

TeXfrWpxml Group

John D. Baker

<https://github.com/bakerjd99/jacks/blob/master/texfrwpxml/TeXfrWpxml.ijs>

SHA-256: ce0018f5ba5f4a3dffdd966fdcf5a4d58db84c3bd280e3ce44122c504bb61b82

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TeXfrWpxml Overview

TeXfrWpxml is a J script that that extracts all published blog postings from WordPress export XML files and converts them, using [pandoc](#), to \LaTeX and markdown files that are then used to build PDF, EPUB and MOBI versions of a blog.

Using TeXfrWpxml is described in a series of blog posts:

1. <https://analyzethedatanotthedrive1.org/2012/02/11/wordpress-to-latex-with-pandoc-and-j-prerequisites-part-1/>
2. <https://analyzethedatanotthedrive1.org/2012/02/18/wordpress-to-latex-with-pandoc-and-j-latex-directories-part-2-2/>
3. <https://analyzethedatanotthedrive1.org/2012/02/25/wordpress-to-latex-with-pandoc-and-j-using-texfrwpxml-ij-s-part-3/>

TeXfrWpxml Interface

FixBaddown	[11]	<i>attempt to convert *.baddown files to *.markddown</i>
LatexFrWordpress	[13]	<i>experimental conversion of Wordpress XML to LaTeX</i>
MarkdownFrLatex	[16]	<i>converts edited LaTeX post files to image free markdown</i>
MainMarkdown	[15]	<i>assembles *.markdown files in EPUB directory in a master file</i>
BlogHashes	[10]	<i>update blog hashes</i>

TeXfrWpxml Source Code

```

NB. *TeXfrWpxml s-- LaTeX source from WordPress export XML.
NB.
NB. verbatim: see the following
NB.
NB. source (this) script
NB. https://github.com/bakerjd99/jacks/blob/master/texfrwpxml/TeXfrWpxml.ijs
NB.
NB. https://github.com/bakerjd99/jacks/blob/master/texfrwpxml/wordpressstolatemwith2374.pdf
NB. https://github.com/bakerjd99/jacks/blob/master/texfrwpxml/wordpressstolatemwith2456.pdf
NB. https://github.com/bakerjd99/jacks/blob/master/texfrwpxml/wordpressstolatemwith2456.pdf
NB.
NB. interface word(s):
NB. -----
NB. BlogHashes - update blog hashes
NB. FixBaddown - attempt to convert *.baddown files to *.markddown
NB. LatexFrWordpress - experimental conversion of Wordpress XML to LaTeX
NB. MainMarkdown - assembles all *.markdown files in a master file
NB. MarkdownFrLatex - converts edited LaTeX post files to image free markdown
NB.
NB. author: John D. Baker
NB. created: 2012feb10
NB. -----
NB. 12feb24 (MarkdownFrLatex) added
NB. 12feb27 (FixBaddown, MainMarkdown) added
NB. 12feb29 (blogimgs) added

```

NB. 12jun28 (sortonpublishdate) added - publish order not always post id
NB. 12oct08 changed (texFrhtml) to process pandoc highlighted source
NB. 13dec20 save copy in GitHub (jacks) repository
NB. 15may06 (BlogHashes) added
NB. 17may13 (LATEXFIGURETEMPLATES) added
NB. 17sep29 use J 8.06 sha hash functions - removes need for external dll
NB. 20jul11 (BlogHashes) adjusted to track xhtml version
NB. 20sep12 (mdfootnotes) added to prefix markdown footnotes with post number

```
require 'task'
coclass 'TeXfrWpxml'
```

*NB.*dependents*

NB. declared global here to avoid confusing

NB. following HTML and LaTeX names with J names

NB. ()=: EPUBAMBLE EPUBFILE EPUBFRWPDIR HTMLREPS LATEXFIGURETEMPLATES LSTLISTINGHDR LSTLISTINGEND*

NB. ()=: MARKDOWNFILE TEXPREAMBLE TEXFRWPDIR TEXINCLUSIONS TEXSECTIONTITLE TEXWRAPFIGURE TEXROOTFILE*

NB. profile & require words ()=. IFIOS UNAME*

NB. dll/so is machine/os specific - assumes jqtk 8.02 or later is installed

```
NB. OPENSLL=: ;(IFIOS + (;'Win Linux Android Darwin') i. <UNAME) { 'libeay32.dll '; (2 $ <'libssl.so ');
>..>(2 $ <'libssl.dylib ')
```

NB. call dll

NB. cd=: 15!:0

*NB. sslsha1=: (OPENSLL , ' SHA1 > + x *c x *c')&cd*

*NB.*enddependents*

EPUBAMBLE=: 0 : 0

% Analyze the Data not the Drivel

% John D. Baker

)

NB. name of generated EPUB file

EPUBFILE=: 'bm.epub'

NB. root EPUB from LaTeX directory

EPUBFRWPDIR=: 'c:/pd/blog/wp2epub/'

NB. XML CDATA encoding and replacement for special characters

NB. stored in this form to hide the characters from web browsers

HTMLREPS=: 35 38 108 116 59 35 60 35 38 103 116 59 35 62 35 38 113 117 111 116 59 35 34 35 38 97 109 112 5

>...>9 35 38

HTMLREPS=: HTMLREPS{a.

NB. default lstlisting source block header

LSTLISTINGHDR=: 0 : 0

\begin{lstlisting}[frame=single,framerule=0pt,label=lst:~~~LSTLABEL~~~,
caption={source caption}]

)

NB. default lstlisting source block terminator

LSTLISTINGEND=: '\end{lstlisting}'

*NB. name of generated *.markdown file*

MARKDOWNFILE=: 'bm.markdown'

NB. name of LaTeX preamble file

TEXPREAMBLE=: 'bmamble.tex'

NB. root LaTeX from WordPress XML directory

TEXFRWPDIR=: 'c:/pd/blog/wp2latex/'

NB. immediate graphics subdirectory name, typically: inclusions

TEXINCLUSIONS=: 'inclusions'

NB. main LaTeX root file

TEXROOTFILE=: 'bm.tex'

NB. LaTeX post section title template

TEXSECTIONTITLE=: 0 : 0

```
\subsection*{\href{~~~POSTURL~~~}{~~~TITLETEXT~~~}}
\addcontentsline{toc}{subsection}{~~~TITLETEXT~~~}
)
```

NB. LaTeX wrapped figure template(s)

TEXWRAPFIGURE=: 0 : 0

```
%\captionsetup[floatingfigure]{labelformat=empty}
%\begin{figure}[htbp]
```

```
%\begin{floatingfigure}[l]{0.25\textwidth}
%\centering
%\includegraphics[width=0.23\textwidth]{~~~IMGRAPHICFILE~~~}
%\caption{~~~IMCAPTION~~~}
%\label{fig:~~~IMLABEL~~~}
%\end{floatingfigure}
%\end{figure}
)
```

LATEXFIGURETEMPLATES=: 0 : 0

```
% standard floating figure
% \captionsetup[figure]{labelformat=empty}
% \begin{figure}[htbp]
% \centering
% \href{}{\includegraphics[width=0.50\textwidth]{}}
% \caption{}
% \label{fig:????x0}
% \end{figure}
```

```
% captions beside figure
% \captionsetup[figure]{labelformat=empty}
% \begin{SCfigure}
% \centering
% \href{}{\includegraphics[width=0.40\textwidth]{}}
% \caption{}
% \label{fig:????x0}
```

```
% \end{SCfigure}

% wrapped figure - outer size > inner size
% \captionsetup[floatingfigure]{labelformat=empty}
% \begin{floatingfigure}[l]{0.23\textwidth}
% \centering
% \href{}{\includegraphics[width=0.22\textwidth]{} }
% \caption{}
% \label{fig:????x0}
% \end{floatingfigure}
)
```

*NB.*end-header*

NB. file extension given to tex files that do not convert to markdown

BADDOWNEXT=: '.baddown'

NB. title marker must be an alphabetic string that is untouched by LaTeX

BEGINTITLE=: 'BEWPTITLE'

NB. WordPress source code addon begin/end delimiters

BESOURCEDELS=: <;._1 '|[sourcecode |[/sourcecode]'

NB. pandoc highlighted <pre> source block begin/end delimiters

BESOURCEPREDELS=: <;._1 '|<pre class="sourceCode|</pre>'

NB. carriage return character

CR=: 13{a.

