

I CAN HAS F#\$@ IN MONODEVELOP?

Tomáš Petříček, http://tomasp.net

What is F#?

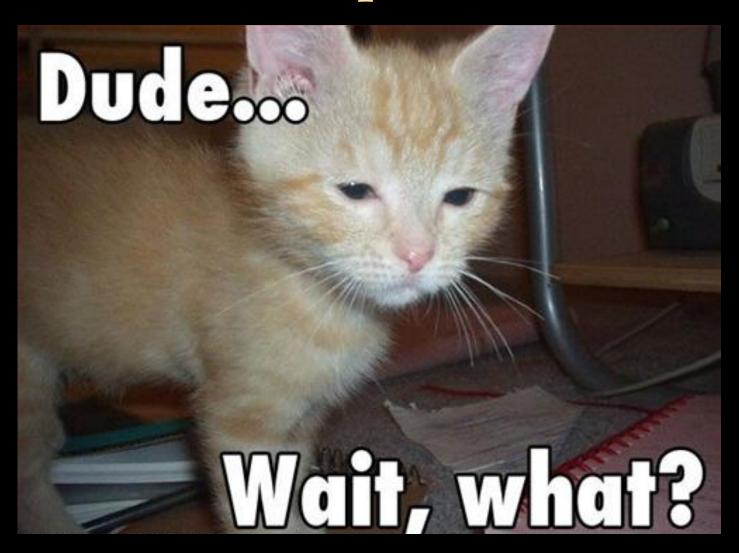
Functional Language for CLI

Functional Core

CLI Object Model

Interactive Scripting

F# and Open Source



F# and Open Source

- » Shipped with source code (since early version)
 Somewhat limiting non-standard license
- » F# binding for MonoDevelop (October 2010)
 Open Source community project
- » Open source code drop (November 2010) Apache 2 license, Builds on Win/Linux/Mac No community contributions
- » Included in Mono 2.10 RC2 (January 2011)

EXAMPLEIntroducing Functional Style

Composing mathematical expressions and 3D objects

Functional Programming

» Functional programming is like math...

Roots of quadratic equation:
$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

» Refactoring in math always works!

Let discriminant
$$\mathbf{D}$$
 be: $b^2 - 4ac$
Roots of quadratic equation: $\frac{-b \pm \sqrt{D}}{2a}$

Functional Programming



EXAMPLEF# for Scripting and Exploring

Using Gtk# libraries interactively Finding the most verbose .NET type

Exploring .NET libraries with F#



EXAMPLE Server-side programming in F#

Asynchronous chat server written in "Node.js" style

Server-side programming in F#



Contribute to the F# plugin!



Contribute to the F# plugin!

» Editor features

Go to definition and navigation bar Improve colorization and collapse type definitions

» Other work items

Reordering project files in MonoDevelop Support Gtk# designer Debugging of F# code in MonoDevelop F# resolver provider

» For more items, visit the wiki

http://github.com/fsharp/fsharpbinding

» Would love to see it in standard distribution!



Academic & cross platform homepage and source code http://functional-variations.net | http://github.com/fsharp

Contact and links (Contributors welcome!)

tomas@tomasp.net http://tomasp.net

http://twitter.com/tomaspetricek