

Forth Library Action Group

FLAG

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Stephen Pelc
MicroProcessor Engineering Ltd.
133 Hill Lane
Southampton SO15 5AF
UK

+44 (0)23 8063 1441
stephen@mpeforth.com

Introduction

It's time to organise portability and provision of Forth library code. It isn't rocket science, it just needs doing. There are three requirements:

- 1) Manifesto – Forth Library Action Manifesto (FLAME)
- 2) Storage and web site - Forth Library Action Network (FLAN)
- 3) Steering committee - Forth Library Action Steering Committee (FLASK)

FLAME

It's a statement of the bloody obvious – it should be easier to port significant libraries from one Forth system to another. The ANS and Forth200x processes do a good job for the language itself, and application portability for embedded systems has greatly improved. However, for hosted Forths there is no standard for interfacing to shared libraries, either for calling a library or for providing a callback procedure.

Because there is no standard for external interfaces, all porting of Forth library code that uses the operating system interface and or shared libraries is painful. This pain is of benefit to nobody, and is costly. Reinventing the wheel should be considered a sin.

The simplest solution to this problem is for system implementers to provide a standard interface. Since all current operating systems provide API documentation in the form of C prototypes, the simplest solution for users is to paste these into a Forth system. This is the approach used by MPE's VFX Forth. It can be extended to cope with callbacks.

FLAN

Storage is dirt cheap. At present MPE can donate up to 250Gb (100Gb RAID, 150Gb non-RAID) with an 800kbps uplink. We also have space on a high bandwidth “server in the sky”. There are many other solutions, but low maintenance cost for management is a high priority.

The key to a library is to make it easy to access for users to download libraries. Similarly, it should be easy for library maintainers to upload data. What I propose for a first stage is simply that each library be given its own space in a directory. Read access is public, write access is up to a library

“champion”, a named person who is responsible for that library.

Since there are many existing libraries, I have no desire to mandate their development process.

There are plenty of free collaborative development models such as Sourceforge, and we don't want to reinvent any wheels. Therefore, what is on FLAN should be stable releases.

FLAN should make no statement or assumption about the copyright status of the library. Libraries accepted by FLASK for inclusion should be free to use any copyright mechanism they wish, provided that they indemnify FLAG against any legal action – we can't afford it.

FLASK

We can look at the people involved as being mainly consumers or producers of library code. FLASK must contain both groups. In the short term, the group consists of Forth system implementers and library producers. My initial hit list, in no particular order, consists of:

Consumers

Marcel Hendrix, iForth

mhx@iae.nl

Leon Wagner, Forth Inc

leon@forth.com

Stephen Pelc, MPE

stephen@mpeforth.com

Anton Ertl, gforth

anton@mips.complang.tuwien.ac.at

Alex Macdonald, Win32Forth

alex@rivadpm.com

Producers

Charles Montgomery, FSL

cgm@physics.utoledo.edu

Doug Hoffman, OOP

dhoffman@talkamerica.net

Bernd Paysan, Minos/Theseus

bernd.paysan@gmx.de

Tom Dixon, FCOM

phenomenaltom@yahoo.com

Gerry Jackson, Test suites

gerry@jackson9000.fsnet.co.uk

Dick van Oudheusden, FFL

dvoudheusden@gmail.com

Actions

The success of FLAG has nothing to do with technology, it's all about people and perception.

In order to avoid the perception that this is all a plan by the commercial vendors to get rich on the back of Open Source, all implementers should be required to donate a library to FLAG.

In order to kickstart the process MPE offers the EXTERN: interface from VFX and the DocGen system. We will keep these under MPE copyright (for now) in order to retain control of the interface specifications, but use will be unrestricted, and we request that all changes are fed back to the library champion, Stephen Pelc.

I'm sure that Leon and Marcel and the other implementers have useful tools to contribute. Obvious tools are OpenGL interfaces (Marcel, Bernd?) and SWOOP (already published in FD, and Elizabeth was happy if MPE reimplemented it).