

Automating **FrameMaker** to **DITA** Conversions at **IBM** for the **Sterling Commerce Brand**

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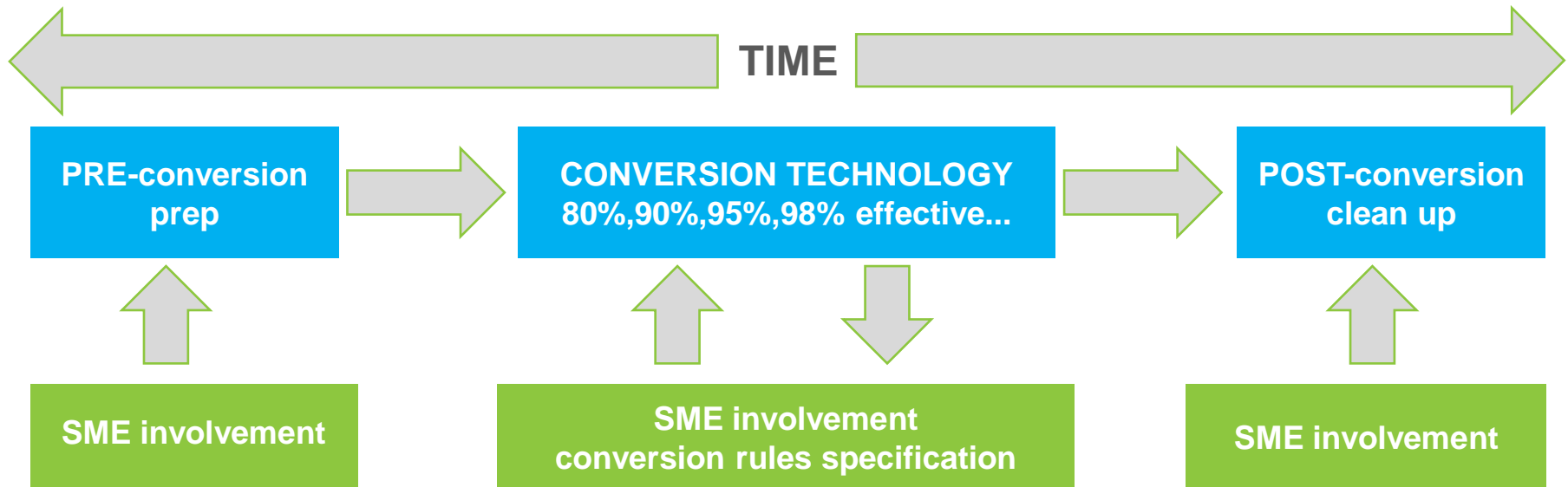
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Agenda

- ▶ Issues with conversion
- ▶ IBM case study
 - ▶ Sterling Commerce overview
 - ▶ Conversion processes
 - ▶ Results
 - ▶ Lessons learned
 - ▶ Conclusion
- ▶ Q & A



Conversion is not straightforward



DEPENDENCIES FOR SUCCESS

- Technology effectiveness
- Skills / experience of team members
- Skills / experience of conversion partner
- Available resources
- Quality / consistency of source content

THE CHALLENGE

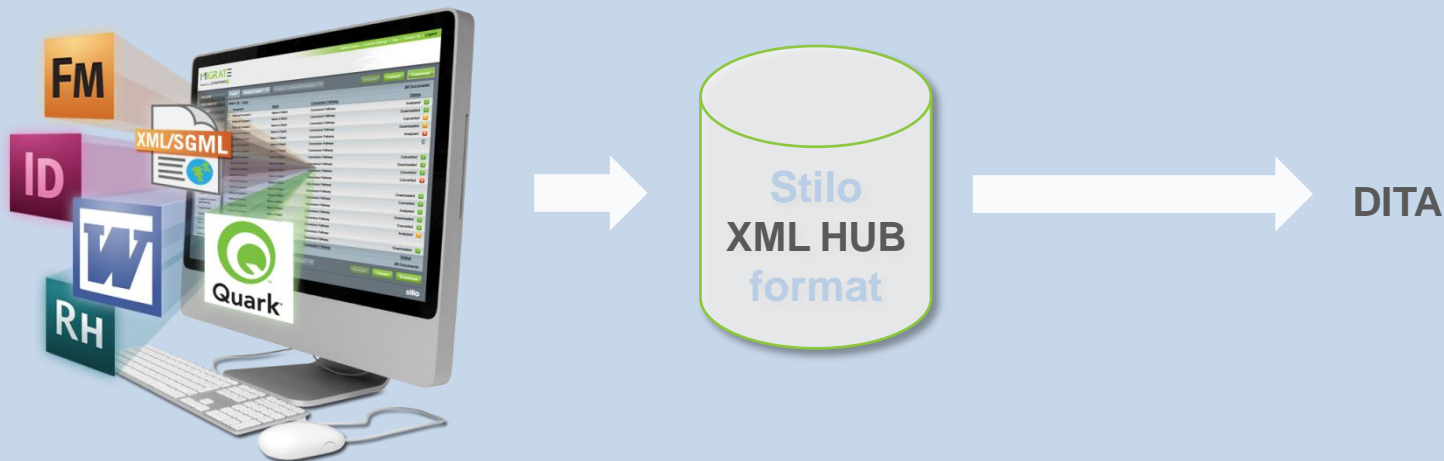
- Reduce **TIME**, lower **COSTS**, ensure **QUALITY**
- How can we optimize automation?
 - How do we best process exceptions?
 - How can we involve SMEs most productively?

