



# **Introducing L Sharp, a Modern Lisp Dialect for the .NET Platform**

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# Outline

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# Background

- My day job is writing C Sharp / .NET (Web) applications
- It's hard to use LISP for real world projects (and getting harder)
- The need for LISP is actually getting greater (Domain Specific Languages, Macro based Code Generation, Smarter Applications, Faster to market).
- I want the productivity of LISP combined with a powerful, modern class library
- I want a LISP that can easily interoperate with other languages like C Sharp and VB.NET
- I want to be able to deliver LISP components without anybody knowing or caring about language choice
- I want "Sharp Scissors" not "Rounded Scissors".

## L Sharp

- A LISP dialect written in C Sharp and harnessing the .NET platform.
- Syntax borrowed from Paul Graham's ARC and from C Sharp
- Access to the .NET framework and other .NET code using reflective invocation
- Uses the .NET Garbage Collector
- Uses the Common Type System
- Free Software – GNU LGPL

[www.lsharp.org](http://www.lsharp.org)



# Demonstrations

## Patrick Dussud's Challenge

- Patrick is Chief Architect for the Common Language Runtime at Microsoft
- Talk at International Lisp Conference 2005 – Designing Lisp for Ubiquity
  - Lisp is being squeezed by Python, Ruby, JavaScript etc
  - Made the case for a “Native Lisp”
  - “If a decent Lisp does not appear, the void will be filled up sooner or later by other languages/libraries”

## Next Steps

- Refinement of the language through experience and experimentation
- Microsoft Object Orientation or CLOS?
- Compilation rather than interpretation (new code-gen features in .NET 2.0)
- Visual Studio .NET Integration?
- Try to target the mainstream
- L Sharp needs a Killer App
- Help and feedback needed please!
  - To try it out, to build applications
  - To contribute ideas and features
  - To advise on Lisp implementation
  - To evangelise

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**Questions ..**



## Related Projects

- Common Larceny
- RDNZL
- LLAVA
- CLforJava
- F#

Welcome to L Sharp .NET, a powerful lisp-based scripting language for .NET.  
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For more information, see [www.lsharp.org](http://www.lsharp.org)

Build 1.11.1962.14292 on Microsoft Windows NT 5.1.2600.0

```
> (+ 1 2 3 4)
10
> (car '(a b c d ))
a
> (writeline console "Hello world")
Hello world
null
> (reference "system.windows.forms")
System.Windows.Forms, Version=1.0.5000.0, Culture=neutral,
PublicKeyToken=b77a5c561934e089
> (using "system.windows.forms")
"system.windows.forms"
> (show messagebox "Hello world")
OK
>
```

;;; Lists all the items from an RSS Feed

(reference "System.Xml")

(= news (new System.Xml.XmlDocument))

(call load news "http://www.theregister.co.uk/headlines.rss")

(foreach node (selectnodes news "/rss/channel/item/title")

(prl (innertext node)))