NB. carriage return line feed character pair

CRLF=: 13 10{a.

NB. maximum length of alpha only part of file name

FILETITLELEN=: 20

NB. HTML file extension

HTMLTEXT=: '.html'

NB. interface words (IFACEWORDSTeXfrWpxml) group

IFACEWORDSTeXfrWpxml=: <;._1 ' FixBaddown LatexFrWordpress MarkdownFrLatex MainMarkdown BlogHashes'

NB. substitute for WordPress \$latex ... \$ blocks - must be untouched by latex

LATEXFRAGMARK=: 'LLLATEXFRAGGG'

NB. line feed character

LF=: 10{a.

NB. extension of markdown text files

MARKDOWNEXT=: '.markdown'

NB. markdown post/section prefix

MDSECTIONPFX=: ''

NB. pandoc shell command prefix

PANDOC CMD=: 'pandoc -o '

NB. root words (ROOTWORDSTeXfrWpxml) group

```
ROOTWORDSTeXfrWpxml=: <;._1 ' BlogHashes FixBaddown IFACEWORDSTeXfrWpxml LatexFrWordpress MainMarkdown Mark
>..>downFrLatex ROOTWORDSTeXfrWpxml SetTeXfrWpxmlPaths blogings postfiles posttex showpass uedposts'
```

NB. placeholder substitute for WordPress source blocks - must be untouched by LaTeX

```
SOURCEBLOCKMARK=: 'SSSOURCEBLOCKEE'
```

NB. placeholder substitute for pandoc highlighted <pre> source blocks

```
SOURCEPREMARK=: 'SSSSOURCEPREBEE'
```

*NB. temporary *.tex file - choose name to avoid clashes*

```
TEMPTExFILE=: 'temp.tex'
```

NB. LaTeX file extension

```
TEXEXT=: '.tex'
```

NB. temporary HTML file

```
TFWTEMPHTML=: 'temp.html'
```

NB. wget shell command prefix

```
WGETCMD=: 'wget --no-clobber --no-check-certificate --output-document='
```

```
BlogHashes=: 3 : 0
```

*NB.*BlogHashes v-- update blog hashes.*

NB.

NB. monad: BlogHashes uuIgnore

```

texpath=. 'c:/pd/blog/wp2latex/'
hash=. ctl ;"1 ' ' ,&.> sha1dir texpath,'*.pdf'
hash=. hash, LF, ctl ;"1 ' ' ,&.> sha1dir texpath,'*.tex'
(toJ hash) write texpath,'bmpdfsha1.txt'

mdpath=. 'c:/pd/blog/wp2epub/'
hash=. ctl ;"1 ' ' ,&.> sha1dir mdpath,'*.epub'
hash=. hash, LF, ctl ;"1 ' ' ,&.> sha1dir mdpath,'*.mobi'
hash=. hash, LF, ctl ;"1 ' ' ,&.> sha1dir mdpath,'*.markdown'
(toJ hash) write mdpath,'bmepubsha1.txt'

xhtmlpath=. 'c:/pd/blog/wp2epub/xhtmll/'
hash=. ctl ;"1 ' ' ,&.> sha1dir xhtmlpath,'*.xhtml'
hash=. hash, LF, ctl ;"1 ' ' ,&.> sha1dir xhtmlpath,'*.css'
hash=. hash, LF, ctl ;"1 ' ' ,&.> sha1dir xhtmlpath,'*.ncx'
(toJ hash) write xhtmlpath,'bmexhtmlsha1.txt'
)

```

FixBaddown=: 3 : 0

*NB.*FixBaddown v-- attempt to convert *.baddown files to *.markddown*

NB.

NB. monad: FixBaddown uuIgnore

NB. dyad: clDirectory FixBaddown uuIgnore

```

EPUBFRWPDIR FixBaddown y
:
epubdir=. x

NB. collect any *.baddown files
if. #files=. 0 {"1 (1!:0) EPUBFRWPDIR,'*',BADDOWNEXT do.

    files=. sortonid (<epubdir) ,&.> files
    outinext=. MARKDOWNEXT;TEXEXT
    fixed=. ''
    for_file. files do.
        tex=. rmLatexGraphics read file=. ;file
        texfile=. (t slash jpathsep epubdir),TEMPTEXFILE
        (utf8 tex) write texfile
        mdown=. outinext pandoc texfile
        if. 0=#allwhitetrim mdown do.
            smoutput 'no markdown again -> ',file
        else.
            fixed=. fixed,<file [ ferase file
            mdown write epubdir,(justfile@winpathsep file),MARKDOWNEXT
        end.
        outinext clear temps texfile
    end.
    1;fixed
else.
    1;'no *',BADDOWNEXT,' file(s)'
end.

```

```

)

LatexFrWordpress=: 3 : 0

NB.*LatexFrWordpress v-- experimental conversion of Wordpress XML
NB. to LaTeX.
NB.
NB. monad: (iaRc;blcl) =. LatexFrWordpress clPathFileXML
NB.
NB. NB. window/linux
NB. LatexFrWordpress 'c:/pd/blog/wordpress/analyzethedatanotthedrivel.wordpress.xml'
NB. LatexFrWordpress '/home/john/pd/blog/wordpress/analyzethedatanotthedrivel.wordpress.xml'
NB.
NB. dyad: (iaRc;blcl) =. (clRoot;clPreamble;clDir;clIncl) LatexFrWordpress clPathFileXML

NB. LaTeX file & directory defaults
(TEXTROOTFILE;TEXPREAMBLE;TEXFRWPDIR;TEXINCLUSIONS) LatexFrWordpress y
:
'texroot texpreamble texdir texincl'=. x

NB. must have a root tex file
if. -.fexist texdir,texroot do. 0;'missing or invalid LaTeX root file' return. end.

NB. read wordpress xml
if. fexist y do. xml=. read y else. 0;'missing or invalid XML export file' return. end.

NB. new published posts
if. #newposts=. (texdir;TEXEXT) prunePtable ptableFrwpxml xml do.