Alternative approaches...



- ▶ DIY
- ▶ Outsource
- ▶ Cloud conversion service

Migrate cloud conversion service



- ▶ Customer unique portal configured with tailored conversion rules
- ▶ Documents uploaded, analyzed and converted in real time
- ▶ **To process exceptions**, SMEs can use the **RULES EDITOR** and clone new rules
- ▶ Levels of automation are improved iteratively, as knowledge increases
- ▶ Self-paced, available to dispersed teams 24x7
- ▶ Pay-as-you-use

Automating **FrameMaker** to **DITA** Conversions at **IBM** for the **Sterling Commerce Brand**

The observations and opinions expressed in this presentation are the author's own and do not necessarily represent IBM's positions, strategies or opinions.

Overview – Sterling Commerce

- ▶ Sterling Commerce built via acquisition - had 4 product families each with distinct content templates
 - ▶ Integration of products into single solutions as well as bundled solutions
 - ▶ Documentation reuse across products – move to DITA was best solution
 - ▶ Move started in 2006 – purchased XMetaL DITA and Contenta
- ▶ IDev team = 43 writers, 5 managers, and 1 IA (with several writers transitioning to IA roles prior to acquisition)
- ▶ Content c.150,000 active pages (maintenance & current versions)
 - ▶ Doc size ranged from 1–1500 pages
- ▶ Global team of writers in Eden Prairie MN, Massachusetts, Dallas, Dublin (Ohio) and India



Overview – content

- ▶ Began authoring in DITA and **SLOWLY** converting files to DITA
 - ▶ Used vendor to do initial conversion of a few thousand pages
 - ▶ Began to manually convert content over three years
 - ▶ New products were authored in DITA
 - ▶ Many legacy products continued in Frame - slow move to DITA by introducing online template and flatter PDFs
 - ▶ 13,841 topics in DITA and a reuse rate of 19%



Conversion approach – options

Several conversion options presented by Acquisition Management team

- ▶ **Manual** – this took too long and was labor intensive but exposed the writers to DITA
- ▶ **Traditional vendor** – OK for one product line, issues with other product lines
- ▶ **Stilo** – decided this was best overall option because we had more control



Process

Clearly defined processes pre and post-conversion instructions

- ▶ Made available on the WIKI Community dedicated to the conversion
- ▶ Included prerequisites
 - ▶ Required a fair amount of reading
 - ▶ Provided docs for writers on all the tool installations
 - ▶ Provided docs for writers on the required “how to” steps that were part of overall process
- ▶ Emphasized we are ALL learning together so process may change as we discover more

IDev Managers

- ▶ Chose sampling from various docs/teams to work out metadata and reuse strategies
- ▶ How we organized (not by guide but by function)

Process continued

Individual Contributors – MANDATORY Self-paced learning

- ▶ Defined due date and accountability
- ▶ XML / DITA and ID Workbench web lectures and demos available on Intranet:

Dedicated Information Architect

- ▶ full time testing, retesting, trying new approaches, reaching out to IBMers, etc.

