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DOMAIN OVERVIEW

The localization of a software product involves separating all the content, usually text, into separate files and having the application show the user the correct content based on the language they select to use with the application.

These language documents must be translated, and correctly localized, by expert companies known as translation vendors by assigning them translation jobs. They will ensure that the content is in the correct language for the target locale and that it is in the correct context. They maintain a large database of previously translated words and sentences from previous projects which they reference to quickly translate commonly used words. Words that do not appear in their database will require more effort to translate and, as such will be costlier to translate.

Typically, a translation vendor will offer translation services for a limited set of languages, as such is not able to translate each of the, sometimes, 50+ that the software supports. Similarly, each vendor will charge different rates per word for each language and different rates again for different types of words.

This presents a unique problem such that, for large localization projects, thousands of words must be translated into many languages all with varying rates which must ultimately be paid for and the progress of these jobs must be tracked throughout the process.

PROBLEM STATEMENT

Key problems in the existing system

- No customizable dashboard for users to view all the content they need in 1 place
- Interface for managing projects, translation jobs and users is unintuitive and lacking features.
- Managing user account currently requires a direct database edit to set correct permissions.
- Integration with Intel's other systems is lacking.
- Existing system is poorly coded and difficult to maintain.

VISION STATEMENT

For software localisation teams who want an integrated financial and project management system. This system will be a bespoke management system that will streamline the process of software localisation without the need to use multiple applications and be extensible without third party support.

LISER STAKEHOLDERS

ADMIN

A localisation system administrator who is responsible for managing the user and project data within the localisation systems. They are familiar with engineering and administrative tasks.

PROJECT MANAGER

A software localisation project manager who is responsible for managing the project at a high level. They deal with the translation vendors, the software engineers and upper management so are a hub between them all.

ENGINEER

A localisation software engineer is responsible for maintaining the various applications and frameworks that the localisation department uses.

TRANSLATION VENDOR

A translation vendor is a company who provides translation services. There will be many of these vendors used for each software localisation project and they are located all over the world.

VENDOR MANAGER

A vendor manager is responsible for managing accounts of translation vendor companies in the system. They maintain the prices that these companies charge and calculate payment due from translation jobs.

PERSONAS

ADMIN

David McCourt

Age 39

Software Localization Systems Administrator, Intel Security



DETAILS

David is a system admin, for the current financial and project management systems of Intel Security's Software localisation department.

He has worked in the engineering department for 12 years and is familiar with software localization processes both technical and managerial.

He is responsible for managing account and project data within the system.

GOALS

David will use the application to set up new user accounts and modify existing accounts. He needs to be able to create accounts, look up accounts and easily modify account permissions. He also sometimes need to add and edit projects to the system.

VENDOR MANAGER

Morris Peavey

Age 45

Vendor Manager at Intel Security



DETAILS

Morris is a vendor manager for the software localisation department of Intel Security, he has worked at Intel for 10 years and is familiar with managerial processes.

He is responsible for managing the localisation of software projects and liaising with the translation vendors and engineers to ensure the project runs smoothly.

GOALS

Morris will use the system to create vendor accounts, projects and manage the vendor price plans.

He needs an intuitive system that allow him to set up accounts quickly and repeat the task with the same options afterwards to add multiple accounts.

He also needs the ability to set up and modify the vendor price plans which detail how much each vendor chargers for their services.

ENGINEER

Ross Place

Age 31

Software Localisation Engineer



DETAILS

Ross is a senior software engineer at Intel Security. He was worked for the company for 3 years and is currently lead developer for the continuous integration team.

He is extremely familiar with all of Intel's engineering processes.

GOALS

Ross uses the system primarily via the API but frequently needs to edit translation requests directly in the system.

PROGRAM MANAGER

Derry O'Leary

Age 48

Program Manager



DETAILS

Derry is the director of program management at Intel Security.

He is responsible for overseeing the various localisation projects that Intel Security handles and ultimately paying the translation vendors for their services once the jobs are completed.