```

```
newposts=. sortposts newposts
titles=. texdir tfwTitles 1 {"1 newposts
'title post mismatch' assert (#titles) = #newposts

predir=. texpreamble;texdir
for_post. newposts do.
  smoutput ;post_index{titles
  pdat=. (post_index{titles),(2 3 4{post),<cdatatext;5{post
  tex=. predir texFrhtml pdat

  NB. append common figure code to each post
  tex=. tex,CRLF,LATEXFIGURETEMPLATES

  tex write texdir,(;0{post),TEXEXT
end.

NB. adjust root tex file to reference new posts
NB. no additions if files already referenced
tex=. read root=. texdir,texroot
mask=. -(0 {"1 newposts) 1&e.@E.&> <tex
newposts=. mask#newposts
titles=. mask#titles
tex=. tex inputposts newposts
tex write root

NB. result titles of new posts
```

```

    1;titles
else.
    1;'no new posts'
end.
)

MainMarkdown=: 3 : 0

NB.*MainMarkdown v-- assembles *.markdown files in EPUB directory in a master
NB. file.
NB.
NB. monad: bl =. MainMarkdown clPathFile
NB.
NB.    MainMarkdown 'c:/pd/blog/wordpress/analyzethedatanotthedrivel.wordpress.xml'
NB.
NB. dyad:    bl =. (clMdownfile;clDirectory;clAmble) MainMarkdown clPathFile

(MARKDOWNFILE;EPUBFRWPPDIR;EPUBAMBLE;MDSECTIONPFX) MainMarkdown y
:
'mdownfile epubdir epubamble mdsecpfx'=. x

NB. read wordpress xml - valid posts
if. fexist y do. xml=. read y else. 0;'missing or invalid XML export file' return. end.

pfiles=. 0 {"1 (1!:0) epubdir,'*',MARKDOWNNEXT

NB. keep only post markdown files
ptable=. ptableFrwpxml xml

```

```
posts=. (0{"1 ptable) ,&.> <MARKDOWNNEXT
pfiles=. pfiles -. pfiles -. posts
```

NB. sort files by publish date

```
pfiles=. ptable sortonpublishdate pfiles
files=. (<epubdir) ,&.> pfiles
```

NB. NOTE: sometimes posts are written long before they are published

NB. sort files by trailing post id

NB. files=. sortonid files

NB. mash posts together - affix date

```
epubamble=. (allwhitetrim epubamble),LF,('% ',timestamp ''),2#LF
posts=. ; (<mdsecpfx) ,&.> (allwhitetrim&.> read&.> files) ,&.> <2#LF
posts=. utf8 toHOST epubamble,(2#LF),posts
posts write file=. epubdir,mdownfile
1;((":#files),' post(s)');file
)
```

```
MarkdownFrLatex=: 3 : 0
```

*NB.*MarkdownFrLatex v-- converts edited LaTeX post files to image*

NB. free markdown.

NB.

*NB. This verb converts edited *.tex files into *.markdown which*

NB. are then used to build an EPUB. The markdown requires a small

NB. bit of editing, mostly to cleanup the odd LaTeX fragment that

NB. Pandoc does not convert. This is nowhere near the chore that


```

NB. editing the WordPress CDATA HTML to *.tex is and has the nice
NB. feature of preserving all the corrections made to the *.tex
NB. files.
NB.
NB. monad: bl =. MarkdownFrLatex clPathFileXML
NB.
NB.   MarkdownFrLatex 'c:/pd/blog/wordpress/analyzethedatanotthedrive1.wordpress.xml'
NB.
NB. dyad: bl =. blcl MarkdownFrLatex clPathFileXML

(MARKDOWNFILE;EPUBFRWPDIR;TEXFRWPDIR) MarkdownFrLatex y
:
'markfile epubdir texdir'=. x

NB. read wordpress xml - defines post order
if. fexist y do. xml=. read y else. 0;'missing or invalid XML export file' return. end.

NB. posts without markdown versions
if. #newposts=. (epubdir;MARKDOWNNEXT) prunePtable ptableFrwpxml xml do.

  cvtitles=. ''
  newposts=. sortposts newposts
  outinext=. MARKDOWNNEXT;TEXEXT
  for_post. newposts do.
    'post title'=. 0 1{post
    if. fexist tex=. texdir,post,TEXEXT do.
      tex=. rmLatexGraphics read tex

```

```

texfile=. (t slash jpathsep epubdir),TEMPTEXFILE
(utf8 tex) write texfile
mdown=. outnext pandoc texfile
NB. if pandoc cannot convert to markdown it returns nothing
if. 0=#allwhitetrims mdown do.
    smoutput 'no markdown -> ',title
    NB. save the original file - tweaking is necessary
    (utf8 tex) write epubdir,post,BADDOWNEXT
else.
    mdown=. post mdfootnotes mdown
    mdown write epubdir,post,MARKDOWNEXT
end.
outnext cleartemps texfile
cvttitle=. cvtitles,<title
else.
    smoutput 'skipping missing *.tex file -> ',post,TEXEXT
end.
end.
1;cvtitles

else.
    1;'no new posts'
end.
)

SetTeXfrWpxmlPaths=: 3 : 0

NB.*SetTeXfrWpxmlPaths v-- sets OS dependent paths.

```

```

NB.
NB. Customize the path and file settings in this verb
NB. to match your locations.
NB.
NB. monad: SetTeXfrWpxmlPaths uuIgnore

NB. system nouns !(*)=. IFWIN IFUNIX
if.      IFWIN  do.
  TEXFRWPDIR=: 'c:/pd/blog/wp2latex/'
  EPUBFRWPDIR=: 'c:/pd/blog/wp2epub/'
elseif. IFUNIX do.
  TEXFRWPDIR=: '/home/john/pd/blog/wp2latex/'
  EPUBFRWPDIR=: '/home/john/pd/blog/wp2epub/'
elseif.do.
  'not on supported OS' assert 0
end.

NB. TeX root, preamble, inclusions subdirectory name
TEXROOTFILE=: 'bm.tex'
TEXPREAMBLE=: 'bmamble.tex'
TEXINCLUSIONS=: 'inclusions'

NB. EPUB eBook file
EPUBFILE=: 'bm.epub'

NB. standardize document directory paths
TEXFRWPDIR=: tlash jpathsep TEXFRWPDIR

```

```
EPUBFRWPDIR=: tlash jpathsep EPUBFRWPDIR
)
```

NB. retains string (y) after last occurrence of (x)

```
afterlaststr=: ] }.~ #@[ + 1&(i:~)@([ E. ])
```

NB. retains string after first occurrence of (x)

```
afterstr=: ] }.~ #@[ + 1&(i.~)@([ E. ])
```

NB. trims all leading and trailing white space

```
allwhitetrim=: ] #~ [: -. [: (*./\ . +. */\ ) ] e. (9 10 13 32{a.})"_
```

NB. signal with optional message

```
assert=: 0 0"_ $ 13!:8^:((0: e. ])^ (12"_))
```

NB. extracts text of xml attribute

```
attrvalue=: '""'_ beforestr ([ , '=''_)_ afterstr '>''_ beforestr ]
```

NB. retains string (y) before last occurrence of (x)

```
beforelaststr=: ] {.~ 1&(i:~)@([ E. ])
```