Daily 30 minute meeting for first 4 months

- ▶ Walked through status, discussed tips, tricks, etc.
- ▶ Tracked risks and open questions on a daily basis
- ▶ Reduced to weekly, then bi-weekly and now at Direct Report meeting

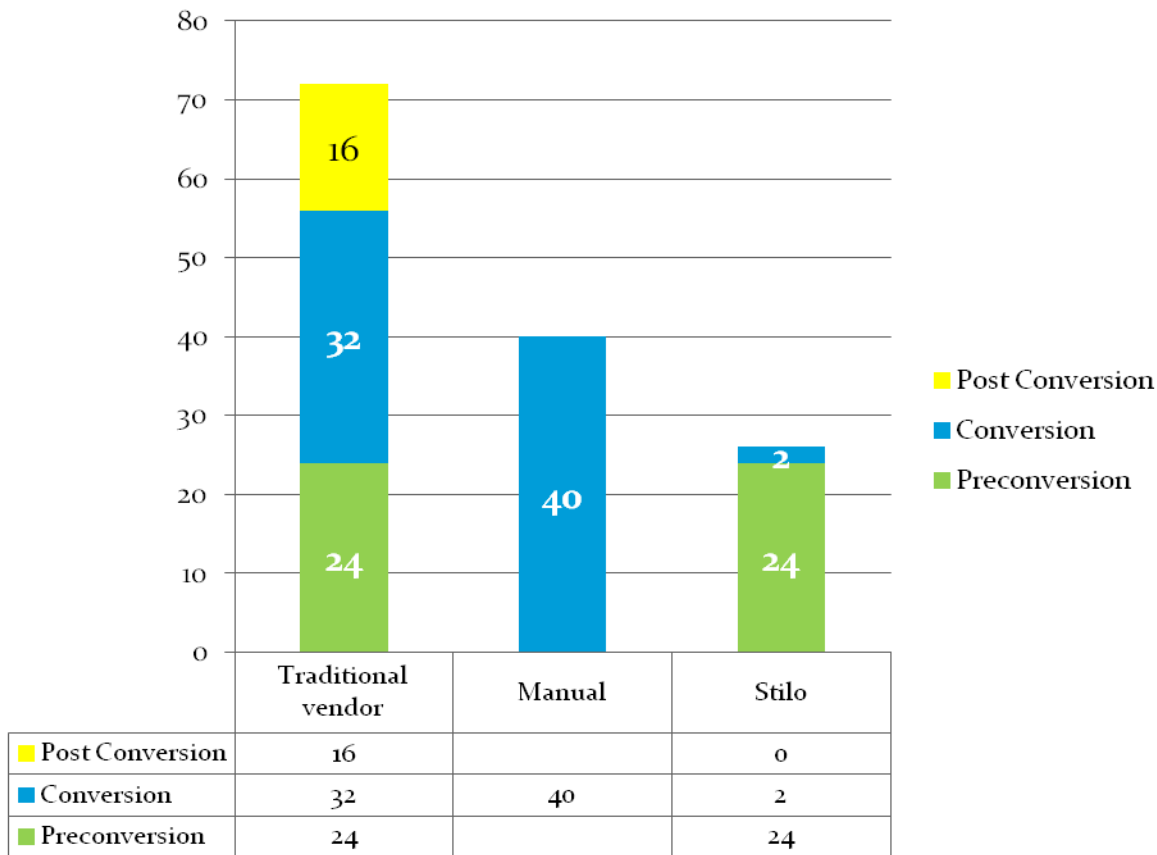
Process *continued*

- ▶ For priority content, established clear milestones
- ▶ Remaining content, set high level schedule & managers tracking as they go
- ▶ Analyze the template – clean up work to prepare for pre-conversion
 - ▶ Began this work prior to even getting the funding
 - ▶ This step was necessary for legacy Frame files in template that was book based and had multiple heads
 - ▶ In complicated books that didn't follow our styles and standards, writers mapped every heading to a topic type
- ▶ Pre-conversion and Post-conversion Checklist
 - ▶ Depending on project size we set this up like an assembly line & divided the duties
 - ▶ DITA novices completed the first few steps of the overall process which included validating no content was lost, map verification, etc.
 - ▶ Experienced DITA writers evaluated larger issues, analyzed checkPII results, etc.

