

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

# ConTEXt MkIV

# global (alias: \_G)

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

|                                 |                          |                                  |                          |
|---------------------------------|--------------------------|----------------------------------|--------------------------|
| <a href="#">require</a>         | <a href="#">function</a> | <a href="#">toboolean</a>        | <a href="#">function</a> |
| <a href="#">resolvers</a>       | <a href="#">table</a>    | <a href="#">tocontext</a>        | <a href="#">function</a> |
| <a href="#">scripts</a>         | <a href="#">table</a>    | <a href="#">token</a>            | <a href="#">table</a>    |
| <a href="#">select</a>          | <a href="#">function</a> | <a href="#">tokens</a>           | <a href="#">table</a>    |
| <a href="#">set</a>             | <a href="#">table</a>    | <a href="#">tonumber</a>         | <a href="#">function</a> |
| <a href="#">setfenv</a>         | <a href="#">function</a> | <a href="#">tostring</a>         | <a href="#">function</a> |
| <a href="#">setmetatable</a>    | <a href="#">function</a> | <a href="#">trace_characters</a> | <a href="#">boolean</a>  |
| <a href="#">short_operators</a> | <a href="#">table</a>    | <a href="#">traceback</a>        | <a href="#">function</a> |
| <a href="#">short_prefixes</a>  | <a href="#">table</a>    | <a href="#">tracers</a>          | <a href="#">table</a>    |
| <a href="#">short_units</a>     | <a href="#">table</a>    | <a href="#">trackers</a>         | <a href="#">table</a>    |
| <a href="#">socket</a>          | <a href="#">table</a>    | <a href="#">type</a>             | <a href="#">function</a> |
| <a href="#">sorters</a>         | <a href="#">table</a>    | <a href="#">typesetters</a>      | <a href="#">table</a>    |
| <a href="#">statistics</a>      | <a href="#">table</a>    | <a href="#">unicode</a>          | <a href="#">table</a>    |
| <a href="#">status</a>          | <a href="#">table</a>    | <a href="#">unpack</a>           | <a href="#">function</a> |
| <a href="#">storage</a>         | <a href="#">table</a>    | <a href="#">url</a>              | <a href="#">table</a>    |
| <a href="#">streams</a>         | <a href="#">table</a>    | <a href="#">utf</a>              | <a href="#">table</a>    |
| <a href="#">string</a>          | <a href="#">table</a>    | <a href="#">utilities</a>        | <a href="#">table</a>    |
| <a href="#">stripmath</a>       | <a href="#">function</a> | <a href="#">visualizers</a>      | <a href="#">table</a>    |
| <a href="#">structures</a>      | <a href="#">table</a>    | <a href="#">xml</a>              | <a href="#">table</a>    |
| <a href="#">table</a>           | <a href="#">table</a>    | <a href="#">xpcall</a>           | <a href="#">function</a> |
| <a href="#">tex</a>             | <a href="#">table</a>    | <a href="#">zip</a>              | <a href="#">table</a>    |
| <a href="#">texconfig</a>       | <a href="#">table</a>    | <a href="#">zlib</a>             | <a href="#">table</a>    |
| <a href="#">texio</a>           | <a href="#">table</a>    |                                  |                          |

# attributes (context)

**colorintents**      table

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

**colors**            table

N attribute  
F cmyk  
F cmyktogray  
F cmyktorgb  
F colorcomponents  
B couple  
D data  
N default  
F defineintermediatecolor  
F definemixcolor  
F definemultitonecolor  
F defineprocesscolor  
F definesimplegray  
F definespotcolor  
F definetransparency  
F enable  
F filter  
F forcedmodel  
F forcesupport  
F formatcolor  
F formatgray  
F gray  
F graytohsv  
F handler  
F hsvtorgb  
F hsvtorgb  
F iccprofile  
F isblack  
N main  
S model  
F mpcolor  
F mpoptions  
U none  
F register  
D registered  
F registerspotcolor  
F rgb  
F rgbtocmyk  
F rgbtorgb  
F rgbtohsv  
N selector  
F setmodel  
F spot

F spotcolorname  
F spotcolorparent  
F spotcolorvalue  
B supported  
F transparencycomponents  
B triggering  
F usecolors  
F value  
D values  
B weightgray

**define**            function

**effects**           table

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

**handlers**          table

**list**              data table

**names**             data table

**negatives**        table

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

**numbers**           data table

**ofnode**            function

**private**           function

**states**            table

F disabletriggering  
F enabletriggering  
F finalize  
F initialize  
F process  
F selective  
F stacked

**transparencies**   table

N attribute  
D data  
F enable  
F forcesupport  
F handler  
U none  
F register  
D registered  
B supported  
B triggering

|                     |        |               |
|---------------------|--------|---------------|
| F value             |        | B hasorder    |
| D values            |        | D listwise    |
| <b>unsetvalue</b>   | number | F register    |
| <b>viewerlayers</b> | table  | D registered  |
| N attribute         |        | D scopes      |
| D data              |        | F setfeatures |
| F define            |        | F start       |
| F enable            |        | F stop        |
| F forcesupport      |        | B supported   |
| F handler           |        | D values      |

# backends (context)

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

T green

T red

F startslant

T stopslant

**registrations** table

**tables** table

# bibtex (context)

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



# blobs (context)

|                   |          |              |          |
|-------------------|----------|--------------|----------|
| <b>append</b>     | function | <b>new</b>   | function |
| <b>dimensions</b> | function | <b>pack</b>  | function |
| <b>dispose</b>    | function | <b>write</b> | function |

# boolean (context)

`tocontext`    `function`  
`tonumber`    `function`

# buffers (context)

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

# builders (context)

**kernel**            **table**

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

**paragraphs** **table**

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

  F enable  
  F optimize  
  F setup  
  F split

  F tag

**vspacing**        **table**

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

## cache (context)

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

## callback (basic tex)

|                       |                     |
|-----------------------|---------------------|
| <code>find</code>     | function            |
| <code>list</code>     | function            |
| <code>register</code> | overloaded function |

