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

ConT_EXt MkIV

global (alias: _G)

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

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

table url table userdata utf table utilities table νf table visualizers table table xml xmlconvert function xpcall function zip table zlib table

attributes (context)

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

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

F enable
F forcesupport
F handler
B hasorder
D listwise

F register
D registered
F resolve_begin
F resolve_end
F resolve_step
D scopes
F setfeatures
F start
F stop
B supported
D values

backends (context)

F hasmatrix

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

F effect

- F graycolor
- F injectbitmap
- F insertmovie
- F insertsound
- F insertswf
- F insertu3d
- F knockout
- F negative
- F overprint
- F positive
- F reference
- F rgbcolor
- F spotcolor
- F startlayer
- F startstackedlayer
- F stoplayer
- F stopstackedlayer
- F transparency
- F typesetfield
- T registrations
 - F cmykindexcolor
 - F cmykspotcolor
 - F getspotcolorreference
 - F grayindexcolor
 - F grayspotcolor
 - F rgbindexcolor
 - F rgbspotcolor
 - F spotcolorname
 - F transparency
- T tables
 - D vfspecials

registrations table
tables table

bit (context)

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

bit32 (basic lua)

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

blobs (context)

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

boolean (context)

tocontext function
tonumber function

buffers (context)

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

F define

F hassomecontent

F next
F place
F reset
F save

prepend function
raw function

builders (context)

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

T data

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

caches (context)

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

callback (basic tex)

find function
list function

register overloaded function

callbacks (context)

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

catcodes (context)

characters (context)

| activeoffset | number | C D |
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| activeoriset | function | S B |
| bidi | data table | S C |
| | function | S D |
| blockrange blocks | data table | SE |
| | table | S F |
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| categories | data table | SH |
| category | function data table | SI |
| categorytags | data table | S J |
| collapsed combined | data table | S K |
| combined | function | S L |
| data | data table | S M |
| *** | data table | SN |
| decomposed define | function | S 0 |
| description | function | S P |
| • | data table | 5 Q |
| descriptions directions | table | S R S S |
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| entities | data table | SU |
| fallbacks | data table | S V |
| filters | data table | S W |
| fromnumber | function | s w |
| fschars | data table | 5 Y |
| fscodes | data table | SZ |
| getrange | function | S À |
| graphemes | data table | SÁ |
| hangul | data table | SÂ |
| initialize | function | SÃ |
| is character | data table | SÄ |
| is_command | data table | s Å |
| is letter | data table | S Æ |
| is mark | data table | S C |
| is punctuation | data table | SÈ |
| is_spacing | data table | SÉ |
| lcchars | data table | SÊ |
| lccode | function | SË |
| lccodes | data table | SÌ |
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| linebreaks | table | mirrors | table |
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| S ai | | otfscripts | data table |
| S al | | ranges | data table |
| S b2 | | registerentities | function |
| S ba | | remap_hangul_syllabe | function |
| S bb | | setcodes | function |
| S bk | | shape | function |
| S cb | | shaped | function |
| S cj | | shash | table |
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S unicodechar function upper

chemistry (context)

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

commands (context)

| Al shahati a | function | | £ |
|-------------------------|----------------------|---------------------------------------|----------------------|
| Alphabetic Character | function function | assignbuffer attachproperty | function function |
| Characters | function | autofinishstructurelevels | function |
| MPc | function | autonextspace | function |
| MPd | function | · · · · · · · · · · · · · · · · · · · | function |
| | | autonextstructurelevel | |
| MPh MPll | function function | autosetups | function |
| | | autostarttext | function |
| MPlr MPls | function | autostoptext | function |
| MPn | function | averagecharwidth | function |
| | function | bcolumn | function |
| MPp | function | boolcase | function |
| MPpardata | function | boxtostring | function |
| MPplus | function | btx_a_f | function |
| MPpos | function | btx_a_i | function |
| MPposset | function | btx_a_j | function |
| MPr | function | btx_a_s | function |
| MPrest | function | btx_a_v | function |
| MPrs | function | btxabbreviatedjournal | function |
| MPul | function | btxaddfield | function |
| MPur | function | btxaddjournal | function |
| MPw | function | btxauthor | function |
| MPx | function | btxauthorfield | function |
| MPxy | function | btxcollectlistentries | function |
| MPxywhd | function | btxdetail | function |
| MPy | function | btxdoif | function |
| Romannumerals | function | btxdoifelse | function |
| abjadnodotnumerals | function | btxdoifnot | function |
| abjadnumerals | function | btxexpandedjournal | function |
| addbtxentry | function | btxfetchlistentries | function |
| addcounter | function | btxfield | function |
| addlinklistelement | function | btxflush | function |
| addreplacements | function | btxflushlistentries | function |
| addtojavascriptpreamble | function | btxhandlecite | function |
| addtolist | function | btxhandlenocite | function |
| allinputpaths | function | btxlistvariant | function |
| alphabetic | function | btxloadjournallist | function |
| analysefloatmethod | function | btxpreparelistentries | function |
| analyzelist | function | btxsavejournallist | function |
| applytochars | function | btxsingularorplural | function |
| applytofirstcharacter | function | buildtextaccent | function |
| applytowords | function | character | function |

| characters | function | definecharacterspacing | function |
|-------------------------|----------|-------------------------|----------|
| chardescription | function | definechemical | function |
| checkcharactersinfont | function | defineconversion | function |
| checkcountersetup | function | definecounter | function |
| checkedconversion | function | definedviewerlayer | function |
| checkedpagefloat | function | definefallbackfamily | function |
| checktwopassdata | function | definefield | function |
| chemicalcomponent | function | definefieldset | function |
| chineseallnumerals | function | definefilefallback | function |
| chinesecapnumerals | function | definefilesynonym | function |
| chinesenumerals | function | definefont_one | function |
| cleanfontname | function | definefont_two | function |
| cleanupbox | function | definefontfamily | function |
| cleanuplayers | function | definefontfeature | function |
| clonefield | function | definefontsolution | function |
| collectfloat | function | defineinsertion | function |
| collecthelp | function | defineintermediatecolor | function |
| colorcomponents | function | definelabels | function |
| concatcommalist | function | definelanguage | function |
| consultfloat | function | definelinkedlist | function |
| convertbtxdatasettoxml | function | definemarking | function |
| converteddimen | function | definemetafont | function |
| copyposition | function | definemultitonecolor | function |
| cos | function | definenote | function |
| cosd | function | defineparallel | function |
| countervalue | function | defineparbuilder | function |
| counttwopassdata | function | defineprocesscolor | function |
| ctxfunction | function | defineprogram | function |
| currentcomponent | function | definereference | function |
| currentdate | function | defineregister | function |
| currentenvironment | function | definesectionlevels | function |
| currentproduct | function | defineselectfont | function |
| currentproject | function | definesnapmethod | function |
| currentreferencedefault | function | definespotcolor | function |
| currentreferenceorder | function | definestructureblock | function |
| currentregime | function | definestructureset | function |
| currentsectiontolist | function | definetransparency | function |
| datasetvariable | function | definetwopasslist | function |
| dayname | function | defineviewerlayer | function |
| deferredproperty | function | defrostrandomseed | function |
| defineattribute | function | depthnumber | function |
| definebreakpoint | function | digits | function |
| definebreakpoints | function | disableautofontscript | function |
| definecatcodetable | function | disableparbuilder | function |

| disableregime | function | doifnotcounter | function |
|---|----------|------------------------------|----------|
| disablespellchecking | function | doifnotecontent | function |
| discardfromlist | function | doifnoteonsamepageasprevious | function |
| doanalyzeframedbox | function | doifobjectreferencefoundelse | function |
| doif | function | doifolderversionelse | function |
| doifblackelse | function | doifoverlappingelse | function |
| doifcommonelse | function | doifparentfileelse | function |
| doifcounter | function | doifpathexistelse | function |
| doifdimenstringelse | function | doifposition | function |
| doifdrawingblackelse | function | doifpositionelse | function |
| doifelse | function | doifpositiononpage | function |
| doifelsebuffer | function | doifpositionsonsamepageelse | function |
| doifelsecontinuewithfile | function | doifpositionsonthispageelse | function |
| doifelsecounter | function | doifurldefinedelse | function |
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| doifelseintwopassdata | function | doreshapeframedbox | function |
| doifelsemarking | function | dostarttextfile | function |
| doifelsemessage | function | dostoptextfile | function |
| doifelsemultipar | function | ecolumn | function |
| doifelseparallel | function | elapsedtime | function |
| doifelsepositionsused | function | enableautofontscript | function |
| doifelserangeonpage | function | enablecolor | function |
| doifelsereference | function | enablecolorintents | function |
| doifelsesavedfloat | function | enablefontcolorschemes | function |
| doifelsespaces | function | enableparbuilder | function |
| doifelseutfmathabove | function | enableregime | function |
| doifelseutfmathaccent | function | enablespellchecking | function |
| doifelseutfmathbelow | function | enabletransparency | function |
| doifelsevisualizer | function | enhancelinkedlist | function |
| doiffieldcategoryelse | function | enhancelist | function |
| doiffieldelse | function | enhancereference | function |
| doiffieldsetelse | function | enhanceregister | function |
| doiffiledefinedelse | function | erasebuffer | function |
| doiffileexistelse | function | expandcurrentreference | function |
| doiffirstcharelse | function | exportformdata | function |
| doifinputfileelse | function | exportreferences | function |
| doifinsetelse | function | extendregister | function |
| doifleapyearelse | function | extensiblecode | function |
| doiflisthasentry | function | feature | function |
| doiflisthasnumberelse | function | featureattribute | function |
| doiflisthaspageelse | function | featurelist | function |
| doiflisthastitleelse | function | feedback | function |
| doiflocfileelse | function | fetchallmarks | function |
| doifnot | function | fetchmultipar | function |