GOALS

Derry uses the system to view the status of projects and translation jobs, to assign financial data to these jobs and to calculate the payment due to the translation vendors once completed.

VENDOR

Martina Bower

Age 35

Localisation Quality Manager



DETAILS

Martina is the lead Quality Manager at ChilliStore Technologies, a localisation company based in Dublin.

She is responsible for ensuring the quality of the translations that are sent back from her team are as accurate as possible and in the correct context for the application being developed.

GOALS

Martina uses the system to view translation jobs assigned to her team and to download the translation documents provided by Intel Security which are then fed into her systems and translated by her translators. Upon completion, she also uses the system to upload completed translation documents back into the system.

USER STORIES

VENDOR MANAGER

- As a vendor manager, I want to create and modify vendor companies.
- As a vendor manager, I want to upload, edit, make inactive or delete vendor Price plans (also known as rate cards)
- As a vendor manager, I want to modify Project categories.
- As a vendor manager, I want to modify pricing connections between the categories in the Price Plan and Project Categories.
- As a vendor manager, I want to manage costs for non-linguistic services (development, external QA, Screenshot Creation, etc.)
- As a vendor manager, I want to take account of Volume discount rates automatically once the threshold has been reached.

PROGRAM MANAGER

- As a Program Manager, I want to create and modify projects
- As a Program Manager, I want to see a summary of a project before submission
- As a Program Manager, I want to see a dashboard on Projects
- As a Program Manager, I want to filter data in the dashboard
- As a Program Manager, I want to search for specific projects
- As a Program Manager when I click on a project I want to see project specific data
- As a Program Manager, I want to see a translation request on the dashboard
- As a Program Manager, I want to see full details we store of the job (Outlined in Engineering User Stories)

ENGINEER

- As an Engineer, I want to modify translation requests.
- As an Engineer, I want to view the details of a Submitted job.
- As an Engineer, I want to view the language details of a job and see individual cost information.

VENDOR

- As a vendor, I want a dashboard that will allow me to view all jobs and languages assigned to me
- As a vendor, I want to change the status of multiple jobs at once
- As a vendor, I want to print or download a pdf roundup of all jobs set to receive for me
- As a vendor, I want to upload logs and have costs calculated automatically by the system.

ADMINISTRATOR

- As an Administrator, I want to modify the list of languages that users can choose from.
- As an Administrator, I want to modify the list of language codes the system uses.
- As an Administrator, I want to modify the user list.
- As an Administrator, I want to give users the ability to change their password

RED ROUTES

ADMIN

As an admin, I want to manage user accounts so that I can add new users to the system.

As an admin, I want to be able to create a new project on the system so that translations jobs can be associated with it

VENDOR MANAGER

As a vendor manager, I want to create and modify vendor companies.

As a vendor manager, I want to create and modify vendor Price plans (also known as rate cards)

ENGINEER

As an Engineer, I want to modify translation requests.

As an Engineer, I want to view the details of a Submitted job.

PROGRAM MANAGER

As a Program Manager, I want to set up modify projects.

As a Program Manager, I want to search for specific projects

As a Program Manager when I click on a project in the dashboard, I want to see detailed project data

As a Program Manager, I want to see a translation request on the dashboard

VENDOR

As a vendor, I want a dashboard that will allow me to view all jobs and languages assigned to me.

As a vendor, I want to upload logs and have costs calculated automatically by the system.

Create User Account Create Vendor Profile Modify Vendor Profile (Modify User Account) Vendor Manager Admin Create Price Plan Modify Translation Job Modify Price Plan Log into System Engineer View Translation Job Create Project Download Translation Kits Modify Project Upload Translated Content Vendor Calculate Payment Owed Visual Paradigm Community Edition &

USABILITY GOALS

Goal	Measures	Benchmark
Speed	How long it takes to complete a task	90% of the users will be able to use the system to complete their tasks within 5 minutes
Accuracy	Number of attempts required to complete the task	90% of users will be about to locate the correct section to complete their tasks with 2 or less clicks
Overall Success	Percentage of visitors who completed the task	90% of the users will be able to complete their tasks
Satisfaction	How satisfied the visitor was throughout the process of completing the task	90% of the users will rate the experience using the system higher than the previous system

COMPETITIVE ANALYSIS REPORT

Existing localisation project management and financial management tools such as SAP fulfil some of the tasks that Intel require. However, to completely fulfil the requirements a large amount of customization, third party support and funds would be required.

