

Euroforth 2022



Resource Embedding



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```
; EMBEDCOMP ( xt--- ) \ Compiler for children of EMBED
>BODY @ POSTPONE LITERAL
;

: EMBED { pzpath | pfile plen ppos -- } \ Embed a file within the Forth directory
pzpath R/O OPEN-ZFILE SWAP -> pfile 0= IF \ File opened OK
  pfile FILE-SIZE -ROT D>S -> plen 0= plen 0<> AND IF \ File size ok and is non-zero
  plen CELL+ IRESERVE -> ppos \ Get address of reserved space
  plen ppos ! \ Save length
  ppos CELL+ plen pfile READ-FILE 0= SWAP plen = AND 0= IF \ Read in OK
  CR Z" Cannot read file " pzpath Z+ Z" to embed" Z+ Z$. ABORT
  THEN
ELSE \ No file size
  CR Z" Failed to embed empty file " pzpath Z+ Z+ Z$. ABORT
THEN
pfile CLOSE-FILE DROP \ Close file
ELSE \ Cannot open file
  CR Z" Cannot open file " pzpath Z+ Z" to embed" Z+ Z$. ABORT
THEN
CR Z" Embedding " pzpath z+ z$.
pzpath ZCOUNT ($CREATE) \ Create Forth word from file path
  ppos , ['] EMBEDCOMP set-compiler \ Returns the address of file length
interp>
  @
;
```

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```
4 1 callproc: EMBEDDIRFUN { ppath pstat ptype pbuf -- n } \ Callback function from walk dir tree
  ptype 0= IF \ Only files
    ppath ZCOUNT 1- + C@ [CHAR] ~ <> IF \ No Glade backup files
      ppath EMBED \ Embed file
    THEN
  THEN
  FALSE \ Continue
;

: EMBEDDIR { pzdir | pdir -- } \ Embed all files in directory
  pzdir EMBEDDIRFUN 0 0 nftw IF \ Walk directory
    CR Z" Failed to embed files from directory " pzdir Z+ Z+ Z$. ABORT
  THEN
;

SVGICONS DIR EMBEDDIR \ Embed SVG icon files
```

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```
: DEBEDICON { picon | pbed pdest pfile -- } \ Copy embedded svg icon to the tracknet temp directory
SVGICONS DIR picon Z+ ZCOUNT SEARCH-CONTEXT IF \ Embedded file found
EXECUTE -> pbed \ Set embedded address
TEMPDIR picon Z+ -> pdest \ Construct destination path
pdest ZCOUNT DELETE-FILE DROP \ Delete any previous file
pdest R/W CREATE-ZFILE SWAP -> pfile 0= IF \ Temporary file opened OK
pbed CELL+ pbed @ pfile WRITE-FILE DROP \ Write image to temporary file
pfile CLOSE-FILE DROP
ELSE \ Failed to create file
Z" Failed to create debedded file " picon Z+ FATAL
THEN
ELSE \ Failed to find embedded file
Z" Failed to find file " picon Z+ Z" to debed" Z+ FATAL
THEN
;

...
Z" caret-right-solid.svg" DEBEDICON
...
```

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```
: LOAD-SCALED-PIXBUF? { zpath | paddr pfile -- ppb } \ Get scaled pixbuf from embedded, false if fail
zpath ZCOUNT SEARCH-CONTEXT IF \ Embedded file found
EXECUTE -> paddr \ Get address of count
PIXBUF-TEMPFILE ZCOUNT DELETE-FILE DROP \ Delete any previous file
PIXBUF-TEMPFILE R/W CREATE-ZFILE SWAP -> pfile 0= IF \ Temporary file opened OK
paddr CELL+ paddr @ pfile WRITE-FILE DROP \ Write image to temporary file
pfile CLOSE-FILE DROP
PIXBUF-TEMPFILE 16 REMSCALE DUP \ Scale
TRUE NULL gdk_pixbuf_new_from_file_at_scale
ELSE
FALSE
THEN
ELSE
FALSE
THEN
;
```