

Knowledge Base Research, Design, and Development for the accesso Siriusware Product Suite

WRITTEN BY AMANDA SWIONTEK

Arizona State University

Applied Project – Fall 2017

*Submitted in partial fulfillment of the requirements for the degree of Master of Science in
Technical Communication in the College of Integrative Sciences and Arts*

Committee Members

Chair: Dr. Eva Brumberger

Members: Dr. Tatiana Batova & Dr. Andrew Mara

Contents

- Executive Summary 1**
 - Project goals 1
 - Users and study participants..... 1
 - Applied research and end-user research study 1
 - Actions taken 1
 - Findings 1
 - Recommendations 2
- Abstract..... 3**
- Introduction..... 3**
- Literature Review 4**
 - KB planning, functionality and usability..... 4
 - Planning*..... 5
 - Functionality* 5
 - Usability* 5
- Methods..... 5**
 - Step 1: Needs analysis 5
 - Step 2: Implementation plan 6
 - Step 3: Ongoing KB design/development 9
- Results 10**
 - Participant overview 10
 - Participant background*..... 10
 - User types* 10
 - Software support needs results 11
 - Documentation results 11
 - Published KB and documentation format* 11
 - KB usability results..... 13
 - KB design and organization*..... 13
 - KB functionality and usability*..... 14

Conclusion	17
Recommendations	17
<i>Documentation format</i>	17
<i>Content management</i>	17
<i>Future data collection</i>	17
<i>Future improvements</i>	18
References	19
Appendices	20
Appendix A: Raw data	20
<i>Opening Questionnaire</i>	20
<i>Task questions</i>	23
<i>Closing questionnaire</i>	28
Appendix B: Informed Consent	31

Executive Summary

Project goals

This goal of this project was to use applied research data and end-user research study findings to (1) determine technical communication strategies, (2) create an implementation plan and (3) determine methods for ongoing design/development for a knowledge base (KB) of product related documentation for the *accesso Siriusware* product suite (software). Implementation goals included determining how to consolidate KB documentation displayed across multiple web pages and understanding user preferences for documentation published in both HTML and PDF formats.

Users and study participants

End-users are *accesso* clients that utilize the *accesso Siriusware* product suite. These clients are employees of organizations within attractions and entertainment industries. This study consisted of a sample size of 16 users. The majority of participants specified an administrator a job title and stated that they held one to five years' experience using *accesso Siriusware* software.

Applied research and end-user research study

The goal of the research was to understand the responsibilities and strategies necessary for a technical communicator to effectively design, develop, and manage a KB of online help articles. Applied research indicated that in order to deliver an effective KB, technical communicators should focus on KB planning, functionality and usability. The research study collected data based on end-user feedback related to software support, documentation, and KB usability.

Actions taken

In support of the applied research, the *accesso Siriusware* Technical Writer worked with *accesso* leadership to identify subject matter experts (SMEs) that could contribute to KB content and provide insight in to client needs. She also collaborated with *accesso* marketing and leadership to implement changes on the KB structure, stylization and terminology. To better understand needs, she conducted an in-person research study with a sample size of clients (end-users). She created a post-study technical report that summarized research findings. The report included research recommendations for the KB project team.

Findings

The findings from the applied research suggested that the Technical Writer work with SMEs to better understand end-user needs. Applied research also emphasized that feedback collected from end-users is the preferred method to truly understand their needs. The research study findings indicated that clients actively accessed all KB sites and preferred KB documentation in PDF format. In addition, research participants requested improved search functionality for the KB.

Recommendations

The Technical Writer should publish KB documentation solely in PDF format. The updated KB should also reflect improvements on documentation search functionality. The *accesso Siriusware* Technical Writer should also continue working with SMEs, leadership and marketing to develop the KB. Finally, the Technical Writer should perform a new end-user study annually and use research findings to further evolve the KB.

Abstract

This project compiled findings from both primary and secondary applied research on the design and content structure on the current knowledge bases (KB) of product related documentation for the *accesso Siriusware* product suite. The findings from the research and study improved my understanding surrounding our end-user perceptions of knowledge base functionality and usability. In addition, the findings became the framework for building an implementation strategy to improve knowledge base design and development. The implementation strategy is included in the report, and I will continue to use these findings to update documentation and develop the KB.

Introduction

The organization for this project, *accesso*, support clients that utilize the *accesso Siriusware* product suite by publishing an online, client-facing portal that includes a knowledge base (KB) of documentation. This KB is a critical component the relationship between the client and *accesso*, as *accesso* publishes the most current installation, configuration and use information for all software users. With a focus on improving the client experience with product support, *accesso* has created the Information Portal project, which includes a remotely located team that is dedicated to redesigning the client-facing portal. The KB of documentation is a smaller component of the Information Portal project. In addition to the KB, the Information Portal project encompasses update information, client access to support tools, client chat areas and software downloads for support tools.

The main reason that the KB is a component of the Information Portal project is because the redesign will offer a centralized location for the clients to access all areas of *accesso Siriusware* software support. Two of the challenges with the KB were determining how to consolidate multiple KB sites and how to implement a consistent file format for all documentation. At the beginning of the project, KB documentation was displayed across multiple web pages (eight total unique sites) using two different formats. We refer to the display formats as either HTML or PDF. Web pages that displayed in an HTML format were supported by the WebWorks application, which displayed H1, H2 and H3 headings on the navigation menu as hyperlinks to view documentation. The *accesso Siriusware* Technical Writer was required to use WebWorks to upload the Word file for each document and update changes to the core documentation web page. The challenges of this process were that any changes required that the Technical Writer publish the full library for each web page and in some cases, headings did not read accurately to the navigation. The WebWorks publishing process was time consuming when publishing new or updated documentation. The core documentation set, for example, was displayed via HTML format. To give clients access

to PDF copies of documentation, the client had to visit a separate KB page that contained a hyperlink list for core documentation or locate each core document on the Information Portal. Each PDF file was created and uploaded to the Information Portal individually by the Technical Writer. After the PDF was uploaded, clients needed to login to the Information Portal to view or download the document. The reason that two formats were available was because the *accesso Siriusware* team was unsure of which format was more convenient for clients to access information. During the Information Portal project the team discussed the possibility that general design of the HTML formatted site and limited search functionality made it challenging for clients to find the information they needed. Project staff claimed that this perception was derived based on statistics related to open support cases for *accesso Siriusware*. The staff claimed that clients indicated that they had to reach out to *accesso Siriusware* Technical Support because they could not find the information they needed in the documentation. In addition, all of the *accesso Siriusware* documentation web pages statistically revealed little or no activity on some of the sites. These conversations led to setting project goals that would help determine which format was the best fit for documentation and make a consistent content structure for the redesign of the KB. Beyond determining a consistent documentation format and moving all KB documentation to a centralized location, this project presented the opportunity to set goals to improve KB documentation format, stylization, search functionality, and web page navigation.

Technical communicators who develop and manage a knowledge base of help articles for an audience of external users often find challenges with delivering an effective design and content structure that allows users to easily access information. The *accesso Siriusware* Technical Writer is responsible for the KB and its corresponding documentation; I support the Information Portal project in this capacity. My primary tasks for this project are to design and develop the *accesso Siriusware* KB. The goals of the project are to gather data and use it to develop an implementation strategy for creating an effective user-centered KB. The applied research data will highlight considerations for various stages of the KB project. I will also perform an end-user study that enables a deeper understanding of the needs of our core audience. The data from this study is useful based on its inclusion of specific suggestions on how we can improve the organization and design of our KB and its accompanying documentation.

Literature Review

KB planning, functionality and usability

To assist with design and development planning for the KB, I reviewed literature that outlined strategies for technical communicators managing an online knowledge base for external users. After reading several articles, I noticed specific keywords and phrases

that stood out related to what I should focus on for the KB. I wanted to organize the information from the literature reviews so that I could easily categorize the recommendations to fit each phase of the KB implementation. Therefore, I decided to use a coding technique to enhance the research results in this area. In her book, “The Coding Manual for Qualitative Researchers”, Saldana (2016), suggests that codifying is a process that permits data to be divided, grouped, reorganized and linked in order to consolidate meaning and develop explanation. Based on Saldana’s recommendations, I opted to perform a manual coding technique to categorize repeated instances of many keywords and phrases. These keywords outlined the role and processes that a technical communicator needs to successfully develop and manage a KB. In order to deliver an effective KB, technical communicators should focus on KB planning, functionality and usability.

