

Linguagens Dinâmicas na Plataforma .NET

IronPython e IronRuby

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Linguagens dinâmicas

O próximo passo...

Linguagens dinâmicas?

- Não há uma definição universal...
- Interpretada
- Tipagem dinâmica
- Duck typing



Linguagens estáticas

- C/C++
- Java
- C#

Linguagens dinâmicas

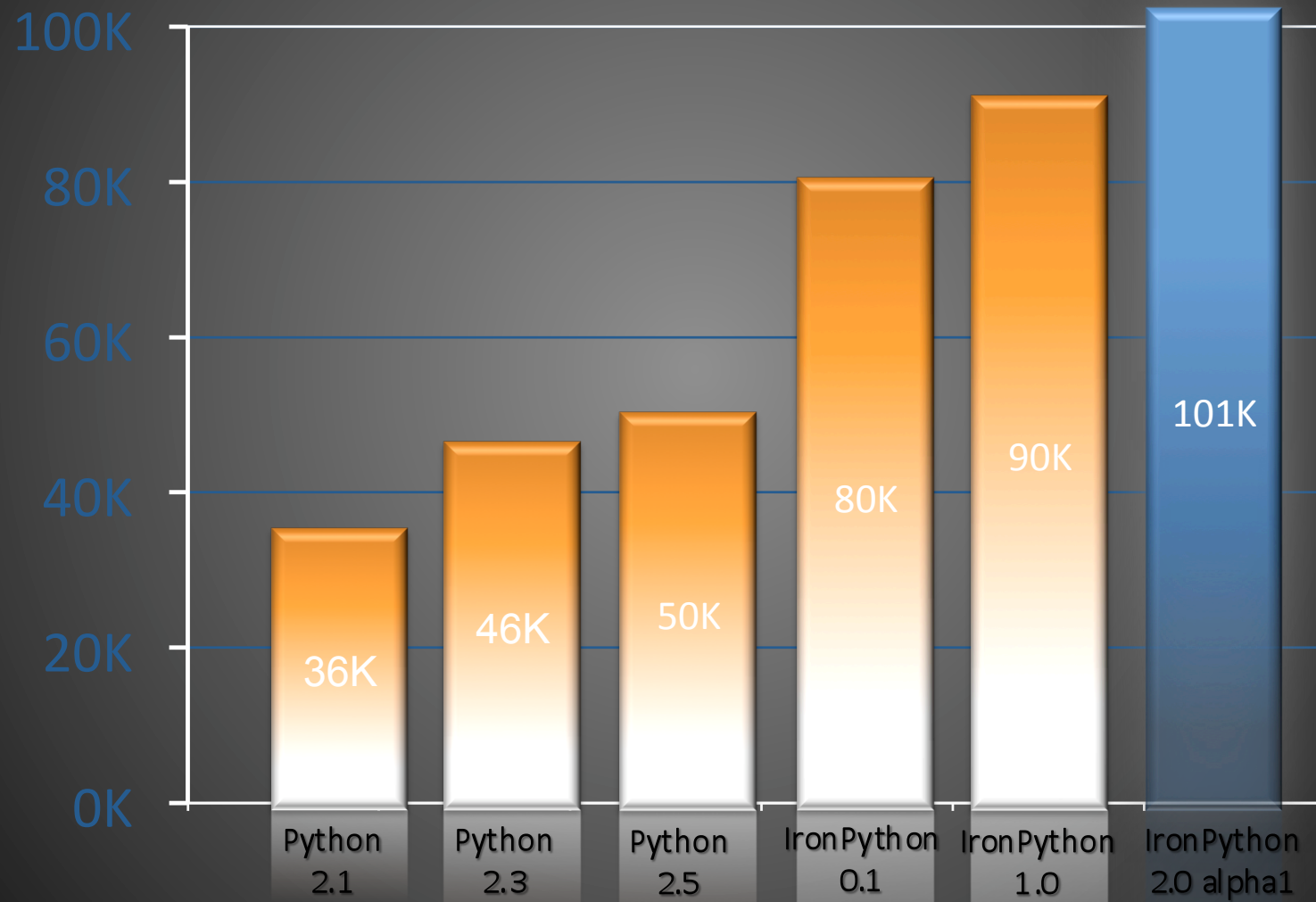
- Javascript
- Python
- Ruby

Um bocadinho de história

- CLR
- Python.NET
- Jim Hugunin – Jython

“How Microsoft screwed up
.NET for dynamic languages”

Pystone Benchmark



Now what?

