

Building Your First Fusebox 4 Application

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Step 1. Wireframe

- Sit with client and establish basic business process of the application
- Talking about how things work – not look
- Need to know enough info to understand the process
- Gives you initial info to do the front-end prototype

Wireframe

WireFrame Viewer/Editor 3.80 - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://127.0.0.1/wireframetool/index.cfm?wireframename=FlagPoll

Firefox Help Firefox Support Plug-in FAQ ColdFusion Documen... Pennington Volunteers Email All Families >>

WireFrame Viewer/Editor 3.80

"FlagPoll"

Map Edit History Generate Code Admin Help Credits

Quick Map of "FlagPoll"

Page	Exits and Destinations
Welcome I welcome the user and display the current poll question.	Agree --> Poll Results Disagree --> Poll Results Current Results --> Poll Results
Poll Results I display the results of a poll.	Home --> Welcome
Admin I let the administrator enter a new poll question, and display a list of all polls taken.	Add Question --> Question Update Notice Question Link --> Poll Results
Question Update Notice I display a message confirming the addition of a new question.	

Done

Beware

- Some clients might think, because wireframing is so fast, that you can finish the actual app just as quickly.
- Present wireframing as a sort of formalized brainstorming.

Tools to use

- Wireframe 3.8
 - Downloadable from GrokFusebox.com in the Grok's Goodies section.
- Many other wireframing tools exist; use whichever fits your style best.

When finished with this step

- After wireframe – Print out the Quick Map and put it in a project folder.
- Subsequent steps will be added to the project folder.

Step 2. Prototyping

- This is the visual representation of the application.
- Usually done in pure HTML; avoid thinking “programmer thoughts” at this phase.
- Good place to employ your designer.
- Don’t worry about directory structure or organization - that’s done during the architecture step.

DevNotes

- Custom tag placed in `OnRequestEnd.cfm`
 - Don't forget to create an empty `Application.cfm` so the `OnRequestEnd.cfm` will fire.
- Provides threaded discussion on pages
- Downloadable from GrokFusebox.com

DevNotes

DEVELOPER NOTES

New note

+ [EX](#) Janic: Can we have a flag logo on this?