Results – statistics – in 12 months

	July 2010	December 2011
DITA Writers	5 out of 45	49 out of 49
Locations using DITA	2 out of 5	5 out of 5
DITA Deliverables (unique manuals & help)	5 out of 38 active projects	32 out of 32 active projects
Topics /Maps in DITA	13,841 topics 449 maps (reuse rate of 19%)	Over 90.000 topics Over 3000 maps
Output	<ul style="list-style-type: none"> ▪ HTML help ▪ 50+ Html doc libraries generated ▪ 15 Eclipse info centers ▪ All products – pdfs available via web ▪ 1 product family still delivering PDFs via DVD 	<ul style="list-style-type: none"> ▪ 22 eclipse info centers published or WIP for Q3/Q4 release ▪ PDFs available through IC ▪ 1 product – PDFs on DVD ▪ 7 products in IBM Knowledge Centre Beta
Languages	English and select products and documents in Japanese and Chinese	<ul style="list-style-type: none"> ▪ 2 product lines - English plus 9 languages – WIP (select docs) ▪ 1 product line – English plus 3 languages – WIP (select docs)
Graphics	Multiple formats	One format
Automation	Nightly auto builds which dev auto build picked up and dropped to QA	

Results – average hrs by vendor/method



Considerations

- ▶ graphics cleanup (for traditional vendor work had thousands of graphics, most of which were eliminated)
- ▶ complexity of template – cleanup of content
- ▶ Timing within project – earlier in project, we were still learning
- ▶ Outside vendor – have to fix problems – this caused churn and delay - with Stilo fixed ourselves so clean files post conversion

Understanding the results

Pre-conversion Cleanup

1. Conversion decision – clean up before or after conversion?
We chose to clean up pre-conversion
 - Multiple templates
 - No style/standards discipline
 - No graphics discipline
 - Gratuitous cross-references across books
2. Independent of the Vendor type/conversion type
– pre-conversion averaged 24 hours per book
3. Aligned with preparing files for following initiatives
 - First acquisition release
 - G11N activities
 - Accessibility activities
 - Conformity to standards and styles across products and brands

Advantages and disadvantages

	Advantages	Disadvantages
Traditional Vendor	<ul style="list-style-type: none"> • Over the wall • Can continue working on other projects • Assembly line approach – many hands working on pre/post conversion if resources available 	<ul style="list-style-type: none"> • Back and forth tweaking with vendor • Delays while tweaking • Post conversion checking can be lengthy • Not engaged in learning DITA as much. May require extensive training once all files are back
Self serve web-based conversion	<ul style="list-style-type: none"> • 24/7 service • Self serve – minimal help needed from vendor after training • Gain deep knowledge of DITA and content • Fast turn around time allows to work on in-flight projects with minimal disruption • Standardized checks of results • Rules based set up per book or product line 	<ul style="list-style-type: none"> • Initial start up/training time (depends on level of experience)
Manual	<ul style="list-style-type: none"> • Self paced – as needed • Total control 	<ul style="list-style-type: none"> • Assembly line approach too labor intensive, limited to one writer per book/set of content • Time consuming to tailor scripts to each book/template

Another view

Allows you to:	Traditional Vendor	Self-serve	Manual
Easily convert content for in-flight projects during conversion without delays		■	■
Large quantities quickly	■	■	
Use an assembly line approach – engage all writers (useful if writers on the bench or have extra capacity)	■	■	
Use limited resources for entire conversion process	■	■	
Minimal tools training	■		
Convert content 24/7 without delays		■	■
Tailor conversion per product template/multiple styles		■	■
Minimal post conversion cleanup		■	
Improve quality over time		■	■
Fast paced, high volume – immediate turn around		■	
Automatically address complex issues		■	
Lower cost		■	■

Results – Stilo

- ▶ **20,000** pages successfully converted in six-week period
- ▶ More than **200** FrameMaker books
- ▶ Quality of conversions were improved iteratively with Migrate Rules Editor
- ▶ Conversion rules addressed complex issues, automatically
 - ▶ creating a hierarchical ditamap
 - ▶ converting content in tables to definition lists or steps in a task
 - ▶ tagging conditional text and producing appropriate ditaval file
 - ▶ leveraging FM markers to generate correct topic types and file names
 - ▶ Ability to tweak rules for different formats
- ▶ Reduced turnaround times, conversion is immediate
- ▶ **638 page document converted in minutes with zero errors**
- ▶ Reduced costs, much lower than outsourcing alternatives