# callbacks (context)

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

## catcodes (context)

|                       |            |
|-----------------------|------------|
| <code>names</code>    | data table |
| <code>numbers</code>  | data table |
| <code>register</code> | function   |



# characters (context)

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

## chemicals (context)

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

## commands (context)

|                           |          |                              |          |
|---------------------------|----------|------------------------------|----------|
| Alphabetic                | function | collecthelp                  | function |
| Character                 | function | colorcomponents              | function |
| Characters                | function | consultfloat                 | function |
| MPd                       | function | copyfileto                   | function |
| MPh                       | function | copyposition                 | function |
| MPll                      | function | counttwopassdata             | function |
| MPlr                      | function | currentcomponent             | function |
| MPp                       | function | currentdate                  | function |
| MPplus                    | function | currentenvironment           | function |
| MPpos                     | function | currentproduct               | function |
| MPrest                    | function | currentproject               | function |
| MPul                      | function | currentregime                | function |
| MPur                      | function | dayname                      | function |
| MPw                       | function | defineattribute              | function |
| MPx                       | function | definebibtexsession          | function |
| MPxy                      | function | defineconversion             | function |
| MPy                       | function | definefield                  | function |
| Romannumerals             | function | definefieldset               | function |
| abjadnodotnumerals        | function | definefilefallback           | function |
| abjadnumerals             | function | definefilesynonym            | function |
| addff                     | function | definefont_one               | function |
| addfs                     | function | definefont_two               | function |
| addlinklistelement        | function | definefontcollection         | function |
| addstructurecounter       | function | defineintermediatecolor      | function |
| allinputpaths             | function | definelinkedlist             | function |
| alphabetic                | function | definemarking                | function |
| analysefloatmethod        | function | definemultitonecolor         | function |
| applytochars              | function | defineparallel               | function |
| applytowords              | function | defineprocesscolor           | function |
| assignbuffer              | function | definespotcolor              | function |
| autofinishstructurelevels | function | definestructureblock         | function |
| autonextspace             | function | definestructurecounter       | function |
| autonextstructurelevel    | function | definestructureset           | function |
| autosetups                | function | definetransparency           | function |
| autostarttext             | function | definetwopasslist            | function |
| autostoptext              | function | defineviewerlayer            | function |
| boolcase                  | function | defrostrandomseed            | function |
| character                 | function | digits                       | function |
| characters                | function | disableregime                | function |
| checkcharactersinfont     | function | doanalyzeframedbox           | function |
| checkedconversion         | function | doif                         | function |
| checkedpagefloat          | function | doifblackelse                | function |
| checktwopassdata          | function | doifcommonelse               | function |
| chineseallnumerals        | function | doifdimenstringelse          | function |
| chinesecapnumerals        | function | doifdrawingblackelse         | function |
| chinesenumerals           | function | doifelse                     | function |
| cleanfontname             | function | doifelsebuffer               | function |
| clonefield                | function | doifelsecurrentfontasfeature | function |
| clonefontcollection_one   | function | doifelseintwopassdata        | function |
| clonefontcollection_two   | function | doifelsemarking              | function |
| collectfloat              | function | doifelseparallel             | function |

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

|                            |          |                            |          |
|----------------------------|----------|----------------------------|----------|
| molecule                   | function | registersoundclip          | function |
| month                      | function | registerstructureprocessor | function |
| monthmnm                   | function | registertransparency       | function |
| monthname                  | function | relatemarking              | function |
| mpcolor                    | function | removemissingcharacters    | function |
| mpoptions                  | function | replacepospxywhd           | function |
| namedstructureuservariable | function | resavefloat                | function |
| namedstructurevariable     | function | resetfontcollection        | function |
| nbfs                       | function | resetfontfeature           | function |
| nextparallel               | function | resetmarking               | function |
| nextstructurecounter       | function | resetmathitalics           | function |
| nofdays                    | function | resetnullfont              | function |
| nofitems                   | function | resetparallel              | function |
| nofstackedfloats           | function | resetstructurecounter      | function |
| number                     | function | resetstructureprocessor    | function |
| octnumber                  | function | resettimer                 | function |
| octstringtonumber          | function | restartstructurecounter    | function |
| ordinal                    | function | restorecurrentattributes   | function |
| overloadbookmark           | function | restorestructurecounter    | function |
| pdfrotation                | function | romannumerals              | function |
| percentageof               | function | runbuffer                  | function |
| placeparallel              | function | savebuffer                 | function |
| popfloat                   | function | savecurrentattributes      | function |
| popitaliccorrection        | function | savefloat                  | function |
| prepareMPvariable          | function | saveparallel               | function |
| preparebibtexsession       | function | savestructureblock         | function |
| preparedfile               | function | savestructurecounter       | function |
| preparefontcollection      | function | savetaggedtwopassdata      | function |
| presetsymbollist           | function | savetwopassdata            | function |
| presettabulate             | function | second                     | function |
| prevstructurecounter       | function | selectstructureblock       | function |
| processbuffer              | function | setcloseddocumentaction    | function |
| processedfile              | function | setclosepageaction         | function |
| processedfiles             | function | setcolormodel              | function |
| processfile                | function | setfontfeature             | function |
| processfilemany            | function | setfontofid                | function |
| processfilenone            | function | setformat                  | function |
| processfileonce            | function | setformsmethod             | function |
| pushfloat                  | function | setmarking                 | function |
| pushitaliccorrection       | function | setmathalphabet            | function |
| rawcharacter               | function | setmathalternate           | function |
| referencepagestate         | function | setmathattribute           | function |
| referencerealpage          | function | setmathitalics             | function |
| registerattachment         | function | setmathstyle               | function |
| registerbibtexentry        | function | setopendocumentaction      | function |
| registerbibtexfile         | function | setopenpageaction          | function |
| registerbookmark           | function | setownstructurecounter     | function |
| registerbuttons            | function | setpagetransition          | function |
| registercolor              | function | setrandomseed              | function |
| registercolorintent        | function | setrastercolor             | function |
| registerhelp               | function | setrealign                 | function |
| registeritemgroup          | function | setreferencearguments      | function |
| registermaintextcolor      | function | setreferenceoperation      | function |
| registerpostponedblock     | function | setstructureblockstate     | function |

