



# ROI Arguments and the IXIASOFT DITA CMS





# Issues with the Existing Documentation Processes

- Current system is based largely on manual processes
  - Challenge for writers to find content for reuse
  - Vetting of content is haphazard, prone to error
  - Content is spread across different siloed SVN repositories
  - Inconsistent content messaging affects perception of brand
  - Possible legal implications for inaccurate/incomplete information



# Improved Workflow Results in Better Customer Satisfaction

- DITA CMS provides greatly improved search over existing processes
  - Writers can more easily find pre-existing content for reuse
  - Easier to craft new content with reuse in mind
- Workflow ensures content is checked/verified before publication
  - SMEs can verify content is complete and correct
  - Other writers/editors can check for clarity and conciseness
- Content is more consistent, easier for users to find and to comprehend

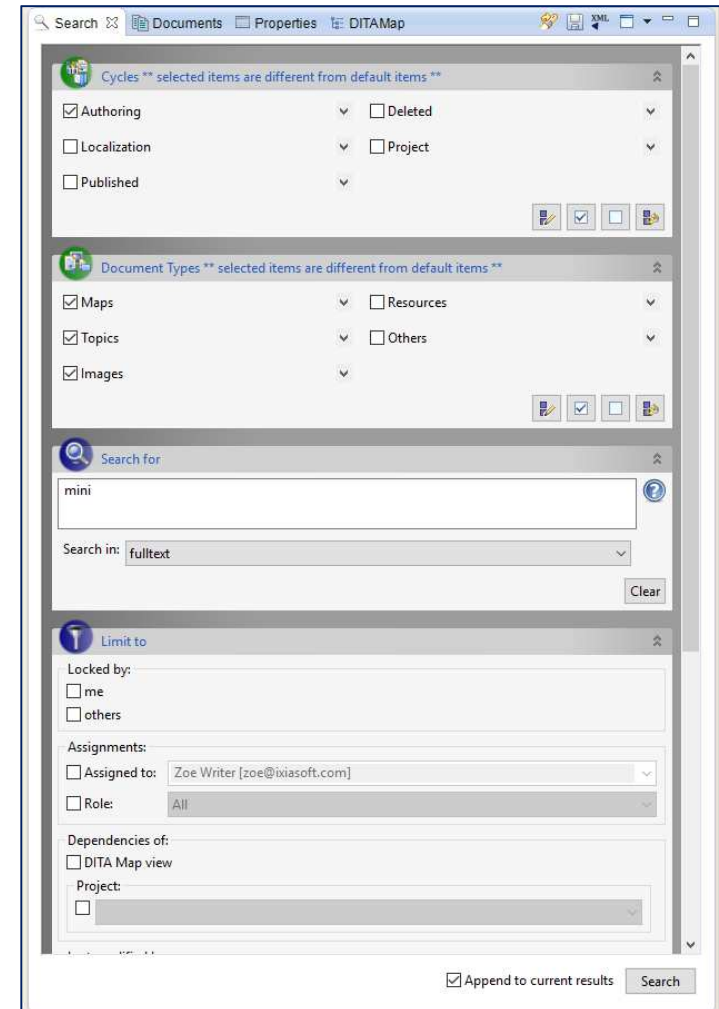


# DITA CMS' Search Engine Reduces Times for Finding Content

Full-text & metadata searches includes operators and wildcards plus:

- Makes it easy for writers to locate and immediately (re-)use content
- Selected content can be dragged into a map in seconds

Much more efficient than current “hunt and hope” strategy using SVN repositories





## Full List of Additional Search/Metrics Parameters

- Title
- Status
- Last Mod By
- Last Mod Date
- Type
- Version
- Assignment Comments
- Audience
- Authoring Revision
- Creation Date
- Id
- Image Description
- Image Type
- Keyword
- Labels
- Language
- Locked By
- Locked Date
- Needs Translation
- Original Filename
- Platform
- Product
- Reusable Element
- Revision
- System Comment
- User Comment
- Word Count



## Reduced Search Times for Content by Writers

- Writers must find content, assess it for reuse, and insert into map
- Assume current search for content requires avg. 1 minute per writer:
  - 1,000 searches per document for writing team = 1,000 min. = 16.7 hrs.
  - DITA CMS search avg. search + drag content into map = 15 seconds
  - 1000 searches per document for writing team = 2.7 hrs.
  - Time/efficiency savings of 12.5 hrs. per document
- Content search and insertion is considerably more efficient with DITA CMS



## Reuse Content Rates Can Only Improve

- Current estimates of content reuse is ~10%
- IXIASOFT's own published reuse rate for topics between 2015-2016 is 68.20%
- Based on IXIASOFT's experience with other customers, this level of reuse is possible within 3 years, enabling:
  - More efficient content production
  - Can do "more with less": more nimble content production
  - Existing headcount able to tackle more projects



## DITA CMS and Agile

- DITA is the ideal documentation format for Agile processes
  - "object-oriented documentation"
- DITA CMS contains workflow states associated with each content object, including:
  - Author information
  - Workflow status
  - How many times a topic has been modified/versioned
  - Topic/map dependencies



# DITA + Agile + CCMS = A Great Partnership!

DITA	Agile
Topic-based approach	Incremental development; can update topics as required; self-contained
Task topics	Match to Agile user stories; content is focused squarely on what user needs to do
Individual topics can be counted; in a CMS workflow can be measured	Need to track development progress; easy to demonstrate progress
Best practice of minimalism	Document only what needs to be documented; Keep It Straight and Simple (KISS) and Keep It Light (KIL); Reduces waste
Reuse improves content consistency	Continuous feedback from developers and users
Iterative publication to multiple formats on demand	No holdup for incremental product releases

- But these points can only be maximized by using a DITA-based CCMS, such as the IXIASOFT system