| fotchmultichano | function | getbuffermkvi | function |
|---------------------------------|----------------------|-----------------------------|----------|
| fetchmultishape fetchonemark | function | getcommandline | function |
| | function | getctxfile | function |
| fetchposboxes fetchtwomarks | function | • | function |
| | | getcurrentprefixspec | |
| figurefilename | function | getcurrentreferencemetadata | function |
| figurefilepath | function | getcurrentsectionlevel | function |
| figurefiletype | function function | getdefaultfieldvalue | function |
| figurerequest | | getelementtag | function |
| figurestatus | function | getfieldcategory | function |
| figureused | function | getfirstcharacter | function |
| figurevariable | function | getfirsttwopassdata | function |
| filterdefaultreference | function | getfloatvariable | function |
| filterreference | function | getfullsectionnumber | function |
| finalizebox | function | getinternallistreference | function |
| findtwopassdata | function | getinternalreference | function |
| firstcountervalue | function | getlasttwopassdata | function |
| firstinrange | function | getmarking | function |
| firstinset | function | getmessage | function |
| flushfloat | function | getmpextensions | function |
| flushmarked | function | getnotestate | function |
| flushnotes | function | getplaceholderchar | function |
| flushpostponedblocks | function | getprivatechar | function |
| flushpostponednotes | function | getprogram | function |
| fontchar | function | getrandomcounta | function |
| fontcollectionclone | function | getrandomcountb | function |
| fontcollectiondefine | function | getrandomseed | function |
| fontcollectionprepare | function | getreadfilename | function |
| fontcollectionregister | function | getsectionnumber | function |
| fontcollectionreport | function | getstructuredata | function |
| fontcollectionreset | function | getsubstring | function |
| fontlookupgetkey | function | gettexbuffer | function |
| fontlookupgetkeyofindex | function | gettwopassdata | function |
| fontlookupinitialize | function | gettwopassdatalist | function |
| fontlookupnoffound | function | geturl | function |
| forceendjob | function | grabbuffer | function |
| forcequitjob | function | hboxtovbox | function |
| format | function | helpaction | function |
| formatcolor | function | helpreference | function |
| formatgray | function | hexstringtonumber | function |
| freezerandomseed | function | horizontalcode | function |
| from | function | hour | function |
| getbidimode | function | hyphenatedlist | function |
| getbuffer | function | hyphenatedurl | function |
| getbufferctxlua | function | D characters | |
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| N lefthyphenmin | | lower | function |
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| D mapping | | makeactive | function |
| N righthyphenmin | | manipulated | function |
| F setcharacters | | markfonts | function |
| immediateproperty | function | markingnumber | function |
| incrementedcounter | function | markingtitle | function |
| initializetexdirectives | function | markregionbox | function |
| initializetextrackers | function | math_frac | function |
| injectcurrentreference | function | mathrenderset | function |
| injectreference | function | maxitemwidth | function |
| inlinechemical | function | minute | function |
| insertattachment | function | mixcleanup | function |
| insertcomment | function | mixfinalize | function |
| insertfield | function | mixflushlist | function |
| insertionnumber | function | mixflushrest | function |
| insertrenderingwindow | function | mixgetsplit | function |
| insertsoundclip | function | mixsetsplit | function |
| installedlanguages | function | mixstate | function |
| installtexdirective | function | molecule | function |
| installtextracker | function | month | function |
| languagenumber | function | monthmnem | function |
| lastcountervalue | function | monthname | function |
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| linenumbersstageone | function | namedstructureuservariable | function |
| linenumbersstagetwo | function | namedstructurevariable | function |
| listgroupindex | function | nbfs | function |
| listlabel | function | nextcountervalue | function |
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| listprefixedpage | function | nofitems | function |
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| loadfontgoodies | function | notetitle | function |
| loadspellchecklist | function | ntimes | function |
| loadtypescriptfile | function | number | function |
| loadvisualizer | function | F C | |
| locatefilepath | function | F FL | |
| locfilename | function | F HL | |

FΙ F XmlSnippetCdata F LL F XmlSnippetComment F LuaSnippet F XmlSnippetEntity F XmlSnippetEqual F LuaSnippetBoundary F LuaSnippetComment F XmlSnippetKey F LuaSnippetName F XmlSnippetName F LuaSnippetNameBase F XmlSnippetString F LuaSnippetNameCore F flush F LuaSnippetNameLibraries F flushdirect F flushlines F LuaSnippetQuote F LuaSnippetSpecial Fa F LuaSnippetString F addaskedblankskip F ML F addpredefinedblankskip F MPLIBsetCtext F applyprocessor F MPLIBsetNtext F MPcolor F beginhbox F MetapostSnippet F beginvbox F bf F MetapostSnippetBoundary F MetapostSnippetComment F bgroup F MetapostSnippetConstructor F blank F MetapostSnippetName F bold F MetapostSnippetNameMetafun F btxchecklistcombi F btxchecklistentry F MetapostSnippetNamePlain F MetapostSnippetNamePrimitive F btxciteauthorsetup F MetapostSnippetQuote F btxcitesetup F MetapostSnippetSpecial F btxcitevariantparameter F btxdirectlink F MetapostSnippetString F NC F btxhandlelistentry F NR F btxlistauthorsetup F ParsedXmlSnippetCdata F btxlistparameter F ParsedXmlSnippetComment F btxlistsetup F ParsedXmlSnippetDoctype F btxlistvariantparameter F ParsedXmlSnippetElement F btxmissing F ParsedXmlSnippetInstruction F btxsetauthorindex F btxsetauthorvariant F ParsedXmlSnippetKey F ParsedXmlSnippetValue F btxsetbacklink F TexSnippet F btxsetbacktrace F TexSnippetBoundary F btxsetcategory F btxsetcitereference F TexSnippetComment F TexSnippetGroup F btxsetcombis F TexSnippetName F btxsetconcat F btxsetcount F TexSnippetSpecial F btxsetdataset F XmlSnippet F XmlSnippetBoundary F btxsetfirst

F htxsetfirstnames F darkblue F btxsetinitials F darkgreen F btxsetinternal F darkred F btxsetiuniors F definefontsynonym F btxsetlanguage T delayed F btxsetlistreference F digitsdigit F btxsetnumber F digitsfinalcomma F htxsetoverflow F digitsfinalperiod F htysetsecond F digitshighspace F htysetsurnames F digitsintermediatecomma F btxsettag F digitsintermediateperiod F btxsetthird F diaitsminus F btxsetvons F digitsnegative F btxstartauthor F digitsplus F btxstartcite F digitspositive F btxstartciteauthor F digitspower F btxstartsubcite F digitspowerminus F btxstopauthor F digitspowerplus F btxstopcite F digitsseparatorspace F btxstopciteauthor F digitssignspace F btxstopsubcite F digitsspace Fc F digitszeropadding F callfunctiononce F direct F dodisplayverbatimbeginline F char F chardef F dodisplayverbatimemptyline F color F dodisplayverbatiminitialize F dodisplayverbatimnewline F colordefage F colordefagt F dodisplayverbatimstart F colordefalc F dodisplayverbatimstop F colordefalt F dofastdefinetypeface F colordeffqc F dofinishsomereference F colordeffqt F dofromfiledescription F colordefflc F dofromfileliteral F colordefflt F dofromurldescription F dofromurlliteral F colordefrqc F colordefrgt F doinlineverbatimbeginline F colordefrlc F doinlineverbatimemptyline F colordefrlt F doinlineverbatimnewline F doinlineverbatimstart F concat F constructcs F doinlineverbatimstop F donestedtypingstart F constructcsonly F convertnumber F donestedtypingstop F dostarttext F ctxreport

