

Where Source Development Meets Documentation

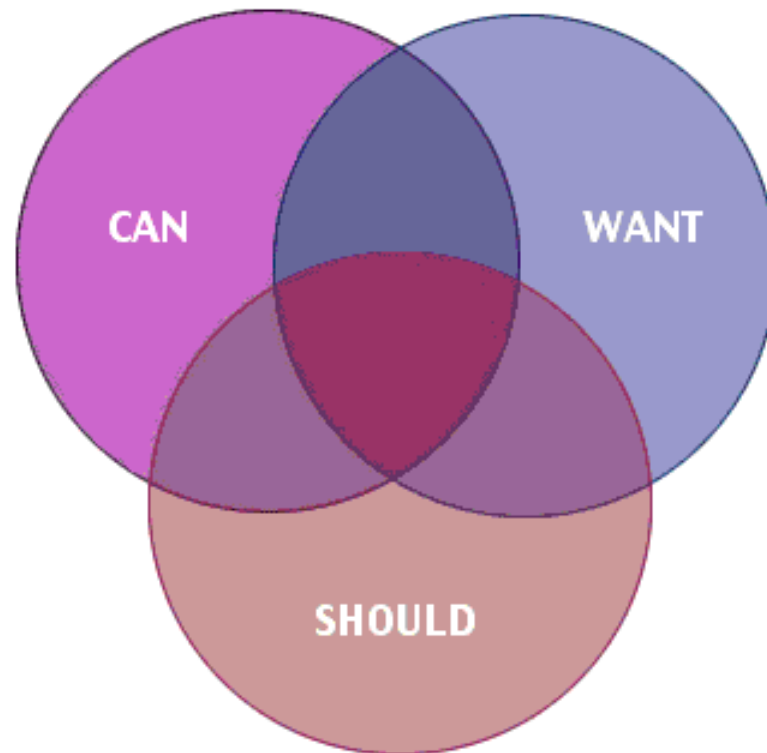
Liz Fraley

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A brief interlude to the real world



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Efficiency is in the tools

Many small efficiencies
add up to greater gains.

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What is source development?

- Source is any programs that the company develops in house
- ... or integrates with!

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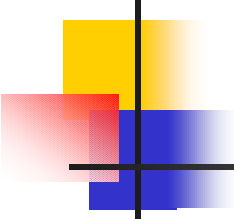
Sometimes source isn't obvious

- Simple tools that are being used that you don't even know about
- Things that people do to import information that no one even thinks of as "source"
 - but which inspect data and are dependent on its structure
- You want to encourage employees to automate for efficiency
 - dependencies == time lost to invisible causes when something changes ... anywhere



Source code is just a kind of information

- Very specialized kind, specialized users
- In most environments:
 - filters and transforms information
(database, statistical tools)
 - collects information
(web apps, assay machines)
 - produces information
(simulators, ...)

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Source code may be a driver in some cases...

- Source is itself a product
 - internal or external
- Source may be aimed at end-users or other source developers

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...towards information exchange

- For all environments
- Businesses are driven by process
 - The process can change!
 - The process is specified (ideal)
 - The process is ad hoc with guidelines (reality)



Source is created by...

- Source makers
 - New content that stands alone
 - Content that gets pushed back into a product
- Source annotators
 - The product might itself have provided metadata that was the basis for the newly-created content, in either structural or template form.



So, let's start with pubs

The goal of single-sourcing is always to:

- Increase the efficiency of the entire staff as the demand for documentation increases while staffing and resources do not.



Benefits for publications

- Single-sourcing:
 - Makes reuse possible
 - Improves accuracy
(fix once, fixed everywhere)
 - Improves quality
(more time per writing unit = greater quality)
 - Increases author collaboration
 - Automates simultaneous delivery of source material to multiple media
 - Reduces translation efforts and costs



Benefits for publications

- Separation of form from content
 - The desktop publishing revolution (detour) of the 80s
 - Return content generation expertise to authors, return formatting expertise to format experts
- **Correct** development
 - Something is added, someone knows; something is deleted, someone knows; automatic red-flags in the process
- Faster development
 - Automatically generate content or content templates

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Now, let's add engineering...