Planning

- Determining goals
- Identifying metadata
- Understanding users
- Developing specifications
- Performing task analysis
- Mapping topic relationships
- Being aware of names and categories
- Identifying users (Bosančić, 2010)

Functionality

- Providing search instructions
- Archiving questions and answers
- Creating an online reference tool
- Organizing by subject
- Cross referencing information
- Merging all documentation
- Confirming documentation accuracy (Racine & Crandall, 2001)

Usability

- Accessing information online
- Impacting the self-service experience and product/brand loyalty
- Making information easily searchable (Skuce, 2000)

Methods

Step 1: Needs analysis

To address the challenges of the lack of social interaction, information and resources cited in the Rice-Bailey (2014) pilot study, I established plans to collaborate on the KB both internally and externally.

In order to collaborate internally to overcome these challenges, I decided to leverage our team by both creating a test group comprised of *accesso Siriusware* staff and attending local in-person meetings with technical communication staff from the *accesso Passport* division. In addition, I decided to confer with our Marketing team for proposed changes to documentation styles, design, terminology and other content that represents the *accesso* brand. For the purpose of the test group, I created an internal site that served as a preview for KB design and organization. In order to represent the broad internal team, the test group was comprised of at least one team member from each department. Test group staff provided feedback on knowledge base documentation design and organization through conference calls and email. During the meetings with the *accesso Passport* division, we exchanged information about how each division creates, manages and organizes documentation. *accesso Passport* was already using an internal KB for product information, so they shared feedback on best practices and strategic learns. I used the feedback from the *accesso Passport* team to build a strategy for the internal KB site for the test group. For both the *accesso Passport* team and the test group, I collected and used their feedback during the implementation, design and development phases of the project.

To collaborate externally and determine the specific needs of our users, I conducted an in-person study with select clients during our annual *accesso Siriusware* Seminar training event. These clients represented a sample size of our end-user audience. During the study, clients shared feedback on both current and future KB design and organization. In addition to the study, *accesso* requested that the I have the following deliverables ready to present to clients at the Seminar:

- Page tree for knowledge base (database documentation only)
- Migration of last release documentation (version 4.4)
- Examples of 3-5 most recent release knowledge base documentation

Step 2: Implementation plan

Goals

Implementation goals included presenting to and collecting data from clients during the 2017 Seminar. The goals were to collect data surrounding:

- Software support needs (documentation as a component)
 - Are clients using documentation
 - How do they use documentation compared to other support options
 - How does documentation impact client support
- Documentation
 - Published (client-facing) KB and documentation format
 - HTML navigation and search

- Recent changes to documentation design
 - Positive and negative specific feedback on existing areas of the KB
- KB usability
 - Feedback on core documentation site
 - Use existing document in multiple formats to understand preferences/use between HTML and PDF format
 - Determine need to consolidate multiple KB sites in to one area (the Information Portal)
 - Open discussion
 - Ideas on how to improve KB usability
 - Additional feedback as per client choice

Client (end-user) recruitment and scheduling

I conferred with the direct supervisor of the KB project, the former *accesso Siriusware* Technical Writer, and the Seminar manager regarding the process for the client study. The goals of the client study included:

- Collecting feedback directly from clients regarding the design and ease of use for
 - Current documentation
 - Future documentation (a preview was provided for client review)
- Having an open discussion about
 - What participants like/dislike about current KB functionality and usability
 - Recommendations to change and improve KB documentation

In order to accomplish these goals, we determined that clients would meet individually with me for 30-60 minutes at the Seminar. Because we wanted the data to represent a variety of end-users, I used a variety of strategies to structure the research. To determine the best sample size, I kept in mind that the goal was to represent a variety of end-users based both on their industry type and on how they use documentation. Ideally, we wanted our sample size to include new clients, super users (e.g. Administrators, IT managers, etc.), and basic users (e.g. operators, general managers, etc.). To align with privacy and to help clients feel at ease with the study, we decided to recruit clients via invitation only, participation would be optional and feedback would be anonymous. In order to yield participation for up to ten clients, we set goals to invite a minimum of 30 clients to participate. Additionally, we set another goal to schedule 12-15 clients in consideration of potential cancellations.

In order to recruit clients for the study, I collaborated with *accesso* leadership in Seminar and Client Services departments. I provided several details to *accesso* leadership, which included (1) a review of the scope and goals of the client study, (2) an overview of expectations of client participation for the study and (3) a written summary of how the study would benefit both clients and *accesso*. I also outlined my responsibilities for before, during and after study. We agreed that I would act as the sole

contact to recruit and manage clients participating in the study. To ensure the sanctity of conducting the study, I requested a private room in order to prevent interruptions from staff or clients. To keep communication consistent and to help me build trust with potential participants, I would be the sole contact via phone and email. To make sure the Seminar manager was aware of the individual meeting times for the study, I gave her access to my schedule. To help clients retain their appointments, I made a commitment that prior to their scheduled time, I would confirm our meeting for each participant via email and/or phone. After confirming with the client, I made the appointment visible on the Seminar website. For participant privacy, these appointments were only viewable by the participant, the Seminar manager, and me.

After collaborating on study goals, expectations, benefits and technical communicator responsibilities, I utilized a Microsoft Excel spreadsheet provided to me by *accesso* leadership to recruit clients to participate in the study. The spreadsheet listed the client name, job title, email, and affiliate organization for over 30 clients I emailed each client individually, using an email template approved by the *accesso* marketing team (see Figure 1).

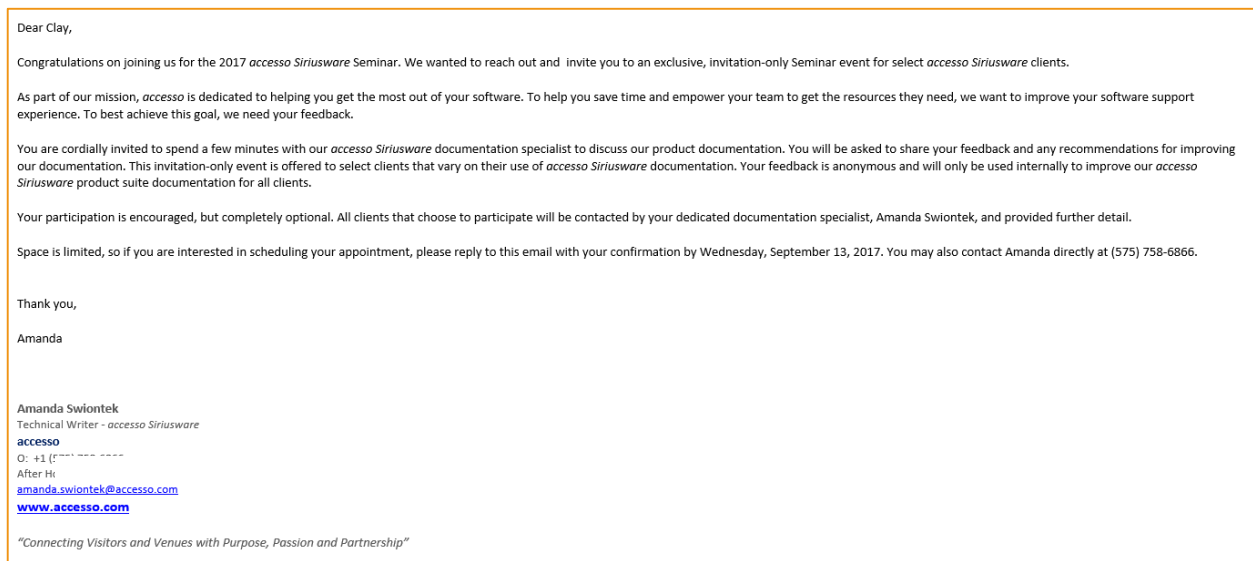


Figure 1: Example of client study recruitment email

I scheduled clients as they responded via email or by phone to indicate their desire to participate. When connecting with clients, I explained the study in detail and answered any questions the client had. After clients were satisfied with the provided information, they scheduled (at their discretion) for either a 30-minute or a 1-hour time slot.