F doverbatimspace

F d

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

F m

F makelinenumber

F secondoftwoarguments

F setblankcategory

F stopTexSnippet F setblankorder F setblankpenalty F stopXmlSnippet F setconditional F stopblankhandling F setfalsevalue F stopcolumns F sethboxregister F stopcomponentindeed F setsomevalue F stopenvironmentindeed F settabulateentry F stopfontclass F settabulatelastentry F stophboxregister F settracing F stopproductindeed F stopprojectindeed F setupsystem F setupwithargument F stopreadingfile F setvalue F stopregisterentries F setvboxregister F stopregisterentry F setxvalue F stopregisteroutput F stopregisterpages F space F sprint F stopregistersection F startLuaSnippet F stopregisterseewords F startMetapostSnippet F stoptabulate F startParsedXmlSnippet F stoptext F startTexSnippet F stoptitle F startXmlSnippet F stopyboxregister F startblankhandling F stopxtitle F startcolumns F storenode F synonymentry F startcomponentindeed F startenvironmentindeed F tabulaterow F startfontclass F tabulaterowbold F starthboxregister F tabulaterowtyp F startproductindeed F tabulaterowtype F startprojectindeed F template F startreadingfile T templates F startregisterentries F texsetup F startregisterentry F tobuffer F startregisteroutput F tocontext F tolines F startregisterpages F unitsC F startregistersection F startregisterseewords F unitsN F starttabulate F unitsNspace F starttext F unitsNstart F starttitle F unitsNstop F startvboxregister F units0 F startxtitle F unitsP F unitsPS F stopLuaSnippet F unitsPU

F unitsPUS

F stopMetapostSnippet
F stopParsedXmlSnippet

| F unitsQ | F XmlSnippetName |
|--------------------------------|--------------------------------|
| F unitsS | F XmlSnippetString |
| F unitsU | F ctxreport |
| F unitsUS | F viafile |
| F unprotect | F vrule |
| F unregisterfunction | F xmlcdataafter |
| F usemodule | F xmlcdatabefore |
| F utfchar | F xmlcdataobeyedline |
| T verbatim | F xmlcdataobeyedspace |
| F LuaSnippetBoundary | F xmlprocessbuffer |
| F LuaSnippetComment | F xmlsetup |
| F LuaSnippetName | numbers function |
| F LuaSnippetNameBase | F C |
| F LuaSnippetNameCore | F FL |
| F LuaSnippetNameLibraries | F HL |
| F LuaSnippetQuote | F L |
| F LuaSnippetSpecial | F LL |
| F LuaSnippetString | F LuaSnippet |
| F MetapostSnippetBoundary | F LuaSnippetBoundary |
| F MetapostSnippetComment | F LuaSnippetComment |
| F MetapostSnippetConstructor | F LuaSnippetName |
| F MetapostSnippetName | F LuaSnippetNameBase |
| F MetapostSnippetNameMetafun | F LuaSnippetNameCore |
| F MetapostSnippetNamePlain | F LuaSnippetNameLibraries |
| F MetapostSnippetNamePrimitive | F LuaSnippetQuote |
| F MetapostSnippetQuote | F LuaSnippetSpecial |
| F MetapostSnippetSpecial | F LuaSnippetString |
| F MetapostSnippetString | F ML |
| F ParsedXmlSnippetCdata | F MPLIBsetCtext |
| F ParsedXmlSnippetComment | F MPLIBsetNtext |
| F ParsedXmlSnippetDoctype | F MPcolor |
| F ParsedXmlSnippetElement | F MetapostSnippet |
| F ParsedXmlSnippetInstruction | F MetapostSnippetBoundary |
| F TexSnippetBoundary | F MetapostSnippetComment |
| F TexSnippetComment | F MetapostSnippetConstructor |
| F TexSnippetGroup | F MetapostSnippetName |
| F TexSnippetName | F MetapostSnippetNameMetafun |
| F TexSnippetSpecial | F MetapostSnippetNamePlain |
| F XmlSnippetBoundary | F MetapostSnippetNamePrimitive |
| F XmlSnippetCdata | F MetapostSnippetQuote |
| F XmlSnippetComment | F MetapostSnippetSpecial |
| F XmlSnippetEntity | F MetapostSnippetString |
| F XmlSnippetEqual | F NC |
| F XmlSnippetKey | F NR |
| | |

F ParsedXmlSnippetCdata F btxlistparameter F ParsedXmlSnippetComment F btxlistsetup F ParsedXmlSnippetDoctype F btxlistvariantparameter F ParsedXmlSnippetElement F btxmissina F ParsedXmlSnippetInstruction F btxsetauthorindex F ParsedXmlSnippetKey F btxsetauthorvariant F ParsedXmlSnippetValue F btxsetbacklink F btxsetbacktrace F TexSnippet F TexSnippetBoundary F btxsetcategory F btxsetcitereference F TexSnippetComment F TexSnippetGroup F btxsetcombis F TexSnippetName F btxsetconcat F TexSnippetSpecial F btxsetcount F XmlSnippet F btxsetdataset F XmlSnippetBoundary F btxsetfirst F XmlSnippetCdata F btxsetfirstnames F XmlSnippetComment F btxsetinitials F btxsetinternal F XmlSnippetEntity F btxsetjuniors F XmlSnippetEqual F btxsetlanguage F XmlSnippetKey F XmlSnippetName F btxsetlistreference F XmlSnippetString F btxsetnumber F btxsetoverflow F flush F btxsetsecond F flushdirect F flushlines F btxsetsurnames Fa F btxsettag F addaskedblankskip F btxsetthird F addpredefinedblankskip F btxsetvons F applyprocessor F btxstartauthor F btxstartcite F beginhbox F btxstartciteauthor F beginvbox E htxstartsubcite F bf F btxstopauthor F bgroup F btxstopcite F blank F btxstopciteauthor F bold F btxstopsubcite F btxchecklistcombi F c F btxchecklistentry F callfunctiononce F char F btxciteauthorsetup F btxcitesetup F chardef F btxcitevariantparameter F color F btxdirectlink F colordefagc F colordefagt F btxhandlelistentry F btxlistauthorsetup F colordefalc

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

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

F startprojectindeed

F processfileonce

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

| F. Danas dVal Carina at Comment | | ndfatonmirroring | function |
|---|----------|------------------------|----------|
| F ParsedXmlSnippetComment | | pdfstopmirroring | |
| F ParsedXmlSnippetDoctype | | pdfstoprotation | function |
| F ParsedXmlSnippetElement | | pdfstopscaling | function |
| F ParsedXmlSnippetInstruction | | percentageof | function |
| F TexSnippetBoundary | | pgfxcolorspec | function |
| F TexSnippetComment | | placeparallel | function |
| F TexSnippetGroup | | popfloat | function |
| F TexSnippetName | | popitaliccorrection | function |
| F TexSnippetSpecial | | poplist | function |
| F XmlSnippetBoundary | | popreferenceprefix | function |
| F XmlSnippetCdata | | popregime | function |
| F XmlSnippetComment | | popsectionblock | function |
| F XmlSnippetEntity | | pos | function |
| F XmlSnippetEqual | | posplus | function |
| F XmlSnippetKey | | posstrut | function |
| F XmlSnippetName | | postponenotes | function |
| F XmlSnippetString | | poswhd | function |
| F ctxreport | | posxy | function |
| F viafile | | prefixedconverted | function |
| F vrule | | prepareMPvariable | function |
| F xmlcdataafter | | preparedfile | function |
| F xmlcdatabefore | | presetsymbollist | function |
| F xmlcdataobeyedline | | presettabulate | function |
| F xmlcdataobeyedspace | | prevcountervalue | function |
| F xmlprocessbuffer | | processbuffer | function |
| F xmlsetup | | processcolorcomponents | function |
| objectnumber | function | processedfile | function |
| objectpage | function | processedfiles | function |
| octnumber | function | processfile | function |
| octstringtonumber | function | processfilemany | function |
| oneorrange | function | processfilenone | function |
| ordinal | function | processfileonce | function |
| overloadbookmark | function | processlist | function |
| <pre>page_injections_flush_after</pre> | function | processregister | function |
| <pre>page_injections_flush_before</pre> | function | processsplit | function |
| <pre>page_injections_save</pre> | function | processsynonyms | function |
| pagestaterealpage | function | purefontname | function |
| parpos | function | pushfloat | function |
| pdfrotation | function | pushitaliccorrection | function |
| pdfstartmatrix | function | pushlist | function |
| pdfstartmirroring | function | pushreferenceprefix | function |
| pdfstartrotation | function | pushregime | function |
| pdfstartscaling | function | pushsectionblock | function |
| pdfstopmatrix | function | rawcharacter | function |
| | | | |

| rawcountervalue | function | resetprevdepth | function |
|----------------------------|----------|--------------------------|----------|
| rawdate | function | resetreference | function |
| referencepagestate | function | resetstructureprocessor | function |
| referencerealpage | function | resettimer | function |
| registerattachment | function | restartcounter | function |
| registerbookmark | function | restorecounter | function |
| registerbuttons | function | restorecurrentattributes | function |
| registercatcodetable | function | restorenote | function |
| registercolor | function | romannumerals | function |
| registercolorintent | function | runbuffer | function |
| registeredviewerlayer | function | safechar | function |
| registerhelp | function | savebuffer | function |
| registeritemgroup | function | savecounter | function |
| registerlanguagefeatures | function | savecurrentattributes | function |
| registerlinenumbering | function | savedlistnumber | function |
| registermaintextcolor | function | savedlistprefixednumber | function |
| registernamespace | function | savedlisttitle | function |
| registerpostponedblock | function | savefloat | function |
| registerrendering | function | savemargindata | function |
| registersection | function | savenote | function |
| registersoundclip | function | saveobject | function |
| registerstructureprocessor | function | savepagedata | function |
| registersynonym | function | saveparallel | function |
| registertransparency | function | savestructureblock | function |
| registerunit | function | savetaggedtwopassdata | function |
| registerusedsynonym | function | savetwopassdata | function |
| registeruserdata | function | savevariable | function |
| relatemarking | function | second | function |
| remapentity | function | selectstructureblock | function |
| removemissingcharacters | function | setbreakpoints | function |
| renderingvar | function | setbtxdataset | function |
| replacemissingcharacters | function | setbtxentry | function |
| replacepospxywhd | function | setcharacteralign | function |
| reportstructure | function | setcharactercasing | function |
| resavefloat | function | setcharactercleaning | function |
| resetcharacteralign | function | setcharactercodes | function |
| resetcounter | function | setcharacterkerning | function |
| resetfontfeature | function | setcharacterspacing | function |
| resetfontsolution | function | setcharacterstripping | function |
| resetmarking | function | setclosedocumentaction | function |
| resetmathattributes | function | setclosepageaction | function |
| resetmathitalics | function | setcolormodel | function |
| resetnullfont | function | setcounter | function |
| resetparallel | function | setdataset | function |