As I found throughout my research, this is the case for any existing solution and, as other large localisation companies such as WeLocalize have found, a bespoke solution is the most effective and cost efficient option.

A bespoke application will ensure that it is designed to meet the requirements form the ground up, be written in the preferred language that the company's engineers use and be extensible without third part support. Using open source and existing Intel software will ensure the project can be completed and maintained with little to no cost outside of man hours.

CONTEXTUAL ENQUIRY METHODS

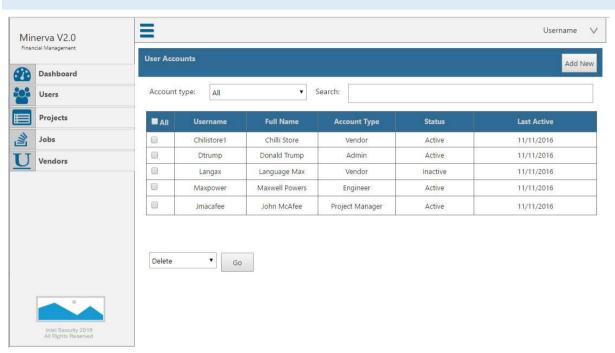
Each of the personas listed in the above sections were interviewed at their place of work and were asked to complete their regularly performed tasks with the existing systems. The steps they took to complete these tasks were monitored and any problems they had while doing them were noted.

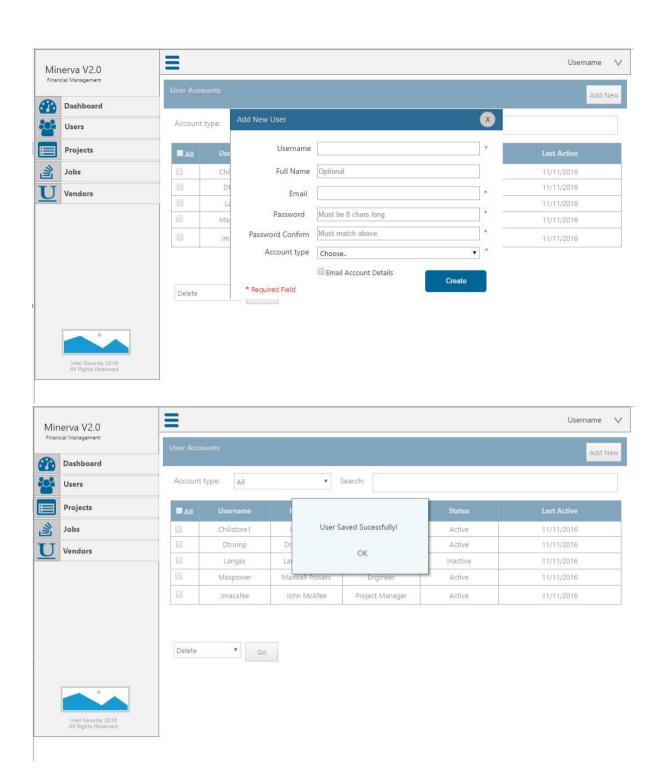
After they had completed the tasks the user was asked if they had any issues with the current process and, if so, how they would like the new system to function to enable them to complete this task more efficiently.

From these interviews the problems with the existing system were identified and the red routes for the personas were identified.