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

## containers (context)

|                        |          |
|------------------------|----------|
| <code>cleanname</code> | function |
| <code>content</code>   | function |
| <code>define</code>    | function |
| <code>is_usable</code> | function |

|                       |          |
|-----------------------|----------|
| <code>is_valid</code> | function |
| <code>read</code>     | function |
| <code>usecache</code> | boolean  |
| <code>write</code>    | function |

## converters (context)

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



## coroutine (basic lua)

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

## debug (basic lua)

|                     |          |
|---------------------|----------|
| <b>debug</b>        | function |
| <b>getfenv</b>      | function |
| <b>gethook</b>      | function |
| <b>getinfo</b>      | function |
| <b>getlocal</b>     | function |
| <b>getmetatable</b> | function |
| <b>getregistry</b>  | function |

|                     |          |
|---------------------|----------|
| <b>getupvalue</b>   | function |
| <b>setfenv</b>      | function |
| <b>sethook</b>      | function |
| <b>setlocal</b>     | function |
| <b>setmetatable</b> | function |
| <b>setupvalue</b>   | function |
| <b>traceback</b>    | function |

## dir (context)

|                             |          |
|-----------------------------|----------|
| <code>collectpattern</code> | function |
| <code>current</code>        | function |
| <code>expandname</code>     | function |
| <code>glob</code>           | function |
| <code>globfiles</code>      | function |
| <code>globpattern</code>    | function |

|                       |          |
|-----------------------|----------|
| <code>ls</code>       | function |
| <code>makedirs</code> | function |
| <code>mkdirs</code>   | function |
| <code>pop</code>      | function |
| <code>push</code>     | function |

# directives (context)

|                |            |                 |          |
|----------------|------------|-----------------|----------|
| <b>data</b>    | data table | <b>name</b>     | string   |
| <b>disable</b> | function   | <b>register</b> | function |
| <b>enable</b>  | function   | <b>report</b>   | function |
| <b>list</b>    | function   | <b>show</b>     | function |

# document (context)

|             |            |                    |          |
|-------------|------------|--------------------|----------|
| arguments   | data table | setargument        | function |
| files       | table      | setdefaultargument | function |
| getargument | function   | setfilename        | function |
| getfilename | function   |                    |          |

## environment (context)

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

# epdf (extra tex)

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

# experiments (context)

|                |            |                 |          |
|----------------|------------|-----------------|----------|
| <b>data</b>    | data table | <b>name</b>     | string   |
| <b>disable</b> | function   | <b>register</b> | function |
| <b>enable</b>  | function   | <b>report</b>   | function |
| <b>list</b>    | function   | <b>show</b>     | function |



# figures (context)

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

## file (basic lua)

|                                |          |                             |          |
|--------------------------------|----------|-----------------------------|----------|
| <code>addsuffix</code>         | function | <code>joinpath</code>       | function |
| <code>basename</code>          | function | <code>loadchecksum</code>   | function |
| <code>checksum</code>          | function | <code>nameonly</code>       | function |
| <code>collapsepath</code>      | function | <code>nametotable</code>    | function |
| <code>copy</code>              | function | <code>needs Updating</code> | function |
| <code>dirname</code>           | function | <code>readdata</code>       | function |
| <code>expandname</code>        | function | <code>removesuffix</code>   | function |
| <code>extname</code>           | function | <code>replacesuffix</code>  | function |
| <code>is_qualified_path</code> | function | <code>robustname</code>     | function |
| <code>is_readable</code>       | function | <code>savechecksum</code>   | function |
| <code>is_rootbased_path</code> | function | <code>savedata</code>       | function |
| <code>is_writable</code>       | function | <code>splitname</code>      | function |
| <code>isreadable</code>        | function | <code>splitpath</code>      | function |
| <code>iswritable</code>        | function | <code>strip</code>          | function |
| <code>join</code>              | function | <code>suffix</code>         | function |

# floats (context)

|                         |          |                   |          |
|-------------------------|----------|-------------------|----------|
| <b>analysemethod</b>    | function | <b>nofstacked</b> | function |
| <b>checkedpagefloat</b> | function | <b>pop</b>        | function |
| <b>collect</b>          | function | <b>push</b>       | function |
| <b>consult</b>          | function | <b>resave</b>     | function |
| <b>flush</b>            | function | <b>save</b>       | function |
| <b>getvariable</b>      | function | <b>stacked</b>    | function |

## font (basic tex)

|                      |          |
|----------------------|----------|
| <code>current</code> | function |
| <code>define</code>  | function |
| <code>each</code>    | function |
| <code>fonts</code>   | table    |
| <code>frozen</code>  | function |
| <code>getfont</code> | function |

|                       |          |
|-----------------------|----------|
| <code>id</code>       | function |
| <code>max</code>      | function |
| <code>nextid</code>   | function |
| <code>read_tfm</code> | function |
| <code>read_vf</code>  | function |
| <code>setfont</code>  | function |

## fontloader (extra tex)

|                                |          |
|--------------------------------|----------|
| <code>apply_afmfile</code>     | function |
| <code>apply_featurefile</code> | function |
| <code>close</code>             | function |
| <code>fields</code>            | function |
| <code>fullinfo</code>          | function |

|                       |          |
|-----------------------|----------|
| <code>info</code>     | function |
| <code>open</code>     | function |
| <code>to_table</code> | function |
| <code>totable</code>  | function |