| setdigitsmanipulation | function | setparbuilder | function |
|--------------------------|----------|----------------------------|----------|
| setdirection | function | setpos | function |
| setdocumentenvironments | function | setrandomseed | function |
| setdocumentfilenames | function | setrealign | function |
| setdocumentmodes | function | setrealspaces | function |
| setdocumentmodules | function | setreferencearguments | function |
| setelementuserproperties | function | setreferenceattribute | function |
| setfigurelookuporder | function | setreferenceoperation | function |
| setfirstline | function | setregistermethod | function |
| setfontfeature | function | setreplacements | function |
| setfontofid | function | setsectionblock | function |
| setfontsolution | function | setsectionentry | function |
| setformat | function | setsectionlevel | function |
| setformsmethod | function | setsectionnumber | function |
| setinitial | function | setstructureblockstate | function |
| setinsertionlocation | function | settagcombination | function |
| setinterfaceconstant | function | settagdescription | function |
| setinterfaceelement | function | settagdescriptionsymbol | function |
| setinterfacemessage | function | settagfigure | function |
| setinterfacemessages | function | settaghighlight | function |
| setinterfacevariable | function | settagitemgroup | function |
| setinternalreference | function | settagproperty | function |
| setjobcomment | function | settagsorting | function |
| setlanguageexceptions | function | settagsynonym | function |
| setlanguagesynonym | function | settagtablecell | function |
| setlayer | function | settagtabulatecell | function |
| setmarking | function | setupbookmarks | function |
| setmathalphabet | function | setupcanvas | function |
| setmathalternate | function | setupcharacterspacing | function |
| setmathattribute | function | setupexport | function |
| setmathdirection | function | setupfontexpansion | function |
| setmathitalics | function | setupfontprotrusion | function |
| setmathstyle | function | setupidentity | function |
| setnextinternalreference | function | setupinsertion | function |
| setnextreferenceorder | function | setupitaliccorrection | function |
| setnotestate | function | setuplinenumbering | function |
| setnotesymbolpage | function | setvisual | function |
| setobject | function | setxmpfile | function |
| setopendocumentaction | function | showassignerror | function |
| setopenpageaction | function | showattributes | function |
| setowncounter | function | showbtxdatasetcompleteness | function |
| setpagestate | function | showbtxdatasetfields | function |
| setpagestaterealpageno | function | showbtxfields | function |
| setpagetransition | function | showcallbacks | function |

| showchardata | function | strdp | function |
|-------------------------|----------|---------------------------|----------|
| showcounter | function | strhd | function |
| showfontparameters | function | strht | function |
| showhyphenatedinlist | function | strip | function |
| showjustification | function | structureautocatcodedget | function |
| showmessage | function | structurecatcodedget | function |
| sin | function | structuregivencatcodedget | function |
| sind | function | structurenumber | function |
| splitfilename | function | structuretitle | function |
| spotcolorname | function | structureuservariable | function |
| spotcolorparent | function | structurevariable | function |
| spotcolorvalue | function | strwd | function |
| startactualtext | function | subcountervalues | function |
| startchemical | function | synchronizecolormodel | function |
| startcolorset | function | synchronizemarking | function |
| startcomponent | function | synonymmeaning | function |
| startenvironment | function | synonymname | function |
| startfontsolution | function | taggedmathfunction | function |
| startparbuilder | function | tan | function |
| startproduct | function | tand | function |
| startproject | function | testcase | function |
| startregime | function | textime | function |
| startsectionlevel | function | thefirstcharacter | function |
| starttag | function | theremainingcharacters | function |
| starttext | function | thetexdefinition | function |
| startviewerlayer | function | transparencycomponents | function |
| stopactualtext | function | triggereffect | function |
| stopchemical | function | triggernegative | function |
| stopcolorset | function | truefilename | function |
| stopcomponent | function | typebuffer | function |
| stopenvironment | function | typefile | function |
| stopfontsolution | function | typestring | function |
| stopparbuilder | function | uchexnumber | function |
| stopproduct | function | uchexnumbers | function |
| stopproject | function | undefinechemical | function |
| stopregime | function | unicodechar | function |
| stopsectionlevel | function | unit | function |
| stoptag | function | unloadlanguage | function |
| stoptext | function | upper | function |
| stopviewerlayer | function | useMPlibrary | function |
| storejavascriptcode | function | useanyfile | function |
| storejavascriptpreamble | function | usebtxdataset | function |
| storenote | function | usecldfile | function |
| storeregister | function | usecolors | function |
| | | | |

| usecomponent | function |
|----------------------------|----------|
| useenvironment | function |
| usefile | function |
| usejavascriptpreamble | function |
| usejavascriptscripts | function |
| uselibrary | function |
| useluafile | function |
| useluamodule | function |
| usemodules | function |
| usepath | function |
| useproduct | function |
| useproject | function |
| usesubpath | function |
| usesymbols | function |
| usetexfile | function |
| useurl | function |
| usexmlfile | function |
| usezipfile | function |
| utfchar | function |
| utfmathclass | function |
| utfmathcommand | function |
| utfmathcommandabove | function |
| utfmathcommandbelow | function |
| utfmathfiller | function |
| utfmathstretch | function |
| vboxlisttohbox | function |
| verbose | function |
| visual | function |
| vspacing | function |
| vspacingcollapse | function |
| vspacingdefine | function |
| vspacingsetamount | function |
| vspacingsnap | function |
| way | function |
| weekday | function |
| weekdayname | function |
| writestatus | function |
| x_table_c | function |
| x_table_cleanup | function |
| x_table_construct | function |
| x_table_create | function |
| x_table_flush | function |
| x_table_init_construct | function |
| x_table_init_reflow_height | function |
| | |

x_table_init_reflow_width function x table next row function x table r function x_table_reflow_height function x_table_reflow_width function x_table_set_construct function x_table_set_reflow_height function x_table_set_reflow_width function function year

containers (context)

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

converters (context)

| A | function |
|--------------------|----------|
| AK | function |
| Alphabetic | function |
| Character | function |
| Characters | function |
| I | function |
| KA | function |
| KR | function |
| R | function |
| RK | function |
| Romannumerals | function |
| Word | function |
| Words | function |
| a | function |
| abjadnodotnumerals | function |
| abjadnumerals | function |
| alphabetic | function |
| character | function |
| characters | function |
| chineseallnumerals | function |
| chinesecapnumerals | function |
| chinesenumerals | function |
| chr | function |
| chrs | function |
| cn | function |
| cn-a | function |
| cn-c | function |
| convert | function |
| define | function |
| hexstringtonumber | function |
| hour | function |
| i | function |
| isleapyear | function |
| leapyear | function |
| lower | function |
| maxchrs | function |
| minute | function |
| month | function |
| nofdays | function |
| number | function |
| numbers | function |

| octstringtonumber | function | | |
|-------------------|------------|--|--|
| ordinal | function | | |
| r | function | | |
| rawcharacter | function | | |
| romannumerals | function | | |
| second | function | | |
| sequences | data table | | |
| textime | function | | |
| toabjad | function | | |
| tochinese | function | | |
| toroman | function | | |
| upper | function | | |
| verbose | table | | |
| D data | | | |
| F translate | | | |
| weekday | function | | |
| word | function | | |
| words function | | | |

year

function

coroutine (basic lua)

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

ctxrunner (context)

load function
prepfiles data table
resolve function

debug (basic lua)

| function | | |
|----------|--|--|
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| function | | |
| | | |

dir (context)

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

directives (context)

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

document (context)

arguments data table
files table
getargument function
getfilename function
options table

T commandline

D environments

D modes

D modules

T ctxfile

D environments

D modes

D modules

setargument function
setdefaultargument function
setfilename function
variables data table

environment (context)

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

texos

texroot truefilename validengines string function data table

string

epdf (extra tex)

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

experiments (context)

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

figures (context)

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

function function data table function number data table function data table data table function number number bool ean number function function data table function data table data table function function function data table function table

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

F types

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

F immediatewrite
F keys
F new
F node
F ofindex
F package
F print

F check
F checksize
F clone
F copy

F scan
F serialize
F totable

file (basic lua)