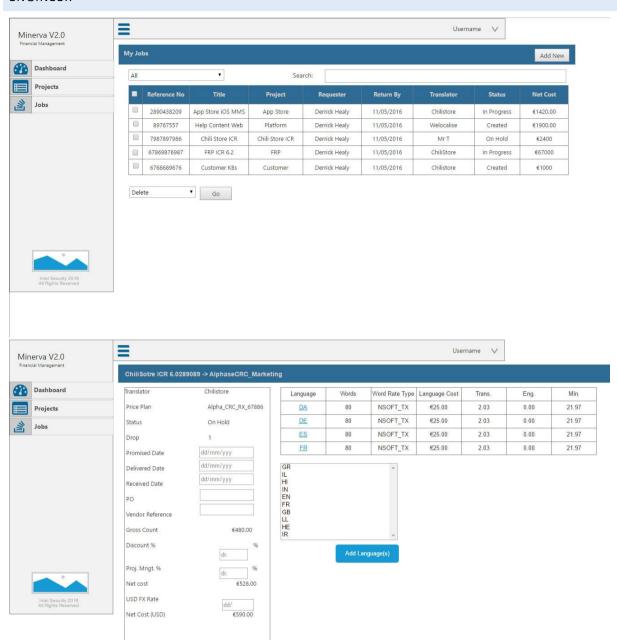
PROTOTYPE

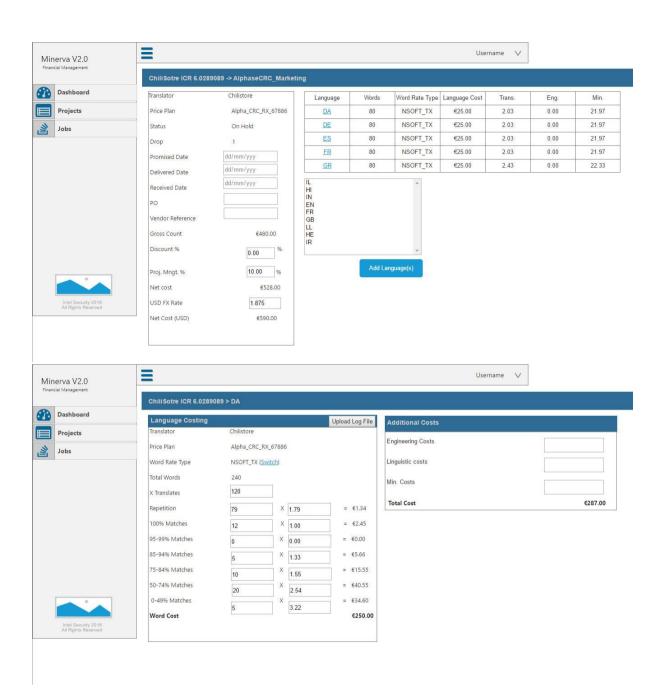
ADMIN



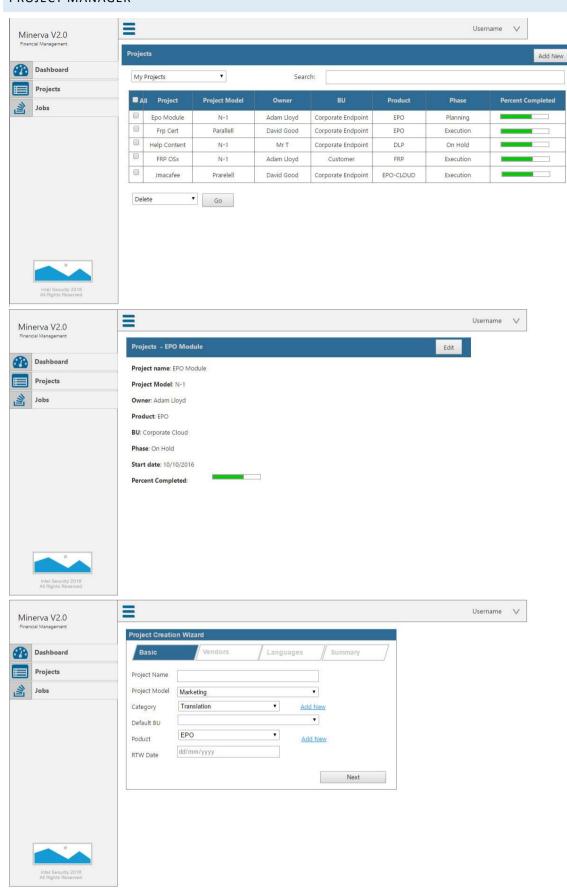


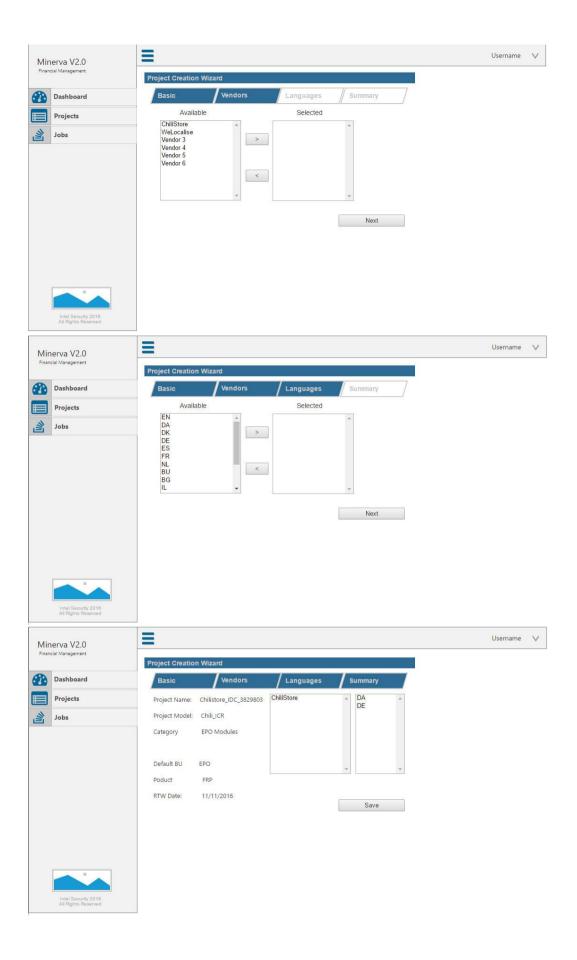
ENGINEER



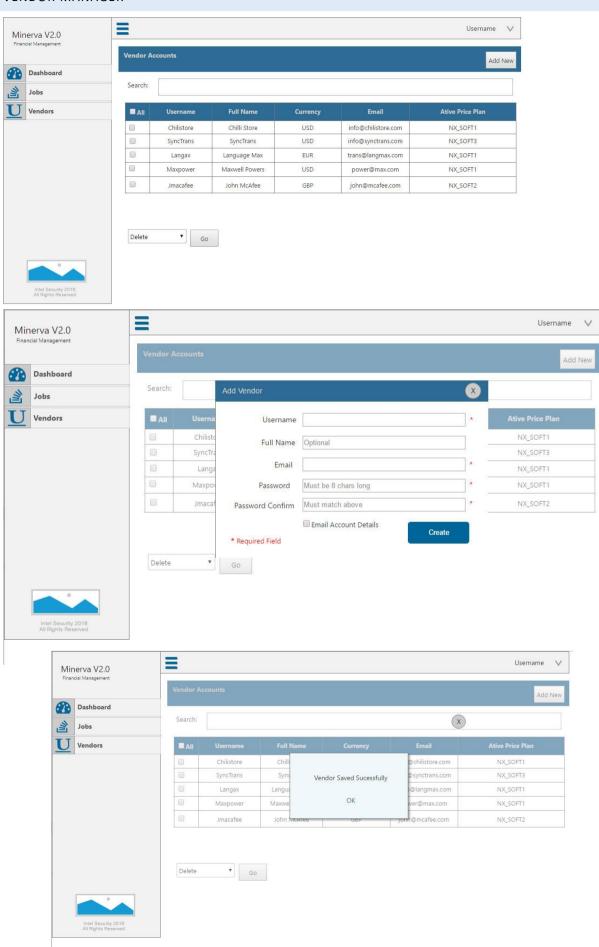


PROJECT MANAGER

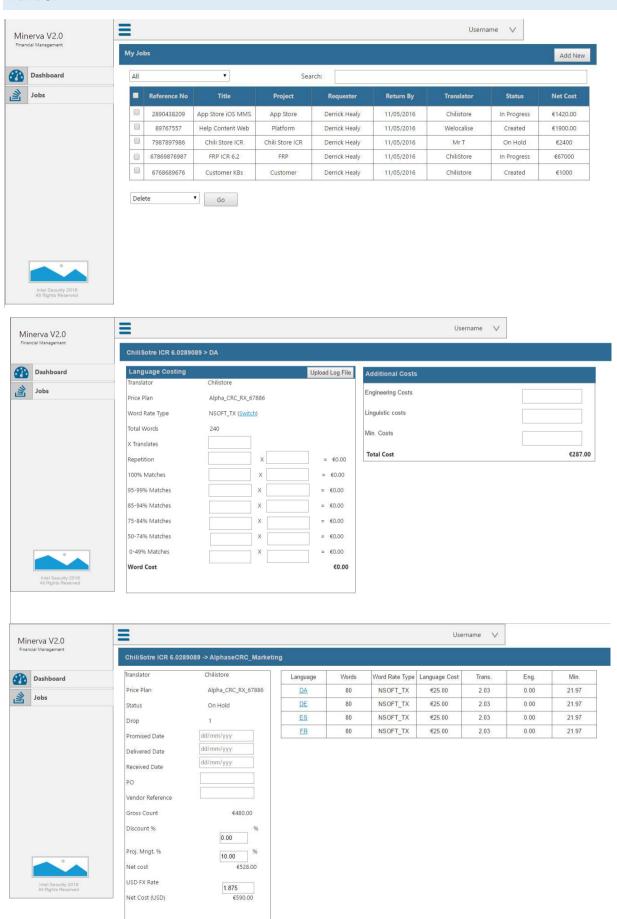




VENDOR MANAGER







SYSTEM USABILITY SCALE RESULT

		cale position	. 								
	my carculate	the system	usability sco	atement and re for each p		n the corresp	oonding field	s. This spre	adsheet will		
	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5	Statement 6	Statement 7	Statement 8	Statement 9	Statement 10	SU Scor
	3	1	5	2	4	2	5	2	4	2	8
iobhan avid	4	1 2 1	4	2	4	3	5 3 3	2	4 3 4	2	67