# fonts (context)

**analyzers**            table

  D initializers

  D methods

  F setstate

  B useunicodemarks

**checkers**            table

  F missing

**cid**                    table

  F getmap

  F loadfile

**collections**        table

  F clone\_one

  F clone\_two

  F define

  T definitions

  F message

  F prepare

  F process

  F reset

  T vectors

**constructors**        table

  F applymanipulators

  F assignmathparameters

  B autocleanup

  D cache

  F calculatescale

  F checkedfeatures

  F checkedfilename

  F cleanupable

  F collectprocessors

  D designsizes

  D dontembed

  N factor

  F finalize

  F getfeatureaction

  F hashfeatures

  F hashinstance

  T hashmethods

    F normal

    F virtual

  F initializefeatures

  D loadedfonts

  T mathactions

  S namemode

  F newfeatures

  N privateoffset

  F readanddefine

  F registerfeature

  B resolvevirtualtoo

  F scale

  F scaled

  F setfactor

  F setname

  N version

**current**                function

**currentid**            function

**definers**            table

  F addlookup

  F analyze

  F applypostprocessors

  F current

  S defaultlookup

  F define

  F getspecification

  F loadfont

  F makespecification

  T methods

    F install

    D variants

  F read

  F register

  F registered

  F registersplit

  F resetnullfont

  F resolve

  T resolvers

    F file

    F name

    F spec

**definetypeface**    function

**encodings**            table

  T agl

  D cache

  F is\_known

  D known

  F load

  F make\_unicode\_vector

  D math

  N version

**expansions**          data table

**formats**             data table

**goodies**            table

  T colorschemes

    F coloring

    T data

    F enable

  F getcompositions

  T list

    F compositions

    F expansions

    F featureset

    F files

- F mathematics
- F protrusions
- F solutions
- F typefaces
- F load
- F prepare\_features
- F register
- F registerpostprocessor
- F report
- handlers**                    table
  - T afm
    - B addkerns
    - B addligatures
    - B addtexligatures
    - B autoprefixed
    - D cache
    - D features
    - F load
    - F setfeatures
    - B syncspace
    - N version
  - T otf
    - F addfeature
    - D cache
    - T chainhandlers
      - F normal
      - F verbose
    - F collectlookups
    - F dataset
    - D enhancers
    - D features
    - F getalternate
    - T glists
    - F load
    - F scriptandlanguage
    - F setcontextchain
    - F setdynamics
    - F setfeatures
    - T tables
      - D baselines
      - D features
      - D languages
      - D scripts
    - N version
  - T pfb
  - T tfm
    - D features
    - F setfeatures
  - T vf
    - T combinations
    - F combine
    - T combiner
      - D commands
    - F find

- D helpers
- D math
- D predefined
- D whatever
- hashes**                    table
  - D characters
  - D csnames
  - T dynamics
  - D identifiers
  - D italics
  - D marks
  - D parameters
  - T processes
  - D properties
  - D quads
  - T setdynamics
  - D xheights
- helpers**                    table
  - F dimenfactor
  - F getdigitwidth
  - F getparameters
  - F nametoslot
  - F setdigitwidth
- iterators**                    table
  - F characters
  - F descriptions
  - F glyphs
- loggers**                    table
  - F format
  - F onetimemessage
  - F register
  - F reportdefinedfonts
  - F reportusedfeatures
- mappings**                    table
  - F addtounicode
  - F fromunicode16
  - F loadfile
  - F loadline
  - F loadlumtable
  - F makenameparser
  - F reset
  - F tounicode16
  - F tounicode16sequence
- names**                    table
  - S basename
  - B be\_clever
  - D cache
  - F cleanfilename
  - F cleanname
  - F collect
  - F collectfiles
  - F collectspec
  - T data
  - B enabled

F exists  
 T filters  
   F afm  
   F dfont  
   T list  
   T names  
   F otf  
   T paths  
   F pfb  
   F ttc  
   F ttf  
 S fontconfigfile  
 F getfilename  
 F getlookupkey  
 F getlookups  
 F getpaths  
 F identify  
 F is\_permitted  
 F list  
 F load  
 B loaded  
 F lookup  
 F noflookups  
 S osfontdirvariable  
 F readdata  
 F register  
 F registered  
 F resolve  
 F resolvedspecification  
 F resolvespec  
 B saved  
 F specification  
 D specifications  
 F splitspec

N version  
 F writedata  
**protrusions**      data table  
**readers**            table  
   F afm  
   F check\_lua  
   F check\_tfm  
   F dfont  
   F lua  
   F opentype  
   F otf  
   F pfb  
   D sequence  
   F tfm  
   F ttc  
   F ttf  
**specifiers**        table  
   D contextmerged  
   F contextnumber  
   D contextnumbers  
   D contextsetups  
   F contexttstring  
   F mergecontext  
   F presetcontext  
   F registercontext  
   F showcontext  
   F splitcontext  
   D synonyms  
   D variants  
**symbols**            table  
   F uselibrary  
**tables**            table  
**tracers**            table  
**typefaces**        data table



## gzip (extra lua)

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

## img (basic tex)

|                            |                       |
|----------------------------|-----------------------|
| <code>boxes</code>         | <code>function</code> |
| <code>checksize</code>     | <code>function</code> |
| <code>clone</code>         | <code>function</code> |
| <code>copy</code>          | <code>function</code> |
| <code>immediatwrite</code> | <code>function</code> |
| <code>keys</code>          | <code>function</code> |
| <code>new</code>           | <code>function</code> |
| <code>node</code>          | <code>function</code> |

|                        |                       |
|------------------------|-----------------------|
| <code>ofindex</code>   | <code>function</code> |
| <code>package</code>   | <code>function</code> |
| <code>print</code>     | <code>function</code> |
| <code>scan</code>      | <code>function</code> |
| <code>serialize</code> | <code>function</code> |
| <code>totable</code>   | <code>function</code> |
| <code>types</code>     | <code>function</code> |
| <code>write</code>     | <code>function</code> |