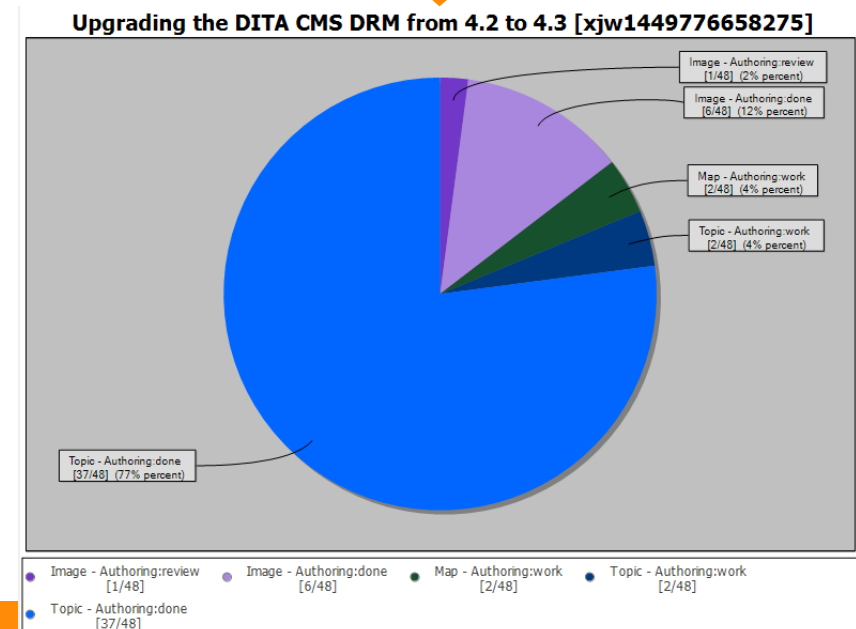
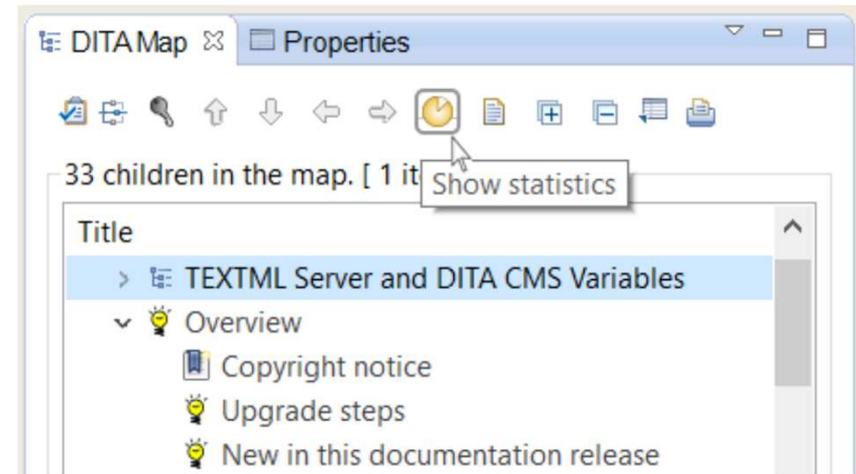
# How DITA CMS Works in an Agile Environment

- Beginning of Sprint add new, empty "stub" topics into DITA CMS for work
- At stand-up meetings can use workflow graphing function to show how "done" content is
- If documentation is part of definition of "done", encourages developers to verify content in DITA CMS



# Agile and DITA Metrics

- At Scrum meetings doc manager can report on topics assigned to their group and report on how “done” they are
- In IXIASOFT system, this type of metric is a single click away once the project’s target map is selected





# More Efficient and Cost-effective Localization Processes

- Currently only localize to one language (Spanish)
- Localization is key to global ambitions for any firm
- Initial targeted languages: Portuguese (Brazilian), Arabic
  - Following examples use example per-word rate sheet data from CSOFT
- The IXIASOFT DITA CMS can enable significant cost savings over time



Standard L10N Rates for Selected Languages in US Dollars

From English (per word)

Languages	DOC, UI, HELP	Marketing, Legal, Medical
Arabic	0.18	0.20
Catalan	0.17	0.19
Chinese (Simpl.)	0.11	0.12
Chinese (Trad.)	0.13	0.14
Dutch	0.18	0.20
French (CA)	0.20	0.22
French (EU)	0.18	0.20
German	0.18	0.20
Hebrew	0.18	0.20
Italian	0.17	0.19
Japanese	0.22	0.24
Korean	0.17	0.19
Norwegian	0.22	0.24
Polish	0.17	0.19
Portuguese (BR)	0.16	0.18
Portuguese (EU)	0.17	0.19
Russian	0.15	0.17
Spanish (EU)	0.17	0.19
Spanish (L.A.)	0.15	0.17



## More Efficient and Cost-effective Localization Processes (Cont.)

- For the first pass on a sample 10K document, everything is translated:
- Assume an initial 10K word document translated into:
  - Spanish @ 0.15 per word: \$1,500
  - Portuguese (PBR) @ 0.16 per word: \$1,600
  - Arabic @ 0.18 per word: \$1,800
  - Total Cost of First Pass: \$4,900



## More Efficient and Cost-effective Localization Processes (Cont.)

- At current reuse rates (10%) a subsequent 10K word document would cost:
  - Spanish @ 0.15 per word – 10%: \$1,350
  - Portuguese (PBR) @ 0.16 per word – 10%: \$1,440
  - Arabic @ 0.18 per word – 10%: \$1,620
  - Total cost of second localization round: \$4,410
- Cost of second localization round is what can be expected for all subsequent rounds



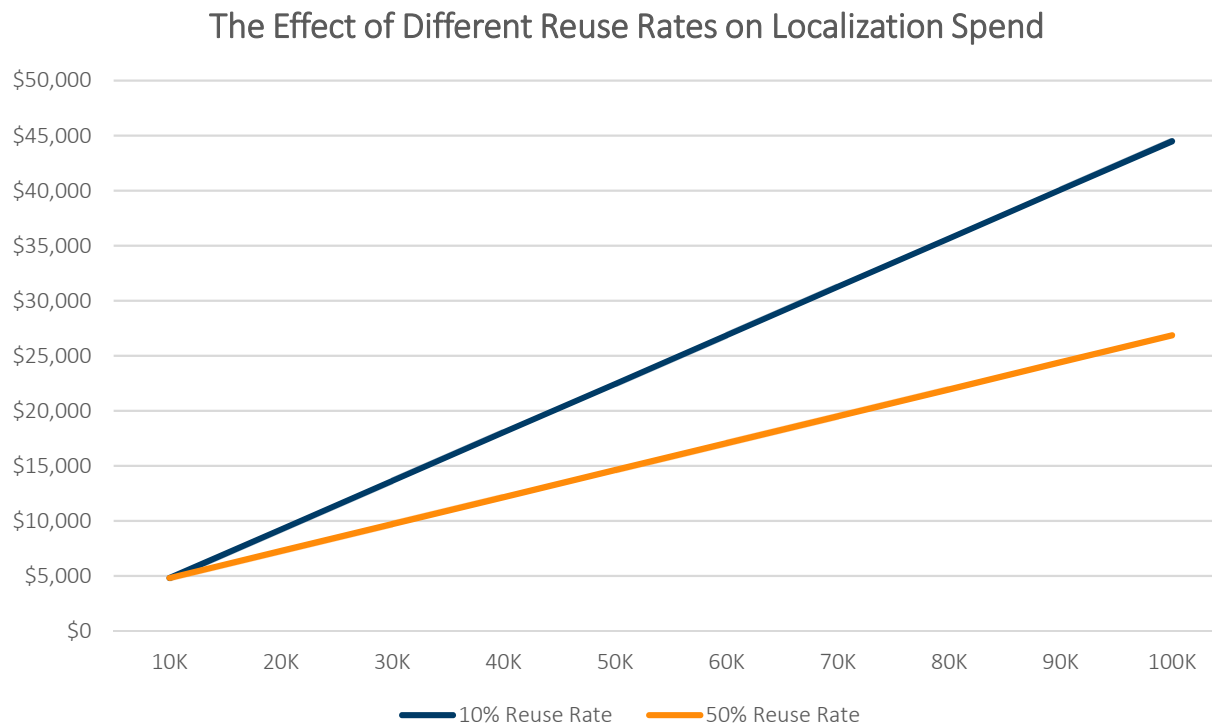
## More Efficient and Cost-effective Localization Processes (Cont.)

