolean | function | pdfcolor | function |
| checkedkey | function | pdftimestamp | function |
| checkedvalue | function | protectresources | boolean |
| circularshade | function | reference | function |
| cmykcode | function | registerannotation | function |
| collectedresources | function | registerdocumentfinalizer | function |
| color | function | registerpagefinalizer | function |
| colorspace | function | reserveannotation | function |
| colorspec | function | reserveobject | function |
| colorvalue | function | rgbcode | function |
| colorvalues | function | rotationcm | function |
| constant | function | shareobject | function |
| delayedobject | function | shareobjectreference | function |
| dictionary | function | spotcode | function |
| epdf | table | stream | function |
|    F load | | string | function |
| finalizedocument | function | timestamp | function |
| finalizepage | function | toeight | function |
| finishtransparencycode | function | tosixteen | function |
| flushobject | function | transparency | function |
| flushstreamfileobject | function | transparencycode | function |
| flushstreamobject | function | transparencyvalue | function |
| formats | data table | unicode | function |
| graycode | function | verbose | function |

# lpeg (basic lua)

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

# ltn12 (extra lua)

BLOCKSIZE   number

**filter**   table
    F chain
    F cycle

**pump**   table
    F all
    F step

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

    F simplify
    F table

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

# lua (basic tex)

| | | | |
|---|---|---|---|
| **bytecode** | table | **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 | | |

| | | | | |
|---|---|---|---|---|
| addindex | function | | load | function |
| all | function | | loadbuffer | function |
| applyfunction | function | | loaddata | function |
| att | function | | loaded | table |
| attribute | function | | loadregistered | function |
| chainattribute | function | | main | function |
| checkindex | function | | match | function |
| collected | function | | name | function |
| command | function | | namespace | function |
| concat | function | | nonspace | function |
| concatrange | function | | pos | function |
| content | function | | position | function |
| context | function | | raw | function |
| convert | function | | rawroot | function |
| count | function | | register | function |
| delete | function | | registerentity | function |
| direct | function | | removesetup | function |
| directives | table | | resetcdata | function |
|    F after | | | resetsetups | function |
|    F before | | | resolvedentity | function |
|    F handle | | | root | function |
|    F load | | | serialize | function |
|    F setup | | | setaction | function |
| displayverbatim | function | | setcdata | function |
| doif | function | | setcommandtonone | function |
| doifelse | function | | setcommandtotext | function |
| doifelsetext | function | | setsetup | function |
| doifnot | function | | snippet | function |
| doifnottext | function | | sorters | table |
| doiftext | function | |    F add | |
| element | function | |    F compare | |
| elements | function | |    F flush | |
| entities | data table | |    F reset | |
| filter | function | |    F show | |
| filterlist | function | |    F sort | |
| first | function | | splitid | function |
| flush | function | | startraw | function |
| flushsetups | function | | stopraw | function |
| ~~get_id~~ | ~~function~~ | | store | function |
| getid | function | | strip | function |
| getindex | function | | stripped | function |
| id | function | | tag | function |
| idsplitter | userdata | | text | function |
| include | function | | tofile | function |
| index | function | | toparameters | function |
| info | function | | toverbatim | function |
| inlineverbatim | function | | verbatim | function |
| installsetup | function | | withindex | function |
| last | 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 | **makefont** | function |
| **alphabets** | data table | **overloadparameters** | function |
| **big** | function | **privatebase** | number |
| **boldmap** | table | **remapalphabets** | function |
| **categories** | table | **renderings** | table |
|     D functions | |     D mappings | |
| **checkaccentbaseheight** | function |     D numbers | |
| **checkprivateparameters** | function |     D sets | |
| **classes** | data table | **renderset** | function |
| **codes** | data table | **scaleparameters** | function |
| **define** | function | **setalternate** | function |
| **dimensions** | function | **syncboth** | function |
| **extrabase** | number | **syncname** | function |
| **extras** | table | **syncstyle** | function |
|     F add | | **toname** | function |
|     F copy | | **tostyle** | function |
| **families** | data table | **utfmathclass** | function |
| **getboth** | function | **utfmathcommand** | function |
| **getstyle** | function | **utfmathfiller** | function |
| **initializeparameters** | 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 | | N nofconverted | |
| **checkformat** | function | | F processgraphics | |
| **checktexts** | function | **metafun** | table | |
| **colorinitializer** | function | | F interpolate | |
| **convert** | function | | F topath | |
| **defaultformat** | string | **method** | number | |
| **directrun** | function | **mptopdf** | table | |
| **edefsxsy** | function | | F convertmpstopdf | |
| **escaped** | function | | N nofconverted | |
| **exectime** | table | **multipass** | boolean | |
| **filterclippath** | function | **n** | number | |
| **finder** | function | **optimize** | boolean | |
| **flush** | function | **parse** | function | |
| **flushers** | table | **pdfliterals** | function | |
|     T pdf | | **pluginactions** | function | |
|       F comment | | **process** | function | |
|       F flushfigure | | **processplugins** | function | |
|       F startfigure | | **reducetogray** | boolean | |
|       F stopfigure | | **reporterror** | function | |
|       F textfigure | | **reset** | function | |
| **flushliteral** | function | **resetlastlog** | function | |
| **flushnormalpath** | function | **resetplugins** | function | |
| **flushreset** | function | **resettextexts** | function | |
| **format** | function | **setoutercolor** | function | |
| **getclippath** | function | **settext** | function | |
| **gettext** | function | **showlog** | boolean | |
| **graphic** | function | **tex** | table | |
| **graphic_base_pass** | function | | F get | |
| **graphic_extra_pass** | function | | F reset | |
| **intermediate** | table | | F set | |
|     T actions | | **texerrors** | boolean | |
|       F makempy | | **texttextsdata** | function | |
|     B needed | | **theclippath** | function | |
| **lastlog** | string | **totable** | function | |
| **load** | function | **unload** | function | |
| **makempy** | table | | | |