NB. retains string before first occurrence of (x)

```
beforestr=: ] {.~ 1&(i.~)@([ E. ])
```

```

blogimgs=: 3 : 0

NB.*blogimgs v-- extracts all images referenced in post CDATA.
NB.
NB. monad: btcl =. blogimgs btclPosts
NB.
NB.   blogimgs posts NB. see (ptableFrwpxml)

if. 0=#y do. 0 3$'' return. end.

NB. cut CDATA on <img's
txt=. ;(cdatatext&.> 5 {"1 y) ,&.> LF
cimg=. ('>'&beforestr) &.> ( '<'<img ' E. txt) <;.1 txt

NB. form table of titles and src urls
cimg=. ('title'&attrvalue ; 'src'&attrvalue) &> cimg

NB. prefix file name
cimg ,.~ ('?'&beforestr)@('/'&afterlaststr) &.> {"1 cimg
)

NB. boxes open nouns
boxopen=: <^(L. = 0:)

NB. extract character list from HTML CDATA
cdatatext=: [: ']]>'&beforelaststr '<![CDATA['&afterstr

```

```
changestr=: 4 : 0
```

```
NB.*changestr v-- replaces substrings - see long documentation.
```

```
NB.
```

```
NB. dyad: clReps changestr cl
```

```
NB.
```

```
NB. NB. first character delimits replacements
```

```
NB. '/change/becomes/me/ehh' changestr 'blah blah ...'
```

```
pairs=. 2 {."(1) _2 [\ <; _1 x      NB. change table
cnt=_1 [ lim=. # pairs
while. lim > cnt=.>:cnt do.        NB. process each change pair
  't c'=. cnt { pairs              NB. /target/change
  if. +./b=. t E. y do.            NB. next if no target
    r=. I. b                        NB. target starts
    'l q'=. #&> cnt { pairs         NB. lengths
    p=. r + 0,+/\(<:# r)$ d=. q - 1 NB. change starts
    s=. * d                         NB. reduce < and > to =
    if. s = _1 do.
      b=. 1 #~ # b
      b=. ((l * # r)$ 1 0 #~ q,l-q) (,r +/ i. l)} b
      y=. b # y
      if. q = 0 do. continue. end.  NB. next for deletions
    elseif. s = 1 do.
      y=. y #~ >: d r} b           NB. first target char replicated
    end.
    y=. (c $~ q *# r) (,p +/i. q)} y NB. insert replacements
```

```

    end.
end. y                                NB. altered string
)

charsub=: 4 : 0

NB.*charsub v-- single character pair replacements.
NB.
NB. dyad:  clPairs charsub cu
NB.
NB.    '-_$ ' charsub '$123 -456 -789'

'f t'=. ((#x)$0 1)<@,&a./ .x
t {~ f i. y
)

cleartemps=: 3 : 0

NB.*cleartemps v-- erase temporary HTML/TEX & TEX/MARKDOWN files
NB.
NB. monad:  cleartemps clPathFile
NB. dyad:  (clOutExt;clInExt) cleartemps clPathfile

(TEXEXT;HTMLEXT) cleartemps y
:
'outext inext'=. x
(inext,' extension required') assert 1 e. inext E. y

```

```
ferase y;('.'&beforelaststr y),outtext
)
```

NB. character table to newline delimited list

```
ctl=: }.@(@1&(",1)@(-.@(*./\"1@(&' '[@])))) # ,@((10{a.)&(",1)@))
```

```
cutincludegraphicsidx=: 3 : 0
```

*NB.*cutincludegraphicsidx v-- cut list into \includegraphics*

NB. LaTeX and other

NB.

NB. monad: (ilIdx ;< blcl) =. cutincludegraphicsidx clTex

```
('\\includegraphics{'';'}';0) cutpxtidx y
)
```

```
cutlatexidx=: 3 : 0
```

*NB.*cutlatexidx v-- cut list into WordPress LaTeX and other.*

NB.

NB. monad: (ilIdx ;< blcl) =. cutlatexidx clHtml

NB.

NB. cutlatexidx ' ... yada yada \$latex frac{a}{b}\$ and so on ... '

```
(' $latex'; '$';1) cutpxtidx y
)
```



```
cutnestidx=: 4 : 0
```

```
NB.*cutnestidx v-- cut list into nested runs and other.
```

```
NB.
```

```
NB. Nested runs are delimited by begin and end tags. This verb is
```

```
NB. oriented toward XML parsing where typical begin end tags are
```

```
NB. <ul> </ul> and tags with attributes like: <hoo boy="2">
```

```
NB. </hoo>
```

```
NB.
```

```
NB. This verb can process numeric lists but care must be taken to
```

```
NB. insure the pad item (1{.0$y) does not match begin and end
```

```
NB. values.
```

```
NB.
```

```
NB. dyad: (ilIdx ;< blcl) =. (clStart;clEnd) cutnestidx cl
```

```
NB. (ilIdx ;< blnl) =. (nlStart;nlEnd) cutnestidx nl
```

```
NB.
```

```
NB. xml=. 'yada <ol><li>one</li><ol><li>sub one</li></ol></ol> boo'
```

```
NB. ('<ol';'</ol>') cutnestidx xml
```

```
NB.
```

```
NB. 88 99 cutnestidx (i.5),88,(10?10),99 88 5 5 5 5 5 99
```

```
if. #y do.
```

```
  's e'=. ,&.> x          NB. start end lists
```

```
  ut=. 1{.0$y            NB. padding
```

```
  assert. -.s -: e       NB. they must differ
```

```
  assert. -(s -:ut) +. e -:ut
```

```
  sp=. s E. ut=.y,ut      NB. start mask
```

```

NB. quit if no delimiters
if. -.1 e. sp do. (i.0);<<y return. end.

ep=. e E. ut          NB. end mask
assert. (+/sp) = +/ep  NB. basic balance
dp=. sp + - ep        NB. start end marks
assert. 0 *./ . <: +/\ dp  NB. nested balance
ep=. I. _1=dp [ sp=. I. 1=dp  NB. start end indexes
ut=. +/\dp -. 0        NB. scanned marks
dp=. ./~ sp,ep        NB. all indexes
sp=. (firstones 1<:ut)#dp  NB. starts of nested
ep=. (#e)+(0=ut)#dp      NB. starts of other
dp=. ./~ ~.0,sp,ep      NB. cut starts
ut=. }: 1 dp} (>:#y)#0   NB. cut mask
(dp i. sp);<ut <;.1 y    NB. nest indexes cut list
else.
  (i.0);<<y            NB. empty arg result
end.
)

cutpxtidx=: 4 : 0

NB.*cutpxtidx v-- cut list into prefix with character terminator
NB. and other.
NB.
NB. monad: (ilIdx ;< blcl) =. (clPfx;caEend;iaPos) cutpxtidx clHtml
NB.