- At a conservative 50% reuse rate that can be expected using the DITA CMS, a subsequent 10K word document would instead cost:
  - Spanish @ 0.15 per word – 50%: \$ 750
  - Portuguese (PBR) @ 0.16 per word – 50%: \$ 800
  - Arabic @ 0.18 per word – 50%: \$ 900
  - Total cost of second localization round: \$2,450
- Compare this to the \$4,410 using only 10% reuse



## More Efficient and Cost-effective Localization Processes (Cont.)

- This difference builds considerably over time

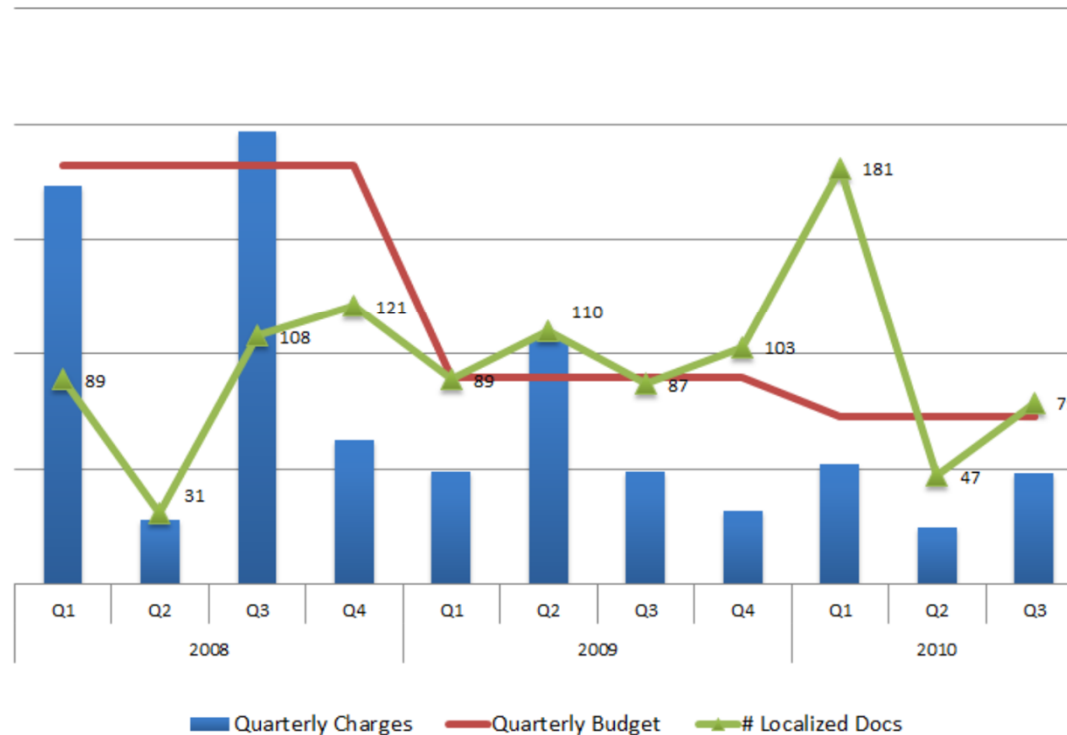


- For the same localization spend at the 10% reuse rate, you can easily tackle additional languages at the 50% reuse rate and same budget



# Doing More with Less (Localization)

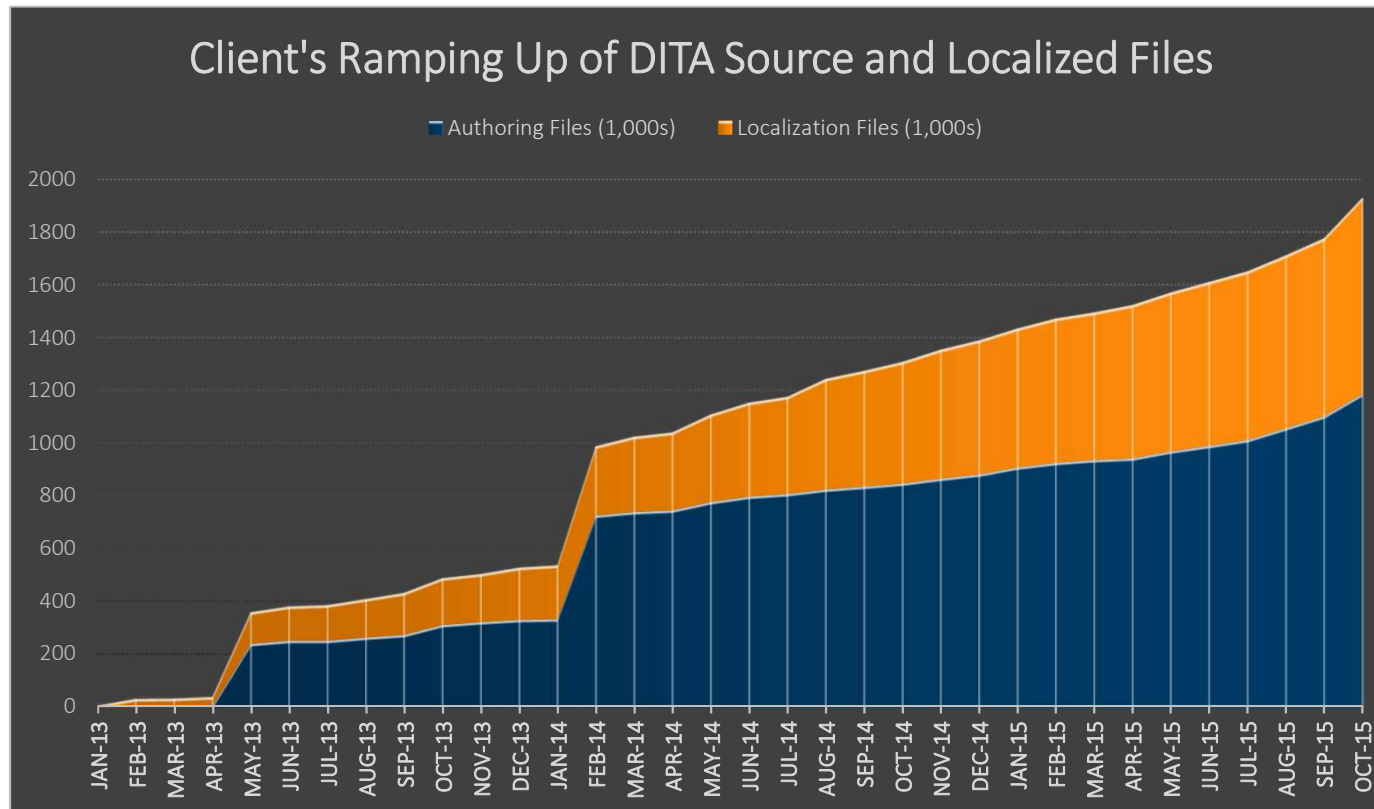
Quarterly Localization Run-rate vs.  
Number of Localized Docs Published  
2008-Q3 2010



- This is an actual example of being able to do more with less. The green line shows localized content product in a client's DITA environment, while the red line shows the localization budget, and the blue bars the actual localization spend.



