Elftran

elftran - ELF file preprocessor. It is used to transform the ELF representation of an executable into an E32Image format file, the format required to run on Symbian OS. Used only for ARMV5 (ABIv1) target.

Syntax

```
elftran [options] inputfile outputfile
elftran [options] e32imagefile
```

Options

```
[-v] [[-no]call[entrypoint]] [-priority <priority>]
[-stack <size>] [-heap <min> <max>] [-uid<n> <uid>]
[-allowdlldata] [-datalinkaddress <base>] [-fixed] [-moving]
[-align-const-section] [-const-section-address-mask <mask>]
[-[no]compress] [-capability "<list>"] [-version M.m] [-vid <id>]
[-fpu <softvfp|vfpv2>]
[-dump [h][s][c][d][e][i]]
flags for dump: h Header
                s Security info
                c Code section
                d Data section
                e Export info
                i Import table
```

Sample output

```
R:\Epoc32\release\GCCE\UREL>elftran -dump h HelloWorldBasic.exe

ELFTRAN - ELF file preprocessor V02.01 (Build 549)
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E32ImageFile 'HelloWorldBasic.exe'
V2.00(505)      Time Stamp: 00e109e2,38142200
EPOC Exe for ARMV5 CPU
Flags:  1200002a
Priority Foreground
Entry points are not called
Image header is format 2
Image is compressed using the DEFLATE algorithm
Uncompressed size 0000fa48
Image FPU support : Soft VFP
Secure ID: a000017f
Vendor ID: 00000000
Capabilities: 00000000 00000000
Exception Descriptor Offset:  00004c19
Exception Index Table Base: 00016bcc
Exception Index Table Limit: 000170dc
RO Segment Base: 00008001
RO Segment Limit: 0000d074
Export Description: Size=000, Type=01
```


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```
Export description consistent
Module Version: 10.0
Imports are ELF-style
ARM EABI
Built against EKA2
Uids:           1000007a 100039ce a000017f (1e7cca07)
Header CRC:     53f755b7
File Size:      0000fa48
Code Size:      0000f0dc
Data Size:      00000000
Compression:    101f7afc
Min Heap Size:  00001000
Max Heap Size:  00100000
Stack Size:     00005000
Code link addr: 00008000
Data link addr: 00400000
Code reloc offset:      0000f850
Data reloc offset:      00000000
Dll ref table count: 14
        Offset Size Relocs #Relocs
Code 00009c 00f0dc 00f850 0000ca        +004bbc (entry pnt)
Data 000000 000000
Bss 000000
Import 00f178
```

Use cases

Dump the platform security attributes of a given binary

```
R:\Epoc32\release\GCCE\UREL>elftran -dump s HelloWorldBasic.exe
```

Change the current platform security attributes of a given binary

```
R:\Epoc32\release\GCCE\UREL>elftran -capability "NetworkServices ReadDeviceData
WriteDeviceData" HelloWorldBasic.exe
```


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