```

```

NB.    ('$latex';'$';1) cutpætidæ ' ... yada yada $latex frac{a}{b}$ and so on ... '
NB.    ('\includegraphics{';'';0) cutpætidæ ' boo hooo \includegraphics{pictures.png} et cetera'

's e p'=. x NB. start end position
assert. (1=#e) *. 1=#p
if. 1 e. b=. s E. ,y do.
    sp=. I. b
    op=. (0 e. sp) }. 0,sp + >:p&{@I.@(e&=)&> b <;.1 y
    op=. /:~ sp,op -. #y
    (op i. sp) ;< (1 op} b) <;.1 y
else.
    (i.0);<<y
end.
)

cutstridx=: 4 : 0

NB.*cutstridx v-- cut list into (x) and other.
NB.
NB. dyad: (ilIdx ;< blcl) =. clStr cutstridx cl
NB.
NB.    'CHOP' cutstridx 'CHOP CHOP me up CHOP eh'

if. 1 e. b=. x E. ,y do.
    sp=. I. b
    op=. (0 e. sp) }. 0,sp + #x
    op=. /:~ sp,op -. #y
    (op i. sp) ;< (1 op} b) <;.1 y

```

```

else.
  (i.0);<<y
end.
)

NB. boxes UTF8 names
fboxname=: ([: < 8 u: >) ::]

NB. erase files - cl / blcl of path file names
ferase=: 1!:55 ::(_1:)@(fboxname&>)@boxopen

NB. 1 if file exists 0 otherwise
fexist=: 1:@(1!:4) ::0:@(fboxname&>)@boxopen

filenamesFrtid=: 3 : 0

NB.*filenamesFrtid v-- form file names from titles and ids.
NB.
NB. monad: blclFilename =. filenamesFrtid btclTitleId
NB.
NB.   wpxml=. read 'c:/pd/blog/wordpress/analyzethedatanotthedriviel.wordpress.xml'
NB.   posts=. ptableFrwpxml wpxml
NB.   filenamesFrtid 0 1 {"1 posts

NB. remove all but upper and lowercase alpha and lower case remainder
fn=. (0 {"1 y) tolower@-.&.> <a.-.((65+i.26),97+i.26){a.

```

```
NB. take at most FILETITLELEN chars and append unique post id
((FILETITLELEN <. #&> fn) {.&.> fn) ,&.> 1 {"1 y
)
```

```
NB. 0's all but first 1 in runs of 1's - like (firstone) but differs for nulls
firstones=: > (0: , }:)
```

```
NB. size of file in bytes
fsize=: 1!:4 ::(_1:)@(fboxname&>)@boxopen
```

```
getNewgraphics=: 3 : 0
```

```
NB.*getNewgraphics v-- downloads graphics files referenced in
NB. LaTeX.
NB.
NB. monad: ((<blclDown),<blclMissing) =. getNewgraphics clTex
```

```
none=. '';'
if. y do.
```

```
NB. extract any graphics urls
graphic=. '\includegraphics{'
mask=. graphic E. y
if. -.1 e. mask do. none return. end.
urls=. (#graphic) }.&.> mask <;.1 y
urls=. ('?'&beforestr)@('}'&beforestr)&.> urls
```

```

NB. download images to inclusions/ directory
ifiles=. (<TEXFRWPDIR,tlslash TEXINCLUSIONS) ,&.> '/'&afterlaststr&.> urls
wcmds=. WGETCMD ,"1 > ifiles ,&.> ' ' ,&.> urls

NB. require 'task' !(*)=. shell
skipcnt=. 0 [ dfiles=. mfiles=. ''
for_cmd. wcmds do.
  file=. ;cmd_index{ifiles

  NB. skip files that exist in inclusions/
  if. fexist file do. skipcnt=.:skipcnt continue. end.

  shell cmd [ smoutput 'downloading: ',file
  if. 0<fsize file do. dfiles=. dfiles,<file
  else.
    ferase file NB. clears any 0 byte files
    mfiles=. mfiles,<file [ smoutput 'warning - did not download: ',file
  end.
end.
smoutput (":#dfiles),' downloaded; ',(":#mfiles),' not downloaded; ',(":skipcnt),' skipped'
(<dfiles),<mfiles NB. downloaded & not downloaded

else.
  none
end.
)

htmlParagraphs=: 3 : 0

```

```

NB.*htmlParagraphs v-- mark missing html paragraphs.
NB.
NB. WordPress HTML frequently omits paragraph tags <p> </p>.
NB. Missing paragraph tags cause Pandoc to run paragraphs
NB. together in the generated LaTeX. This verb inserts leading
NB. <p> tags in LF delimited runs. The vast majority of such runs
NB. are paragraphs.
NB.
NB. monad: cl =. htmlParagraphs clHtml

if. 1 e. '<p>' E. y do. y
else.
  NB. cut paragraphs
  cs=. <;._2 tlf y -. CR
  NB. tag or newlines
  tnl=. ((2#LF)"_)`('<p>'&,)@.(0 < #)
  ; tnl&.> cs
end.
)

inputposts=: 4 : 0

NB.*inputposts v-- appends new %\input{file.tex} commands to root
NB. tex.
NB.
NB. dyad: clTex =. clTex inputposts btclPosts

```

```

if. #y do.
  bp=. '%</blogposts>'
  new=. ;(<'%\input{' ,&.> (0 {"1 y) ,&.> (<TEXEXT,'} %') ,&.> (3 {"1 y) ,&.> LF
  head=. bp&beforestr x
  tail=. bp&afterstr x
  head,LF,new,bp,tail
else.
  x
end.
)

```

NB. standarizes J path delimiter to unix/linux forward slash
 jpathsep=: '/'&(('\ ' I.@:=]))

NB. extracts the drive from qualified file names
 justdrv=: [:]:] #~ [: +./\ . ':'&=

NB. extracts the extension from qualified file names
 justext=: '"_`([#~ [: -. [: +./\ . '.'&=)@.('.'&e.)

NB. file name from fully qualified file names
 justfile=: ([#~ [: -. [: +./\ . '.'&=)@([#~ [: -. [: +./\ . e.&':'\')

NB. extracts only the path from qualified file names
 justpath=: [:]:] #~ ([: -. [: +./\ . ':'&=) *. [: +./\ . '\ '&=


```
lstFrsrcb=: 4 : 0
```

*NB.*lstFrsrcb v-- lstlisting from source block.*

NB.

NB. monad: cl =. clPid lstFrsrcb clSrc

```
'start end'=. BESOURCEDELS
```

NB. first line is block header with wp addon parameters

```
head=. LF&beforestr y
```

```
body=. LF&afterstr end&beforelaststr y
```

NB. revert special CDATA HTML characters

```
body=. HTMLREPS changestr body
```

NB. insert label uses post id and scr block cnt to be unique

```
lstlisting=. ('#~~~LSTLABEL~~~#scr',x) changestr LSTLISTINGHDR
```

NB. leave original header as latex comment

```
LF,'% ',head,LF,lstlisting,LF,body,LSTLISTINGEND
```

```
)
```

```
mdfootnotes=: 4 : 0
```

*NB.*mdfootnotes v-- prefix numbered pandoc markdown footnotes*

NB. with post number.

NB.