# interactions (context)

**attachments** table

F insert

F register

**fields** table

F clone

F define

F defineset

F insert

**general** table

F getidentity

F setupidentity

**help** table

F collect

F reference

F register

**javascripts** table

F addtopreamble

F code

D codes

F flushpreambles

D functions

D preambles

F setpreamble

F storecode

F storepreamble

F usepreamblenow

F usescripts

**linkedlists** table

**pages** table

F setpagetransition

F setupcanvas

**references** table

F setcloseddocument

F setclosepage

F setopendocument

F setopenpage

**renderings** table

F register

F rendering

F var

**soundclips** table

F insert

F register

# interfaces (context)

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

# io (basic lua)

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

# job (context)

|                   |          |
|-------------------|----------|
| <b>comment</b>    | function |
| <b>files</b>      | table    |
| D collected       |          |
| F context         |          |
| B forcerun        |          |
| F run             |          |
| D tobesaved       |          |
| <b>initialize</b> | function |
| <b>load</b>       | function |
| <b>loadother</b>  | function |
| <b>objects</b>    | table    |
| D collected       |          |
| F doifelse        |          |
| F get             |          |
| F number          |          |
| F page            |          |
| F save            |          |
| F set             |          |
| D tobesaved       |          |
| <b>pack</b>       | boolean  |
| <b>passes</b>     | table    |
| F check           |          |
| D collected       |          |
| F count           |          |
| F define          |          |
| F find            |          |
| F first           |          |
| F get             |          |
| F getcollected    |          |
| F getdata         |          |
| F getfield        |          |
| F gettobesaved    |          |
| F inlist          |          |
| F last            |          |
| F list            |          |
| F save            |          |
| F savetagged      |          |
| D tobesaved       |          |

|                  |          |
|------------------|----------|
| <b>positions</b> | table    |
| D collected      |          |
| F copy           |          |
| F depth          |          |
| F extra          |          |
| F height         |          |
| F lowerleft      |          |
| F lowerright     |          |
| F onsamepage     |          |
| F overlapping    |          |
| F page           |          |
| F position       |          |
| F replace        |          |
| F setall         |          |
| F setdim         |          |
| F setraw         |          |
| D tobesaved      |          |
| F upperleft      |          |
| F upperright     |          |
| F v              |          |
| F width          |          |
| F x              |          |
| F xy             |          |
| F y              |          |
| <b>register</b>  | function |
| <b>save</b>      | function |
| <b>structure</b> | table    |
| D collected      |          |
| T tobesaved      |          |
| T branches       |          |
| S name           |          |
| S type           |          |
| <b>variables</b> | table    |
| D checksums      |          |
| D collected      |          |
| F save           |          |
| D tobesaved      |          |
| <b>version</b>   | number   |

# lang (basic tex)

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

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

# languages (context)

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



# layouts (context)

```
status  table
      F isleftpage
      F leftorrightpagection
```

## lfs (extra lua)

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

# libraries (context)

`basiclua` data table  
`basictex` data table  
`builtin` data table

`extralua` data table  
`extratex` data table  
`globals` data table

## lmx (context)

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

# logs (context)

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

# lpdf (context)

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

# lpeg (basic lua)

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

# ltn12 (extra lua)

|                  |         |                     |
|------------------|---------|---------------------|
| <b>BLOCKSIZE</b> | number  | F simplify          |
| <b>filter</b>    | table   | F table             |
|                  | F chain | <b>source</b> table |
|                  | F cycle | F cat               |
| <b>pump</b>      | table   | F chain             |
|                  | F all   | F empty             |
|                  | F step  | F error             |
| <b>sink</b>      | table   | F file              |
|                  | F chain | F rewind            |
|                  | F error | F simplify          |
|                  | F file  | F string            |
|                  | F null  |                     |



## lua (basic tex)

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

# luatex (context)

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

# lxml (context)

|                              |            |
|------------------------------|------------|
| <code>addindex</code>        | function   |
| <code>all</code>             | function   |
| <code>applyfunction</code>   | function   |
| <code>att</code>             | function   |
| <code>attribute</code>       | function   |
| <code>chainattribute</code>  | function   |
| <code>checkindex</code>      | function   |
| <code>collected</code>       | function   |
| <code>command</code>         | function   |
| <code>concat</code>          | function   |
| <code>concatrange</code>     | function   |
| <code>content</code>         | function   |
| <code>context</code>         | function   |
| <code>convert</code>         | function   |
| <code>count</code>           | function   |
| <code>delete</code>          | function   |
| <code>direct</code>          | function   |
| <code>directives</code>      | table      |
| F after                      |            |
| F before                     |            |
| F handle                     |            |
| F load                       |            |
| F setup                      |            |
| <code>displayverbatim</code> | function   |
| <code>doif</code>            | function   |
| <code>doifelse</code>        | function   |
| <code>doifelsetext</code>    | function   |
| <code>doifnot</code>         | function   |
| <code>doifnottext</code>     | function   |
| <code>doiftext</code>        | function   |
| <code>element</code>         | function   |
| <code>elements</code>        | function   |
| <code>entities</code>        | data table |
| <code>filter</code>          | function   |
| <code>filterlist</code>      | function   |
| <code>first</code>           | function   |
| <code>flush</code>           | function   |
| <code>flushsetups</code>     | function   |
| <code>get_id</code>          | function   |
| <code>getid</code>           | function   |
| <code>getindex</code>        | function   |
| <code>id</code>              | function   |
| <code>idsplitter</code>      | userdata   |
| <code>include</code>         | function   |
| <code>index</code>           | function   |
| <code>info</code>            | function   |
| <code>inlineverbatim</code>  | function   |
| <code>installsetup</code>    | function   |
| <code>last</code>            | function   |