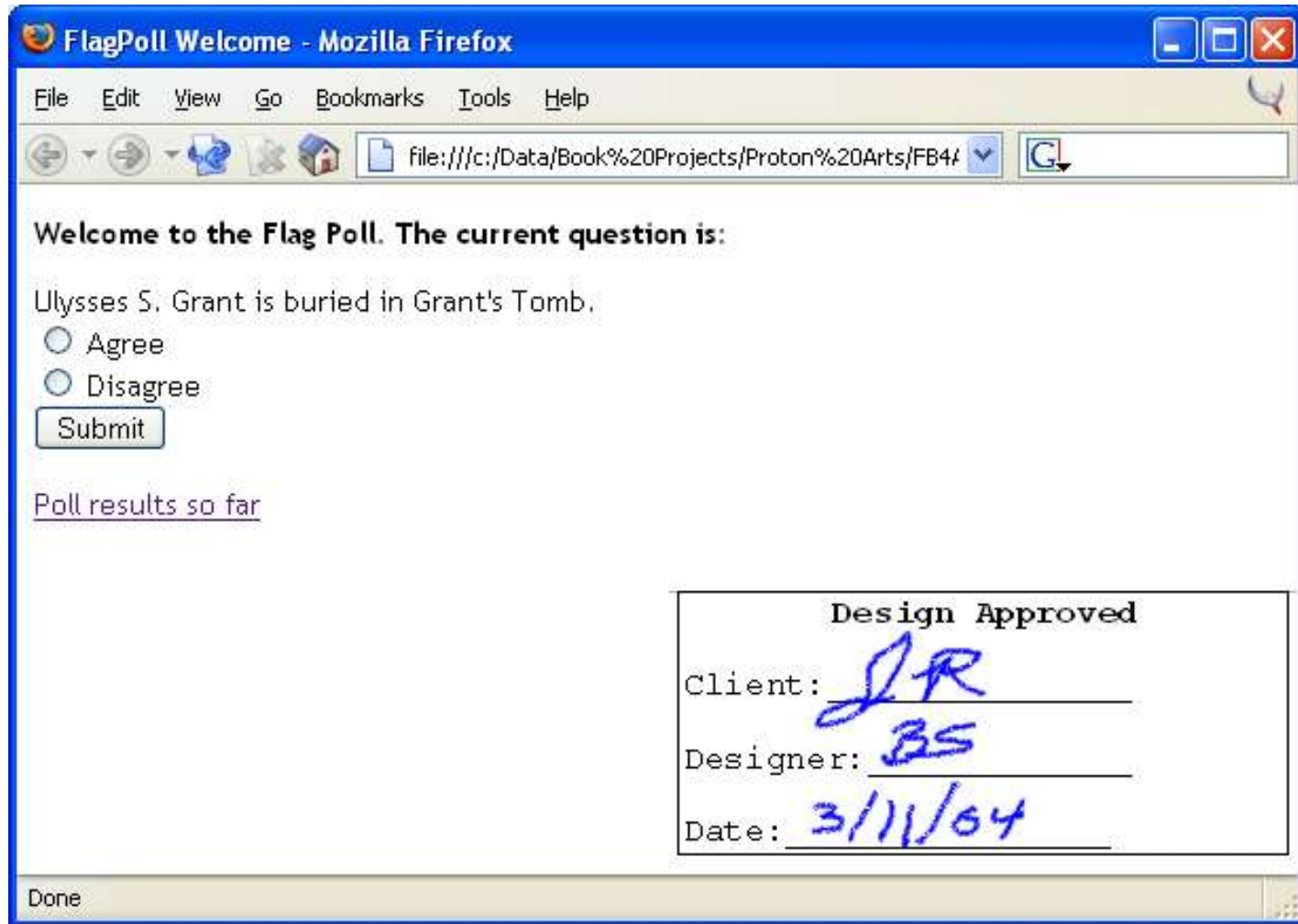
+ [EX](#) Jeff: Sure. How's this look?

+ [EX](#) Janic: Looks good to me. Thanks.

Prototype Freeze

- Turn off DevNotes – manage client’s reaction when “I can’t make any more comments”.
- Make sure client is satisfied, AND you are satisfied that you have all the information you need to complete the application. (Freeze is a mutual agreement.)
- Print all prototype pages in color
- Use approval stamp on each page – walk through with client and both sign off.

Prototype Freeze



Prototype Freeze


FlagPoll Welcome - Mozilla Firefox


File Edit View Go Bookmarks Tools Help

file:///c:/Data/Book%20Projects/Proton%20Arts/FB4/

Welcome to the Flag Poll. The current question is:

Ulysses S. Grant is buried in Grant's Tomb.

Agree:  50%

Disagree:  50%

[Flag Poll Home](#)