Lessons learned

- ▶ Have 1 dedicated DITA ‘**Jedi Knight**’ throughout the entire process
 - ▶ Focal point for vendors as well as rest of team
 - ▶ Collects data and compiles into spreadsheets, best practices, lessons learned
 - ▶ Continuous monitoring of WIKI/BLOG and updates the learning materials
- ▶ Manager and Individual Contributor accountability – tied to performance goals & review for the year
- ▶ Get development and QA buy-in and support & ensure they understand what and why you are converting
- ▶ Using pre and post-conversion checklists are a must
- ▶ A tracking sheet is helpful, especially when multiple teams are converting
 - ▶ Can turn over to QA – record of everything that has changed
 - ▶ Can track metrics

	A	B	C	D	E	F	G	H	I
1	Conversion Tracking Sheet								
2									
3	Color Key								
4		Not ready to send yet							
5		Ready to send to conversion vendor							
6		Sent to conversion vendor							
7		Returned from conversion vendor							
8									
		PDF Pages	Conversion-Readiness Review Complete	File Prep Complete	Sent to Vendor	Returned from Vendor	Draft to QA	Notes	Credits Used
9	Book								
10	SEI Concepts Guide	14	1/23/2011	1/23/2011	1/23/2011	1/23/2011			18
11	SIM Concepts Guide	30	2/20/2011	2/20/2011	2/20/2011	2/20/2011			36
12	SEI Localization Guide	18	2/10/2011	2/10/2011	2/10/2011	2/10/2011			22
13	SEI Installation Guide	44	2/10/2011	2/10/2011	2/10/2011	2/10/2011			70
14	SEI Implementation Guide	106	2/20/2011	2/20/2011	2/20/2011	2/20/2011			145
15	vMMS Integration Guide	100	2/10/2011	2/10/2011	2/10/2011	2/10/2011			117
16	SIM Installation Guide	36	04/04/2011	08/04/2011	11/04/2011	11/04/2011			38
17	vMMS Reports Guide	480	11/04/2011	2/10/2011	2/10/2011	2/10/2011			325
18	vMMS Prints Guide	284	2/10/2011	2/10/2011	2/10/2011	11/04/2011			326
19	SCCS Implementation Guide	546	11/04/2011	2/10/2011	2/10/2011	2/10/2011			627
20	Total Pages Converted	1668							
21									
22									
23	Total Pages Undergoing Conversion	0							
24									
25									
26	SEC Term Administration Guide Non-English Locale	10	2/10/2011						
27	vMMS Implementation Guide	448	2/10/2011						
28	Total Pages Prepped	458							
29									
30									
31									
32	vMMS Upgrade Guide	34							
33	Total Pages Awaiting Pre-Conversion Rev	34							
34									
35	Grand total	2160						Credits Used	1924
36									

Lessons learned continued

- ▶ Daily meetings are helpful for collaboration and information sharing
- ▶ A walkthrough with writers who will do pre-conversion prep and post-conversion clean-up is very helpful
- ▶ Realize that ***no conversion is perfect*** and clean-up will be required so you have to determine what needs to be fixed in the rules, and what can be left for post-conversion clean-up
- ▶ Communicate and set this expectation with the writers and emphasize the DITA learning opportunity this provides
- ▶ No matter how standard you think your pre-conversion requirements are – you'll find they aren't!
- ▶ Make sure you have structure in place for storing files – pre-conversion files, files returned, in progress clean-up and final storage – as it's easy to get versions mixed up!
- ▶ XML is plain text, so if you need to make changes to many files, use a batch text editor in post-conversion clean-up

Conclusion

- ▶ Management is extremely happy with fast paced conversion, which has enabled the documentation for translation, to be rebundled and reused across brands and solution
- ▶ In-flight project is reusing **32%** of existing documentation. This **32%** will then be repurposed into a third software solution. We used ONE IDev team across these three products, instead of 3 IDev teams.
- ▶ Successful project that delivered time & cost savings and quality improvements, exceeded expectations
- ▶ Unexpected benefit - documentation team members improved their understanding of DITA concepts through the use of Migrate
- ▶ Stilo provided a high-level of DITA expertise and support throughout conversion, and were very responsive to improvement requests
- ▶ Migrate is now well-established for ongoing 24/7 usage for the IBM Sterling Commerce brand documentation, and I have recommended it for deployment elsewhere within IBM



Thank you

Documents to share
Conversion tracking spreadsheet
Pre-conversion checklist
Post-conversion checklist

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