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

floats (context)

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

font (basic tex)

current
define function
each function
fonts table
frozen function
getfont overloaded function
id function
max function

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

fontloader (extra tex)

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

fonts (context)

| analyzers | table | F report | |
|------------------------------|--------|-------------------------------|--|
| T features | | F reset | |
| N blwf | | T vectors | |
| N fina | | <pre>constructors table</pre> | |
| N half | | F aftercopyingcharacters | |
| N init | | F applymanipulators | |
| N isol | | F assignmathparameters | |
| N medi | | B autocleanup | |
| N pref | | F beforecopyingcharacters | |
| N pstf | | D cache | |
| N rphf | | F calculatescale | |
| D initializers | | F checkedfeatures | |
| D methods | | F checkedfilename | |
| F setstate | | F checkvirtualids | |
| T states | | F cleanuptable | |
| N blwf | | F collectprocessors | |
| N fina | | D designsizes | |
| N half | | D dontembed | |
| N init | | F enhanceparameters | |
| N isol | | N factor | |
| N mark | | F finalize | |
| N medi | | F getfeatureaction | |
| N pref | | F hashfeatures | |
| N pstf | | F hashinstance | |
| N rest | | T hashmethods | |
| N rphf | | F normal | |
| B useunicodemar | | F virtual | |
| checkers | table | F initializefeatures | |
| F getmissing | | T keys | |
| F missing | ±=61 = | T character | |
| cid | table | S depth | |
| F getmap | | S height | |
| F loadfile collections | table | S italic | |
| | table | S width | |
| F checkenabled F clonevector | | T description | |
| F define | | T boundingbox | |
| T definitions | | S depth S height | |
| F prepare | | S width | |
| F process | | 5 width T parameters | |
| F process F registermain | | S ascender | |
| i registeriiidili | | 3 ascender | |

| S descender | | S encodingbyt | es |
|--------------------------|-------------------|----------------|----------|
| S designsize | | S filename | |
| T expansion | S finalized | | |
| S auto | S fontname | | |
| S shrink | | S format | |
| S step | | S fullname | |
| S stretch | | S hasitalics | |
| S extendfactor | | S hasmath | |
| S factor | | S mathitalics | ; |
| S hfactor | | S mode | |
| S mathsize | | S name | |
| T protrusion | | S noglyphname | es |
| S auto | | S nostackmath | 1 |
| S quad | | S psname | |
| S scaledpoints | | S textitalics | ; |
| S scriptpercentage | | S virtualized | I |
| S scriptscriptpercentage | D | loadedfonts | |
| S size | S | namemode | |
| S slantfactor | F | newfeatures | |
| S slantperpoint | F | newhandler | |
| T spacing | N noffontsloaded | | |
| S extra | N nofsharedfonts | | |
| S shrink | N nofsharedhashes | | |
| S stretch | N | nofsharedvecto | rs |
| S width | N | privateoffset | |
| T synonyms | F | readanddefine | |
| S em | F | registerfeatur | e |
| S ex | В | resolvevirtual | too |
| S extra_space | F | scale | |
| S extraspace | F | scaled | |
| S slant | F | setfactor | |
| S space | F | setname | |
| S space_shrink | В | sharefonts | |
| S space_stretch | F | trytosharefont | |
| S spaceshrink | N | version | |
| S spacestretch | curr | | function |
| S x_height | | entid | function |
| S units | defi | ners | table |
| S vfactor | | addlookup | |
| S xheight | | analyze | |
| properties | | applypostproce | ssors |
| S autoitalicamount | | checkedmode | |
| T cidinfo | F | checkedscript | |
| S embedding | F | current | |
| | | | |

| C defeul+leekup | F mathematics | | |
|------------------------------|------------------------------|--|--|
| S defaultlookup F define | | | |
| F getspecification | F protrusions F solutions | | |
| F internal | F treatments | | |
| Floadfont | | | |
| | F typefaces F load | | |
| F makespecification | | | |
| T methods | F prepare_features | | |
| Finstall | F register | | |
| D variants | F registerpostprocessor | | |
| F read | F report | | |
| F register | handlers table | | |
| F registered | T afm | | |
| F registersplit | B addkerns | | |
| F resetnullfont | B addligatures | | |
| F resolve | B addtexligatures | | |
| T resolvers | B autoprefixed | | |
| F file | D cache | | |
| F name | D features | | |
| F spec | T helpdata | | |
| definetypeface function | D bothkerned | | |
| encodings table | D leftkerned | | |
| T agl | D ligatures | | |
| D cache | D rightkerned | | |
| F is_known | D texligatures | | |
| D known | F load | | |
| F load | F setfeatures | | |
| F make_unicode_vector | B syncspace | | |
| D math | N version | | |
| N version | T otf | | |
| expansions data table | F addfeature | | |
| formats data table | D cache | | |
| goodies table | T chainhandlers | | |
| D colorschemes | F normal | | |
| D data | F verbose | | |
| D designsizes | F collectlookups | | |
| D filenames | F dataset | | |
| F getcompositions | S defaultbasealternate | | |
| T list | S defaultnodealternate | | |
| F compositions | D enhancers | | |
| F designsizes | D features | | |
| F expansions | F fileformat | | |
| F featureset | F getalternate | | |
| F filenames | T glists | | |
| F files | T handlers | | |
| | | | |

| F contextchain | D math | |
|---|------------------|-------|
| F devanagari_remove_joiners | D predefined | |
| F devanagari reorder matras | D whatever | |
| F devanagari_reorder_pre_base_reordering_consonants | | table |
| F devanagari_reorder_reph | D characters | |
| F gpos_context | D csnames | |
| F gpos_contextchain | D descriptions | |
| F gpos_cursive | D dynamics | |
| F gpos mark2base | D emwidths | |
| F gpos mark2ligature | D exheights | |
| F gpos_mark2mark | D extensibles | |
| F gpos_pair | D features | |
| F gpos_single | D identifiers | |
| F gsub_alternate | D italics | |
| F gsub_context | D lastmathids | |
| F gsub_contextchain | D marks | |
| F gsub_ligature | D parameters | |
| F gsub_multiple | T processes | |
| F gsub_reversecontextchain | D properties | |
| F gsub_single | D quads | |
| F load | D resources | |
| F scriptandlanguage | T setdynamics | |
| F setcontextchain | D spaces | |
| F setdynamics | D spacings | |
| F setfeatures | D unicodes | |
| T statistics | D xheights | |
| D usedfeatures | helpers | table |
| T tables | F addprivate | |
| D baselines | F dimenfactor | |
| D features | F expandglyph | |
| D languages | F fontpatternhas | size |
| D scripts | F getdigitwidth | |
| N version | F getparameters | |
| T pfb | F getprivatenode | |
| T tfm | F hasprivate | |
| D features | F name | |
| F setfeatures | F nametoslot | |
| T vf | F setdigitwidth | |
| T combinations | F splitfontpatte | rn |
| F combine | iterators | table |
| T combiner | F characters | |
| D commands | F descriptions | |
| F find | F glyphs | |
| D helpers | loggers | table |
| | | |

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

D synonyms D variants

symbols table

F uselibrary

tables table
tracers table
treatments table

F applyfixes

D data

S filename

F ignoredfile

F report

F trace

typefaces data table

functions (context)

dummy function

graphics (context)

backgrounds table

- F calculatemultipar
- F fetchmultipar
- F pair
- F path
- F point

gzip (extra lua)

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

img (basic tex)

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

interactions (context)

```
attachments data table
fields
               table
   F clone
   F define
   F defineset
   F insert
general
               table
   F getidentity
   F setupidentity
help
               table
   F collect
   F reference
   F register
javascripts table
   F addtopreamble
   F code
   D codes
   F flushpreambles
   D functions
   D preambles
   F setpreamble
   F storecode
   F storepreamble
   F usepreamblenow
   F usescripts
linkedlists data table
               table
pages
   F setpagetransition
   F setupcanvas
references table
   F setclosedocument
   F setclosepage
   F setopendocument
   F setopenpage
              data table
renderings
soundclips data table
```

interfaces (context)

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

F define F list

registernamespace function setconstant function setelement function setformat function setmessage function function setmessages settranslation function setuserinterface function setvalidkeys function setvariable function function showmessage data table syntax tolist function translations data table variables data table

io (basic lua)

ask function bytes function characters function close function exists function fileseparator string flush function i limiter function i limiters table

T paranoid

input function limiter function lines function loadchunk function loaddata function loadlines function noflines function function o limiter o limiters table

T paranoid

open overloaded function

output function
pathseparator string

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

jit (context)