Client Study Structure

In order to ensure a consistent study experience for clients, I set several parameters for the study. For example, I would create a consent form that all participants must sign prior to the study session. As per leadership request, I needed to share signed forms with HR so that they would be retained on file with *accesso*. To help us better understand end-users participating in the study, I set up a questionnaire for each participant to provide specific information. This information included asking them to specify their (1) job title, (2) experience with *accesso Siriusware* product suite support (3) preferred method of *accesso Siriusware* product suite support, (4) primary user role, (5) length of time using the *accesso Siriusware* product suite, (6) documentation viewing methods, (7) preferred documentation viewing methods, (8) frequency of accessing *accesso Siriusware* product suite documentation, (9) KB sites used, and (10) preferred KB sites. As a secondary form of collecting information, planned on creating a task-based section that would allow participants to review and give feedback on the following KB sites and documentation. In order to determine some of the redesign focus areas, I planned to develop tasks that covered feedback on core documentation, PDF documentation, HTML (browser based) documentation, and elements of new documentation design.

Prior to beginning the study, I provided and requested electronic signature/date for the Informed Consent to Participate in Research form ([see Appendix B](#)). Adobe Sign certified signed participant consent forms and automatically returned electronic copies to me.

To conduct the study, I used the Optimal Workshop user research platform and conducted a Tree test type study. I was the sole person that had access to collect and review the study results via Optimal Workshop. All study participants used a Dell Precision 7510 laptop running Windows 10 and Firefox browser to enter study responses on the Optimal Workshop website.

Step 3: Ongoing KB design/development

During the next stages of the KB development, I will migrate and/or consolidate documentation from a variety of sites to the page tree of the new knowledge base. I will also continue to add newly created product and release notes documentation to the KB. Deadlines are not set, but *accesso* leadership supporting the Information Portal project expects that I will update, migrate, and add documents in between software release dates. In addition, I will provide a weekly email summary sent to internal staff that links to and explains any KB documentation migration or consolidation.

Meanwhile, I will be using the literature review findings and results from the Seminar study to determine the final KB design and development strategy. In addition, I will use recommendations from the Seminar 2017 *accesso Siriusware* Documentation Client Feedback results as I continue to update and evolve the KB design and development. At the discretion of *accesso* leadership, ongoing KB support may include eliciting end-user feedback at future Seminar events. *accesso* leadership may also make changes to the staff supporting the Information Portal project to ensure that KB needs are consistently and appropriately supported.

Results

After the study was complete, I analyzed the collected data collected to determine how I could develop and manage the KB help articles for our audience of external users. To ensure that staff supporting the Information Portal project understood how the study results would be used for the redesign and implementation of the KB, raw data was shared with *accesso* leadership. Raw data is also located on [Appendix A](#) of this report.

Participant overview

Participant background

In order to understand the audience represented by the sample size of the study participants, I collected information that summarizes the background and user type of the participants. In order to provide statistics of participant responses, I wanted to capture how many participants and unique organizations made up the sample size of the study. 16 clients participated in the study and two participants were from the same organization. This meant that 15 unique companies were represented in the study.

User types

Another goal of the study was to understand the type of users represented in the sample size. 14 participants indicated that their primary user role (administrators, operators, etc.) was that they supported their organization as an administrator for *accesso Siriusware*. For more granular understanding of how their role relates to supporting *accesso Siriusware*, each participant indicated their job title. This indicated that the most prominent job title was Database or Systems Administrator/Coordinator, which represented four participants. The least popular job title was VP, which was represented by only one participant.

To help understand their experience with the *accesso Siriusware* product suite, participants were asked to indicate how long they had used our software. Results indicated that 60% of participants used the *accesso Siriusware* product suite for 1-5 years. In order to determine the correlation (if any) between how long participants used our software and their experience using product documentation, clients were asked to

indicate how frequently they accessed documentation. I found that approximately 70% of participants use documentation weekly and 20% use it on a daily basis.

Software support needs results

The goal of collecting data related to software support needs was to determine if participants were using documentation, how they used documentation compared to other support options, and if documentation use impacted other areas of software support. In order to understand the correlation (if any) between the ease of use for participants to access documentation, participants were asked a series of questions related to their software support needs. When clients need support for the *accesso Siriusware* product suite, they have the options to reference KB documentation, call technical support, email technical support or open a support case. To understand how participants leverage these tools, they were asked to provide insight in to their experience with *accesso Siriusware* software support. Study findings indicated that 100% of participants have both opened support cases and used documentation. To understand which tool participants preferred as an easier method to access information, they were asked which method they preferred when seeking out software support. Results indicated that over 33% of participants prefer to open support cases. In addition, 25% clients preferred to either email technical support or reference KB documentation. Furthermore, feedback provided by clients during this portion of the study indicated that some clients would reference documentation first, but if they could not find what they were looking for or understand the documentation content, they reached out to technical support for help.

Documentation results

The documentation results summarize participant feedback on existing areas of the KB.

Published KB and documentation format

In respect to the goals of redesigning the KB to deliver an effective content structure to allow users to easily access information, participants were asked how they access and information. One of the challenges that I wanted to solve through the study was determine which format I should implement to display (HTML or PDF) documentation. When participants were asked how they access documentation, 93% stated that they use the PDF format and 86% use the browser view in HTML format. When asked which of the two formats were their preferred method to access documentation, approximately 75% of participants stated that they use the browser view first and the remaining 25% of participants prefer to view or download the PDF. To help me determine how to consolidate multiple sites in to the KB, I wanted to learn which sites participants visited and preferred to use. The findings indicated that the participants used the following web pages to view and find information: information portal 93%, core doc set 87%, release notes 68%, 50% *accesso Siriusware* search. See Figure 2 for an overview of the sites that participants visited for view/find documentation.

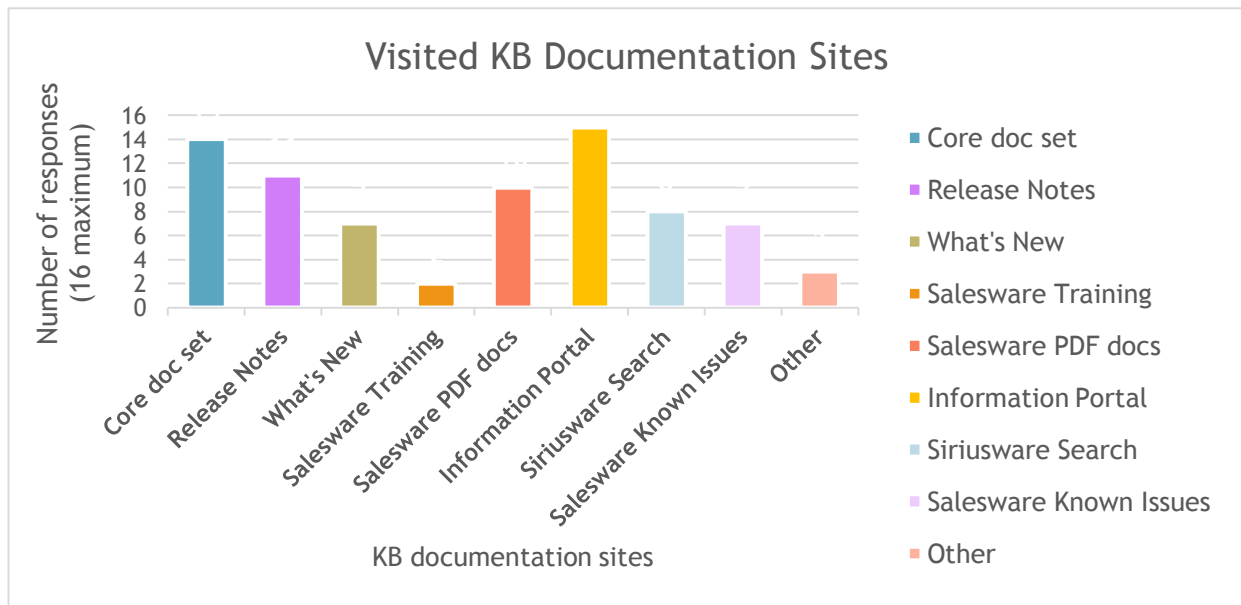


Figure 2: Sites participants visited to find/view KB documentation

To better understand which of those sites were more useful to participants, they were asked to select one site as their preferred method to access documentation. 38% of participants stated that they preferred accessing the core doc set. Approximately 1/3 of participants stated that they preferred using the Information Portal. For an overview of the preferences for each site, see Figure 3.