# mime (extra lua)

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

    F render

    F resize

    F respace

    F tags

    F unscript

    F variants

**process**    function

**processors**  table

    T collapse

    F mlist_to_hlist

    T relocate

    T render

    T resize

    T respace

    T unscript

# node (basic tex)

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

# nodes (context)

| | | | |
|---|---|---|---|
| **after** | function | F setpair | |
| **aligned** | function | **installattributehandler** | function |
| **astable** | function | **is_display_math** | function |
| **before** | function | **is_mirrored** | data table |
| **builders** | table | **is_rotated** | data table |
| F buildpage_filter | | **kerncodes** | data table |
| F vpack_filter | | **leftmarginwidth** | function |
| **codes** | data table | **lines** | table |
| **count** | function | T boxed | |
| **delete** | function | F register | |
| **destinations** | table | F setup | |
| N attribute | | F stage_one | |
| T done | | F stage_two | |
| F handler | | F stage_zero | |
| T stack | | D data | |
| **dimensionfields** | data table | F finalize | |
| **dir_is_pop** | data table | F number | |
| **dir_negation** | data table | N scratchbox | |
| **fasthpack** | function | **link** | function |
| **fields** | function | **list** | function |
| **fillcodes** | data table | **listablefields** | data table |
| **firstcharacter** | function | **listcodes** | data table |
| **firstcharinbox** | function | **listtoutf** | function |
| **firstglyph** | function | **load** | function |
| **getattribute** | function | **locate** | function |
| **gluecodes** | data table | **mathcodes** | data table |
| **glyphcodes** | data table | **noadcodes** | data table |
| **glyphdir_is_equal** | data table | **nodecodes** | data table |
| **glyphdir_is_opposite** | data table | **packlist** | function |
| **glyphdir_is_orthogonal** | data table | **pardir_is_equal** | data table |
| **handlers** | table | **pardir_is_opposite** | data table |
| F backgrounds | | **pardir_is_parallel** | data table |
| F characters | | **partextdir_is_equal** | data table |
| F checkforleaks | | **pool** | table |
| F checkglyphs | | F baselineskip | |
| F cleanuppage | | F cleanup | |
| F export | | F disc | |
| F finalize | | F fontkern | |
| F graphicvadjust | | F glue | |
| F migrate | | F gluespec | |
| F protectglyphs | | F glyph | |
| F stripping | | F kern | |
| F unprotectglyphs | | F latelua | |
| **has_attribute** | function | F leftmarginkern | |
| **idstostring** | function | F leftskip | |
| **ignorablefields** | data table | F lineskip | |
| **injections** | table | F noad | |
| F handler | | F pdfannotation | |
| F setcursive | | F pdfdestination | |
| F setkern | | F pdfdirect | |
| F setmark | | F pdfliteral | |