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

F start

os string
status function
util table

F funcbc

F funcinfo

F funck

F funcuvname

F ircalladdr

F traceexitstub

F traceinfo

F traceir

F tracek

F tracemc

F tracesnap

version string
version_num number

job (context)

| comment | function | F | getcollected |
|-------------|----------|------|----------------------|
| datasets | table | F | getdata |
| D collected | | F | getfield |
| F extend | | F | gettobesaved |
| F getdata | | F | inlist |
| F setdata | | F | last |
| D tobesaved | | F | list |
| disablesave | function | F | save |
| files | table | F | savetagged |
| D collected | | D | tobesaved |
| F context | | posi | . tions table |
| B forcerun | | F | b_col |
| F run | | F | b_region |
| D tobesaved | | F | С |
| initialize | function | D | collected |
| load | function | F | column |
| loadother | function | F | сору |
| objects | table | F | depth |
| D collected | | F | e_col |
| F get | | F | e_region |
| F number | | F | enhance |
| F page | | F | extra |
| F save | | F | get |
| F set | | F | getreserved |
| D tobesaved | | F | hangafter |
| pack | boolean | F | hangindent |
| packversion | number | F | height |
| pagestates | table | F | hsize |
| D collected | | F | leftskip |
| F extend | | F | lowerleft |
| F realpage | | F | lowerright |
| F setstate | | F | markregionbox |
| D tobesaved | | F | n |
| passes | table | F | onsamepage |
| F check | | F | overlapping |
| D collected | | | р |
| F count | | | page |
| F define | | | paragraph |
| F find | | | parindent |
| F first | | | position |
| F get | | | r |
| J - | | - | |

```
F region
   F replace
   F rightskip
   F set
   F setall
   F setdim
   D tobesaved
   F upperleft
   F upperright
   S used
   F width
   Fχ
   F xy
   Fу
register
                function
                function
save
                table
structure
   D collected
   T components
   T tobesaved
     T branches
     S name
     S type
                table
   D checksums
```

variables

D collected

F getchecksum

F makechecksum

F restore

F save

F setchecksum

D tobesaved

version number

lang (basic tex)

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

languages (context)

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

F averagecharwidth

F getdata

getnumber function
hyphenate function
installed function
labels table

F define F split

lefthyphenmin function loadable function loadwords function logger table

F report

numbers data table
posthyphenchar function
prehyphenchar function
registered data table
replacements table

F add F handler F set

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

T data
F disable
F enable
T enablers

B enables

F check

F load T methods N threshold

F found

layouts (context)

status table

F isleftpage

F leftorrightpagection

lfs (extra lua)

attributes function
chdir function
currentdir function
dir function

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

libraries (context)

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

lmx (context)

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

Ftd

F th

include function
inherited table

S color-background-four

S color-background-one

S color-background-three

S color-background-two

S title

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

S color-background-blue

S color-background-body

S color-background-green

S color-background-main

S color-background-purple

S color-background-yellow

S title-default

logs (context)

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

> F banner F export

F help

F info

Flines

F version

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

simplelines function function start page number status function function stop_page_number subdirect function subreport function system function function texerrormessage writer function

lpdf (context)

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

transparencygroups table

B none

transparencyvalue function
unicode function
verbose function

lpeg (basic lua)

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

| setmaxstack | function |
|-----------------------|----------|
| split | function |
| splitat | function |
| splitter | function |
| stripper | function |
| times | function |
| tsplitat | function |
| tsplitter | function |
| type | function |
| utfchartabletopattern | function |
| version | function |

ltn12 (extra lua)

```
BLOCKSIZE number
filter
             table
   F chain
   F cycle
pump
             table
   F all
   F step
sink
             table
   F chain
   F error
   F file
   F null
   F simplify
   F table
source
             table
   F cat
   F chain
   F empty
   F error
   F file
   F rewind
   F simplify
```

F string

lua (basic tex)

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

luatex (context)

cleanuptempfiles function
registerstartactions function
registerstopactions
registertempfile function
starttime number

lxml (context)

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

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

sorters F add table

math (basic lua)

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

mathematics (context)

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

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

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

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

D mappings
D numbers
D sets
renderset

function

mbox (context)

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

md5 (extra lua)

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

metapost (context)

| 11 | function | | £ |
|----------------------------------|--------------------|------------------------------|----------------------|
| analyzeplugins checkformat | function | getstatistics gettext | function function |
| checktexts | function | _ | function |
| | boolean | graphic graphic_base_pass | function |
| collapse colorinitializer | function | | function |
| convert | | initializescriptrunner | function |
| | function | instance | table |
| defaultformat | string | intermediate | table |
| defaultinstance defaultmethod | string | T actions | |
| deraultmethod directrun | string function | F makempy | |
| | function | lastlog | string function |
| edefsxsy | | load | |
| escaped | function | makempy | table |
| exectime | table | N nofconverted | |
| extensiondata | data table | F processgraphics | |
| filterclippath | function | F registerfile | 4-61- |
| finder | function | metafun | table |
| flush | function | F interpolate | |
| flushers | table | F topath | |
| T pdf | | method | number |
| F comment | | mptopdf | table |
| F flushfigure | | F convertmpstopdf | |
| F startfigure | | N nofconverted | |
| F stopfigure | | n | number |
| F textfigure | | nvformat | function |
| flushliteral | function | optimize | boolean |
| flushnormalpath | function | parse | function |
| flushreset | function | pdfliterals | function |
| fonts | table | pluginactions | function |
| F define | | process | function |
| T flusher | | processplugins | function |
| F flushfigure | | processspecial | function |
| F startfigure | | properties | table |
| F stopfigure | | quickanddirty | function |
| N instances | | reducetogray | boolean |
| F process | | reporterror | function |
| format | function | reset | function |
| format_number | function | resetlastlog | function |
| format_string | function | resetplugins | function |
| formatnumber | function | runscript | function |
| getclippath | function | scripterror | function |
| getextensions | function | setextensions | function |

setoutercolorfunctionsettextfunctionshowlogbooleansvformatfunctiontextable

F get F reset F set

texerrors boolean
textextsdata function
theclippath function
totable function
unload function
untagvariable function
variables table

mime (extra lua)

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

mp (context)

| _f_ | function |
|-----------|----------|
| boolean | function |
| format | function |
| number | function |
| numeric | function |
| pair | function |
| print | function |
| quadruple | function |
| quoted | function |
| string | function |
| triplet | function |

mplib (extra tex)

```
fields
             function
finders
             table
  F file
get_boolean function
get number
            function
get_numeric function
get_string function
new
            function
pen info
            function
preprocessed function
version
             function
```

noads (context)

handlers table F check F classes F collapse F families F italics F relocate F render F resize F showtree F tags F unscript F variants function process processors table T collapse F mlist_to_hlist T relocate T render T resize

T unscript

node (basic tex)

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

| function |
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nodes (context)

| accentcodes | data table | free spec | function |
|--------------------------|----------------------|------------------------------------|----------------------|
| aligned | function | getattr | function |
| append | function | getattribute | function |
| astable | function | getbox | function |
| basepoints | function | getchar | function |
| builders | table | getfield | function |
| | table | getfont | function |
| F buildpage_filter | | getid | function |
| F vpack_filter codes | data table | getleader | function |
| concat | function | getlist | function |
| | function | getnext | function |
| copy | function | getprev | function |
| copy_list | function | - · | function |
| copy_spec count | function | getskip | function |
| | function | getsubtype gluecodes | data table |
| current_attr delete | function | glyphcodes | data table |
| destinations | table | glyphdir is equal | data table |
| N attribute | cable | glyphdir_is_opposite | data table |
| T done | | glyphdir_is_orthogonal | data table |
| F handler | | gonuts | boolean |
| T stack | | handlers | table |
| dimensionfields | data table | | table |
| dimensions | function | F accessibility F alignbackgrounds | |
| dir_is_pop | data table | F backgrounds | |
| dir negation | data table | F characters | |
| discodes | data table | F checkforleaks | |
| discretionarycodes | data table | F checkglyphs | |
| do ligature n | function | F cleanupbox | |
| end of math | function | F cleanuppage | |
| fasthpack | function | F export | |
| fencecodes | data table | F finalize | |
| fields | function | F migrate | |
| fillcodes | data table | F protectglyphs | |
| first character | function | F stripping | |
| first glyph | function | F unprotectglyphs | |
| firstcharacter | function | has attribute | function |
| firstcharinbox | function | has field | function |
| | . 3110 02011 | | |
| tirstalvoh | function | has glyph | function |
| firstglyph flush list | function function | has_glyph hpack | function function |
| flush_list | function | hpack | function |
| | | | |

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

function
function
data table
table

data table function function function data table data table function table F getsubtype F pdfsave F has attribute F pdfsetmatrix F has field F penalty F has glyph F register F hpack F rightmarginkern F insert after F rightskip F insert_before F rule F insert list after F shrink F is direct F special F is display math F stretch F is node F temp F textdir F is nut F kerning F usage F last node T userids F leftmarginwidth N margins.inline F ligaturing N property F link N splitters.one F linked N splitters.two F userlist F locate F usernumber F mlist to hlist F nestedtracedslide F userstring F new F usertokens T pool F vlist F baselineskip F zeroglue F cleanup F prepend F disc F protect_glyphs F fontkern F protrusion_skippable F glue F reference F gluespec F remove F glyph F repackhlist F hlist F replace F kern F rightmarginwidth F latelua F set attribute F lateluafunction F setattr F leftmarginkern F setattribute F leftskip F setattributes F lineskip F setbox F negatedglue F setfield F noad F setprop F pdfannotation F setunsetattributes F pdfdestination F slide F pdfdirect F somepenalty F pdfliteral F somespace F pdfrestore F tail