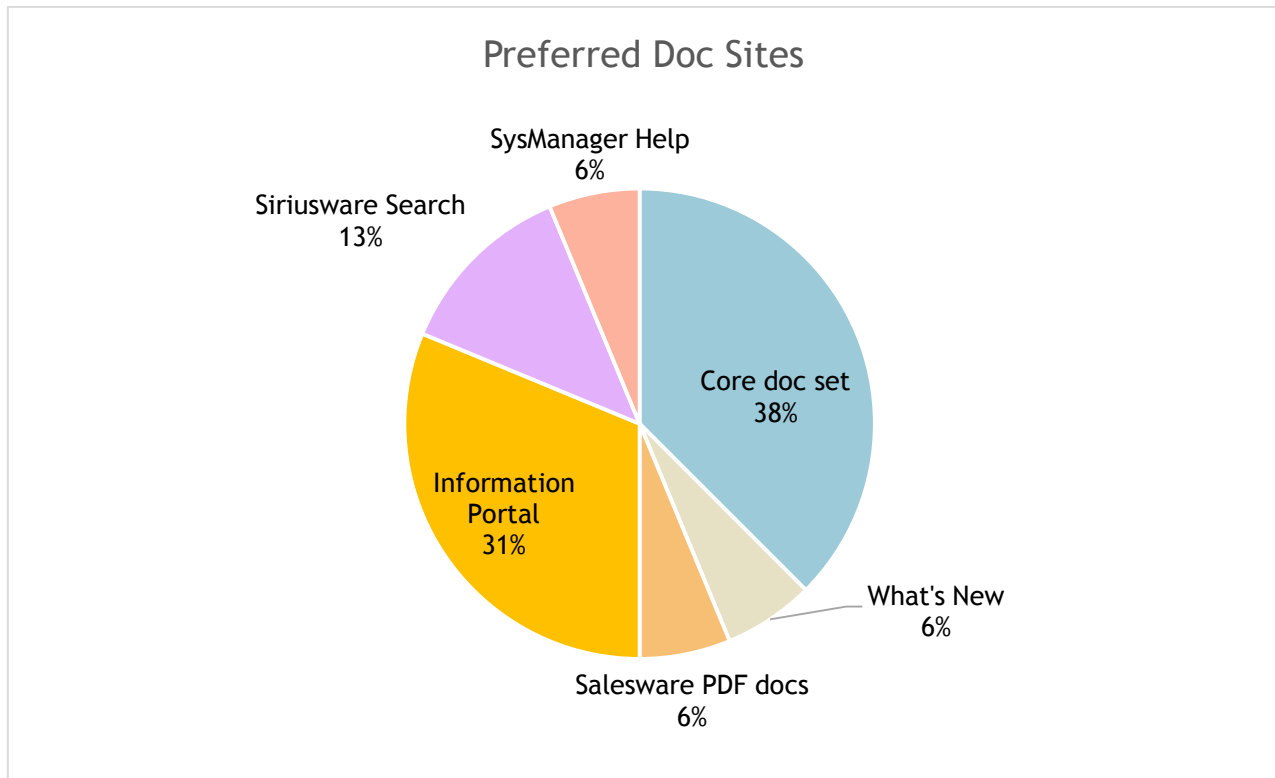


Figure 3: Sites that participants prefer to use in order to find/view KB documentation

KB usability results

The KB usability results summarize participant feedback on the core documentation site, ease of use for HTML and PDF formats, and insight in to their preferences of consolidating multiple KB sites in to the Information Portal. It also included an open discussion on the effectiveness of KB design, organization, functionality, and usability.

KB design and organization

To align with the goal of understanding audience perceptions on current the KB design and organization, participants were asked to review the core documentation web page and provide feedback on the most useful and least useful components. In regard to solely viewing/accessing the core documentation web page, participants stated that their favorite/most useful feature was as follows: search functionality 60%, ability to download/print documentation in PDF format 33%. When asked what they considered the most important change for the KB, 33% of participants requested improved search functionality and 25% participants requested updated versions of published documentation. Additional feedback was obtained from two participants that made specific recommendations on how to improve document formatting for Release Notes. Participants also made other recommendations, which included improving the look and flow of KB pages, adding a glossary section to the KB, and adding a sidebar that arranges search results by topical relevance.

KB functionality and usability

To measure KB functionality and usability, participants compared various document formats. The data collected pertained to participant review of the core documentation web page (HTML format) and comparisons between the same documents in PDF and HTML format. Participants provided feedback to validate the need to consolidate multiple KB sites into one area (the Information Portal).

After reviewing the core documentation web page, participants were asked which they consider the best feature of the site. 38% of participants chose search functionality, 25% chose the ability to view documents via browser (HTML format), and 25% stated they preferred having the option to download documentation in PDF format. The findings are also shown on Figure 4 as follows:

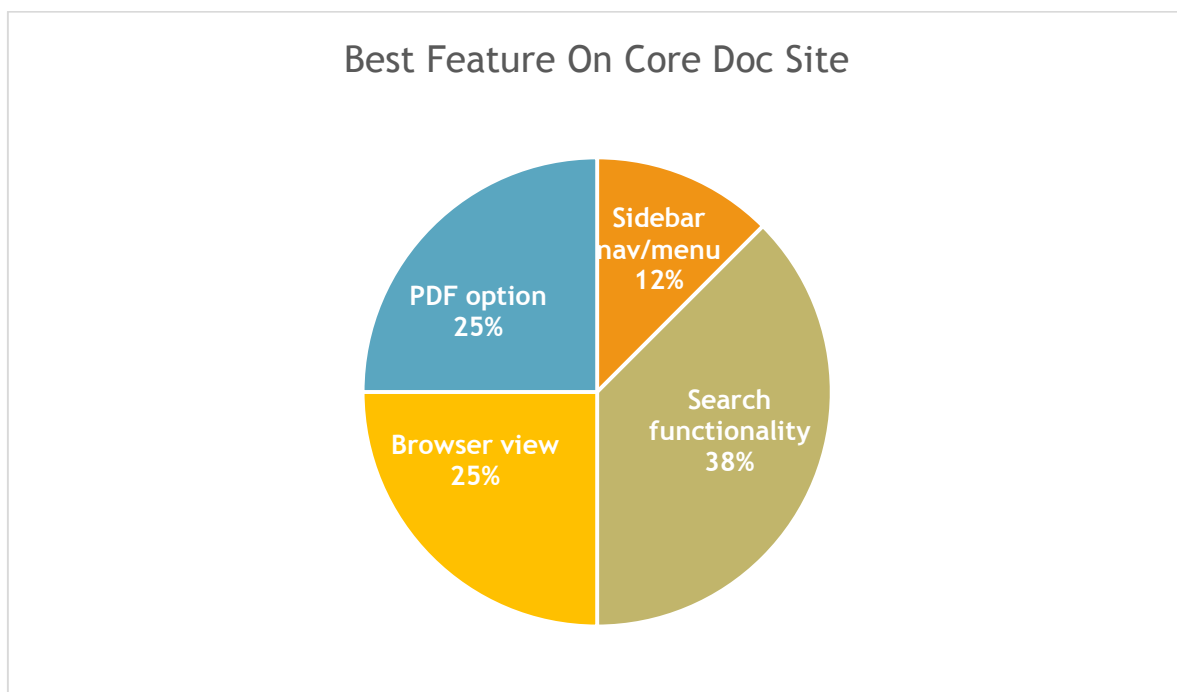


Figure 4: The best feature on the core documentation site according to study participants