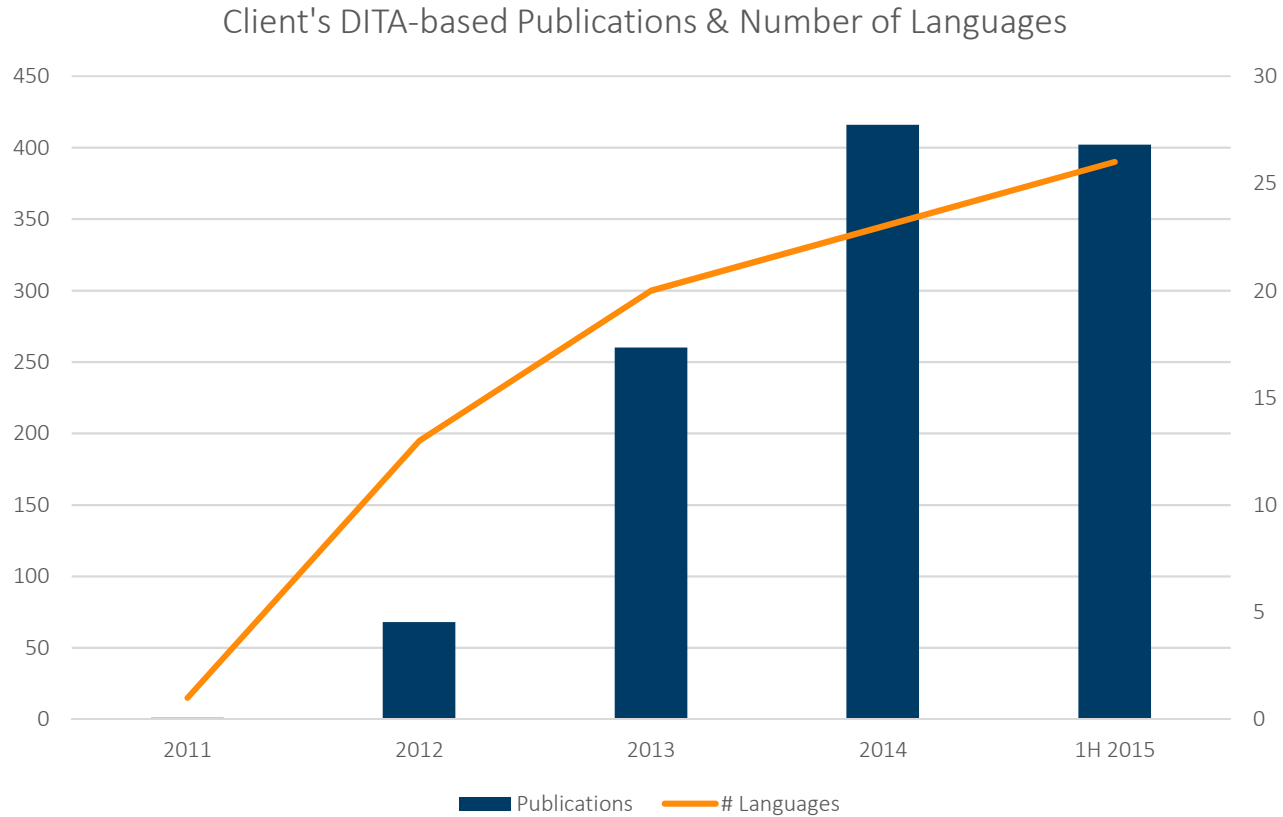
# DITA Can Enable a Firm to Localize *More* Content



- Depicts a client's progress as they are able to localize more content over time using the DITA CCMS



# DITA CMS Has Enabled Firms to Localize More Languages



- A different client, showing their ramp-up of DITA-based publications and the number of languages they were able to do *under same budget*



# An Example of How DITA CMS Helped Enable Agile

- Lean methodology employed at AMD; localization was early focus:
  - Under old toolchain could only localize software (with 1 month cadence) once every 6 months
  - Using pre-DITA CMS processes, it was costly, slow, minimal feedback
- DITA CMS made localizing on a monthly cadence possible
  - Demonstrated considerable cost savings
  - Localization staff could focus on quality and provide feedback

Localization Process Pre-Lean/DITA CMS:



Localization Process After Lean + DITA CMS:





# Another DITA CMS Agile Case Study

- DITA CMS client in software sector:
  - Writers were already embedded in software development teams, but without a CCMS they were always playing “catch up”
  - Lack of CCMS meant that doc team produced content that was hard to track/reuse
- Results:
  - DITA CMS greatly reduced time previously spent on manual processes, so writers now have the time to both create content and to participate fully in the Agile process