|                               |            |
|-------------------------------|------------|
| <code>load</code>             | function   |
| <code>loadbuffer</code>       | function   |
| <code>loaddata</code>         | function   |
| <code>loaded</code>           | table      |
| <code>loadregistered</code>   | function   |
| <code>main</code>             | function   |
| <code>match</code>            | function   |
| <code>name</code>             | function   |
| <code>namespace</code>        | function   |
| <code>nonspace</code>         | function   |
| <code>pos</code>              | function   |
| <code>position</code>         | function   |
| <code>raw</code>              | function   |
| <code>rawroot</code>          | function   |
| <code>register</code>         | function   |
| <code>registerentity</code>   | function   |
| <code>removesetup</code>      | function   |
| <code>resetcdata</code>       | function   |
| <code>resetsetups</code>      | function   |
| <code>resolvedentity</code>   | function   |
| <code>root</code>             | function   |
| <code>serialize</code>        | function   |
| <code>setaction</code>        | function   |
| <code>setcdata</code>         | function   |
| <code>setcommandtonone</code> | function   |
| <code>setcommandtotext</code> | function   |
| <code>setsetup</code>         | function   |
| <code>snippet</code>          | function   |
| <code>sorters</code>          | table      |
| F add                         |            |
| F compare                     |            |
| F flush                       |            |
| F reset                       |            |
| F show                        |            |
| F sort                        |            |
| <code>splitid</code>          | function   |
| <code>startraw</code>         | function   |
| <code>stopraw</code>          | function   |
| <code>store</code>            | function   |
| <code>strip</code>            | function   |
| <code>stripped</code>         | function   |
| <code>tag</code>              | function   |
| <code>text</code>             | function   |
| <code>tofile</code>           | function   |
| <code>toparameters</code>     | function   |
| <code>toverbatim</code>       | function   |
| <code>verbatim</code>         | function   |
| <code>withindex</code>        | function   |
| <code>xmltexhandler</code>    | data table |

## math (basic lua)

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

# mathematics (context)

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

# md5 (extra lua)

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

# metapost (context)

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

## mime (extra lua)

**b64**           function  
**decode**       function  
**decodet**      table  
    F base64  
    F quoted-printable  
**dot**           function  
**encode**       function  
**encodet**      table  
    F base64  
    F quoted-printable  
**eol**           function  
**normalize**    function

**qp**           function  
**qpwrp**       function  
**stuff**       function  
**unb64**       function  
**unqp**        function  
**wrap**        function  
**wrapt**       table  
    F base64  
    F default  
    F quoted-printable  
    F text  
**wrp**          function



# mplib (extra tex)

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

# noads (context)

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

| F variants       |
|------------------|
| process function |
| processors table |
| T collapse       |
| F mlist_to_hlist |
| T relocate       |
| T render         |
| T resize         |
| T respace        |
| T unscript       |

## node (basic tex)

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

# nodes (context)

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

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

|            |                        |            |
|------------|------------------------|------------|
| F features | F stop                 |            |
| F glyphs   | F stop                 |            |
| F message  | <b>unsetattribute</b>  | function   |
| F messages | <b>unsetattributes</b> | function   |
| F nofsteps | <b>visualizebox</b>    | function   |
| F register | <b>whatcodes</b>       | data table |
| F reset    | <b>whatsitcodes</b>    | data table |
| F start    | <b>writable_spec</b>   | function   |

## number (context)

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

## os (basic lua)

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



## package (basic lua)

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

## pdf (basic tex)

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

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

physics (context)

patterns table

# profiler (extra lua)

`pause`    `function`  
`resume`   `function`

`start`    `function`  
`stop`     `function`

# regimes (context)

|                |          |                  |          |
|----------------|----------|------------------|----------|
| <b>disable</b> | function | <b>process</b>   | function |
| <b>enable</b>  | function | <b>push</b>      | function |
| <b>pop</b>     | function | <b>translate</b> | function |

# resolvers (context)

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

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

# scripts (context)

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



# set (context)

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

## short\_operators (context)

|          |          |
|----------|----------|
| * string | / string |
| . string | : string |

# short\_prefixes (context)

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

# short\_units (context)

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

# socket (extra lua)

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

# sorters (context)

|                     |       |                     |            |
|---------------------|-------|---------------------|------------|
| <b>comparers</b>    | table | <b>definitions</b>  | data table |
| F basic             |       | <b>firstofsplit</b> | function   |
| <b>constants</b>    | table | <b>setlanguage</b>  | function   |
| S defaultdigits     |       | <b>sort</b>         | function   |
| S defaultlanguage   |       | <b>splitters</b>    | table      |
| S defaultmethod     |       | F utf               |            |
| N digitmaximum      |       | <b>strip</b>        | function   |
| N digitsoffset      |       | <b>tracers</b>      | data table |
| N ignoredoffset     |       | <b>update</b>       | function   |
| N replacementoffset |       |                     |            |

## statistics (context)

|                             |          |
|-----------------------------|----------|
| <code>checkfmtstatus</code> | function |
| <code>elapsedindeed</code>  | function |
| <code>elapsedseconds</code> | function |
| <code>elapsedtime</code>    | function |
| <code>enable</code>         | boolean  |
| <code>formatruntime</code>  | function |
| <code>hastiming</code>      | function |
| <code>memused</code>        | function |
| <code>register</code>       | function |
| <code>reportstorage</code>  | function |

|                            |          |
|----------------------------|----------|
| <code>resettiming</code>   | function |
| <code>runtime</code>       | function |
| <code>savefmtstatus</code> | function |
| <code>show</code>          | function |
| <code>showjobstat</code>   | function |
| <code>starttiming</code>   | function |
| <code>stoptiming</code>    | function |
| <code>threshold</code>     | number   |
| <code>timed</code>         | function |

status (basic tex)