| | | | |
|---|---|---|---|
| F penalty | | **show** | function |
| F register | | **showboxes** | function |
| F rightmarginkern | | **showcodes** | function |
| F rightskip | | **showlist** | function |
| F rule | | **showsimplelist** | function |
| F shrink | | **skipcodes** | data table |
| F stretch | | **somepenalty** | function |
| F temp | | **somespace** | function |
| F textdir | | **stripping** | table |
| F usage | | F enable | |
| T userids | | T glyphs | |
| N margins.inline | | **striprange** | function |
| N splitters.one | | **tasks** | table |
| N splitters.two | | F actions | |
| F userlist | | F appendaction | |
| F usernumber | | F disableaction | |
| F userstring | | F disablegroup | |
| F usertokens | | F enableaction | |
| F zeroglue | | F enablegroup | |
| **print** | function | F freeze | |
| **processors** | table | F freezegroup | |
| B enabled | | F new | |
| F hpack_filter | | F prependaction | |
| F post_linebreak_filter | | F removeaction | |
| F pre_linebreak_filter | | F restart | |
| F tracer | | F showactions | |
| **processwords** | function | F table | |
| **reference** | function | **textdir_is_equal** | data table |
| **references** | table | **textdir_is_is** | data table |
| N attribute | | **textdir_is_opposite** | data table |
| T done | | **textdir_is_parallel** | data table |
| F handler | | **tonodes** | function |
| T stack | | **tosequence** | function |
| **remove** | function | **totable** | function |
| **repackhlist** | function | **toutf** | function |
| **replace** | function | **tracers** | table |
| **report** | function | T characters | |
| **rightmarginwidth** | function | F collect | |
| **rules** | table | F equal | |
| D data | | F indices | |
| F define | | F start | |
| F enable | | F string | |
| F handler | | F unicodes | |
| **save** | function | T colors | |
| **serialize** | function | F reset | |
| **serializebox** | function | F set | |
| **setattribute** | function | F fontchar | |
| **setattributes** | function | F start | |
| **setunsetattributes** | function | T steppers | |
| **shifts** | table | F check | |
| D data | | F codes | |
| F define | | F features | |
| F enable | | F glyphs | |
| F handler | | F message | |

| | | |
|---|---|---|
| F messages | **unsetattribute** | function |
| F nofsteps | **unsetattributes** | function |
| F register | **visualizebox** | function |
| F reset | **whatcodes** | data table |
| F start | **whatsitcodes** | data table |
| F stop | **writable_spec** | function |
| F stop | | |

# number (context)

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

# os (basic lua)

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

**patterns** table

# profiler (extra lua)

| | | | | |
|---|---|---|---|---|
| **pause** | function | | **start** | function |
| **resume** | function | | **stop** | function |

# profiler (extra lua)

| | | | | |
|---|---|---|---|---|
| **pause** | function | | **start** | function |
| **resume** | function | | **stop** | function |