Design Approved

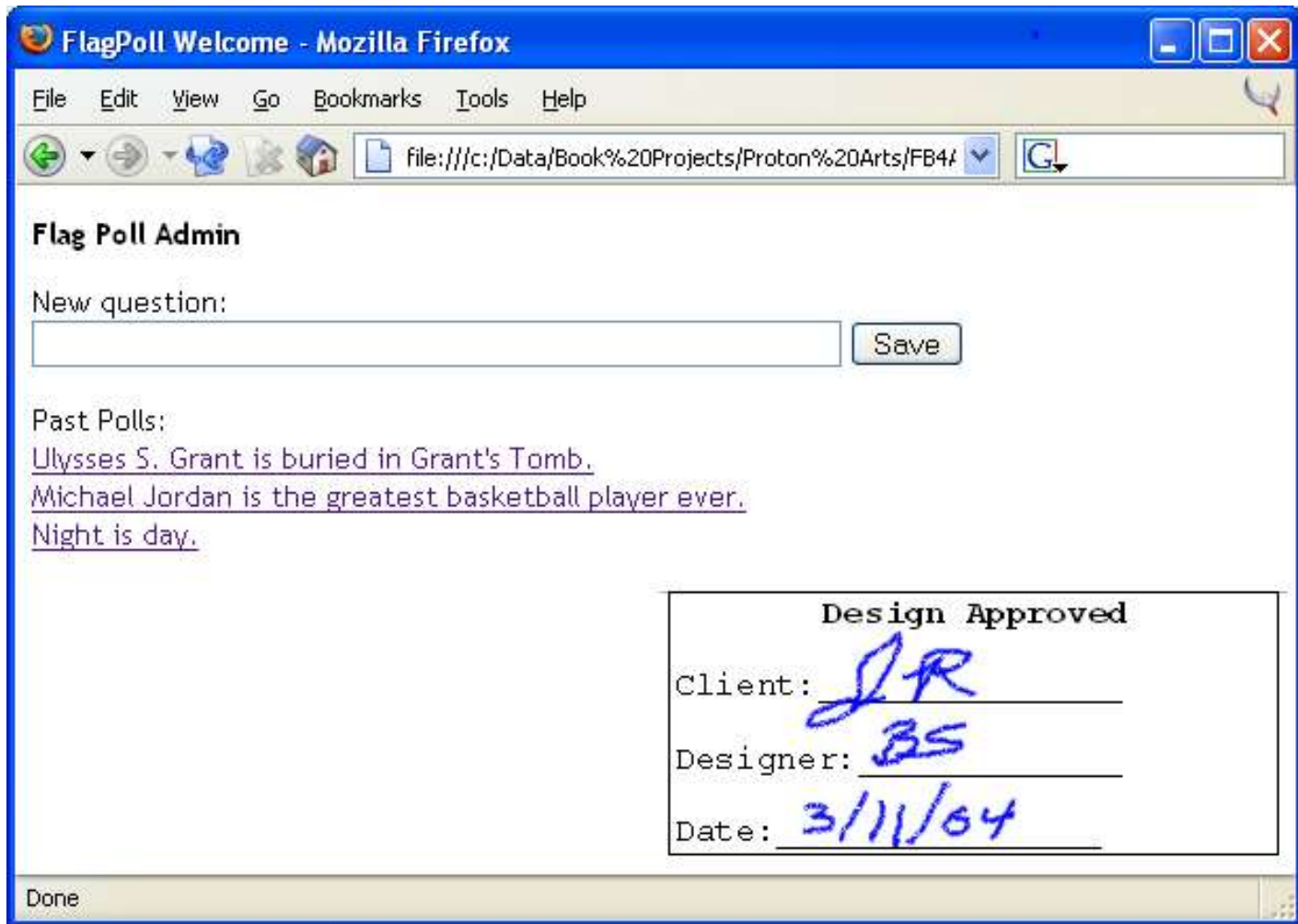
Client: JR

Designer: BS

Date: 3/11/04

Done

Prototype Freeze



Step 3. Architecture

This is the fun part for those with superiority complexes...

- Whip out the color markers

Architecture

- Define with color:
 - Dynamic elements
 - Exit points
 - Output data
 - Name of the page/view

Identifying Exit Points

- Use verb/subject naming
 - saveEmployee, for example
- Try this: after all exit points are identified, put into a text file and sort the file. This can help you start to see commonality among the subjects of the exit points.

Architecture

FlagPoll Welcome - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

file:///c:/Data/Book%20Projects/Proton%20Arts/FB4/

Welcome to the Flag Poll. The current question is:

Ulysses S. Grant is buried in Grant's Tomb → `qryGetCurrentPollQuestion`

Agree

Disagree

Submit → `btnSubmit`
↳ `opinion`

Poll results so far → `InkPollResults`
↳ `pollID`

`dspShowPollQuestion`

Design Approved

Client: JR

Designer: BS

Date: 3/11/04

Done

Architecture

FlagPoll Welcome - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

file:///c:/Data/Book%20Projects/Proton%20Arts/FB4/

Welcome to the Flag Poll. The current question is:

Ulysses S. Grant is buried in Grant's Tomb → *qryGetCurrentPollQuestion*

Agree: 50% → *qryGetPollResults*

Disagree: 50%

Flag Poll Home → *lnkFlagPollHome*

dspPollResults

Design Approved

Client: JR

Designer: BS

Date: 3/11/04

Done

Architecture

FlagPoll Admin

New question:

Past Polls:
Ulysses S. Grant is buried in Grant's Tomb.
Michael Jordan is the greatest basketball player ever.
Night is day.