list function



# storage (context)

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

## streams (context)

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

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

## string (basic lua)

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

# structures (context)

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

|                            |       |                     |       |
|----------------------------|-------|---------------------|-------|
| F page                     |       | F listindex         |       |
| F popnesting               |       | F number            |       |
| F prefix                   |       | F ordered           |       |
| F prefixednumber           |       | F postpone          |       |
| F prefixedpage             |       | F resetpostponed    |       |
| F process                  |       | F restore           |       |
| F push                     |       | F save              |       |
| D pushed                   |       | F setstate          |       |
| F pushnesting              |       | F setsymbolpage     |       |
| F realpage                 |       | D states            |       |
| T result                   |       | F store             |       |
| F savednumber              |       | F title             |       |
| F savedprefixednumber      |       | <b>pages</b>        | table |
| F savedtitle               |       | F analyze           |       |
| F sectionnumber            |       | D collected         |       |
| F size                     |       | F is_odd            |       |
| F title                    |       | F number            |       |
| D tobesaved                |       | F save              |       |
| F userdata                 |       | D tobesaved         |       |
| F uservalue                |       | <b>processors</b>   | table |
| <b>marks</b>               | table | F apply             |       |
| D data                     |       | F register          |       |
| F define                   |       | F reset             |       |
| F exists                   |       | F split             |       |
| F fetch                    |       | F startapply        |       |
| F fetchallmarks            |       | F stopapply         |       |
| F fetched                  |       | F stripped          |       |
| F fetchonemark             |       | F tostring          |       |
| F fetchtwomarks            |       | <b>references</b>   | table |
| F get                      |       | F analyze           |       |
| F number                   |       | F checkedfile       |       |
| F relate                   |       | F checkedfileorurl  |       |
| F reset                    |       | F checkedprogram    |       |
| F set                      |       | F checkedrealpage   |       |
| F show                     |       | F checkedurl        |       |
| F synchronize              |       | D collected         |       |
| F title                    |       | U componentsplitter |       |
| T tracers                  |       | F currentmetadata   |       |
| F showtable                |       | F currentorder      |       |
| <b>notes</b>               | table | D currentset        |       |
| F checkpagechange          |       | F define            |       |
| F define                   |       | D defined           |       |
| F deltapage                |       | D derived           |       |
| F doifcontent              |       | F doifelse          |       |
| F doifonsamepageasprevious |       | F enableinteraction |       |
| F flush                    |       | F enhance           |       |
| F flushpostponed           |       | D executers         |       |
| F get                      |       | F expandcurrent     |       |
| F getn                     |       | F export            |       |
| F getnumberpage            |       | T files             |       |
| F getstate                 |       | T data              |       |
| F getsymbolpage            |       | F define            |       |
| F internal                 |       | F get               |       |
| F internalid               |       | F filter            |       |

|                        |                                    |       |
|------------------------|------------------------------------|-------|
| D filters              | T testrunners                      |       |
| F from                 | F inner                            |       |
| F get                  | F special                          |       |
| F getcurrentmetadata   | F special operation                |       |
| F getcurrentprefixspec | F special operation with arguments |       |
| F getinnermethod       | T testspecials                     |       |
| F getinternalreference | F deltapage                        |       |
| D handlers             | F i                                |       |
| F identify             | F internal                         |       |
| F import               | F page                             |       |
| F inject               | F realpage                         |       |
| F injectcurrentset     | F section                          |       |
| D internals            | F userpage                         |       |
| F load                 | D tobereferred                     |       |
| F loadpresets          | D tobesaved                        |       |
| F mark                 | T urls                             |       |
| D pages                | T data                             |       |
| U prefixsplitter       | F define                           |       |
| T productdata          | F get                              |       |
| T componentreferences  | F whatfrom                         |       |
| T components           | <b>registers</b>                   | table |
| T productreferences    | F analyze                          |       |
| T programs             | F analyzed                         |       |
| T data                 | D collected                        |       |
| F define               | F compare                          |       |
| F get                  | F define                           |       |
| F realpageofpage       | F enhance                          |       |
| U referencesplitter    | F extend                           |       |
| D referred             | F filter                           |       |
| F referredpage         | F filtercollected                  |       |
| F registerfinalizer    | F finalize                         |       |
| F registerinitializer  | F flush                            |       |
| F registerpage         | F prepare                          |       |
| F reportproblems       | F process                          |       |
| F reset                | F sort                             |       |
| T resolvers            | F store                            |       |
| F description          | D tobesaved                        |       |
| F float                | F unique                           |       |
| F formula              | F userdata                         |       |
| F note                 | <b>sections</b>                    | table |
| F reference            | F autodepth                        |       |
| F section              | F cct                              |       |
| D runners              | T collected                        |       |
| F set                  | F current                          |       |
| F setandgetattribute   | F currentblock                     |       |
| F setcomponent         | F currentid                        |       |
| F setinnermethod       | F currentlevel                     |       |
| F setinternalreference | F defineautolevels                 |       |
| F setnextinternal      | F depthnumber                      |       |
| F setnextorder         | F finddata                         |       |
| D specials             | F findnumber                       |       |
| F splitcomponent       | F fullnumber                       |       |
| F splitprefix          | F getcurrentlevel                  |       |
| F splitreference       | F getlevel                         |       |