# regimes (context)

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

# resolvers (context)

| | | | |
|---|---|---|---|
| allprefixes | function | getownpath | function |
| appendhash | function | getreadfilename | function |
| automount | function | hashers | data table |
| automounted | table | homedir | string |
| booleanvariable | function | installinputfilehandler | function |
| cacheversion | string | installinputlinehandler | function |
| checkedvariable | function | instance | table |
| cleanpath | function | D data | |
| cleanpathlist | function | B diskcache | |
| concatinators | data table | D environment | |
| configbanner | string | D expansions | |
| criticalvars | data table | D fakepaths | |
| dangerous | data table | D files | |
| datastate | function | B force_suffixes | |
| defaultsuffixes | table | D found | |
| dowithfilesandreport | function | D foundintrees | |
| dowithfilesintree | function | D hashed | |
| dowithpath | function | D hashes | |
| dowithvariable | function | D lists | |
| env | function | B loaderror | |
| executers | table | D order | |
| F check | | B remember | |
| F execute | | B renewcache | |
| F finalize | | B savelists | |
| F register | | D setups | |
| expandbraces | function | D specification | |
| expandedpathfromlist | function | D variables | |
| expandedpathlist | function | jobs | table |
| expandedpathlistfromvariable | function | D processors | |
| expandpath | function | F usefile | |
| expandpathfromvariable | function | joinpath | function |
| expansion | function | load | function |
| extendtexmfvariable | function | loadbinfile | function |
| ~~find_file~~ | ~~function~~ | loaders | data table |
| ~~find_files~~ | ~~function~~ | loadlualib | function |
| findbinfile | function | loadtexfile | function |
| findctxfile | function | loadtime | function |
| finders | data table | locateformat | function |
| findfile | function | locators | data table |
| findfiles | function | luacnfname | string |
| findgivenfile | function | luacnfspec | string |
| findgivenfiles | function | luacnfstate | string |
| findpath | function | macros | table |
| findtexfile | function | F convertfile | |
| findwildcardfile | function | F decodecomment | |
| findwildcardfiles | function | F enablecomment | |
| formatofsuffix | function | F encodecomment | |
| formatofvariable | function | F preprocessed | |
| formats | data table | F processmkvi | |
| generators | data table | F version | |
| getenv | function | maxreadlevel | number |

| | | | |
|---|---|---|---|
| **methodhandler** | function | F strip | |
| **newinstance** | function | F cleanname | |
| **openbinfile** | function | F install | |
| **openers** | data table | N threshold | |
| **openfile** | function | **setenv** | function |
| **opentexfile** | function | **setinstance** | function |
| **ownpath** | string | **settrace** | function |
| **prefixes** | data table | **showpath** | function |
| **prependhash** | function | **simplescanfiles** | function |
| **registerextrapath** | function | **splitconfigurationpath** | function |
| **registerfile** | function | **splitexpansions** | function |
| **registerfilehash** | function | **splitmethod** | function |
| **registerintrees** | function | **splitpath** | function |
| **registermethod** | function | **suffixes** | data table |
| **registerzipfile** | function | **suffixmap** | data table |
| **relations** | data table | **suffixofformat** | function |
| **repath** | function | **texdatablob** | function |
| **reset** | function | **unexpandedpath** | function |
| **resetextrapath** | function | **unexpandedpathlist** | function |
| **resetresolve** | function | **unresolve** | function |
| **resolve** | function | **updaterelations** | function |
| **savers** | data table | **updatescript** | function |
| **scandata** | function | **usezipfile** | function |
| **scanfiles** | function | **validatedpath** | function |
| **schemes** | table | **variable** | function |
| T cleaners | | **variableofformat** | function |
| F md5 | | **variableofformatorsuffix** | function |
| F none | | **wildcardpattern** | function |