Design Approved
Client: JR
Designer: BS
Date: 3/11/04

Done

Handwritten annotations:
- Green circle around 'Save' button with arrow pointing to 'btnSave' and 'newQuestion'.
- Green bracket next to 'Past Polls' list with arrow pointing to 'InkPollQuestion' and 'pollID'.
- Blue circle around 'Past Polls' list with arrow pointing to 'qryGetPastPolls'.
- Purple text 'dspPollAdmin' at the bottom.

Circuit Design

- Circuits are groups of fuseactions that have a common subject or purpose.
- It's tempting to organize your circuits according to what the user is doing – such as editor, manager and user.
- Instead think in terms of what the application is doing, rather than what the user is doing.
- Sometimes terminology can be confusing.
 - Example: in an HR-related app, the application might actually be working with managers, editors, etc. (They are the application subject, rather than user roles.)

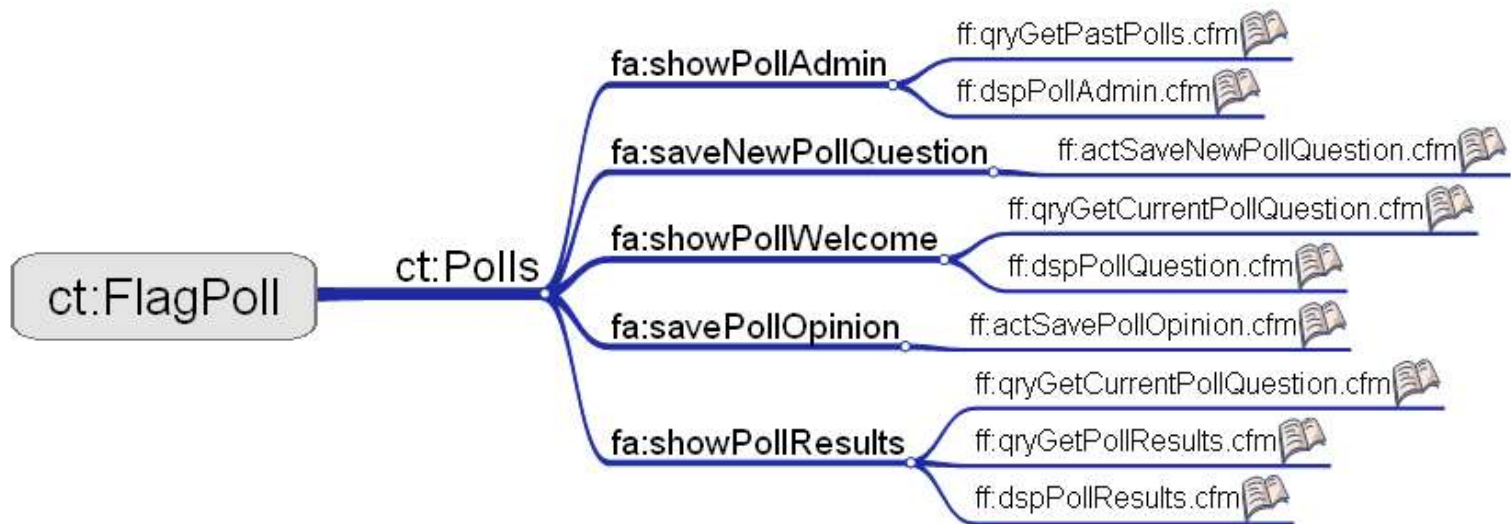
Step 4. Mind Mapping

- Mind Mapping is a concept devised by Tony Buzan
 - Take a central idea and expand upon it
 - Essentially a graphic outline
- Hal Helms started using software mind mapping tools to map Fusebox apps.
- Tools to use – MindMapper, VisualMind
 - (We're using Mind Mapper today)

Mind Mapping

- Looks at hierarchy and helps organize the application
- Easy to create and alter as you make architectural decisions.