Conversely, participants were asked to specify their least favorite feature on the core documentation site. 37.5% of participants chose search functionality and 37.5% chose the sidebar navigation/menu. Figure 5 provides detail on the participants' least favorite feature on the core documentation site as follows:

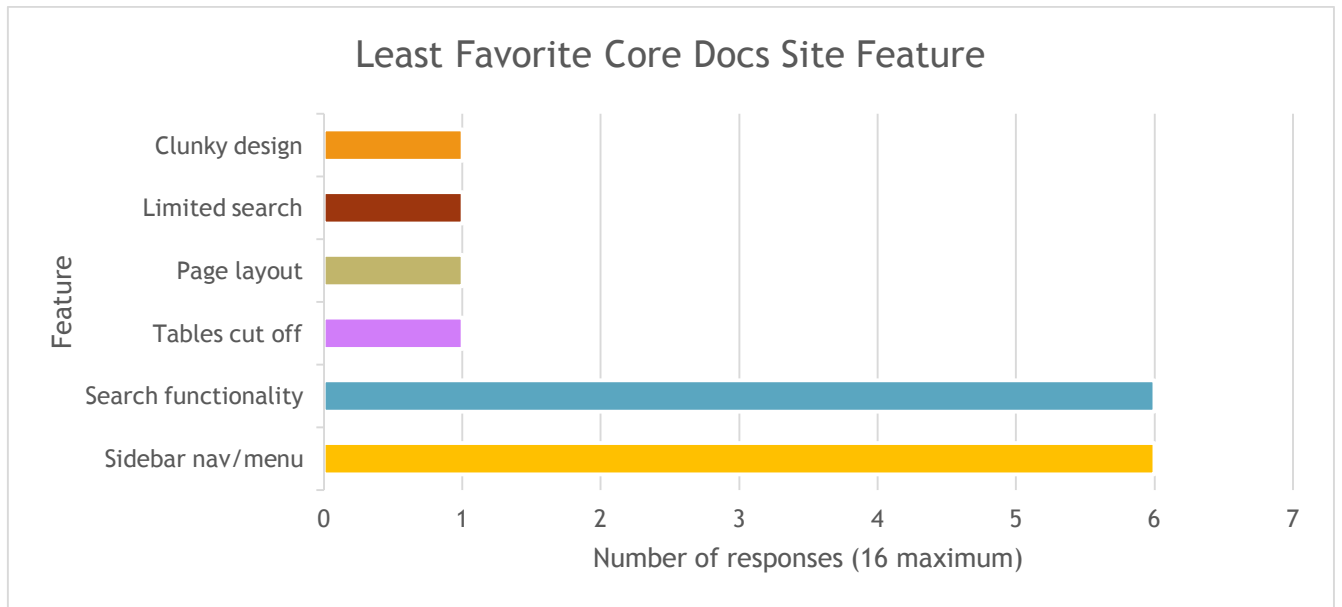


Figure 5: *The least favorite feature on the core documentation site according to participants*

Participants also provided additional feedback that was specific as to why they chose search functionality as least favorite feature. 25% of participants selected stated that the web page would benefit from more comprehensive search functionality. Participants that cited sidebar navigation/menu as the least favorite feature, stated that we could improve this area by displaying a simplified navigation/layout of KB content.

To determine the format and structure needed to consolidate multiple KB sites on the Information Portal, participants reviewed a series of documents in HTML and PDF format. To determine how participants find information for documents presented in PDF, participants reviewed the 4.6.03 Release Notes in PDF. Results indicated that 44% of participants use a search function to find keywords within the document, 19% of participants read/skim through the document and 19% download the PDF. More detail on how participants find information on documentation in PDF format is shown on figure 6 as follows:

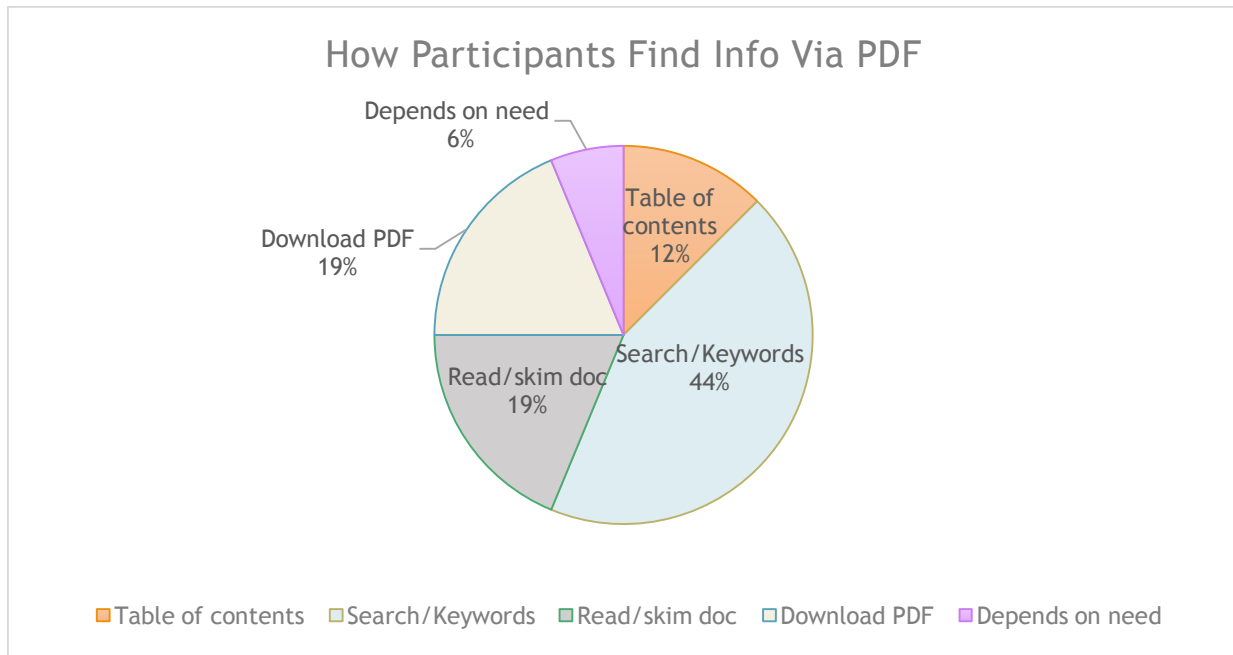


Figure 6: This visualization shows how participants find specific information on 4.6.03 Release Notes in PDF format

Participants also viewed the same 4.6.03 Release Notes document via browser in HTML format. Next, they were asked which format was their preferred method to access the 4.6.03 Release notes. 75% participant preferred PDF and the remaining 25% preferred the HTML format.

For the final portion of the study, participants had the option to share additional feedback about how we could improve the KB and its corresponding documentation. 20% of participants indicated that they want easier access to PDF formatted documentation. One participant suggested we add more video on the Information Portal to support the information provided in product documentation. Two participants recommended that we improve documentation by adding more screen shots to support processes and procedures within the documentation.

Conclusion

In consideration of the applied research results and the client study, the *accesso Siriusware* KB redesign will offer end-users new search functionality and access to documentation exclusively in PDF format. More importantly, the content structure for KB documentation will improve ease of use and access for end-users that need to locate specific documents and product related information.

Recommendations

As per participant feedback and my responsibilities as the *accesso Siriusware* Technical Writer, my recommendations for next steps for the KB portion of the Information Portal project focus on documentation format, content management, future data collection and future improvements.

Documentation format

When updating KB documentation format, moving forward we will publish new and updated documentation in PDF format. In addition, we must ensure that clients can view PDF documents via the browser while preserving interactive elements (e.g. hyperlinks, table of contents). Clients should also have the options to print and download PDF documents.