DITA CMS



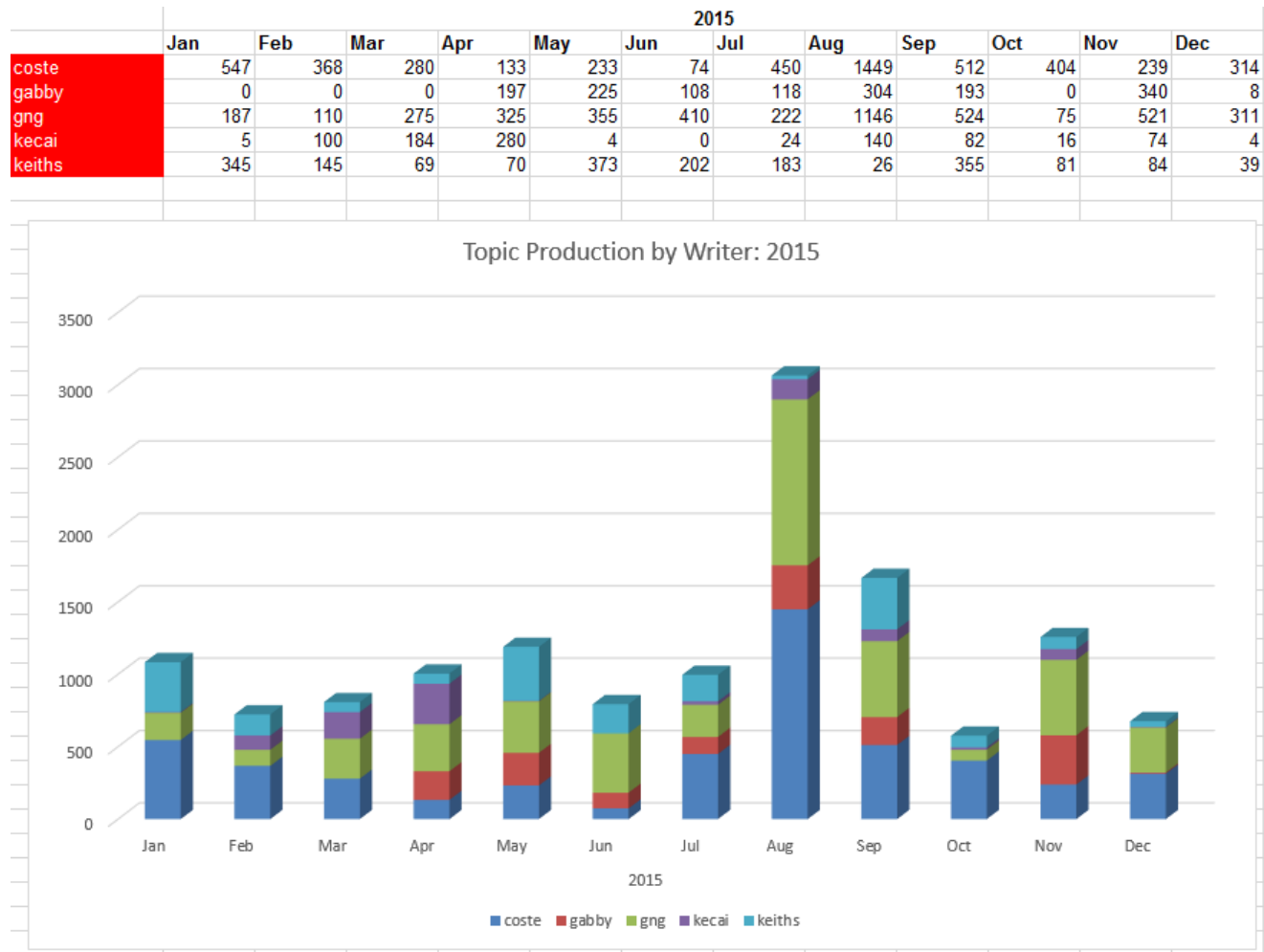


# Gathering Writer Production Metrics

- With DITA CMS, can search on topic production (created + modified topics) on a per-user basis
- This can be used to create a monthly report that accurately reports accurate topic production rates from tech docs teams plus SMEs and other content contributors
- Using this information, can better determine future content cadences (i.e. better scheduling for new product content)
- Understand individual and group contributions to content