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

## table (basic lua)

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



## tex (basic tex)

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

## texconfig (basic tex)

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

## texio (basic tex)

```
write      function  
write_nl  function
```

# token (basic tex)

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

# tokens (context)

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

# tracers (context)

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

# trackers (context)

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

# typesetters (context)

|                    |                  |                 |  |
|--------------------|------------------|-----------------|--|
| <b>alignments</b>  | table            |                 |  |
|                    | F handler        |                 |  |
|                    | F set            |                 |  |
| <b>breakpoints</b> | table            |                 |  |
|                    | N attribute      |                 |  |
|                    | F enable         |                 |  |
|                    | F handler        |                 |  |
|                    | D mapping        |                 |  |
|                    | T methods        |                 |  |
|                    | F set            |                 |  |
|                    | F setreplacement |                 |  |
| <b>cases</b>       | table            |                 |  |
|                    | T actions        |                 |  |
|                    | F handler        |                 |  |
|                    | F set            |                 |  |
| <b>characters</b>  | table            |                 |  |
|                    | F handler        |                 |  |
| <b>cleaners</b>    | table            |                 |  |
|                    | F handler        |                 |  |
|                    | F set            |                 |  |
| <b>digits</b>      | table            |                 |  |
|                    | T actions        |                 |  |
|                    | N attribute      |                 |  |
|                    | F handler        |                 |  |
|                    | F set            |                 |  |
| <b>directions</b>  | table            |                 |  |
|                    | F handler        |                 |  |
|                    | F process        |                 |  |
|                    |                  | F set           |  |
|                    | <b>hpack</b>     | function        |  |
|                    | <b>italics</b>   | table           |  |
|                    |                  | F forcevariant  |  |
|                    |                  | F handler       |  |
|                    |                  | F reset         |  |
|                    |                  | F set           |  |
|                    | <b>kerns</b>     | table           |  |
|                    |                  | D factors       |  |
|                    |                  | F handler       |  |
|                    |                  | B keepligature  |  |
|                    |                  | B keptogether   |  |
|                    |                  | D mapping       |  |
|                    |                  | F set           |  |
|                    | <b>margins</b>   | table           |  |
|                    |                  | F finalhandler  |  |
|                    |                  | F globalhandler |  |
|                    |                  | F localhandler  |  |
|                    |                  | F save          |  |
|                    | <b>spacings</b>  | table           |  |
|                    |                  | N attribute     |  |
|                    |                  | F handler       |  |
|                    |                  | D mapping       |  |
|                    |                  | F set           |  |
|                    |                  | F setup         |  |
|                    | <b>tonodes</b>   | function        |  |
|                    | <b>vpack</b>     | function        |  |



# unicode (extra lua)

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

# url (context)

|                        |          |                        |          |
|------------------------|----------|------------------------|----------|
| <code>addscheme</code> | function | <code>hasscheme</code> | function |
| <code>construct</code> | function | <code>query</code>     | function |
| <code>filename</code>  | function | <code>split</code>     | function |
| <code>hashed</code>    | function |                        |          |

# utilities (context)

|                                 |          |                     |                 |
|---------------------------------|----------|---------------------|-----------------|
| <b>debugger</b>                 | table    |                     | F appendgroup   |
| F disable                       |          |                     | F autocompile   |
| F enable                        |          |                     | F compile       |
| F savestats                     |          |                     | F disableaction |
| F showstats                     |          |                     | F disablegroup  |
| <b>formatters</b>               | table    |                     | F enableaction  |
| F formatcolumns                 |          |                     | F enablegroup   |
| F list                          |          |                     | D functions     |
| F stripzeros                    |          |                     | F localize      |
| <b>garbagecollector</b>         | table    |                     | F nodeprocessor |
| F check                         |          |                     | F prependaction |
| N criterium                     |          |                     | F prependgroup  |
| B enabled                       |          |                     | F removeaction  |
| <b>lua</b>                      | table    |                     | F reset         |
| F compile                       |          |                     | F setkind       |
| <b>packers</b>                  | table    |                     | F tostring      |
| F hashed                        |          | <b>setters</b>      | table           |
| F new                           |          | F disable           |                 |
| F pack                          |          | F enable            |                 |
| F simplehashed                  |          | F initialize        |                 |
| F strip                         |          | F list              |                 |
| F unpack                        |          | F new               |                 |
| N version                       |          | F register          |                 |
| <b>parsers</b>                  | table    | F reset             |                 |
| F add_settings_to_array         |          | F show              |                 |
| F arguments_to_table            |          | <b>storage</b>      | table           |
| F array_to_string               |          | F allocate          |                 |
| F getparameters                 |          | F checked           |                 |
| F hash_to_string                |          | F mark              |                 |
| F listitem                      |          | F marked            |                 |
| F make_settings_to_hash_pattern |          | F setinitializer    |                 |
| T patterns                      |          | F sparse            |                 |
| U settings_to_array             |          | <b>strings</b>      | table           |
| U settings_to_hash_a            |          | F collapseCrLf      |                 |
| U settings_to_hash_b            |          | F newrepeater       |                 |
| U settings_to_hash_c            |          | F striplong         |                 |
| F settings_to_array             |          | F tabtospace        |                 |
| F settings_to_hash              |          | <b>tables</b>       | table           |
| F settings_to_hash_strict       |          | F accesstable       |                 |
| F settings_to_hash_tolerant     |          | F definetable       |                 |
| F settings_to_set               |          | F encapsulate       |                 |
| F simple_hash_to_string         |          | F insertaftervalue  |                 |
| <b>report</b>                   | function | F insertbeforevalue |                 |
| <b>sequencers</b>               | table    | F migratetable      |                 |
| F appendaction                  |          | F removevalue       |                 |

## visualizers (context)

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

## xml (context)

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

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

## zip (extra lua)

|                           |                       |                              |                       |
|---------------------------|-----------------------|------------------------------|-----------------------|
| <code>archives</code>     | <code>table</code>    | <code>openarchive</code>     | <code>function</code> |
| <code>close</code>        | <code>function</code> | <code>openfile</code>        | <code>function</code> |
| <code>closearchive</code> | <code>function</code> | <code>registeredfiles</code> | <code>table</code>    |
| <code>open</code>         | <code>function</code> | <code>type</code>            | <code>function</code> |

## zlib (extra lua)

|                    |          |                      |          |
|--------------------|----------|----------------------|----------|
| <b>adler32</b>     | function | <b>decompress</b>    | function |
| <b>compress</b>    | function | <b>decompressobj</b> | function |
| <b>compressobj</b> | function | <b>version</b>       | function |
| <b>crc32</b>       | function |                      |          |