

What is the most impressive Lisp application? [closed]

Asked 15 years, 10 months ago Modified 7 years, 3 months ago

Viewed 27k times



49



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Closed 12 years ago.

I know that this is subjective and all, but still, can you provide some list of serious applications that were written in Lisp (perhaps along with what Lisp it is)?

`lisp`

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edited Sep 8, 2017 at 12:45



nbro

16k ● 34 ● 119 ● 212

asked Feb 12, 2009 at 21:57



Bartosz Radaczyński

18.6k ● 14 ● 56 ● 61

21 Answers

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Emacs.

48

At least parts of it are written in Emacs Lisp.



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16k ● 34 ● 119 ● 212



answered Feb 12, 2009 at 22:02



Peter

7,294 ● 2 ● 36 ● 46

2 Well, not just parts, but the whole emacs. The only C things are the parts of the elisp runtime itself. – [Marko](#) Feb 13, 2009 at 11:09

7 From one point of view, emacs is simply a Lisp interpreter optimized for text processing, and including a lot of sample Lisp code. – [David Thornley](#) Oct 13, 2009 at 20:41

1 Greatest software ever created. And ELisp is a great language, too. I expected much less before I tried it. Of course, it has its caveats and misses some features that now are considered a must for a Lisp, but anyway.
– [Luka Ramishvili](#) May 9, 2012 at 15:02



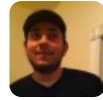
[ITA Software's](#) airline-fare search service. See [here](#) to understand why this is impressive.

47

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answered Feb 12, 2009 at 22:10

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rz.

20k ● 10 ● 56 ● 47



From skimming the first ~10 pages or so, that presentation is amazingly informative. Whoa. Thanks! – [unwind](#) Feb 13, 2009 at 8:23

Ditto. Fascinating read. Airfares are wicked. – [Toybuilder](#) Feb 13, 2009 at 8:53

6 Here's a technical writeup of that system:
paulgraham.com/carl.html – [Toybuilder](#) Feb 13, 2009 at 9:03

3 @rz: as much as I admire Lisp ITA's software is not just Lisp. It's Lisp + Java + C++... (and because of performances issues they've been **forced** to port some Lisp code to C++ ;) – [SyntaxT3rr0r](#) Aug 27, 2011 at 22:28 ✎

LISP it[self!](#) :)

31

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edited Feb 13, 2009 at 9:41

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fuentesjr

52.2k ● 27 ● 80 ● 81



20



DART. A logistics app written in Common Lisp for the first gulf war, to free Kuwait from Saddam Hussein. One could say that the war started when this app was ready. The developers worked under intense time pressure to make it possible.

This single application is said to have paid back for all (!) US government investment in AI research.

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edited Feb 14, 2009 at 1:57

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answered Feb 14, 2009 at 0:50



foo

331 ● 1 ● 3

useful Wikipedia article:

[en.wikipedia.org/wiki/Dynamic_Analysis_and_Replanning_To
ol](https://en.wikipedia.org/wiki/Dynamic_Analysis_and_Replanning_To_go) (can't get this mini-Markdown thing to work)

– Brad Ackerman May 29, 2011 at 17:16



I'm particularly fond of [Maxima](#). Another nice project I've discovered relatively recently is [Nyquist](#).

18

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answered Feb 12, 2009 at 22:04

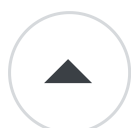


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Eduard - Gabriel
Munteanu

2,704 ● 15 ● 10



11



One of the most impressive Lisp applications is surely [Cyc](#). Cyc is a project started by Doug Lenat that tries to put common-sense knowledge into a knowledge-based system. Not just a bit, but really really lots of knowledge. Humans have learned a lot of widely different things and it was seen a limitation to artificial intelligence software to not know anything of that. What is the typical color of honey? Do we sit on a chair or under a chair? A cup of fresh coffee is hot. When it rains outside, it does not rain inside. Sea water contains salt, but water in a pond does not. Most birds can fly. Some birds can't fly. It is surprising how many of these facts, rules and concepts people know.



Cyc is under continuous development since 1984 and the knowledge base contains (numbers are from 2004) more than 2.5 million facts and rules. It also contains more than 150 thousand concepts (similar to classes in OOP). Cyc is developed in SubL (a dialect of Common Lisp).

Knowledge is entered in CycL (a declarative logic based language). Specially trained people are entering knowledge. Cyc checks that this new knowledge is not in conflict with existing knowledge. It can also derive new conclusions and one can query it. For its answers it can also generate explanations. Cyc has also many domain-specific heuristics implemented.

In the early days the project started developing on Lisp Machines, but today the software is portable and is also available to interested students and researches (OpenCyc and ResearchCyc).

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answered Feb 22, 2009 at 11:40

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[Rainer Joswig](#)

139k ● 11 ● 227 ● 354

-
- 1 I had high hopes on Cyc. I guess I was hoping that connecting an AI to an ontology of everything would bring about the Singularity. – [Carl Smotricz](#) Jan 12, 2010 at 21:06
-



9

Lisp Machines were used by NASA to check Space Shuttle starts. From a Symbolics press release from 1990:



"Recently the National Aeronautical and Space Administration (NASA) used Symbolics' high-definition technology to analyze HDTV video images of the Discovery launch in real-time. This high-definition system enabled NASA engineers to get an instant replay of critical launch systems. The engineers were able to



enhance and enlarge high-resolution images of the lift-off in order to analyze the condition of and spot potential problems with space shuttle tiles."