Content management

As we are in transition to update the KB, we will implement a content management plan that will ensure consistent access to documentation while updating existing and creating new KB documents. My recommendation to achieve this is that the current KB sites continue to remain active until all updates for the Information Portal documentation publication are complete. In support of this workflow, I will continue creating, updating and managing documentation by using MS Word and SmartDocs. I will also put a plan in place to consolidate documentation from multiple KB web pages and consolidate them to the KB section located on the Information Portal. This includes merging documentation from the following sites (in PDF format only):

- Core docs (<https://portal.siriusware.com/docs/index.html>)
- Release notes (<https://portal.siriusware.com/release/>)
- What's New (<https://portal.siriusware.com/support/>)
- Salesware PDF (<https://portal.siriusware.com/pdf/>)
- KB tips and tricks (https://portal.siriusware.com/docs/kb-pdf/tips_and_tricks/)
- KB PDF (<https://portal.siriusware.com/docs/kb-pdf/other/>)
- Information portal (relevant product related docs only)

In addition, I will use feedback from this study to implement new styles, visual, and interactive elements to improve the KB design, content structure, and ease of use to access information.

Future data collection

As the KB and its corresponding documentation continues to evolve, I will create opportunities to collect new data through collaboration efforts with internal and external stakeholders. Internal stakeholders include meeting at least one time per month with

accesso Passport technical communication peers to discuss documentation management. Collaboration with external stakeholders will be held annually at the *accesso Siriusware* Seminar. I can conduct a new client study each year that gives *accesso Siriusware* the unique opportunity to continue collecting feedback from end-users. We can evolve each study based on our progress of updating the KB and ensure that the implemented changes effectively support client needs. In addition, the data collected each year can evolve how the KB improves functionality and usability. This future research can also positively impact brand loyalty, as clients see that their feedback reflects on the KB and its corresponding documentation.

Future improvements

To further the improvements of the KB, I will continue utilizing additional resources to approve changes and create new content. When I need to implement major changes to the KB or its respective documentation, I will proactively partner with marketing and/or leadership for approval. This partnership is applicable for updating the navigation of the KB section of the Information Portal, use of new icons or other visualizations, and updates to terminology/verbiage in the documentation. I will also continue to encourage the *accesso Siriusware* staff to share or make revisions for use in the *accesso Siriusware* product suite documentation. This includes reminding and maintaining a collaborative location for the broad staff to provide product-related content that will I can edit and publish within the KB documentation.

References

- Bosančić, B. (2010). A blueprint for building online reference knowledge bases. *Reference & User Services Quarterly*, 50(2), 152-161. doi:10.5860/rusq.50n2.152
- Racine, S. J., & Crandall, I. B. (2001). Retrieving product documentation online. *Technical Communication*, 48(1), 31-41.
- Rice-Bailey, T. (2014). Remote Technical Communicators: Accessing Audiences and Working on Project Teams. *Technical Communication*, 61(2), 95-109.
- Skuce, D. (2000). Integrating Web-Based documents, shared knowledge bases, and information retrieval for user help. *Computational Intelligence*, 16(1), 95-113. doi:10.1111/0824-7935.00107
- Soldana, J. (2016). An introduction to codes and coding. In: *The Coding Manual for Qualitative Researchers* (1-42). Los Angeles: Sage.

Appendices

Note: The following appendix masks specific information to protect participant information and confidentiality components for *accesso*.

Appendix A: Raw data Opening Questionnaire

1 Please enter your job title.

Single line text - required

PARTICIPANT	IDENTIFIER	ANSWER
1	athompson@ph	Manager of Systems and Analysis for Visitor Services
2	SFULLER@BRI	vp
3	MPOUT@GROI	System Integration Coordinator
4	VFAIRBANK@J	Sirusware & Axxess Systems Mgr
5	DSANFELICE@	Business Systems Coordinator
6	CSTAGGS@CB	Sales System Administrator
7	COLLEEN.MCC	Systems Analyst II
8	RWULFF@RIPL	POS Analyst
9	CCARLETON@	IT Manager
10	DUSTIN@THEN	Manager of Strategic Marketing and Visitor Services
11	MER322@DRE	Reservationist/System Admin
12	LAUREN@TH	Business Systems Analyst
14	MSTRADLEY@	Ticketing Systems Manager
15	JDAVIS@PERFI	IT Director / Operations Mgr.
16	WENDY_BARB	Manager of Visitor Services
17	MVOEGELI@SL	Database Administrator

2 What experience do you have with accesso Siriusware software support? (select all that apply)

Checkbox select with other option - required

Opening support cases		100%	16
Emailing accesso Siriusware Technical Support		93.8%	15
Calling accesso Siriusware Technical Support		87.5%	14
Reading accesso Siriusware product suite documentation		100%	16
Other Hide		25%	4
11 Teamviewer sessions, some "groundwork" troubleshooting (like when we have a report going wonky, I pinpoint as much detail as possible for the support contact in advance)			
12 On Site Support			
15 Face to face Time with an Expert			
17 Professional Services			

3 What is your preferred method of accesso Siriusware product suite support?

Radio button - required

Opening support case(s)		37.5%	6
Emailing accesso Siriusware Technical Support		25%	4
Calling accesso Siriusware Technical Support		12.5%	2
Reading accesso Siriusware product suite documentation		25%	4

4 What best describes your current primary user role with the accesso Siriusware product suite?

Radio button with other option - required

Administrator		93.8%	15
Operator		0%	0
Other Hide		6.3%	1
14 Power user, systems manager			

5 How long have you been using the accesso Siriusware product suite?

Radio button - required

Less than 1 year		0%	0
1 year - 5 years		62.5%	10
5 years - 10 years		18.8%	3
11 years - 15 years		6.3%	1
More than 15 years		12.5%	2

6 Which of the following viewing methods do you use to access accesso Siriusware product suite documentation: (select all that apply)

Checkbox select with other option - required

Browser		87.5%	14
PDF		87.5%	14
Print		31.3%	5
Other Hide		12.5%	2
12 YouTube Videos			
17 Referencing occasional description elements in E-Commerce files like siteconfig.config.			

7 What is your preferred viewing method for using accesso Siriusware product suite documentation? (Choose best answer)

Radio button with other option - required

Browser		75%	1
PDF		25%	
Print		0%	
Other		0%	

8 How often do you access accesso Siriusware product suite documentation?

Radio button with other option - required

Daily		18.8%	
Weekly		68.8%	1
Monthly		6.3%	
A few times a year		6.3%	
Rarely		0%	
Other		0%	

9 Which sites do you visit to view accesso Siriusware documentation? (select all that apply)

Checkbox select with other option - required

Core doc set		87.5%	14
Release notes		68.8%	11
What's New		43.8%	7
Salesware Training		12.5%	2
Salesware PDF docs		62.5%	10
Information Portal		93.8%	15
accesso Siriusware Search		50%	8
Salesware Known Issues		43.8%	7
Other Hide		18.8%	3
1 documentation through SysManager			
12 Support Case Notes			
16 Google search			

10 Which sites do you prefer to visit to view accesso Siriusware documentation? (Choose best answer)

Radio button with other option - required

Core doc set (https://portal.siriusware.com/docs/)		37.5%	6
Release notes (https://portal.siriusware.com/release/)		0%	0
What's New (https://portal.siriusware.com/support/)		6.3%	1
Salesware Training (https://portal.siriusware.com/training/)		0%	0
Salesware PDF docs (https://portal.siriusware.com/pdf/)		6.3%	1
Information Portal (https://portal.siriusware.com/informationpo...)		31.3%	5
accesso Siriusware Search (http://search.siriusware.com/)		12.5%	2
Salesware Known Issues (http://portal.siriusware.com/docs/kb...)		0%	0
Other Hide		6.3%	1
1 SysManager			

11 Did you review the study questions before your scheduled appointment?

Dropdown select - required

Yes		6.3%	1
No		93.8%	15

Task questions

Core documentation (HTML)

1. Take a few seconds to view the core documentation site (<https://portal.siriusware.com/docs/index.html>)

1 What do you like best about this site?

Radio button with other option - required

The sidebar navigation/menu		12.5%	2
Search functionality		37.5%	6
Ability to view documentation on the browser		25%	4
Option to download PDF		25%	4
Other		0%	0

2 What do you like least about this site?

Radio button with other option - required

The sidebar navigation/menu		37.5%	6
Search functionality		37.5%	6
Ability to view documentation on the browser		0%	0
Option to download PDF		0%	0
Other <u>Hide</u>		25%	4
2 <input checked="" type="checkbox"/> Headerview with tables is cut off			
4 <input checked="" type="checkbox"/> Page layout, no so intuitive, page flow			
5 <input checked="" type="checkbox"/> the search functionality cannot be refined - no 'advanced' search options			
6 <input checked="" type="checkbox"/> ux is clunky. i would like to see the documentation be fully interactive being able to link to other pertinent information rather than just referencing other documents. better tagging for search feature.			

