Swish-e Lightning Talk

For YAPC::NA 2008

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Swish-e: Overview

- We'll cover basic usage and mention the Perl API
- We'll also mention current and future development
- (For the Future: Can you say Swish3?)



Swish-e: What It Is

- Makes flat-file indexes for performing full-text searches
- Searches are very fast
- Building indexes... Not so fast



Swish-e: Basic Usage

Assuming howto html files to index in ./html

- # howto-html.conf
- IndexDir ./htmls/
- IndexOnly .html
- IndexFile ./howto-html.index
- Then,
 - % swish-e -c howto-html.conf



Swish-e: A Pretty Picture of Building a Basic Index

A pretty picture!





Swish-e: Building Indexes With "External Programs"

Another Pretty Picture:





Swish-e: Searching from the Command Line

- 🗢 🗞 swish-e -f howto-html.index -m 3 -w nfs
- This returns (abridged and reformatted):

٢	1000	/HOWTO-htmls/NFS-HOWTO/performance.html
٢		"Optimizing NFS Performance" 33288
€	998	/HOWTO-htmls/NFS-HOWTO/intro.html
٢		"Introduction" 10966
٢	993	/HOWTO-htmls/NFS-HOWTO/security.html
٢		"Security and NFS" 35968



Swish-e: Query Language

- SWISH-E supports a full-featured text retrieval search language with syntax including AND, OR, NOT and parenthetic grouping that all work predictably.
- % swish-e -f howto-html.index -w nfs AND tcp
- 🗢 🗞 swish-e -f howto-html.index -w nfs OR tcp
- 🗢 🗞 swish-e -f howto-html.index \

-w '(gandalf AND frodo) OR (lord AND rings)'



Swish-e: Perl API

- Just like you'd expect.
- Open, Search, Iterate over results
- Note that you cannot create indexes through the API. You must use the Swish-e exe (and perhaps your own perl external program too)



Swish-e: Shortcomings

Yes, this means Swish-e doesn't handle these things now. But wait for the next slide:

No UTF8

- No index updates (you must rebuild the whole index)
- Not platform (nor even word-size) independent



Swish-e: The Future

- Peter Karman has taken up the gauntlet
- Swish-e? No, Swish3!
- UTF8! Multiple backends!
- I've been working on getting it into Fedora.
 Did get it into fink and debian! Also wrote Swishetest. See rpmbuild.joshr.com
- Still probably not platform independent indexes (wah)



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Swish-e: Thanks!

I've written two papers on this subject, one for USENIX and one in Linux Journal.

Both can be found at joshr.com/src/docs

• Thanks for attending!