# scripts (context)

| | | | |
|---|---|---|---|
| **categorytonumber** | data table | **numbertocategory** | data table |
| **colors** | data table | **numbertodataset** | data table |
| **handlers** | data table | **preprocess** | function |
| **hash** | table | **reset** | function |
| **installdataset** | function | **set** | function |
| **installmethod** | function | | |

# set (context)

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

# short_operators (context)

* string

/ string

. string

: string

# short_prefixes (context)

| | | | |
|---|---|---|---|
| E | string | da | string |
| G | string | f | string |
| M | string | h | string |
| P | string | k | string |
| T | string | m | string |
| Y | string | n | string |
| Z | string | p | string |
| a | string | u | string |
| c | string | y | string |
| d | string | | |

# short_units (context)

| | | | | |
|---|---|---|---|---|
| **Litre** | string | | **m** | string |
| **Metre** | string | | **n** | string |
| **g** | string | | **s** | string |
| **h** | string | | **u** | string |
| **hz** | string | | **v** | string |

# socket (extra lua)

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

# sorters (context)

| | | | | |
|---|---|---|---|---|
| **comparers** | table | | **definitions** | data table |
| F basic | | | **firstofsplit** | function |
| **constants** | table | | **setlanguage** | function |
| S defaultdigits | | | **sort** | function |
| S defaultlanguage | | | **splitters** | table |
| S defaultmethod | | | F utf | |
| N digitsmaximum | | | **strip** | function |
| N digitsoffset | | | **tracers** | data table |
| N ignoredoffset | | | **update** | function |
| N replacementoffset | | | | |

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

# structures (context)

| | | | | |
|---|---|---|---|---|
| **atlocation** | function | | F value | |
| **blocks** | table | | **currentsectionnumber** | function |
| D collected | | | **descriptions** | table |
| F define | | | **documents** | table |
| F print | | | T data | |
| F save | | | S block | |
| F select | | | T blocks | |
| F setstate | | | T checkers | |
| D states | | | N depth | |
| D tobesaved | | | T forced | |
| **bookmarks** | table | | T numbers | |
| F finalize | | | T ownnumbers | |
| F flatten | | | T status | |
| S method | | | F initialize | |
| F overload | | | F reset | |
| F place | | | **floats** | table |
| F register | | | **formulas** | table |
| F setup | | | F current | |
| **counters** | table | | F simplify | |
| F add | | | F store | |
| F analyze | | | **helpers** | table |
| F check | | | F analyze | |
| D collected | | | F formulanumber | |
| F compact | | | F merged | |
| F converted | | | F page | |
| F current | | | F prefix | |
| D data | | | F prefixlastpage | |
| F define | | | F prefixpage | |
| F first | | | F simplify | |
| F get | | | F title | |
| F last | | | F touserdata | |
| F next | | | **itemgroups** | table |
| F prev | | | F maxwidth | |
| F previous | | | F nofitems | |
| F raw | | | F register | |
| F record | | | **lists** | table |
| F reset | | | F analyze | |
| F restart | | | D cached | |
| F restore | | | D collected | |
| F save | | | F doifstoredelse | |
| F set | | | F enhance | |
| F setlevel | | | T enhancers | |
| F setoffset | | | F filter | |
| F setown | | | F filtercollected | |
| F setstate | | | F formulanumber | |
| F setvalue | | | D internals | |
| F show | | | F label | |
| T specials | | | F location | |
| F userpage | | | F number | |
| F subs | | | D ordered | |
| D tobesaved | | | F page | |

| | |
|---|---|
| F | popnesting |
| F | prefix |
| F | prefixednumber |
| F | prefixedpage |
| F | process |
| F | push |
| D | pushed |
| F | pushnesting |
| F | realpage |
| T | result |
| F | savednumber |
| F | savedprefixednumber |
| F | savedtitle |
| 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 | number |
| F | ordered |
| F | postpone |
| F | resetpostponed |
| F | restore |
| F | save |
| F | setstate |
| F | setsymbolpage |
| D | states |
| F | store |
| F | title |