3 Please share any additional feedback.

Multi-line text







<input type="text" value="Search"/>		
PARTICIPANT	IDENTIFIER	ANSWER
1	athompson@j	More explanation in plain English for those new to the software - do not assume a level of knowledge
3	MPOUT@GR	Search isn't the best. Just use the PDFs
4	VFAIRBANK@	No
5	DSANFELICE	really glad you're doing this!!
7	COLLEEN.MC	Search brings up non-specific results and it is hard to find relevant information. Ideally a full search with a 'refine' or drill down option.
9	CCARLETON	Too many levels and sub levels under side navigation. Easy to get lost.
10	DUSTIN@THE	Flow of some sections is often clunky with pages often too short.
11	MER322@DR	Search is fantastic- If i don't know what specific manual subsection would have the info I want/need, I can use search to find out. Unfortunately, it's both my favorite and least favorite part of the online documentation. Sometimes all of my results will be mentions of whatever it is, but not the actual documentation I need. For example, I'll run into a line that says "please refer to such and such documentation" but, there is no link within the page to get there. So I'll copy paste the documentation referred to into the search bar. Sometimes I get what I'm looking for! More often, I get: 1) the page I just came from 2)a near identical page to the first, from somewhere else in the documentation, 3) some partial matches 4) if I'm lucky, the documentation required might be hidden in one of the partial matches. I feel like it doesn't pick up the actual pdf-download pages as result options in all cases? Also, if the subject falls under multiple uses, I might not find all of the relevant information I need; information about what i CANT do with a particular kind of macro is listed somewhere I wouldn't have thought to check.
12	LAURENC@T	This is where I go first to look for information.
15	JDAVIS@PER	Showing the search results with corresponding sidebar tree.... only show relevant folders or pages that contain the search keywords or topics. i.e. Searching layouts would keep the tree structure on left and show Reservations, Retail, and Salespoint Receipts, so I could drill down to find exactly what I'm looking for quicker. Also, including Known issues in the tree structure would keep me from an additional search to see if the keyword is being addressed in a known bug or issue.
16	WENDY_BAR	It seems redundant to click the sidebar navigation to then have to open a link to a pdf

4.6.03 Release Notes (PDF)

2. View the PDF of 4.6.03 Release Notes on the browser (http://portal.siriusware.com/pdf/2017_03_Software_Update_03_for_4.6.pdf)

1 Assuming you were viewing this document on the browser to find specific information, what are you most inclined to do? (select the best answer)

Radio button with other option - required

Use the table contents to find what you need		12.5%	2
Use a search function to find keywords within the document		43.8%	7
Read/skim through the document		18.8%	3
Download the PDF		18.8%	3
Other Hide		6.3%	1
11 	Search Function, unless it's a more generalized question about Dynamic Rules/Macros- I'll skim those first.		

4.6.03 Release Notes (HTML)

3. View 4.6.03 Release Notes on the browser (https://portal.siriusware.com/release/#page/releases%2520rebrand%2F2017_03_Software_Update_03_for_4.6.01.001.html%23)

1 Which view was your preferred method to access the 4.6.03 Release Notes document?

Dropdown select - required

PDF in the browser		75%	12
Browser only		25%	4

4.6.05 Release Notes (PDF)

4. View the PDF of 4.6.05 Release Notes on the browser (https://portal.siriusware.com/pdf/2017_08_Software_Update_05_for_4.6.pdf)

1 What do you like best about this document?

Multi-line text - required

PARTICIPANT	IDENTIFIER	ANSWER
1	athomp	Interactive PDF, return to menu, call out for importing information or notes, screenshots
2	SFULLE	ability to click from TOC to headers links to go deeper
3	MPOUT	Hyperlinks Headers stand out note/warnings/important symbols
4	VFAIRB	release date on front pg, hyper links, color to brighten up document
5	DSANF	Interactive; like the new color choices to make options stick out
6	CSTAGC	Link to table of contents on each page links to more information throughout document colors!
7	COLLEE	Table of contents broken by color changes is easier to read. Links to other documentation and top of document are handy. Icons denoting important information help direct the eye to things that might otherwise be missed.
8	RWULFI	I liked the colors and symbol differentiation. Clicking on the page in the table of contents taking you directly to the page is terrific. Starting the page numbers after the table of contents is a plus.
9	CCARLE	Vast improvement to table of contents with colors and I love the notes stand out with the icon.
10	DUSTIN	Length and style
11	MER32	It's a lot easier to spot the sections that are relevant to me- larger fonts and brighter colors for topic headings, plus isolation of the most important notes. I don't have to search a wall of text.
12	LAUREN	The linking is good, as well as how you call out the important items.
14	MSTRAI	hierarchy and links in table of contents, page numbers, date of document
15	JDAVIS	Color distinction, icons
16	WENDY	Page numbers being consistent format is good we like the consistency of headers and footers
17	MVOEG	I did like the dating of the release notes (see recommendations). Think the highlighting of the external references within the document are useful...they currently blend into the remainder of the text.

2 Do you have any recommendations to improve this document?

Multi-line text - required

Search		
PARTICIPANT	IDENTIFIER	ANSWER
1	athomps	Skip to next section or back to previous session
2	SFULLEF	Ability to link to screen shots?
3	MPOUT	Hyperlinks for new enhancement, on how they work in In set up documentation. Instead of in the release notes. Keep note/warnings/important part and brief overview on new feature
4	VFAIRB	No
5	DSANFE	none
6	CSTAGG	message image a little outdated.
7	COLLEEI	none
8	RWULFF	Not at this time.
9	CCARLE	no
10	DUSTIN	n/a
11	MER322	More visual examples! Not just the example SQL; give me a screenshot of how whatever it is actually looks in salespoint/ecommerce /sysmanager/etc. The documentation language is largely still "programmerese," so a direct visual cue is really helpful with understanding what has been changed.
12	LAUREN	I agree that the core documentation can have the enhancement details but the user could live in a link.
14	MSTRAC	Improve readability and detail in fixes section
15	JDAVIS	Link icons
16	WENDY	Quick links to sections
17	MVOEGE	Correlating to previous - the dating of the release notes is useful, although there probably should be an initial publication date. Minor concerns with respect to color choice and individuals affected by some form of color blindness. (Per side discussion: perhaps structure of individual feature sections could be improved to flow better/introduce related concepts prior to citing examples.)

Closing questionnaire

1 What is your favorite feature (most useful component) of accesso Siriusware product suite documentation?

Multi-line text - required

PARTICIPANT	IDENTIFIER	ANSWER
1	athomj	Screenshots with the text
2	SFULL	Search Function (ability to search the entire document set). I created one PDF of ALL of the documentation so we could search the full documentation in PDF form.
3	MPOU	PDFs Hyperlinks Keep going in the direction its going.
4	VFAIR	Ability to search within a document.
5	DSANF	browser based search
6	CSTAG	Search
7	COLLE	Ability to download pdfs as needed. Even though search needs to be improved, the search feature is essential to finding the correct section.
8	RWULI	That I can access it at any time I need. I can save documents or pages to refer to for specific locations.
9	CCARL	The search feature that highlights the keyword when found in Doc. Many Doc's are very long and the highlight makes for quick finding.
10	DUSTII	I think the ability to download and print pdfs.
11	MER32	The ability to download guides out of it; once I was able to find them, I saved the documentation for Dynamic Pricing Rules, Sales Macros/Sales Action Macros to my desktop. Sometimes I don't need the full explanations anymore; I just need to make sure my syntax is right.
12	LAURE	Having the ability to search everything is great because it enables me to find creative ways to use the software and solve problems I have.
14	MSTR2	Release notes including all enhancements and fixes. Master documentation, when kept up to date with enhancement/fixes. When possible, ability to search and find key words, although I don't always get the search results I hoped for.
15	JDAVIS	Browser view, ability to jump from topic to topic. Interactive PDF view, great to scan especially with the What's New
16	WEND	Searchable
17	MVOEI	Complete lists of functions in programming documents (although these need to be updated). Scenario examples associated with features.