Mind Map



Adding Notes to Mind Map

- I like to write the Fusedocs in CF Studio and paste them into the notes pane for each fuse in the mind map.
- Query Sims and HTML are added to the Fusedocs to create “fuse stubs”.
- CF_QuerySim is a custom tag by Hal Helms; it builds a recordset without a database.

Fuse stub

- Takes an architect Fusedoc and allows a coder to code just the fuse
- Pages will include:
 - Dev Notes
 - HTML Prototype code

The drudgery begins...

- Create Directories
- Write Fusebox configuration files
- Copy in Fusebox core files
- Create Fuse files w/stub code
- (Lots of copying and pasting from the mind map)
- But avoid the drudgery and use a tool...

FuseminderFB4

- Read the ReadMe file in FuseminderFB4!
- Basics:
 - From MindMapper – save as text file.
 - Run FuseminderFB4 with the resulting text file.

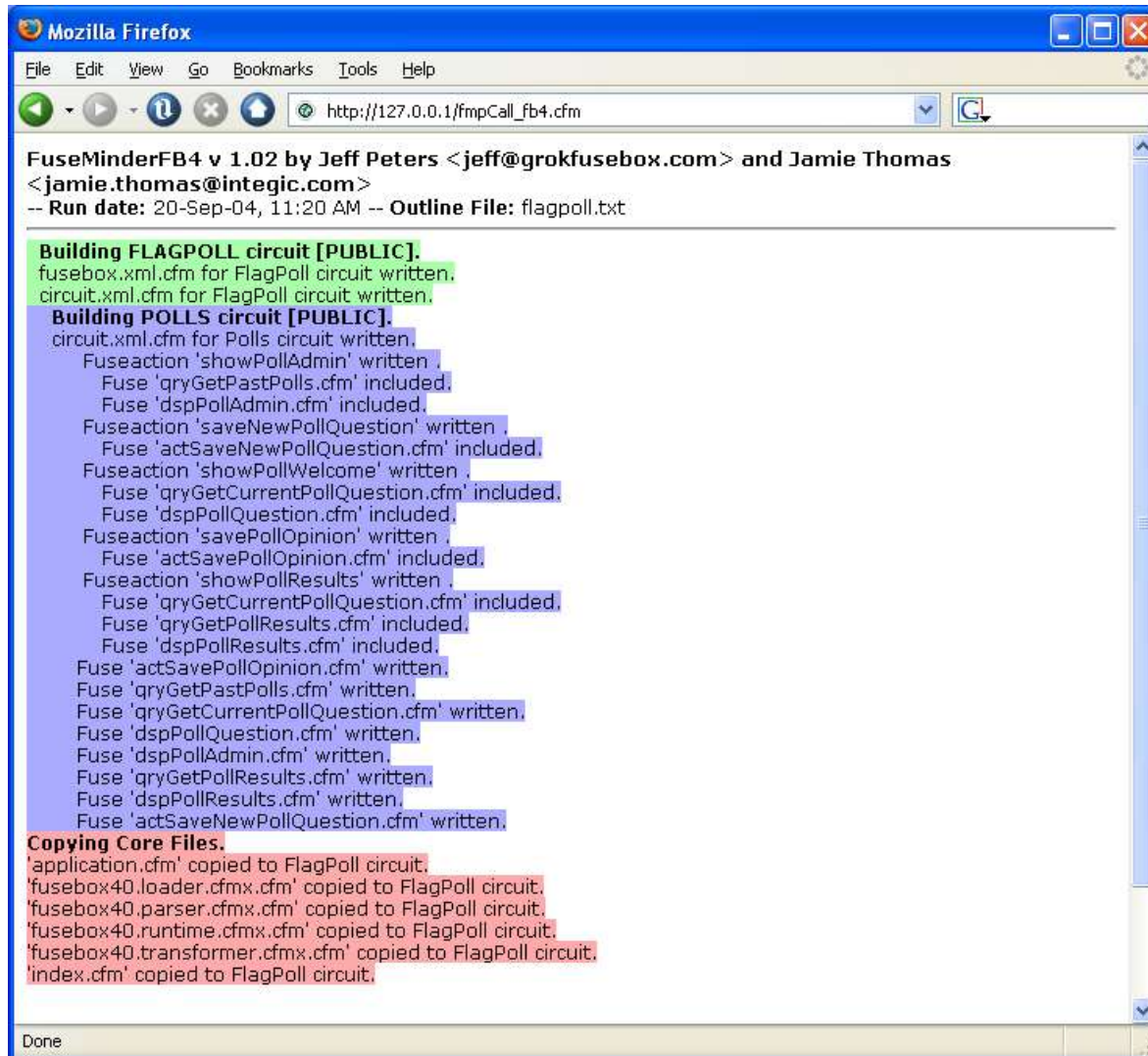
FuseminderFB4

The screenshot shows a Mozilla Firefox browser window titled "FuseminderFB4 - Mozilla Firefox". The address bar contains "http://127.0.0.1/". The main content area displays the "FuseminderFB4" form with the following fields and options:

- Author:**
- Author Email:**
- Outline File:**
- Location:**
- Verbose:**
- Generate Fusedocs:**
- Write File Names In Each File:**
- Write XFA List In Each File:**

Below the form is a "Go!" button and a link to "[Instructions](#)". The status bar at the bottom of the browser window shows "Done".

FuseminderFB4



Et voila!

- No more drudgery—Cinderella goes to the ball.
- Even sets up the core files for you (including Plugins and Parsed Directory)
- Sets up Fusebox.xml and Circuit.xml

FuseminderFB4 vs Synthi Adalon

- I use FMFB4 because I've been doing it that way for years.
- FuseminderFB4 is FREE.
- Adalon is an excellent product and it does have LOTS of additional features and capabilities. Well worth a look.

Ship Fuse Stubs to Coders

- Code (fuses) can now be written.
- Coders need to know **NOTHING** outside the scope of the information in the fuse stub.