**pages**          table

| | |
|---|---|
| F | analyze |
| D | collected |
| F | is_odd |
| F | number |
| F | save |
| D | tobesaved |

**processors**          table

| | |
|---|---|
| F | apply |
| F | register |
| F | reset |
| F | split |
| F | startapply |
| F | stopapply |
| F | stripped |
| F | tostring |

**references**          table

| | |
|---|---|
| F | analyze |
| F | checkedfile |
| F | checkedfileorurl |
| F | checkedprogram |
| F | checkedurl |
| D | collected |
| F | currentmetadata |
| F | currentorder |
| D | currentset |
| F | define |
| D | defined |
| D | derived |
| F | doifelse |
| F | enableinteraction |
| F | enhance |
| D | executers |
| F | expandcurrent |
| F | export |
| D | exporters |
| T | files |
| |   T data |
| |   F define |
| |   F get |
| F | filter |
| D | filters |
| F | from |

```
F get                                          F internal
F getcurrentmetadata                           F page
F getcurrentprefixspec                         F realpage
F getinnermethod                               F section
F getinternalreference                         F userpage
D handlers                                   D tobereferred
F identify                                   D tobesaved
F import                                     T urls
D imported                                     T data
F inject                                       F define
F injectcurrentset                             F get
D internals                                  F whatfrom
F load                               registers              table
F mark                                         F analyze
D pages                                        F analyzed
T programs                                     D collected
  T data                                       F compare
  F define                                     F define
  F get                                        F enhance
F realpage                                     F extend
F realpageofpage                               F filter
D referred                                     F filtercollected
F referredpage                                 F finalize
F registerfinalizer                            F flush
F registerinitializer                          F prepare
F registerpage                                 F process
F reportproblems                               F sort
F reset                                        F store
T resolvers                                    D tobesaved
  F description                                F unique
  F float                                      F userdata
  F formula                            sections              table
  F note                                       F autodepth
  F reference                                  F cct
  F section                                    T collected
D runners                                      F current
F sectionnumber                                F currentblock
F sectionpage                                  F currentid
F sectiontitle                                 F currentlevel
F set                                          F defineautolevels
F setandgetattribute                           F depthnumber
F setinnermethod                               F finddata
F setinternalreference                         F findnumber
F setnextinternal                              F fullnumber
F setnextorder                                 F getcurrentlevel
D specials                                     F getlevel
F split                                        F getnumber
T testrunners                                  F internalreference
  F inner                                      D levelmap
  F special                                    D levels
  F special operation                          F load
  F special operation with arguments           F matchingtilldepth
T testspecials                                 F numberatdepth
  F i                                          F numbers
```

```
    F popblock                          F flush
    F prefixedconverted                 F meaning
    F pushblock                         F prepare
    F register                          F process
    D registered                        F register
    F reportstructure                   F registerused
    F save                              F sort
    F set                               F synonym
    F setblock                          D tobesaved
    F setchecker                tags                        table
    F setlevel                          T data
    F setnumber                         F detailedtag
    F somelevel                         F getid
    F startautolevel                    F handler
    F stopautolevel                     D labels
    F structuredata                     F last
    F title                             F lastinchain
    D tobesaved                         T metadata
    F typesetnumber                     D properties
    F userdata                          F registerdata
    B verbose                           F registermetadata
    F way                               F restart
sets                    table           F setattributehash
    F define                            F setcombination
    F get                               F setdescription
    F getall                            F setdescriptionsymbol
    D setlist                           F setfigure
specials                table           F sethighlight
    D collected                         F setitemgroup
    F retrieve                          F setproperty
    F store                             F setsorting
    D tobesaved                         F setsynonym
synonyms                table           F settablecell
    F analyzed                          F settabulatecell
    D collected                         F start
    F compare                           F stop
    F define                            D taglist
    F filter                            T userdata
    F finalize
```