- IronPython
- IronRuby
- Visual Basic
- JavaScript (EcmaScript 3.0)

E qualquer um o pode fazer!

- IronLisp
- IronScheme
- Smalltalk
- Nua
- Logo
- Boo
- Kobra
- Coldfusion
- PHP (Phalanger)
- Toyscript
- LOLCODE

Dynamic
Languages

3rd Party
langs

VBx

JScript

IronPython

IronRuby

DLR

Frameworks

CLR

Tools

VS Integration

Windows Forms

WPF

Robotics, XNA

Applications

VS IronPython integration

- Visual Studio 2005 e 2008
- Visual Studio SDK
- Syntax Highlighting
- Autocompletion
- Gestor de Projecto
- Debugger
- Winforms and WPF(2008) designers



VS IronRuby integration

- Ruby in Steel (pago)
 - For Ruby and Ruby on Rails
- Ruby in Steel for IronRuby (grátis)
 - Syntax highlighting
 - Gestor de Projecto
 - Consola ruby integrada
 - Winforms designer

XNA

- XNA Studio
 - C# (pelo menos não é C++!)
- XNA + IronPython
 - Possível
 - Não recomendado
 - Não corre em .NET Compact (Xbox 360 e WinMobile)

Use cases

Prototyping

Metodologias Ágeis

Acoplamento de Módulos



Automated Testing



DSLs



Administrative tasks



Design de Interfaces

Webdevelopment

IronPython/IronRuby + ASP.NET MVC

Webdesign

Silverlight

Scripting language para PowerUsers

Real World Usage



Second Life

Resolver

Untitled spreadsheet* - Resolver

File Edit View Format Data Worksheet Help



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
3	Interest rate	2.5													
4															
5	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
6	Expenditure														
7	Salaries	10,000	10,000	12,000	12,000	20,000	20,000	20,000	50,000	50,000	50,000	60,000	60,000		
8	Software	500	500	500	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
9	Hardware	10,000	1,000	5,000	0	10,000	10,000	20,000	20,000	20,000	100,000	1,000	12,000		
10	Marketing	0	0	100,000	100,000	250,000	250,000	250,000	500,000	500,000	500,000	1,000,000	1,000,000		
11	Total exp	20,500	11,500	117,500	112,500	281,000	281,000	291,000	571,000	571,000	651,000	1,062,000	1,073,000		
12															
13	Income														
14	Sales	0	0	100	200	300	400	500	600	700	10,000	5,000,000	320,000,00		
15	Interest	0	0	73,688	0	0	94,189	0	0	84,581	0	0	178,769		
16	New investment	1,500,000	0	0	0	0	0	0	2,000,000	0	0	0	0		
17	Total inc	1,500,000	0	73,788	200	300	94,589	500	2,000,600	85,281	10,000	5,000,000	320,178,76		
18															
19	Net income	1,479,500	-11,500	-43,713	-112,300	-280,700	-186,411	-290,500	1,429,600	-485,719	-641,000	3,938,000	319,105,76		
20															
21	Cash balance	1,479,500	1,468,000	1,424,288	1,311,988	1,031,288	844,877	554,377	1,983,977	1,498,257	857,257	4,795,257	323,901,02		
22															
23															

Sheet1 Sheet2 Sheet3

Post-formulae user code

```
for col in workbook["Sheet1"].Cols:
    if col["Cash balance"].Value < 50000:
        print "Warning! Balance in month %s is getting dangerously low!" % (col["Month"].Value)
        col.BackColor = Color.FromArgb(255 - max(0, col["Cash balance"].Value / 50000), 255, 0, 0)
```

Calculating interest on monthly balances [1424287.5, 1311987.5, 1031287.5] at a rate of 2.5
 Calculating interest on monthly balances [844876.5625, 554376.5625, 1983976.5625] at a rate of 2.5
 Calculating interest on monthly balances [1498257.30469, 857257.304688, 4795257.30469] at a rate of 2.5

----- Recalculation Complete: 13:37:56 (1000ms) -----

Clear

MySpace

~2500 servers

Resumindo

- Desenvolvimento rápido
- Programação de alto nível

Mais informação

- <http://codeplex.com/ironpython>
- <http://www.ironruby.net>

- <http://alcidesfonseca.com>
- me@alcidesfonseca.com

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