Participant Siobhan David ouise Sinead	3 4 3 4	1 2 1	5 4 3 4			_	3		4 3 4 3		80 67 57 65
iobhan avid ouise	4	1 2 1 1 2	4 3	2 3	4	3	3	2	4 3 4 3 2	2 3	5

HEURISTIC EVALUATION REPORT

By: Rouslan Placella

Date: 4/12/2016

1. VISIBILITY OF SYSTEM STATUS

- · Always keep users informed about what is going on.
- Provide appropriate feedback within reasonable time.

Evaluation

Fading out elements and displaying an overlay to darken elements provides a good indication of where to focus. System notifications such as error and success will be shown to the user using bootstrap notifications using a module already implemented by existing systems.

2. MATCH BETWEEN SYSTEM AND THE REAL WORLD

- Speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms.
- Follow real-world conventions, making information appear in a natural and logical order.

Evaluation

While the system contained many domain specific terms, the interface was designed in a familiar way that is consistent with existing systems and all users will be expected to be familiar with.

3. USER CONTROL AND FREEDOM

- Users often choose system functions by mistake.
- Provide a clearly marked "out" to leave an unwanted state without having to go through an extended dialogue.
- Support undo and redo.

Evaluation

Breadcrumbs allow the user to navigate in an out of deeply nested content and are easy to understand being a convention of web navigation design.