2 What is the most important change you would like to see with accesso Siriusware product suite documentation?

Single line text - required

Search		
PARTICIPANT	IDENTIFIER	ANSWER
1	athompson@philamuseum.org	More explanation for Siriusware terminology and further explanations for warnings
2	SFULLER@BRISTOLMT.COM	Updated docs to current versions/modules
3	MPOUT@GROUSEMOUNTAIN.COM	keep the documentation up to date
4	VFAIRBANK@JIMINY.COM	The look and flow of the pages.
5	DSANFELICE@PHILAMUSEUM.ORG	more explanations - glossary
6	CSTAGGS@CBMR.COM	better tagging for search
7	COLLEEN.MCCONVILL@SKITAOS.COM	New informatn is segregated on various release notes sections. This should be better integrated with the regular documentation. Member Benefits is the one I am struggling with the most at this point in time.
8	RWULFF@RIPLEYS.COM	Better search options or "find" item. What I think something is called isn't always going to get me what I am looking for.
9	CCARLETON@WISPRESORT.COM	Not all areas currently have a PDF. It would be most beneficial to have each area and topic of Doc's available as a PDF. Download not print
10	DUSTIN@THEMODERN.ORG	Search functionality could be improved to be more accurate.
11	MER322@DREXEL.EDU	MORE EXAMPLES! both in regards to coding and to screenshots. The average user at my workplace doesn't understand a lick of sql and needs to see what their results are going to look like in the salespoints, reports, etc. In order to understand what the directions they're reading will actually do.
12	LAUREN@THEHENRYFORD.ORG	Collaboration is something that I would love to see
14	MSTRADLEY@LONGWOODGARDENS.ORG	Improved search function. Update master documentation.
15	JDAVIS@PERFECTNORTH.COM	Improved search functionality to include all documentation including known issues and maybe even roadmap items. Sidebar added to search so results are organized by topical relevance
16	WENDY_BARBEE@WHITNEY.ORG	While there are a lot of documents as new releases happen, knowing if the solution is still valid (documentation audit)
17	MVOEGEL@SLSC.ORG	Update frequency - core documentation is two primary versions behind current; searching through release notes is time consuming.

3 Please share any additional feedback.

Multi-line text with other option - required

<input type="text" value="Search"/>		
PARTICIPANT	IDENTIFIER	ANSWER
1	athompson@philemuseum.org	Thank you for asking!
2	SFULLER@BRISTOLMT.COM	Please review tables and how they view in the online documentation, as they get cut off in the web browser, so you can only see the full table from a PDF. Accurate documentation for 4.6 (title page, updated as of when and what version) Accurate documentation for new modules i.e. Calendar Update documents as updates come out The idea of adding in other topics to the system such as Known Issues or Release Notes, What New is awesome, because I NEVER look at these otherwise, great idea! Screen shots would be helpful, but I know these would ad a large expense, a not critical, but would helpful Maybe an ability to live chat to help find issues in documentation? Not support itself, but the ability to point you real time in the right direction while waiting for support to give more detail. Again, a cost that may not be realistic, but just an idea.
3	MPOUT@GROUSEMOUNTAIN.COM	Keep going in the direction its going.
4	VFAIRBANK@JIMINY.COM	none
5	DSANFELICE@PHILAMUSEUM.ORG	would love a knowledgebase
6	CSTAGGS@CBMR.COM	retiring or filtering old seminar session documentation
7	COLLEEN.MCCONVILL@SKITAOS.COM	Video documentation and examples are helpful for working through different scenarios.
8	RWULFF@RIPLEYS.COM	Nothing at this time.
9	CCARLETON@WISPRESORT.COM	I like what i have seen so far fir new docs. I think a migretion Doc set is needed when we move to 5.0
10	DUSTIN@THEMODERN.ORG	n.a
11	MER322@DREXEL.EDU	More examples, period! What macros or dynamic rules can be combined? What CANT be combined? If I make X changes to a sale process, how will it effect reporting, how will it effect accounting data, will Gatekeeper need to have a seperate update before it will recognize the changes? Etc. Probably between a quarter to a third of our issues come from an update (either to our own processes or to the program/server itself) inadvertently causing a kink for some other part of the operation.
12	LAURENC@THEHENRYFORD.ORG	Boce/Receipt Layout Guide Exact Text for Error Messages to tie to documentation/search
14	MSTRADLEY@LONGWOODGARDENS.ORG	I often search for variety of keywords, error messages, field names in SW, but they don't appear at all in documentation. Very frustrating when trying to figure out what a feature a does or how to program something correctly. Remove broken links to hidden/inactive documents.
15	JDAVIS@PERFECTNORTH.COM	New interactive PDF looks great with color distinctions of topics and icon use. Icons to call out links would help too.
16	WENDY_BARBEE@WHITNEY.ORG	Building more collaborative outlets for similar venues - blogs, support groups (?) Receiving marketing materials on new features (Didn't know about Marketplace) A transparent place to view enhancements with an ability for clients to vote Amade email bug fixes (Bridget_Mendoza@whitney.org)
17	MVOEGELI@SLSC.ORG	Possibility of setting up a dynamic site for documentation that allows a user to choose their version and display/render appropriate information. Could also be used to compile a list of changes between versions. Full functionality would include the ability to download the specified documentation as a PDF.

Informed Consent to Participate in Research

Title

Seminar 2017: *accesso Siriusware* documentation

Person(s) Responsible for Research

accesso Siriusware Technical Writer and Arizona State University (ASU) student, Amanda Swiontek

Study Description

The purpose of this study is to improve your *accesso Siriusware* software support experience. The goal of the study is to compile participant feedback and use it to improve *accesso Siriusware* documentation for all clients.

Risks/Benefits

The person responsible for research may share your anonymous feedback with *accesso* staff for internal use. In addition, ASU faculty may also review research data for educational purposes. Ideally, the feedback that is collected will both further the *accesso Siriusware* documentation strategy and the technical communication field.

Confidentiality

In addition to the person responsible for the research, the following *accesso* staff members may view the information you provide for this study: *accesso Siriusware* Testing Team Lead, Ian Strahler and VP of Client Services, Tim Larsen. In addition, ASU faculty from the Technical Communication department may view study information.

Voluntary Participation

Your participation in this study is voluntary. The interviewer will give you an opportunity to read all questions before you sign the consent form. After you provide your consent, you will move forward with answering survey questions.

Who do I contact for questions about the study?

For more information about the study or study procedures, contact Amanda Swiontek at Amanda.Swiontek@accesso.com.

Who do I contact for questions about my rights or complaints towards my treatment as a research subject?

Contact Ian Strahler at Ian.Strahler@accesso.com.

Research Subject's Consent to Participate in Research

You must be 18 years of age or older to participate in this study. By visiting the below link to participate in the study, you confirm that you meet minimum age requirements and provide consent to act as a voluntary participant in this study.

Please sign this form and then click the following link to begin the study.

Thank you in advance for your cooperation.

optimalworkshop.com/treejack/

Signature: 
CRM 11/15/2017

Email: cstaggs@



Informed Consent to Participate in Research

Adobe Sign Document History

09/19/2017

Created:	09/18/2017
By:	Amanda Swiontek (amanda.swiontek@accesso.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAiGHDeuo0E-x-xGb7mVUI3A2xf69nHEEq

"Informed Consent to Participate in Research" History

- Document created by Amanda Swiontek (amanda.swiontek@accesso.com)
 09/18/2017 - 2:24:14 PM PDT- IP address
- Document emailed to Crystal Stag for signature
 09/18/2017 - 2:24:18 PM PDT
- Document viewed by Crystal Stag
 09/18/2017 - 2:31:47 PM PDT- IP address
- Document e-signed by Crystal Stag
 Signature Date: 09/19/2017 - 5:17:54 AM I
- Signed document emailed to Amanda Swiontek (amanda.swiontek@accesso.com) and Crystal Si (cstag)
 09/19/2017 5:17:54 AM PDT