- Many coders can be leveraged to accelerate this step (see SecretAgents.com).

Step 4b. Test Harnesses

- Secret Agents – has a suite of tools to test fuses and fuse interaction according to their Fusedocs.
- Harness/Harness2 build test harnesses for pre-FB4 applications (anyone care to write an update for FB4?).
 - Downloadable from GrokFusebox.com

Step 5. Application

- Integrate the fuses into the architecture
 - (That is, put 'em into their directories in place of the fuse stubs.)
- You now have an application!!!
 - Depending on how well you wrote the Fusedocs, very little repair work will be required to make all those fuses work together.

Deployment

- Put on Customer's server.
- Should be a big “so what?” for the customer, since we've been so forthcoming with how the thing works all along. (i.e., success is no surprise.)

Welcome to Fusebox!

Congratulations are in order; you've finished your first complete Fusebox application. You are now a member of a very vital and cooperative segment of the ColdFusion community. Rock on!

Nifty Programs I Used Today

- Wireframe Editor 3.80 from HalHelms.com (freeware)
- DevNotes from GrokFusebox.com (freeware)
- FuseminderFB4 from GrokFusebox.com (freeware)
- MindMapper from MindMapper.com (shareware)
- Harness2 from GrokFusebox.com (freeware)
- File Manager: Total Commander from Ghisler.com (shareware)
- Graphics viewer: IrfanView from IrfanView.com (freeware)
- Database utility: Aqua Data Studio from Aquafold.com (freeware/honorware, depending on use)
- Notepad2 from Flos-Freeware.ch (freeware)—great zoom feature and syntax highlighting for presentations

Thanks

- Jo Duryea for transcribing the live session for this document.
- Michael Smith, Liz Arroyave and the gang at TeraTech for running a great conference.
- Jamie Thomas, Kevin Roche, Steve Nelson, and others who have pushed Fuseminder, Harness, and other tools of mine to new levels.
- You, for taking the time to consume this material and give Fusebox a try. I hope you make a fortune from it.

- Jeff Peters