# Example of Individual Contributor Content Over Time

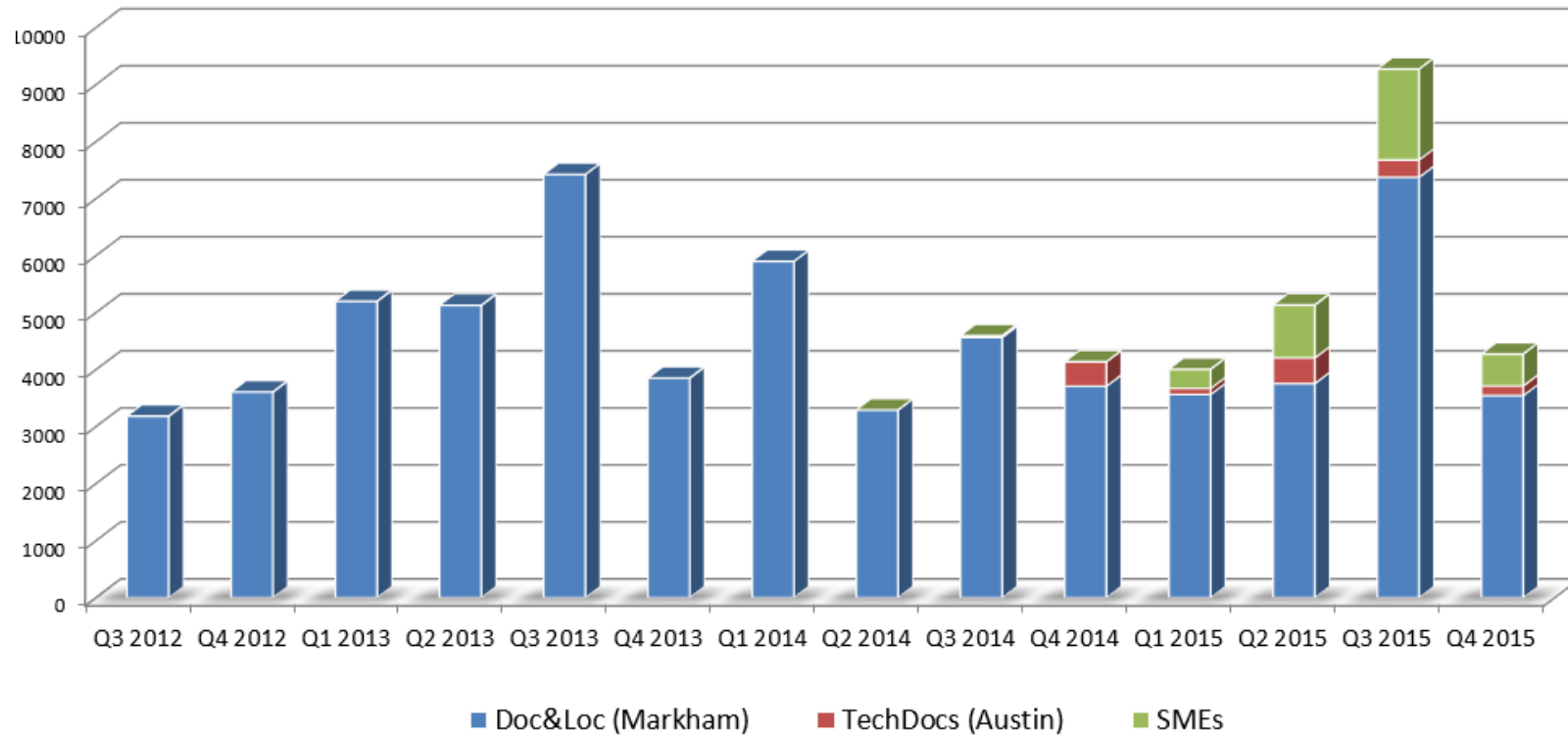


- Actual topic production per content contributor data from an IXIASOFT client



# Topic Production Measured Over Time + Division

Topic Output by Quarter

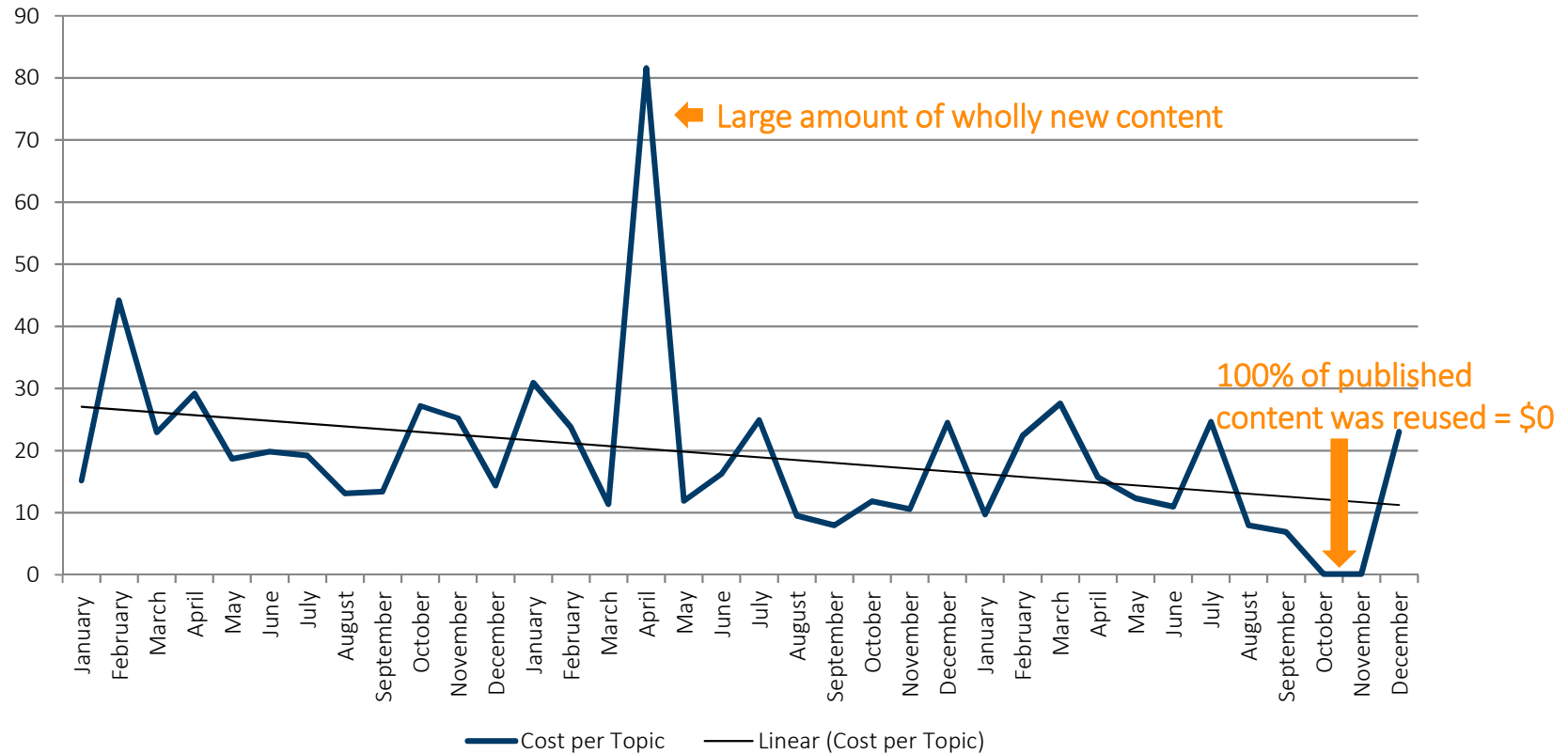


- This example shows real data from an IXIASOFT client depicting topic production per quarter and from which divisions



# Cost of Topic Production Can Be Measured

## Cost per Published Topic Over Three Years



- If you know the average wage rates for content contributors, can chart the cost of topic production
- Should see overall topic costs reduce over time, as with this example from an IXIASOFT client which saw production costs per topic reduced from \$28 to \$11, a 61% reduction



## These Numbers Applied

- 22 tech writers earning \$75K per annum producing 10K topics = \$165 to produce a single topic
- Given a conservative 50% reduction in costs over three years using the DITA CMS, this should drop to \$82.50 per topic
  - This will in fact fall further, as DITA CMS enables further efficiencies in topic production, with an additional 50% in topic production over three years a reasonable expectation
  - 15K topics by year 3 = \$55 per topic
  - This is well on the way to the ~\$20 cost per topic seen in the IXIASOFT client example



## Content Collaboration Adds to Efficiencies

- Considerable time savings for content contributors using DITA CMS
- Current process is manually-based, inefficient, and prone to error
- Currently 200 people across 70 teams spend 4 hours per week reviewing content = 33.3 man-days per week expended
  - Assuming avg. \$85K per SME/reviewer = \$2.16M is expended on reviewing content inefficiently



# Content Collaboration Adds to Efficiencies (Cont.)

- DITA CMS includes automated workflow for authoring, review, validation, etc.
  - Wholly configurable
- Content is automatically routed to next in chain
  - Time finding content to review compared to current system is greatly reduced

Change Status

User manual for the MINI S

Current Status: **Authoring:work**

New Status: **Authoring:review**

Authoring:contribute → Authoring:work → Authoring:review / Authoring:complete

Comment:  
Small update for version 2

Choose a previously entered comment

Preset comments:

- >  Fixed UI inconsistency
- >  Fixed typo / mis-spelling
- >  Fixed duplication error
- >  Fixed punctuation error
- >  Deleted redundant text

Change Cancel



## Content Collaboration Adds to Efficiencies (Cont.)

- SMEs can participate in the documentation process without being DITA experts.
- Reviewers can quickly check their list of review tasks and access directly to content
- Non-technical users can near-simultaneously annotate content as soon as it is assigned to them
- Comments are sent back to authors, resulting in a dynamic and quick review process



# IXIASOFT Web Client for Casual Content Contributors

- Connect online
- Presents a list of topics to review
- Click to open and edit
- Moves finished content to the next step in workflow

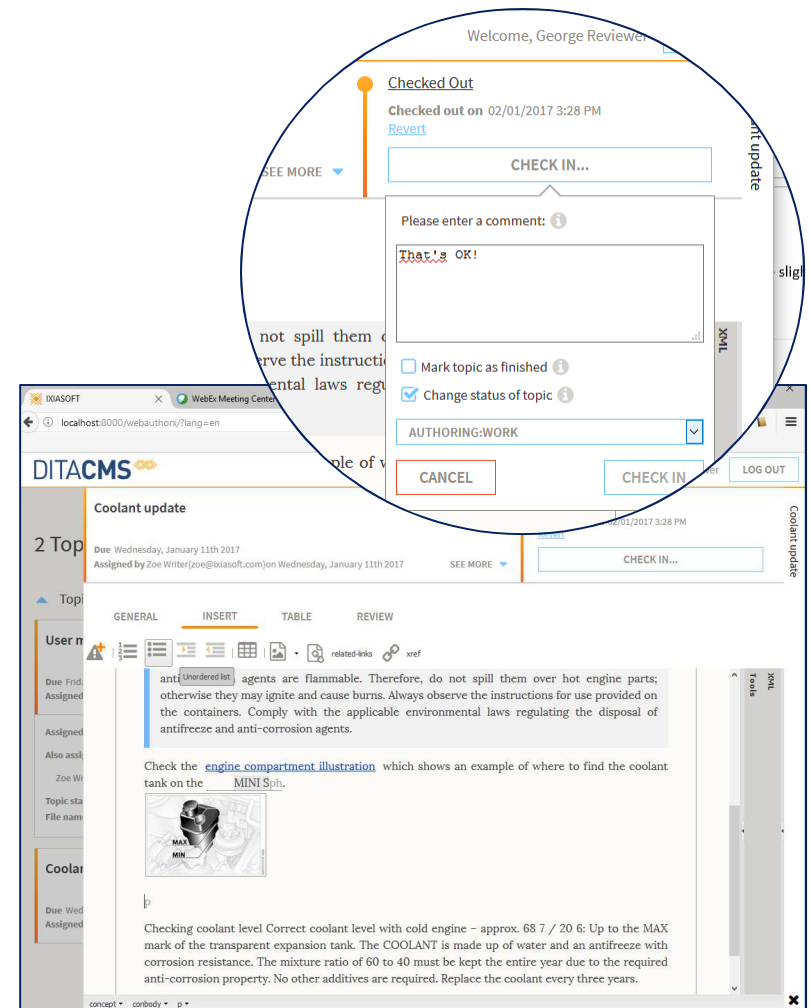
The screenshot displays the DITACMS web client interface. The browser address bar shows 'localhost:8000/webauthorx/?lang=en'. The page header includes the DITACMS logo, a welcome message 'Welcome, George Reviewer', and a 'LOG OUT' button. The main content area is titled '2 Topics Assigned to Me' and includes a 'Hide Finished Topics' checkbox and a 'Sort by:' dropdown menu with options for 'DUE DATE' and 'TITLE'. Below this, a section titled 'Topics with No Associated Map' lists two topics:

- User manual for the MINI S**: Due Friday, December 9th 2016. Assigned by Zoe Writer(zoe@ixiasoft.com) on Monday, January 9th 2017. Status: Available. Last modified by Zoe Writer. Includes a 'CHECK OUT' button and a 'SEE LESS' link.
- Coolant update**: Due Wednesday, January 11th 2017. Assigned by Zoe Writer(zoe@ixiasoft.com) on Wednesday, January 11th 2017. Status: Available. Last modified by Zoe Writer. Includes a 'CHECK OUT' button and a 'SEE MORE' link.