4. CONSISTENCY AND STANDARDS

- Users should not have to wonder whether different words, situations, or actions mean the same thing.
- Follow platform conventions.

Evaluation

The design is consistent across all sections and is consistent with existing systems implemented by Intel and features are located in familiar areas consistent across many web applications.

5. ERROR PREVENTION

• Even better than good error messages is careful design which prevents a problem from occurring in the first place.

Evaluation

The system provides feedback for incorrect login details and invalid data field entries in an effective manner where applicable.

6. RECOGNITION RATHER THAN RECALL

- Make objects, actions, and options visible.
- User should not have to remember information from one part of the dialogue to another.
- Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Evaluation

The system provides project and job creation wizards which take in data in stages, failure to complete the wizard will leave the project in a draft state which can be picked up at a later date. This could perhaps be implemented for the user/vendor creation functionality but this can all be done on 1 screen so may not be necessary.

7. FLEXIBILITY AND EFFICIENCY OF USE

- Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user so that the system can cater to both inexperienced and experienced users.
- Allow users to tailor frequent actions.

Evaluation

The interface is quite flexible, the modular menu can adapt to user roles and the dashboard system will enable common data views and actions to be presented to the user when they log in. A dashboard/system settings section will allow the user to customize what they see here.

8. AESTHETIC AND MINIMALIST DESIGN

- Dialogues should not contain information which is irrelevant or rarely needed.
- Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Evaluation

The interface is in keeping with existing systems and follows the same design principles. It is clear and concise and will use minimal bootstrap theming to reduce load times in production.

9. HELP USERS RECOGNIZE, DIAGNOSE, AND RECOVER FROM ERRORS

- Expressed in plain language (no codes)
- Precisely indicate the problem

• Constructively suggest a solution.

Evaluation

While there is some domain based jargon within the system familiarity with this can be assumed as it is a tool for internal company use. Data validation and error reporting will be handled using existing libraries when implemented.

10. HELP AND DOCUMENTATION

- Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation.
- Help information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

Evaluation

The operation of the system is in line with existing Intel systems so interface elements are in familiar locations. If additional help is needed there will be a help doc on the intranet.

USABILITY TESTING REPORT

Date of Report: 5/12/2016

Date of Test: 5/12/2016

Location of Test: Cork, Ireland

Prepared by: Adam Lloyd

Email: adam.lloyd@mycit.ie

EXECUTIVE SUMMARY

The participants used an Axure prototype of the proposed system interface to test the functionality of the 6 tasks outlines below. They used personas based on possible user types for the system ranging from Project Managers to Translators(Vendors) and performed their tasks under this guise.

METHODOLOGY

WHO WE TESTED

5 participants, having the following characteristics, evaluated Intel Business Management System.

Audience Type

TOTAL (participants)	5
User Profile 3	2
User Profile 2	1
User Profile 1	2

Age

TOTAL (participants)	5
60-74	0
40-59	0
26-39	5
18-25	1

Computer Usage

0 to 10 hrs. wk.	1
11 to 25 hrs. wk.	0
26+ hrs. wk.	4
TOTAL (participants)	5

Gender

SCENARIO 1 – ADDING A USER

Joe is a system admin and needs to add an account for a newly hired engineer. The engineers name is David, his email is david@intel.com and, using an external secure password generator his password will be set to TestPassword01~#.

Number of participants	5
Percent successful	100%

Sample Findings	Sample Recommendations
4 participants completed the task with ease (score of "2") by finding the create user button on the dashboard.	1 Participant suggested that there should be an add user menu option on the left hand side menu as well as on the dashboard.
1 participants needed prompting or had significant difficult completing the task (score of "1")	

SCENARIO 2 – ADDING A NEW PROJECT

John is a project manager and wants to add a new project. The project is called "Chilistore_IDC_3829803" using the marketing model in the translation category for the FRP product using the default BU of EPO. It is to have an RTW date of 10/12/2016. Chilistore must be assigned to the project along with DA and FR languages.