# 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 | | pdffontname | function |
| badness | function | | pdffontobjnum | function |
| box | table | | pdffontsize | function |
| catcode | table | | pdfpageref | function |
| conditionals | data table | | pdfxformname | function |
| constants | data table | | primitives | function |
| count | table | | print | function |
| ctxcatcodes | number | | printlist | function |
| definefont | function | | prtcatcodes | number |
| delcode | table | | romannumeral | function |
| dimen | table | | round | function |
| dummycatcodes | number | | run | function |
| enableprimitives | function | | scale | function |
| error | function | | scratchcatcodes | number |
| extraprimitives | function | | set | function |
| finish | function | | setattribute | function |
| fontidentifier | function | | setbox | function |
| fontname | function | | setcatcode | function |
| fprint | function | | setcount | function |
| get | function | | setdelcode | function |
| getattribute | function | | setdimen | function |
| getbox | function | | setfalse | function |
| getcatcode | function | | setlccode | function |
| getcount | function | | setlist | function |
| getdelcode | function | | setmath | function |
| getdimen | function | | setmathcode | function |
| getlccode | function | | setnest | function |
| getlist | function | | setsfcode | function |
| getmath | function | | setskip | function |
| getmathcode | function | | settoks | function |
| getnest | function | | settrue | function |
| getsfcode | function | | setuccode | function |
| getskip | function | | sfcode | table |
| gettoks | function | | shipout | function |
| getuccode | function | | skip | table |
| hashtokens | function | | sp | function |
| ifs | data table | | sprint | function |
| iscount | function | | systemmodes | data table |
| isdimen | function | | texcatcodes | number |
| isskip | function | | toks | table |
| istoken | function | | tpacatcodes | number |
| lccode | table | | tpbcatcodes | number |
| linebreak | function | | tprint | function |
| lists | table | | txtcatcodes | number |
| luacatcodes | number | | type | function |
| mathcode | table | | uccode | table |
| modes | data table | | uniformdeviate | function |
| nest | table | | uprint | function |
| nilcatcodes | number | | vrbcatcodes | number |
| notcatcodes | number | | write | function |
| number | 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 | | |

# texconfig (basic tex)

| | | | |
|---|---|---|---|
| **error_line** | number | **max_print_line** | number |
| **expand_depth** | number | **max_strings** | number |

# texio (basic tex)

**write**    function
**write_nl**  function

# 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 | | | |

# 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 | | **name** | function |
| **cs** | function | | **primitive** | function |
| **dimen** | function | | **printerror** | function |
| **knownlist** | function | | **showlines** | function |
| **lists** | table | | **strings** | table |
| | T context | | | S undefined |
| | T internals | | **toks** | function |
| | T scratch | | **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 enable
    F handler
    D mapping
    T methods
    F set
    F setreplacement

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

**characters**  table
    F handler

**cleaners**   table
    F handler
    F set

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

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

**hpack**     function

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

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

**spacings**   table
    N attribute
    F handler
    D mapping
    F set
    F setup

**tonodes**   function
**vpack**     function

# unicode (extra lua)

**ascii**      <span style="color:red">table</span>
- 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**      <span style="color:red">table</span>
- 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**      <span style="color:red">table</span>
- 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**      <span style="color:red">table</span>
- 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

**report**            function

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

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

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

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

**tables**           table
- F accesstable
- F definetable
- F encapsulate
- F insertaftervalue
- F insertbeforevalue
- 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)