# IXIASOFT Web Client for Casual Content Contributors (Cont.)

- Annotations/comments
- Edit & add content
- Add external images
- Add tables
- Change content status
- Option to view XML
- Greatly speeds up review process; conservatively estimate 50% reduction in process time per topic





## Current Collaborative Process vs. DITA CMS

- Currently 200 people across 70 teams spend 4 hours per week reviewing content = 33.3 man-days per week expended
  - Assuming avg. \$85K per SME/reviewer = \$2.16M is expended on reviewing content inefficiently
- If this time is reduced by half:
  - 200 people spending 2 hours per week reviewing content = 16.5 man-day per week saved
    - The rest of this time is now spent by SMEs on doing their primary tasks rather than on documentation
  - \$1.8M is saved on time that was previously spent using the manual review process
  - Process as a whole is more nimble, reducing time to market



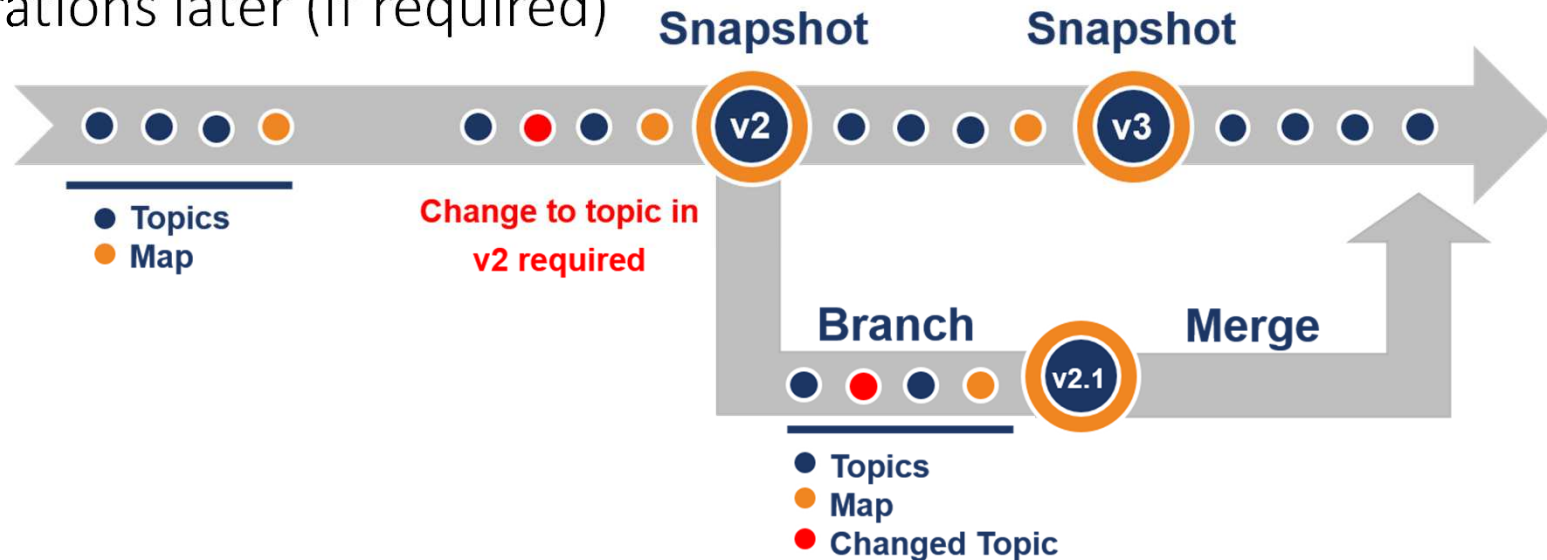
## Why Not GIT?

- GIT is not optimized for component-level content
  - Does not enable comparable levels of content reuse or sophisticated branching the DITA CMS offers
- GIT is not XML-aware, does not easily enable many features basic to DITA (keys, conrefs)
- Relies upon file/folder structure, same as SVN
  - Content will continue to be siloed
- Team will face same/similar issues to what is currently experienced with SVN
  - “You get what you pay for”



# Sophisticated Branching/Merging = More Nimble Processes

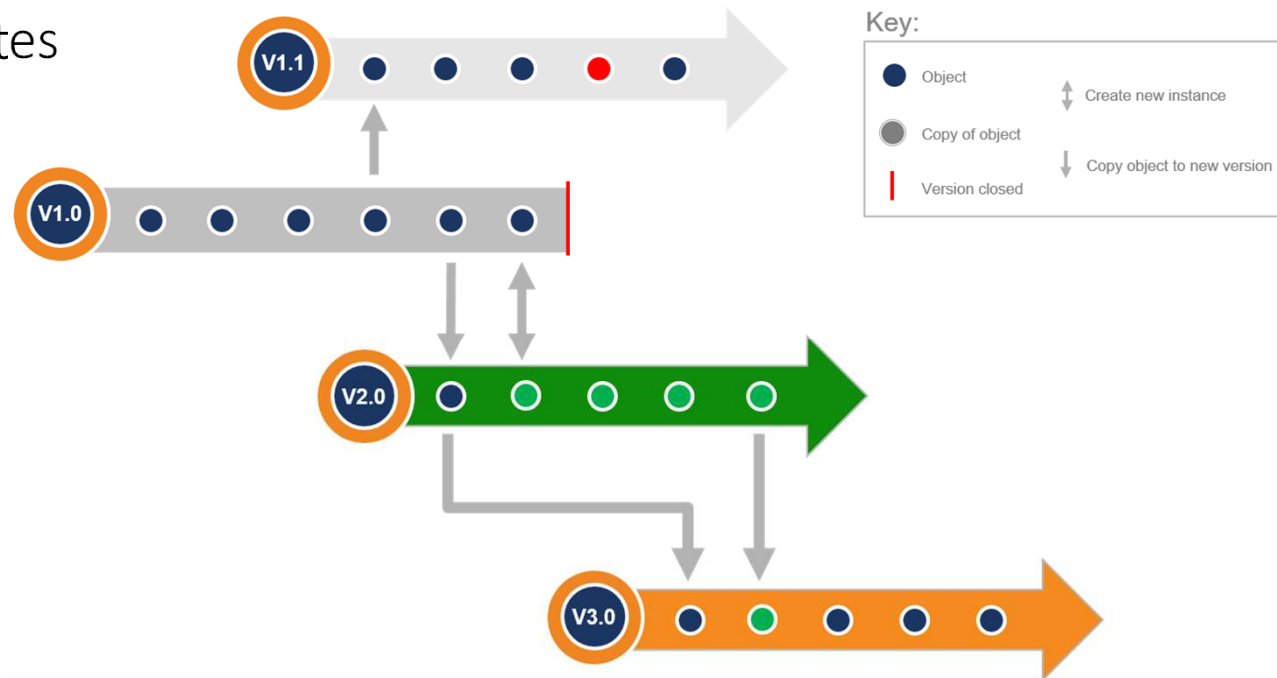
- IXIASOFT DITA CMS provides convenience functions for aiding with branching and merging operations
- “Snapshots” reflect content development at a point in time, whose content is tracked allowing for straightforward merging operations later (if required)