They used a bunch of Lisp Machines with special image processing boards.

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answered Feb 18, 2009 at 23:43

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foo

331 ● 1 ● 3



8

[Sawfish](#) was GNOME's default window manager long time ago. Now they default to Metacity, but you may still use Sawfish (also standalone) and it is still actively developed.



Sawfish is very feature-rich and customizable. Just what you would expect from a LISP window manager.

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answered Feb 12, 2009 at 22:09

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ypnos

52.2k ● 14 ● 102 ● 148

7 StumpWM is the Lisp WM of choice these days, however.
– [jrockway](#) Feb 14, 2009 at 0:54



5

What eventually became Yahoo! shopping was done with Lisp. [See the original author's description](#)

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answered Feb 13, 2009 at 8:31



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Toybuilder

11.5k ● 5 ● 30 ● 34



AutoCAD G2 Yahoo Store

4

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answered Feb 13, 2009 at 8:12

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user62617

1,806 ● 7 ● 19 ● 23



Obidos, The Original Amazon Web Server

4

This according to Steve Yegge.



- <http://steve.yegge.googlepages.com/tour-de-babel>



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answered Feb 13, 2009 at 8:21

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Mark Harrison

304k ● 131 ● 350 ● 489

- 4 He doesn't say Obidos was written in Lisp. He says brilliant, Emacs-using, C-and-Lisp-loving engineers wrote it. I can find no other references to Obidos and Lisp anywhere on the web, so I suspect it was written in C. – **Ken** Feb 14, 2009 at 0:24



Whitehouse Publication Server

4



During the Clinton administration a Lisp application was used to inform the US citizens about government news. The application was written in Common Lisp and ran on top of the CL-HTTP web server on two Symbolics Lisp Machines (later on the Open Genera virtual Lisp Machine). It also used the Statice object-oriented database. The application provided a taxonomy of government areas which could be queried with a web or an email interface for publications. For example citizens could find out what the vice president Al Gore said about environmental issues in a certain week. This application was shut down by George W. Bush when he came into office.

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answered Feb 18, 2009 at 23:30

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foo

331 ● 1 ● 3



Orbitz.com?

3

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answered Feb 12, 2009 at 22:13

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Crashworks

41.3k ● 14 ● 107 ● 171



3



Another application I really like is [PWGL](#).

PWGL is a visual programming language for computer aided composition and sound synthesis. It is a [LispWorks](#) application, which is available for Windows and Mac OS X (free download). It uses a lot of sophisticated graphics (done in OpenGL) for example in its advanced note editor. It can process and create sounds. It also can use Midi input and output. It comes with a really large amount of examples in its tutorial. If you have LispWorks, you can also load the binaries and write your own code using it.

The capabilities of the application are really amazing and if you are willing to learn its usage, it is hours of fun for the hobby composer and hobby sound designer.

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answered Feb 25, 2009 at 14:58



[Rainer Joswig](#)

139k ● 11 ● 227 ● 354



3



Probably, not the most impressive, but really worth mentioning, considering, that it's mostly a one-man effort: <http://piano.aero/>

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answered Apr 18, 2012 at 8:39



[Vsevolod Dyomkin](#)

9,441 ● 2 ● 34 ● 36



2

It's hard to say which Lisp software is exactly *most* impressive, but I would add [Symbolics Genera](#) and [related software](#) to the list of achievements worth mentioning. Also don't forget [SLIME](#).



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answered Feb 14, 2009 at 0:01



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fionbio

461 ● 3 ● 9



1

See this [question](#) for a list of many commercial uses of Lisp.



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edited May 23, 2017 at 12:00



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Community Bot

1 ● 1



answered Feb 13, 2009 at 6:26



Steve Rowe

19.4k ● 9 ● 53 ● 82



1

IRCAM's OpenMusic (computer-aided composition environment).



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answered Oct 13, 2009 at 20:39



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user189409





The matchmaking server for Zone: The Battleground is written in Common Lisp. [Their website.](#)

1

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answered Jan 2, 2012 at 15:40



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[Samuel Breese](#)

704 ● 10 ● 26



<http://www.thanandar.de/>

1

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edited Jan 30, 2012 at 19:30



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[Rainer Joswig](#)

139k ● 11 ● 227 ● 354



answered Feb 13, 2009 at 12:46



[Leslie P. Polzer](#)

3,028 ● 22 ● 19

dead since a *long* time – user95947 Mar 22, 2010 at 20:21

1 Updated URI: [thanandar.de](#) – [Leslie P. Polzer](#) Apr 5, 2010 at 7:40



LISP, or at least the LISP evaluator.

1

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edited Sep 8, 2017 at 12:49



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[nbro](#)

16k ● 34 ● 119 ● 212



answered Feb 12, 2009 at 22:14



MSN

54.5k ● 7 ● 78 ● 107