Number of participants	5
Percent successful	100%

Sample Findings	Sample Recommendations
5 participants completed the task with ease	The project creation wizard is effective but an
(score of "2") by finding the create project	option to go back if you make a mistake would be
button on the dashboard.	desired.

SCENARIO 3 – ADDING A NEW VENDOR ACCOUNT

Michael is a vendor manager and needs to add a new vendor account for "LangMax" using the email info@langmax.com using a securely generated password of "Password01~#"

Number of participants	5
Percent successful	100%

Sample Findings	Sample Recommendations
5 participants completed the task with ease	Same as add user
(score of "2") by finding the add new	
button on the dashboard as it was familiar	
form the add user task.	

SCENARIO 4 – VIEWING THE DETAILS OF A PROJECT

John is a project manager and wants to view the details of the project "EPO MODULE"

Number of participants	
Percent successful	100%

Sample Findings	Sample Recommendations

3 participants completed the task with ease (score of "2") by clicking on the project title on the dashboard.	All participants recommended having more indication that the project names are clickable.
2 participants needed prompting.	

SCENARIO 5 – UPLOAD TRANSLAITON LOG FILE TO A JOB

Mary is a translator for a translation vendor. She wants to upload the log file of a translation job called App Store MMS iOS for the DA language.

Number of participants	5
Percent successful	100%

Sample Findings	Sample Recommendations
5 participants completed the task with ease (score of "2") by finding the upload log file button after clicking into the project.	None

SCENARIO 6 – ADD A NEW LANGUAGE TO A JOB

Paul is a software localisation engineer who wants to add GR as a language to the job "App Store iOS MMS"

Number of participants	5
Percent successful	100%

Sample Findings	Sample Recommendations
3 participants completed the task with ease (score of "2") by finding the add language button.	Make the process clearer
2 participants needed prompting to find the correct path	

EXIT QUESTIONS/USER IMPRESSIONS

Participant No.	Like best?	Like least?	Improvements
1	Add Project wizard	Add language	More wizards or on
			screen prompts to
			complete tasks and
			direct user to
			locations.
2	Add Project wizard	Upload log file	Simplify process
3	Dashboards	Inconsistent design on	Simplify view, hide
		job detail page	some redundant data.
4	Collapsing side menu	User menu in top right	Move it to the left
		seems disconnected	
		from other content	
5	Simple clean design	Cluttered data views	Improve and clean up
			data views

STYLE GUIDE AND DESIGN PATTERNS

INTEL SECURITY STYLE GUIDE

To be consistent with other software implemented by Intel Security, a style guide will be used when implementing the web application to ensure it is consistent.

Font Family	"intel_clear", sans-serif
Font Colour	#53565A
Body Font Size	12px
Heading 1 Size	21px
Heading 2 Size	18px
Heading 3 Size	16px
Heading 4 Size	14px
Accent Colour	#0071c5
Alternative Accent Color	#7fd3f7

DESIGN PATTERNS

DASHOBOARD

The dashboard design pattern is heavily implemented in this prototype and will enable users of the system to configure what is displayed on their homepage to ensure that they have quick and clear access to all the important information and tasks.

BREADCRUMBS

Breadcrumbs are implemented to enable the user to quickly navigate back from deep navigation sections and give a clear understanding of where they are in the navigational structure of the site.

PROGRESS BARS + WIZARDS

The project and job creation system implements a wizard enabling the user to complete complex tasks in stages and employ a progress bar to effectively communicate what stage in the process they are currently at.

GLOSSARY OF TERMS

Localisation - The process of adapting a product that has been previously translated into multiple languages to a specific country or region

Software localization - the process of adapting a **software** product to the linguistic, cultural, and technical requirements of a target market.

Vendor – A translation company or translation service provider. A company that offers translation services.

Price Plan – A document or data set containing the rates that a vendor changes for each level of translation depending on the complexity.

Job – A translation project or job, a quantity of content to be translated into a target language.

SAP – A enterprise level financial management system

WeLocalize - A Translation service provider (Vendor)

Log File – File produced by a translation software detailing the work done.