NB. When building EPUB documents from many markdown texts it's

```

NB. important that all footnote labels are unique. The standard
NB. practice of [^1], [^2], ... leads to clashes. This verb
NB. prefixes all numbered pandoc footnotes with the post number.
NB. The post number is a unique blog specific integer assigned by
NB. WordPress.com. A superior unique key like a secure hash is
NB. overkill here but may be necessary if you are merging posts
NB. across many blogs.
NB.
NB. dyad: cl =. clPostId mdfootnotes clMd
NB.
NB. md=. read 'c:/pd/blog/wp2epub/oscarsnowasmeaning6975.markdown'
NB. 'oscarsnowasmeaning6975' mdfootnotes md

NB. require 'regex' !(*)=. rxall rxmatches rxmerge

fp=. '\[\^[0-9]\]' NB. pandoc footnotes

if. #fn=. >fp rxall y do.
  NB. post number
  pn=. 'x' ,~ x #~ x e. '0123456789'
  NB. relabeled footnotes
  nfn=. <"1 ' ' -."1~ ((0 1 {"1 fn) ,"1 pn) ,"1 > 2 }."1 fn
  nfn (fp rxmatches y) rxmerge y
else.
  y NB. no footnotes
end.
)

```

```

pandoc=: 3 : 0

NB.*pandoc v-- shells pandoc to convert HTML->LaTeX & LaTeX->Markdown.
NB.
NB. monad:  cl =. pandoc clFile
NB.
NB.    tex=. pandoc 'c:/temp/cdata.html'
NB.
NB. dyad:  cl =. (clOutExt;clInExt) pandoc clFile
NB.
NB.    markdown=. (MARKDOWNEXT;TEXEXT) pandoc 'c:/temp/post.tex'

(TEXEXT;HTMLEXT) pandoc y
:
'outext inext'=. x
y=. winpathsep y
(inext,' extension required') assert (inext-.'.') -: justext y
file=. justfile y
drv=. ]`[!@,&' ':'')@.(0 < #) justdrv y
dir=. tlash drv,justpath y
NB. output written to same directory as source
in=. jpathsep y [ out=. jpathsep dir,file,outext
(inext,' file must exist') assert fexist in
ferase out
NB. require 'task' !(*)=. shell
shell PANDOC CMD,' ',out,' ',in
(outext,' conversion failed') assert fexist out

```

```
read out
)
```

```
postTitleDate=: 3 : 0
```

```
NB.*postTitleDate v-- post LaTeX section title code.
```

```
NB.
```

```
NB. monad: cl =. postTitleDate (clTitle;clDate;clUrl)
```

```
'ptitle pdate purl'=. y
reps=. '|~~~TITLETEXT~~~|',allwhitetrims pttitle
reps=. reps,'|~~~POSTURL~~~|',allwhitetrims purl
pttitle=. reps changestr TEXSECTIONTITLE
pdate=. 'Posted: ',timestamp ".'- : ' charsub pdate
pttitle,(2#LF),'\noindent\emph{'',pdate,'}',LF,'\vspace{6pt}','2#LF
)
```

```
postfiles=: 3 : 0
```

```
NB.*postfiles v-- list of post LaTeX files.
```

```
NB.
```

```
NB. monad: blclTexfiles =. postfiles uuIgnore
```

```
NB. system nouns !(*)=. IFWIN IFUNIX
```

```
if. IFWIN do. wpxml=. read 'c:/pd/blog/wordpress/analyzethedatanotthedrive1.wordpress.xml'
```

```
elseif. IFUNIX do. wpxml=. read '/home/john/pd/blog/wordpress/analyzethedatanotthedrive1.wordpress.xml'
```

```
elseif.do.
```

```

    'not on supported os' assert 0
end.
posts=. ptableFrwpxml wpxml
(<TEFRWPDIR) ,&.> (0 {"1 posts) ,&.> <TEXEXT
)

postid=: 3 : 0

NB.*postid v-- test verb that forms (texFrhtml) (y) arguments.
NB.
NB. monad: postid iaPid
NB. dyad: (clStatus;clType) postid iaPid
NB.
NB.    (;:'draft post') postid '' NB. drafts

(;:'publish post') postid y
:
NB. !(*)=. IFWIN IFUNIX posts list nc
if.    IFWIN do. wpxml=. read 'c:/pd/blog/wordpress/analyzethedatanotthedrive1.wordpress.xml'
elseif. IFUNIX do. wpxml=. read '/home/john/pd/blog/wordpress/analyzethedatanotthedrive1.wordpress.xml'
elseif.do.
    'not on supported OS' assert 0
end.
posts=: x ptableFrwpxml wpxml
pids=. 2 {"1 posts
if. 0=#y do. list pids return. end.
y=. ":y
if. (<y-. ' ') e. pids do.

```

```

pt=. posts {~ pids i. <y NB. post id
(tfwTitles 1{pt),(2 3 4{pt),<cdatatext;5{pt
else.
  smoutput 'no post with pid: ',y
end.
)

```

```

posttex=: 3 : 0

```

```

NB.*posttex v-- LaTeX code for single post/draft.
NB.
NB. monad: clTex =. posttex iaPid
NB. dyad: clTex=. (clStatus;clType) posttex iaPid
NB.
NB. tex=. (;'draft post') posttex 638

```

```

(;;'publish post') posttex y
:
texFrhtml x postid y
)

```

```

prunePtable=: 3 : 0

```

```

NB.*prunePtable v-- removes post table entries that have
NB. corresponding files.
NB.
NB. monad: btcl =. prunePtable btclPosts

```

```

NB.
NB.  prunePtable posts NB. see (ptableFrwpxml)
NB.
NB. dyad: btcl =. (clDirectory;clExt) prunePtable btclPosts

(TEXTFRWPDIR;TEXEXT) prunePtable y
:
'path ext'=. x
y #~ -.fexist (<path) ,&.> (0 {"1 y) ,&.> <ext
)

ptableFrwpxml=: 3 : 0

NB.*ptableFrwpxml v-- type status table from wordpress xml.
NB.
NB. monad: btcl =. ptableFrwpxml clXml
NB.
NB.  wpxml=. read 'c:/pd/blog/wordpress/analyzethedatanotthedrivvel.wordpress.xml '
NB.  posts=. ptableFrwpxml wpxml
NB.
NB. dyad: btcl =. (clStatus;clType) ptableFrwpxml clXml
NB.
NB.  drafts=. (;:'draft post') ptableFrwpxml wpxml

(;:'publish post') ptableFrwpxml y
:
NB. cut items
cxml=. ('<item>' E. y) <;.1 y

```

NB. item attribute extractors

```
istatus=.  [: '</wp:status>'&beforestr&.> '<wp:status>'&afterstr&.>
itype=.    [: '</wp:post_type>'&beforestr&.> '<wp:post_type>'&afterstr&.>
ipostid=.  [: '</wp:post_id>'&beforestr&.> '<wp:post_id>'&afterstr&.>
ititle=.   [: '</title>'&beforestr&.> '<title>'&afterstr&.>
ilink=.    [: '</link>'&beforestr&.> '<link>'&afterstr&.>
idate=.    [: '</wp:post_date_gmt>'&beforestr&.> '<wp:post_date_gmt>'&afterstr&.>
icontent=. [: '</content:encoded>'&beforestr&.> '<content:encoded>'&afterstr&.>
```

NB. all status + types

```
ppxml=. cxml #~ x -:"1 (istatus ,. itype) cxml
```

NB. return filename, title, id, date, link, content

```
ppxml=. (ititle ,. ipostid ,. idate ,. ilink ,. icontent) ppxml
(filename$Frtid 0 1 {"1 ppxml) ,. ppxml
)
```

NB. reads a file as a list of bytes

```
read=: 1!:1&[]`<@.(32&>@.(3!:0)))
```

```
rmLatexGraphics=: 3 : 0
```

*NB.*rmLatexGraphics v-- remove/blank out LaTeX graphics.*

NB.