# Maximize Reuse with Dynamic Release Management

- IXIASOFT system is the only one on market with this feature
- Supports large number of product lines or multiple versions in parallel
- Maximises reuse between branches, share common libraries and control updates





# Quantifying Release Nimbleness

- Under existing system, all branching merging operations are done by hand. This is time consuming and prone to error.

This includes:

1. Copying topics into new branch
2. Identifying and then adding content in topics to change
3. Marking topics as being changed
4. Labelling content at map level as being branched
5. Identifying content that needs to be merged at a later date
6. Merging content back into mainstream release



## Quantifying Release Nimbleness (cont.)

IXIASOFT DITA CMS automates key portions of this

This includes:

1. Copying topics into new branch **automated**
2. Identifying and then adding content in topics to change
3. Marking topics as being changed **automated**
4. Labelling content at map level as being branched **automated**
5. Identifying content that needs to be merged at a later date **automated**
6. Merging content back into mainstream release **automated**



## Quantifying Release Nimbleness (cont.)

- Assuming each part of the manual process takes 1 minute, for 1,000 manual branching/merging processes over the course of a year = 17 hours; with 10 people merging branching operations = 7 days
- DITA CMS automates 5/6 of these processes, for a total time savings of 6.25 days per year
- Process is more nimble = can more easily meet deadlines
- Automation ensures that system is foolproof = only correct content goes out the door



# IXIASOFT DITA CMS Key to Unified Content Strategy

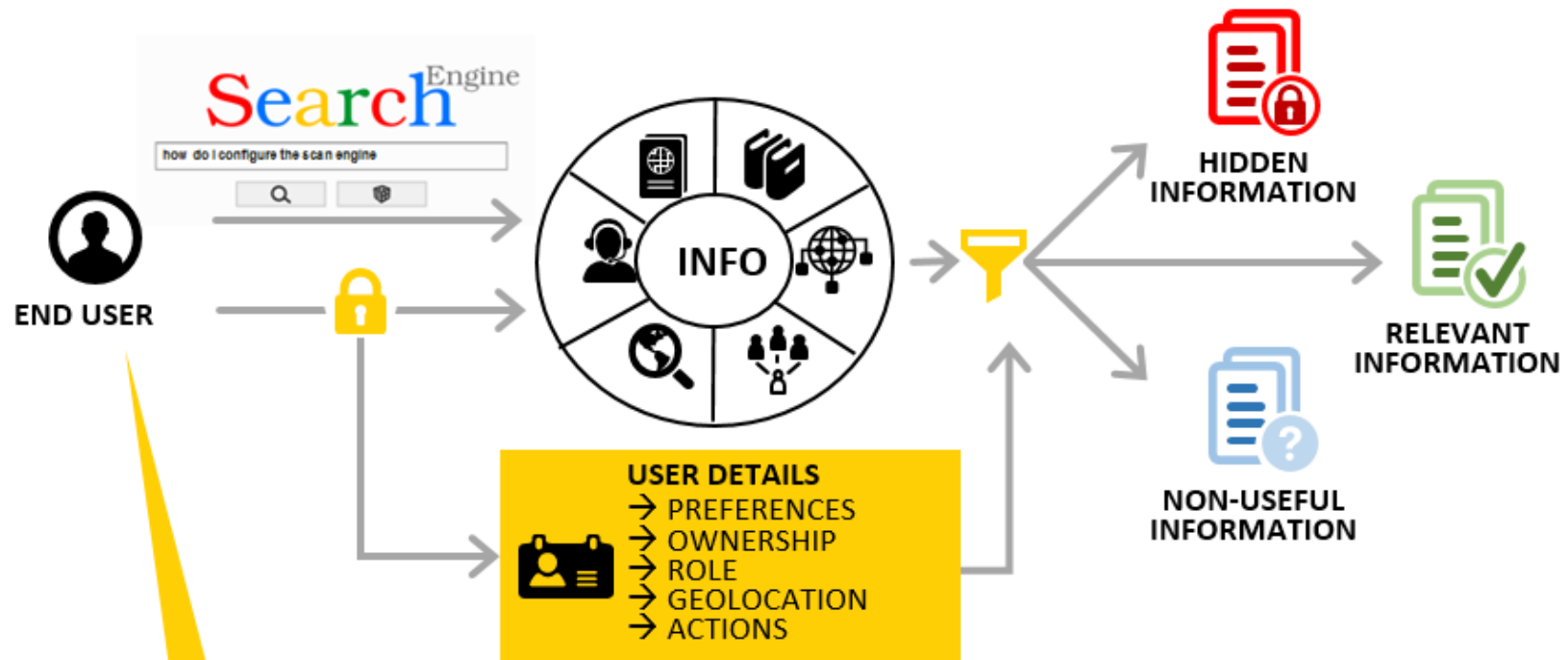
- IXIASOFT DITA CMS works seamlessly with Zoomin Docs dynamic publishing system
  - New content/updates can be published directly from DITA CMS
- Digital Experience Management enables the following:
  - Content personalization
  - Entitlements (for specific clients, such as very latest info)
  - Faceted and weighted search using keywords and synonyms
  - Content recommendations across channels





# How Content Personalization is Possible in Zoomin

## Content Personalization: Profile and Entitlements



**Role:** I'm an **IT technician at a data center**  
**Goal:** How do I **configure the Scan Engine**  
**Context:** Using the **virtualization console** in Linux?



# Semantic Tagging Facilitates Findability and Personalization

- Classification of content
  - Based on a taxonomy of terms, used across content channels
  - Develop taxonomy by identifying common terms and use-case scenarios for finding answers, based on role, goal and context
  - Drives faceted search and weighting
  - Drives personalization and entitlements
  - Drives content recommendations
- 
- DITA CMS supports subjectScheme, enabling authors to easily and fully describe content, enhancing Search Engine Optimization (SEO)



# More Targeted Content = Better Customer Service

- A DITA CMS client produces over 60,000 automated outputs daily
- What are these outputs? Mainly updates (including localized content) to software their customers use every day
- Some customers are given special, early access to content as it is created





# DITA-based Documentation and The Road Ahead



- DITA and the IXIASOFT DITA CMS provides an opportunity to actively measure quantity- and quality-related metrics
- Built-in efficiencies (workflow, branch/merge, localization, content contribution made easy, SEO) greatly reducing operational costs while improving efficiencies and interactions with users