| | | | |
|---|---|---|---|
| **after** | function | F | name |
| **all** | function | F | number |
| **applylpath** | function | F | oneof |
| **assign** | function | F | print |
| **attribute** | function | F | quit |
| **before** | function | F | tag |
| **body** | function | F | text |
| **checkbom** | function | F | undefined |
| **checkerror** | function | F | upper |
| **checknamespace** | function | **fillin** | function |
| **checkns** | function | **filter** | function |
| **cleansed** | function | **finalizers** | table |
| **collect** | function | T | tex |
| ~~collect_elements~~ | ~~function~~ | F | all |
| **collect_tags** | function | F | attribute |
| ~~collect_texts~~ | ~~function~~ | F | bibtexconcat |
| **collected** | function | F | bibtexshort |
| **collecttexts** | function | F | chainattribute |
| **content** | function | F | command |
| **convert** | function | F | concat |
| **copy** | function | F | concatrange |
| **count** | function | F | context |
| **cprint** | function | F | count |
| **css** | table | F | ctxtext |
| F colorspecification | | F | default |
| F fontspecification | | F | first |
| F padding | | F | function |
| **defaulthandlers** | table | F | index |
| D file | | F | last |
| D parsedxml | | F | lettered |
| D string | | F | lower |
| D tex | | F | match |
| D verbose | | F | name |
| **defaultprotocol** | string | F | position |
| **delete** | function | F | reverse |
| ~~delete_element~~ | ~~function~~ | F | stripped |
| **each** | function | F | tag |
| ~~each_element~~ | ~~function~~ | F | tags |
| **elements** | function | F | text |
| **empty** | function | F | upper |
| **entities** | data table | T | xml |
| **erase** | function | F | all |
| **escaped** | function | F | att |
| **expressions** | table | F | attribute |
| F boolean | | F | attributes |
| F child | | F | chainattribute |
| F contains | | F | count |
| F count | | F | default |
| F error | | F | elements |
| F find | | F | empty |
| F lower | | F | first |

| | | | |
|---|---|---|---|
| | F function | | F unknown_any_entity |
| | F index | | F unknown_dec_entity |
| | F last | | F unknown_hex_entity |
| | F match | position | function |
| | F name | privatetoken | function |
| | F position | process | function |
| | F reverse | ~~process_attributes~~ | ~~function~~ |
| | F table | ~~process_elements~~ | ~~function~~ |
| | F tag | processattributes | function |
| | F tags | profiled | table |
| | F text | raw | function |
| | F texts | registerentity | function |
| first | function | registerns | function |
| found | function | ~~remap_name~~ | ~~function~~ |
| functions | table | ~~remap_namespace~~ | ~~function~~ |
| getbuffer | function | ~~remap_tag~~ | ~~function~~ |
| gethandlers | function | remapname | function |
| gethandlersfunction | function | remapnamespace | function |
| include | function | remaptag | function |
| index | function | renamespace | function |
| inheritedconvert | function | replace | function |
| inject | function | replace_element | function |
| ~~inject_element~~ | ~~function~~ | resolvens | function |
| ~~inject_element_after~~ | ~~function~~ | root | function |
| ~~inject_element_before~~ | ~~function~~ | save | function |
| injectafter | function | selection | function |
| injectbefore | function | serialize | function |
| insert | function | sethandlersfunction | function |
| insert_element | function | setproperty | function |
| ~~insert_element_after~~ | ~~function~~ | settings | function |
| ~~insert_element_before~~ | ~~function~~ | specialhandler | table |
| insertafter | function | sprint | function |
| insertbefore | function | string | function |
| inspect | function | strip | function |
| is_valid | function | ~~strip_whitespace~~ | ~~function~~ |
| last | function | stripelement | function |
| load | function | stripleadingspaces | function |
| lpath | function | table | function |
| lpathcached | function | text | function |
| lpathcalls | function | textonly | function |
| lshow | function | tocdata | function |
| makestandalone | function | toelement | function |
| match | function | tostring | function |
| name | function | toxml | function |
| newhandlers | function | tprint | function |
| nodesettostring | function | traverse | function |
| originalload | function | unescaped | function |
| package | function | unprivatized | function |
| parent | function | withelement | function |
| parsedentitylpeg | userdata | withelements | function |
| pihandlers | table | wrap | function |
| placeholders | table | xmlns | table |

# 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 | | | |