- Auto-generate content from engineering systems
 - Bug-tracking integration tools
 - Request and feature tracking tools
- Produce documents with varying levels of detail
 - From one source, create one document appropriate for external customers, one for internal developers, and one for field engineers

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Interlude: Workflow and You

- It's easy to get developers to add something if there is no serious burden ("note to support") and the task is "in line" with work they're already doing.
- It's hard to get developers to add something if the work is obviously additional:
 - "after adding a syslog message, fill out a document explaining it"

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Interlude...

- No amount of process can solve this in the real world
 - Water flows downhill
 - People do valuable “optional” work all the time (“do it right”)
 - People will not work extra hard to “do it right”
 - “Make it hard, get less”
- Keep data local!

More benefits of adding engineering to the equation...

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- Better diff tools
 - Improve review responses, quality, and general feedback (no longer limited to change bars on a PDF)
 - Potential to patch changes
 - Automated realization of code differences (API changes)
 - Diff of schema languages easily
- Open up another avenue for original content gathering:
 - Domain experts can contribute in this model



Benefits aren't limited to software engineering organizations

Software/Tech

Build/tools integration

Biotech

Database/assay machine integration

Pharmaceuticals

Product labeling requirements

Manufacturing

Integration with external systems

Self-service troubleshooting

Integrating diagnostic information with procedural documentation

Medicine

OWL initiative



Now add customer support...

- Content generated for knowledge base (KB) by an external KB vendor
- Coordinate content to guarantee consistency between KB articles and documentation written from in-house publications group
- Create trouble-shooting guides based on KB content and frequency of article access
- Link between (inside) documents and KB articles, and field alerts



Now add training...

- Aggregate schedules of training opportunities
- Use profiling to generate schedules on-the-fly for different audiences simultaneously:
 - This week, this month
 - Internal, external, management classes
- All business units can participate with minimal effort

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Special benefits for training...

- Reuse content from documentation and customer support to ensure information consistency
- From one source, create scalable version of training materials:
 - Student materials
 - Instructor's materials
 - Presentation slides
 - And be able to go up and down this scale to increase/decrease level of detail

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Now add marketing...

- Automate creation and publication of customer price list and parts list
 - Profile to show price-levels
- Separation of form from content makes changing look-and-feel very easy
- Single-source information repository + profiling delivers consistency in white papers and data sheets

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... and sales

- Reduced translation costs and efforts
- Integration with customer database = easy customer portal personalization
 - Profile connects docs, field alerts and KB articles relevant to the products a customer has ordered.



Finally, a few ways to include internal business processes...

- Services to support Sarbanes Oxley activities
- Audit trails
- Branding turnover
- Acquisitions
- Connecting to operations, manufacturing, and document control systems
- HAZMAT database integration
- W3C initiative: Universal Business Language (UBL)



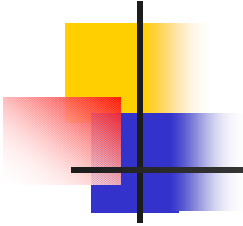
We're all sold on structure -- that's why we're here

- Remember:
 - Structure is **added work**
 - If you make structure onerous or make adding it hard/expensive time-wise, people will not do it
 - You need to be careful about what you choose to do or you will end up with structure that may not really be useful:
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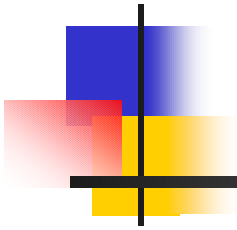
About Single-Sourcing Solutions, Inc.

- We do XML implementation
- We do XML evangelization!
- We help companies develop an overall XML strategy, across all kinds of business units and business functions



Thank you

Questions?



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