NB. This verb removes LaTeX comments and graphics environments

*NB. from *.tex. This is done to produce lightweight EPUB and MOBI*


```

NB. eBook versions that perform well on Kindles, iPhones, iPads
NB. and so forth.
NB.
NB. monad: cl =. rmLatexGraphics clTex
NB.
NB. tex=. read 'c:/pd/blog/wp2latex/cowboysandaliensando1698.tex'
NB. rmLatexGraphics tex

rp=. <' '
tex=. <|.2 tlf y -. CR
tex=. ;('%' ~: {.@allwhitetrims> tex) # tex
'ix cs'=. ('\begin{floatingfigure}';'\end{floatingfigure}') cutnestidx tex
tex=. ;rp ix} cs
'ix cs'=. ('\begin{SCfigure}';'\end{SCfigure}') cutnestidx tex
tex=. ;rp ix} cs
'ix cs'=. ('\begin{figure}';'\end{figure}') cutnestidx tex
if. envtex=. ;ix{cs
  b0=. -.1 e. '\begin{minipage}' E. envtex
  b1=. 1 e. '\includegraphics' E. envtex
  b1 *. b0 do. tex=. ;rp ix} cs
end.
NB. clear any remaining caption setup pandoc passes them to .markdown
'ix cs'=. ('\captionsetup';'}';0) cutpntidx tex
tex=. ;rp ix} cs
)

sha1=: 3 : 0

```

```

NB.*sha1 v-- sha1 hexadecimal hash.
NB.
NB. monad: clHash =. sha1 cl
NB.
NB.   sha1 'this is a fine mess'
NB.
NB.   sha1 10000 $ 'a bigger mess '

NB. code before J 8.06
NB. sslsha1 (y);(# y);hash=. 20#' '
NB. hash

NB. use J sha foreign available after J 8.06
1&(128!:6) y
)

sha1dir=: 3 : 0

NB.*sha1dir v-- compute sha1 hashes for files matching pattern in directory.
NB.
NB. monad: btcl =. sha1dir clPathRoot
NB.
NB.   sha1dir 'c:/pd/blog/wp2latex/*.tex'

jfe=. ] #~ [: -. [: +./\.'/'&= NB. just file extension

NB. code used before J 8.06
NB. hexadecimal list from integers

```

```

NB. hdl=. [: , [: hfd2 a. i. ]
NB. standard profile !(*)=. dir
NB. (jfe&.> files) ,.~ hdl @ sha1 @ read&.> files=. 1 dir jpathsep y

(jfe&.> files) ,.~ sha1 @ read&.> files=. 1 dir jpathsep y
)

NB. show and then pass noun
showpass=: ] [ 1!:2&2

NB. session manager output
smoutput=: 0 0 $ 1!:2&2

sortonid=: 3 : 0

NB.*sortonid v-- sort files by trailing post id - monotonically increasing
NB.
NB. monad: blcl=. sortonid blclFiles

(/: "&> ('/'&afterlaststr&.> y) -.&.> <a. -. '0123456789') { y
)

sortonpublishdate=: 4 : 0

NB.*sortonpublishdate v-- sort markdown post files by publish date.
NB.
NB. dyad: blcl =. btclPosts sortonpublishdate blclFiles

```

NB. posts and dates

```
postdate=. 0 3 {"1 x
```

NB. selected post files without extension

```
pfiles =. '.'&beforelaststr&.> y
```

```
mask=. pfiles e. 0 {"1 postdate
```

```
postdate=. mask # postdate
```

```
files=. 0 {"1 (/: 1 {"1 postdate){postdate
```

```
files ,&.> <MARKDOWNEXT
```

```
)
```

```
sortposts=: 3 : 0
```

*NB.*sortposts v-- sort posts chronologically.*

NB.

NB. monad: bt =. sortposts blclPosts

```
(/: ". ' - : ' charsub >3 {"1 y){y
```

```
)
```

```
texFrhtml=: 3 : 0
```

*NB.*texFrhtml v-- convert WordPress HTML fragments to LaTeX*

NB. fragments

NB.

```

NB. monad: clTex =. texFrhtml (clTitle;clDate;clPid;clHtml)
NB.
NB. wpxml=. read 'c:/pd/blog/wordpress/analyzethedatanotthedrivvel.wordpress.xml'
NB. posts=. ptableFrwpxml wpxml
NB. pt=. posts {~ (2 {"1 posts) i. <'3303' NB. post id
NB. tpdup=. (tfwTitles 1{pt),(2 3 4{pt),<cdatatext;5{pt
NB. tex=. texFrhtml tpdup NB. title, pid, date, url, post text
NB.
NB. dyad: clTex =. (clPreamble;clDir) texFrhtml (clTitle;clDate;clPid;clUrl;clHtml)

(TEXPREAMBLE;TEXFRWPDIR) texFrhtml y
:
'texpreamble texdir'=. x

NB. title, id, date, url, html
'ptitle pid pdate url htm'=. y
if. 0=#htm do. '' return. end.

cm=. 1&e.@E.
sblk=. utf8 ,SOURCEBLOCKMARK [ lfrg=. utf8 ,LATEXFRAGMARK [ pblk=. utf8 ,SOURCEPREMARK
NB. NIMP test is not exhaustive
'markers must not be substrings' assert -. +./(sblk cm lfrg),(lfrg cm sblk),(sblk cm pblk),lfrg cm pblk

NB. leave commented warning about HTML tables
tabwarn=. ('</table>' 1&e.@E. htm)#'%% HTML table in source - edits required'

NB. hide Pandoc highlighted source code <pre ... </pre> blocks

```

```
'ixpre cspre'=. BESOURCEPREDELS cutnestidx htm
if. #ixpre do.
  'source pre marker in .html' assert -. 1 e. pblk E. htm
  htm=. ; (<pblk) ixpre} cspre
end.
```

NB. hide WordPress [sourcecode ...] blocks

```
'ixsrc cssrc'=. BESOURCEDELS cutnestidx htm
if. #ixsrc do.
  'source block marker in .html' assert -. 1 e. sblk E. htm
  htm=. ; (<sblk) ixsrc} cssrc
end.
```

NB. hide WordPress \$latex ... \$

```
'ixltx csmtx'=. cutlatexidx htm
if. #ixltx do.
  'latex fragment marker in .html' assert -. 1 e. lfrg E. htm
  htm=. ; (<lfrg) ixltx} csmtx
end.
```

NB. insert missing paragraph tags - will wreck <pre> blocks

```
htm=. htmlParagraphs htm
```

NB. restore hidden <pre> blocks - not LF delimited paragraphs

```
if. #ixpre do.
  'ixltxpre csmtxpre'=. pblk cutstridx htm
  '<pre> block source fragment count mismatch' assert (#ixltxpre) = #ixpre
```

```

    htm=. ;(ixpre{cspre) ixltxpre} cs'ltxpre
end.

```

NB. convert html to latex

```

htmfile=. (t\slash jpathsep texdir),TFWTEMPHTML
(utf8 htm) write htmfile
tex=. pandoc htmfile
cleartemps htmfile

```

NB. download any new referenced graphics

```

gdm=. getNewgraphics tex

```

NB. insert any latex \$latex ... \$ math fragments

```

if. #ixltx do.
    'ixltxrp cs'ltxrp'=. lfrg cutstridx tex
    'latex math fragment count mismatch' assert (#ixltx) = #ixltxrp
    ltx=. ixltx{cs'ltx
    NB. reset special HTML characters in LaTeX
    ltx=. HTMLREPS&changestr&.> ltx
    NB. drop leading $latex and replace with $
    ltx=. '$' ,&.> (#'$latex ') }.&.> ltx
    tex=. ;ltx ixltxrp} cs'ltxrp
end.