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

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

F getparameters

topicas

function

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

number (context)

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

os (basic lua)

| getenv | function | |
|--------------|--------------------|----------|
| setenv | function | |
| binsuffix | string | |
| binsuffixes | table | |
| clock | function | |
| converttime | function | |
| date | function | |
| difftime | function | |
| env | data table | |
| exec | overloaded | function |
| execute | overloaded | function |
| exit | function | |
| fulltime | function | |
| getenv | ${\tt overloaded}$ | function |
| gettimeofday | function | |
| isleapyear | function | |
| launch | function | |
| libsuffix | string | |
| localtime | function | |
| name | string | |
| nofdays | function | |
| now | function | |
| platform | string | |
| remove | function | |
| rename | function | |
| resolvers | table | |
| F bits | | |
| resultof | function | |
| runtime | function | |
| selfdir | string | |
| setenv | overloaded | |
| setlocale | overloaded | function |
| sleep | function | |
| spawn | overloaded | function |
| time | function | |
| times | function | |
| timezone | function | |
| tmpdir | function | |
| tmpname | function | |

function

string

today

type

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

package (basic lua)

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

pagebuilders (context)

injections table

- F flushafter
- F flushbefore
- F save

mixedcolumns table

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

pattern (context)

- 1 userdata
- 2 userdata
- 3 userdata

pdf (basic tex)

| getcatalog | function | |
|--------------------|------------|----------|
| gethpos | function | |
| getinfo | function | |
| getmatrix | function | |
| getnames | function | |
| getpageattributes | function | |
| getpageresources | function | |
| getpagesattributes | function | |
| getpos | function | |
| gettrailer | function | |
| getvpos | function | |
| hasmatrix | function | |
| immediateobj | function | |
| mapfile | function | |
| mapline | function | |
| maxobjnum | function | |
| obj | function | |
| objtype | function | |
| pageref | function | |
| print | function | |
| refobj | function | |
| registerannot | overloaded | function |
| reserveobj | function | |
| setcatalog | overloaded | |
| setinfo | overloaded | function |
| setnames | overloaded | |
| setpageattributes | overloaded | |
| setpageresources | overloaded | |
| setpagesattributes | overloaded | |
| settrailer | overloaded | function |

pdfscanner (context)

scan function

physics (context)

units table
 D tables

profiler (extra lua)

pause function
resume function
start function
stop function

publications (context)

| addtexentry | function | F filterall | |
|------------------|------------|------------------|----------|
| analyze | function | F flushentries | |
| authors | table | T methods | |
| F sorted | | F dataset | |
| T sorters | | F force | |
| F author | | F global | |
| F writer | | F local | |
| F splitstring | | F nofregistered | |
| citevariants | table | F prepareentries | |
| F author | | F register | |
| F authornum | | T sorters | |
| F authoryear | | F author | |
| F authoryears | | F dataset | |
| F category | | F default | |
| F default | | F reference | |
| Findex | | F short | |
| F key | | listvariants | table |
| F num | | F bib | |
| F page | | F default | |
| F serial | | F num | |
| F short | | F page | |
| F tag | | F short | |
| F type | | F yes | |
| F year | | load | function |
| collected | data table | loadbibdata | function |
| concatstate | function | loaders | table |
| converttoxml | function | F bib | |
| datasets | table | F buffer | |
| endnotes_to_btx | function | F endnote | |
| enhance | function | F lua | |
| finder | function | F refman | |
| getindex | function | F xml | |
| journals | table | markasupdated | function |
| F abbreviated | | new | function |
| F add | | parenttag | function |
| F expanded | | refman_to_btx | function |
| F load | | resolvedname | function |
| F save | | search | function |
| lists | table | singularorplural | function |
| F collectentries | | statistics | table |
| F fetchentries | | N nofbytes | |

N nofdatasets N nofdefinitions

N nofshortcuts

tracers table

F addfield

T categories

T article

T optional

T required

T book

T optional

T required

T booklet

T optional

T required

T inbook

T optional

T required

T incollection

T optional

T required

T inproceedings

T optional

T required

T manual

T optional

T required

T mastersthesis

T optional

T required

T misc

T optional

T required

T patent

T optional

T required

T phdthesis

T optional

T required

i requireu

 ${\sf T}\ {\sf proceedings}$

T optional

T required

T techreport

T optional

T required

T unpublished

T optional

T required

T citevariants

T fields

T listvariants

F showdatasetcompleteness

F showdatasetfields

F showfields

writers

table

F author

regimes (context)

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

resolvers (context)

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

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|----------------------|------------|------------------------|------------|
| B savelists | | prefixes | data table |
| D setups | | prependhash | function |
| D specification | | pushpath | function |
| D variables | | registerextrapath | function |
| jobpath | function | registerfile | function |
| jobs | table | registerfilehash | function |
| F currentcomponent | | registerintrees | function |
| F currentenvironment | | registermethod | function |
| F currentproduct | | registerzipfile | function |
| F currentproject | | relations | data table |
| F justacomponent | | renew | function |
| D processors | | repath | function |
| F productcomponent | | reset | function |
| F usefile | | resetextrapath | function |
| joinpath | function | resetresolve | function |
| load | function | resolve | function |
| loadbinfile | function | savers | data table |
| loaders | data table | scandata | function |
| loadlualib | function | scanfiles | function |
| loadtexfile | function | schemes | table |
| loadtime | function | T cleaners | |
| locateformat | function | F md5 | |
| locators | data table | F none | |
| luacnfname | string | F strip | |
| luacnfspec | string | F cleanname | |
| luacnfstate | string | F fetchstring | |
| macros | table | F fetchtable | |
| F convertfile | | F install | |
| F decodecomment | | setdynamic | function |
| F enablecomment | | setenv | function |
| F encodecomment | | setinstance | function |
| F preprocessed | | showpath | function |
| F processmk | | simplescanfiles | function |
| F processmkvi | | splitconfigurationpath | function |
| F version | | splitexpansions | function |
| maxreadlevel | number | splitmethod | function |
| methodhandler | function | splitpath | function |
| newinstance | function | stackpath | function |
| openbinfile | function | suffixes | data table |
| openers | data table | suffixmap | data table |
| openfile | function | suffixofformat | function |
| opentexfile | function | texdatablob | function |
| ownpath | string | toppath | function |
| poppath | function | unexpandedpath | function |
| | | • • | |

| unexpandedpathlist | function |
|--------------------------|------------|
| unresolve | function |
| updaterelations | function |
| updatescript | function |
| usertypes | data table |
| usezipfile | function |
| validatedpath | function |
| variable | function |
| variableofformat | function |
| variableofformatorsuffix | function |
| wildcardpattern | function |

scripts (context)

table

autofontfeature

F disable F enable F handler categorytonumber data table colors data table decomposehangul function defaults table N inter_char_half_shrink_factor N inter_char_half_stretch_factor N inter_char_hangul_penalty N inter_char_quarter_shrink_factor N inter char quarter stretch factor N inter char shrink factor N inter_char_stretch_factor N inter_word_stretch_factor handlers data table hash table injectors data table installdataset function installmethod function numbertocategory data table numbertodataset data table numbertohandler data table reset function set function splitters data table

set (context)

contains function
create function
tolist function
tonumber function
totable function

socket (extra lua)

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

| S recei | ved | sinkt | table |
|-----------------|------------------|------------|----------------------|
| S recei | .ved-from-mta | F close-v | vhen-done |
| S refer | rences | F default | |
| S refer | rer | F http-ch | nunked |
| S remot | re-mta | F keep-op | oen |
| S reply | v-to | skip | function |
| S repor | ting-mta | sleep | function |
| S reser | rt-bcc | smtp | table |
| S reser | rt-cc | S DOMAIN | |
| S reser | t-date | N PORT | |
| S reser | t-from | S SERVER | |
| S reser | t-message-id | N TIMEOUT | Г |
| S reser | t-reply-to | S ZONE | |
| S reser | t-sender | F message | 2 |
| S reser | t-to | F open | |
| S retry | r-after | F send | |
| S retur | n-path | source | function |
| S sende | | sourcet | table |
| S serve | | F by-leng | |
| | remote-recipient | F default | |
| S statu | | F http-ch | |
| S subje | ect | F until-d | |
| S te | | tcp | function |
| S to | | tcp6 | function |
| S trail | | tp | table |
| | fer-encoding | N TIMEOUT | |
| S upgra | | F connect | |
| S user- | agent | try udp | function function |
| S vary S via | | udp6 | function |
| S warni | ng | url | table |
| | retry-until | F absolut | |
| | nuthenticate | F build | .e |
| S x-mai | | F build_p | nath |
| http | table | F escape | |
| N PORT | | F parse | |
| N TIMEOU | Г | F parse_p | oath |
| S USERAGI | ENT | F unescap | |
| F open | | | |
| F request | t | | |
| newtry | function | | |
| protect | function | | |
| select | function | | |
| sink | function | | |
| | | | |

sorters (context)

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

statistics (context)

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

status (basic tex)

list function

storage (context)

