

CocoaCast Express

How to embed scripting into your Cocoa application using F-Script





F-Script

F-Script is a lightweight scripting layer designed for OS X

- Provides access to Cocoa frameworks and custom Obj-C objects
- Can be easily embedded in Cocoa applications
- Based on Smalltalk
- Free and open-source
- Written by Philippe Mouglin

FScript Interpreter Class

Each instance of this class represents a complete F-Script interpreter (workspace included). An application may instantiate any number of interpreters.

Main Features:

- Executes the F-Script code contained in a NSString.
- Searches for the object associated with a certain identifier in the workspace.
- Assigns an object to an identifier in the workspace.
- Lets you know the identifiers defined in the workspace.



FSInterpreterResult Class

Represents the result of an execution of F-Script code by an FSInterpreter.

Main Features:

- Lets you know the execution status of the F-Script code, i.e. syntax error, execution error or success.
- In the event of an error, lets you retrieve information on this error: human readable description, location in the code, block call-stacks.
- If successful, lets you get the result of the execution.



How to use the F-Script Interpreter

It's easy to create and interact with an interpreter:

```
/* An FSInterpreter instance represents an F-Script interpreter associated with a workspace */
FSInterpreter *myInterpreter = [[FSInterpreter alloc] init];

/* To execute F-Script code, pass a character string containing the code to the execute: method */
FSInterpreterResult *result = [myInterpreter execute:@"sys log:'hello world'"];
```



How to use the F-Script Interpreter (cont'd)

Variables can be added and retrieved from the interpreter:

```
/* An interpreter enables you to add variables */  
[myInterpreter setObject:[NSDate date] forIdentifier:@"myDate"];  
  
/* An interpreter enables you to consult the value of a variable in the workspace */  
BOOL found;  
id result = [myInterpreter objectForKey:@"myDate" found:&found];  
  
/* It is also possible to retrieve the list of names of variables defined in the  
workspace */  
NSArray *identifiers = [myInterpreter identifiers];
```



F-Script Framework

- It is recommended to include the F-Script framework to your Xcode project and link against it
- A copy file phase will have to be added to the project target in order to copy the framework to the application bundle





Demo

Build a simple Cocoa application supporting the F-Script scripting framework

Resources

- F-Script: <http://www.fscript.org>
- F-Script Documentations:
<http://www.fscript.org/documentation/Index.htm>



Next Time

How to build your own file system with MacFuse.



The **Best Code** is the Code... that You
do not have to Write