```

NB. insert \lstlisting versions of source code blocks

```

if. #ixsrc do.
    'ixsrcrp cssrcrp'=. sblk cutstridx tex

```

```

'source code block count mismatch' assert (#ixsrc) = #ixsrcrp
pidlbls=. (<pid,'X') ,&.> " :&.> <"0 i.#ixsrc
src=. pidlbls lstFrsrcb&.> ixsrc{cssrc
tex=. ;src ixsrcrp} cssrcrp
end.

NB. reduce \includegraphics urls to downloaded image file names
'ixgx csgx'=. cutincludegraphicsidx tex
if. #ixgx do.
  gtxt=. '?'&beforestr&.> ('&beforestr)@('/&afterlaststr)&.> ixgx{csgx
  if. 1 e. gmsk=. 0 < #&.> gtxt do.
    gfiles=. gmsk#gtxt
    gtxt=. (<'\\includegraphics{'') ,&.> gfiles ,&.> '}'
    ixgx=. gmsk#ixgx
    pidlbls=. (<pid,'X') ,&.> " :&.> <"0 i.#ixgx
    fig=. ((<'|~~~IMGRAPHICFILE~~~|') ,&.> gfiles) changestr&.> <TEXWRAPFIGURE
    fig=. ((<'|~~~IMLABEL~~~|') ,&.> pidlbls) changestr&.> fig
    tex=. ;gtxt ixgx} csgx
    NB. append commented out figure templates manual edits
    NB. will be required to tune the placement and size of graphics
    tex=. tex , ;LF ,&.> fig
  end.
end.

NB. comment out any residual text pandoc did not convert
'ixnp csnp'=. ('{[]}' ; '{}') cutnestidx tex
if. #ixnp do.

```



```

nptx=. (LF,' ',CR,' ')&charsub&.> ixnp{csnp
tex=. ;((<LF,'%') ,&.> nptx ,&.> LF) ixnp} csnp
end.

```

NB. prefix post title

```

tex=. (postTitleDate ptitle;pdate;url),tex
tex=. tex,LF,tabwarn

```

```

'%\input{' ,texpreamble,'}',(2#LF),tex,(2#LF),'%\end{document}'
)

```

```

tfwTitles=: 3 : 0

```

*NB.*tfwTitles v-- LaTeX titles from WordPress XML titles.*

NB.

NB. WordPress XML title text may contain numerous HTML special

NB. characters (see HTMLREPS) pandoc converts such characters to

NB. LaTeX equivalents.

NB.

NB. monad: blclTeXTitles =. tfwTitles blclHtmlTitles

NB.

NB. wpxml=. read 'c:/pd/blog/wordpress/analyzethedatanotthedriviel.wordpress.xml'

NB. posts=. ptableFrwpxml wpxml

NB. tfwTitles 1 {"1 posts

NB.

NB. dyad: blclTeXTitles =. clDirectory tfwTitles blclHtmlTitles

```

TEXFRWPDIR tfwTitles y

```

```

:
texdir=. x
btitle=. utf8 BEGINTITLE
'title marker occurs in title text' assert -. 1 e. btitle E. ;y
tempfile=. texdir,TFWTEMPHTML
(utf8 toHOST ;(<btitle,' ') ,&.> y ,&.> <2#LF) write tempfile
tex=. pandoc tempfile
cleartemps tempfile
tex=. (LF,' ') charsub tex -. CR
allwhitetrims&.> (#btitle) }.&.> (btitle E. tex) <;.1 tex
)

```

```
timestamp=: 3 : 0
```

```

NB.*timestamp v-- formats timestamp as dd mmm yyyy hr:mn:sc
NB.

```

```
NB. monad: cl =. timestamp zu / nlTime
```

```
NB.
```

```
NB. timestamp '' NB. empty now
```

```
NB. timestamp 2007 9 16 NB. fills missing
```

```
NB. timestamp 1953 7 2 12 33
```

```
if. 0 = #y do. w=. 6!:0'' else. w=. y end.
```

```
r=. }: $ w
```

```
t=. 2 1 0 3 4 5 {"1 [ _6 [\ , 6 {"1 <. w
```

```
d=. '+++::' 2 6 11 14 17 }"1 [ 2 4 5 3 3 3 ": t
```

```
mth=. _3[\ ' JanFebMarAprMayJunJulAugSepOctNovDec'
```

```
d=. ,((1 {"1 t) { mth) 3 4 5 }"1 d
```

```
d=. '0' (I. d=' ') } d
d=. ' ' (I. d='+') } d
(r,20) $ d
)
```

NB. appends trailing line feed character if necessary

```
tlf=: ] , ((10{a.)"_ = {:) }. (10{a.)"_
```

NB. append trailing / character if necessary

```
tlslash=: ] , ('/'"_ = {:) }. '/'"_
```

NB. converts character strings to CRLF delimiter

```
toCRLF=: 2&}.@.;@:((13{a.)&,&.>@<;.1@((10{a.)&,)@toJ)
```

NB. converts character strings to host delimiter

```
toHOST=: toCRLF
```

NB. converts character strings to J delimiter LF

```
toJ=: ((10{a.) I.@(e.&(13{a.))@]} ] )@:(#~ -.@((13 10{a.)&E.@,))
```

```
tolower=: 3 : 0
```

*NB.*tolower v-- convert to lower case.*

NB.

NB. monad: cl =. tolower cl

```
x=. I. 26 > n=. ((65+i.26){a.) i. t=. ,y
($y) $ ((x{n) { (97+i.26){a.) x}t
)
```

```
uedposts=: 3 : 0
```

```
NB.*uedposts v-- lists unedited post files.
```

```
NB.
```

```
NB. monad: uedposts uuIgnore
```

```
NB.
```

```
NB. uedposts 0 NB. unedited files
```

```
NB. (postfiles -. uedposts) 0 NB. edited files
```

```
NB. depends on layout of root file: bm.tex
```

```
txt=. '%</blogposts>'&beforestr '%<blogposts>'&afterstr read TEXFRWPDIR,TEXROOTFILE
```

```
txt=. allwhitetrim&.> a: -.~ <;._2 tlf txt -. CR
```

```
txt=. ('&beforestr)@('input{'&afterstr)&.> ('%' = {.&> txt)#txt
```

```
(<TEXFRWPDIR) ,&.> txt
```

```
)
```

```
NB. character list to UTF-8
```

```
utf8=: 8&u:
```

```
NB. to windows \ character in paths
```

```
winpathsep=: '\&(( '/' I.@:= ]))
```

```
NB. writes a list of bytes to file
```

```
write=: 1!:2 ]`<@.(32&>@.(3!:0))
```

```
NB.POST_TeXfrWpxml TeXfrWpxml post processor
```

```

smoutput IFACE=: (0 : 0)
NB. (TeXfrWpxml) interface word(s): 20220113j110837
NB. -----
NB. BlogHashes          NB. update blog hashes
NB. FixBaddown          NB. attempt to convert *.baddown files to *.markddown
NB. LatexFrWordpress    NB. experimental conversion of Wordpress XML to LaTeX
NB. MainMarkdown        NB. assembles all *.markdown files in a master file
NB. MarkdownFrLatex     NB. converts edited LaTeX post files to image free markdown
)

SetTeXfrWpxmlPaths 0

cocurrent 'base'
coinsert 'TeXfrWpxml'

```

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