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

streams (context)

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

string (basic lua)

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

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

structures (context)

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

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

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

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

D tobesaved synonyms table F analyzed D collected F compare F define F filter F finalize F flush F meaning F prepare F process F register F registerused F sort F synonym D tobesaved tags table T data F detailedtag F getid F handler D labels F last F lastinchain T metadata D properties F registerdata F registermetadata F restart F setattributehash F setcombination F setdescription F setdescriptionsymbol F setfigure F sethighlight F setitemgroup F setproperty F setsorting F setsynonym F settablecell

F settabulatecell F setuserproperties

F start

F stop
D taglist
T userdata
D userproperties

table (basic lua)

| 111 | . | | |
|----------------------------|----------------------|------------------------|----------------------|
| allkeys | function | sequenced | function |
| append | function | serialize | function |
| are_equal | function | setmetatablecall | function |
| autokey | function | setmetatableindex | function |
| compact | function | setmetatablekey | function |
| concat | function | setmetatablenewindex | function |
| contains | function | sort | function |
| copy | function | sorted | function |
| count | function | sortedhash | function |
| derive | function | sortedhashkeys | function |
| deserialize | function | sortedhashonly | function |
| drop | function | sortedindexonly | function |
| fastcopy | function | sortedkeys | function |
| fastserialize | function | sortedpairs | function |
| filtered | function | sparse | function |
| flattened | function | strip | function |
| foreach foreachi | function | sub | function |
| | function | swapped | function |
| fromhash | function function | tocontext tocsv | function function |
| getmetatablekey | function | tofile | function |
| getn | function | tonice | function |
| has_one_entry identical | function | tohash | function |
| imerge | function | tomasn | function |
| imerged | function | | function |
| insert | function | twowaymapper unique | function |
| is empty | function | unnest | function |
| keys | function | unpack | function |
| load | function | values | function |
| loweredkeys | function | vacaes | runction |
| maxn | function | | |
| merge | function | | |
| merged | function | | |
| mirrored | function | | |
| pack | function | | |
| prepend | function | | |
| print | function | | |
| remove | function | | |
| reverse | function | | |
| reversed | function | | |
| save | function | | |
| | | | |

tex (basic tex)

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

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

texconfig (basic tex)

error_line number
expand_depth number
formatname string
half_error_line number
hash_extra number

kpse init boolean max in open number max print line number max_strings number nest_size number param_size number save size number shell escape string

texio (basic tex)

write function
write_nl function

token (basic tex)

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

tokens (context)

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

table

vtop

tracers (context)

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

T context
T internals
T scratch

name function
primitive function
printerror function
showlines function
strings table

S undefined

toks function
type function

trackers (context)

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

typesetters (context)

| alignments | table | F installhandle | r |
|-----------------|-------|-------------------------------|-------|
| F handler | table | | :I |
| F set | | F processmath | |
| breakpoints | table | F set | |
| F define | table | F setcolor F setmath | |
| | | | |
| F handler | | F tomode firstlines | table |
| D mapping | | | table |
| T methods | | T actions | |
| T numbers | | F default | |
| F set | | Fline | |
| F setreplacemen | | F word | |
| cases | table | F handler | |
| T actions | | F set | 4-61- |
| F handler | | initials | table |
| F register | | T actions | |
| F set | | F default | |
| characteralign | table | F handler | |
| F handler | | F set | |
| F resetcharacte | | italics table | |
| F setcharactera | • | F forcevariant | |
| characters | table | F handler | |
| F handler | | F reset | |
| F replacenbsp | | F set | |
| F replacenbspac | | kerns | table |
| checkers | table | D factors | |
| F handler | | F handler | |
| F reset | | F keepligature | |
| F set | | B keeptogether | |
| cleaners | table | D mapping | |
| F handler | | F set | |
| F set | | manipulators | table |
| digits | table | F apply | |
| T actions | | F applyspecification | |
| F handler | | T methods | |
| F set | | F Word | |
| directions | table | F Words | |
| F getfences | | F abbreviatedjournal | |
| F getglobal | | F expandedjournal | |
| F getmethod | | F lowercase | |
| E 6 | | F stripperiod | |
| F handler | | F stripperiod | |

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

F set_construct

unicode (extra lua)

| ascii | table | F | len |
|----------|-------|------|------------|
| F byte | | | lower |
| F char | | | match |
| F dump | | | rep |
| F find | | | reverse |
| F forma | t | | sub |
| F gfind | | F | upper |
| F gmatcl | h | utf8 | table |
| F gsub | | F | byte |
| F len | | F | char |
| F lower | | F | characters |
| F match | | F | chrlen |
| F rep | | F | count |
| F rever | se | F | dump |
| F sub | | F | filetype |
| F upper | | F | find |
| grapheme | table | F | format |
| F byte | | F | gfind |
| F char | | F | gmatch |
| F dump | | F | gsub |
| F find | | F | is_valid |
| F forma | t | F | len |
| F gfind | | F | length |
| F gmatcl | n | F | lower |
| F gsub | | F | magic |
| F len | | | match |
| F lower | | F | remapper |
| F match | | | rep |
| F rep | | | replacer |
| F rever | se | | reverse |
| F sub | | | split |
| F upper | | | splitlines |
| latin1 | table | | sub |
| F byte | | | subtituter |
| F char | | | tocodes |
| F dump | | | toeight |
| F find | _ | | toentities |
| F forma | τ | | tostring |
| F gfind | | | totable |
| F gmatcl | 1 | | upper |
| F gsub | | r | ustring |

- F utf16_to_utf8
- F utf16_to_utf8_be
- F utf16_to_utf8_le
- F utf32_to_utf8
- F utf32_to_utf8_be
- F utf32_to_utf8_le
- F utf8_to_utf16
- F utf8_to_utf16_be
- F utf8_to_utf16_le
- F utf8_to_utf8
- F values
- F xstring

url (context)

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

utilities (context)

| debugger | table | N version | |
|--------------------|-------|------------------|-----------------|
| F disable | | parsers | table |
| F enable | | F add_settings_t | o_array |
| F savestats | | F arguments_to_t | |
| F showstats | | F array_to_strin | g |
| F showtraceback | | F csvsplitter | |
| formatters | table | F getparameters | |
| F formatcolumns | | F hash_to_string | |
| F list | | F iterator | |
| F stripzeros | | F keq_to_hash | |
| garbagecollector | table | F listitem | |
| F check | | F make_settings_ | to_hash_pattern |
| N criterium | | F mergehashes | |
| B enabled | | F options_to_has | h |
| lua | table | T patterns | |
| B alwaysstripcode | | U settings_to_a | array |
| F compile | | U settings_to_ | hash_a |
| F loadedluacode | | U settings_to_l | hash_b |
| F loadstripped | | U settings_to_l | hash_c |
| N nofstrippedbytes | | U unittotex | |
| N nofstrippedchunk | S | F process_stripp | ed_settings |
| B stripcode | | F rfc4180splitte | r |
| T strippedchunks | | F runtime | |
| F strippedloadstri | ng | F settings_to_ar | ray |
| T suffixes | | F settings_to_ar | ray_with_repeat |
| S lua | | F settings_to_ha | sh |
| S luc | | F settings_to_ha | sh_strict |
| S lui | | F settings_to_ha | sh_tolerant |
| S luj | | F settings_to_se | t |
| S luv | | F simple_hash_to | _string |
| S tma | | F splitmethod | |
| S tmc | | F splitthousands | |
| S tua | | F stepper | |
| S tuc | | F stripped_setti | ngs_to_array |
| packers | table | F unittotex | |
| F hashed | | F unittoxml | |
| F new | | report | function |
| F pack | | sequencers | table |
| F simplehashed | | F appendaction | |
| F strip | | F appendgroup | |
| F unpack | | F compile | |

F disableaction F disablegroup F enableaction F enablegroup D functions F localize F new F nodeprocessor F prependaction F prependgroup F removeaction F setkind F tostring setters table F disable F enable F initialize F list F new F register F report F reset F show stacker table F new storage table F allocate F checked F mark F marked F setinitializer F sparse strings table F collapsecrlf T formatters F add F new F newrepeater F nice T striplinepatterns U collapse U prune

U prune and collapse
U prune and no empty

U retain
U retain and collapse
U retain and no empty
F striplines
F striplong
F tabtospace
T tracers

tables table

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

templates table

F load
F replace
F replacer
F resolve

vf (context)

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

visualizers (context)

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

xml (context)

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

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

Т

newhandlers function nodesettostring function originalload function package function parent function parsedentitylpeg userdata pihandlers table table placeholders F unknown any entity F unknown dec entity F unknown hex entity function position privatecodes table privatetoken function process function process attributes **function** process elements **function** processattributes function profiled table function raw function registerentity registerns function remap name function function remap namespace function [] remap tag function remapname function remapnamespace

remaptag renamespace

replace

root

save selection

resolvens

separate

serialize

setproperty

specialhandler

sethandlersfunction

setcdata

settings

sprint

string

replace element

function

function function

function

function

function function

function

function

function

function

function

function

function

function

function

table

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

zip (extra lua)

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

zlib (extra lua)

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