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UX/UI DESIGNER

Welcome to a presentation showcasing the three most significant projects during my time at BLSim.



FR, VBS MAP

Contracted new application - configurable external map connected to VBS3 simulating functionality of military GPS devices.

Duration

8 months
05/2019 - 12/2019

Work-time

Work: 513 h / 64 d
Meetings: 90 h / 11 d

Overview

Contracted by the French Army to deliver 2D map as external application running next to VBS3. The aim of this project was to provide a stand-alone C2 system monitoring of what's happening in VBS3 which could be configured and controlled by admins. The primary use case was training French intelligence units simulating looks of various GPS devices.

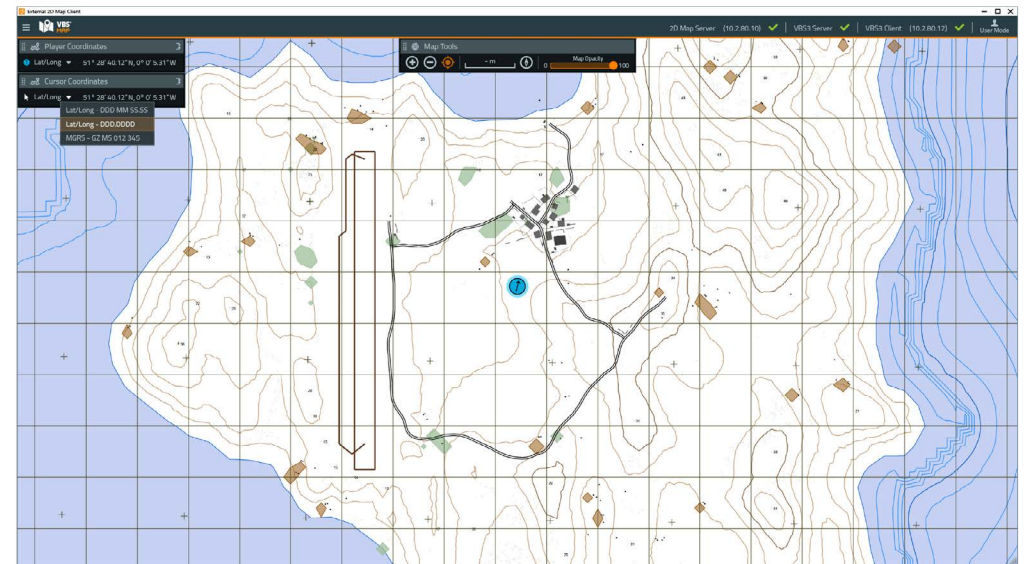
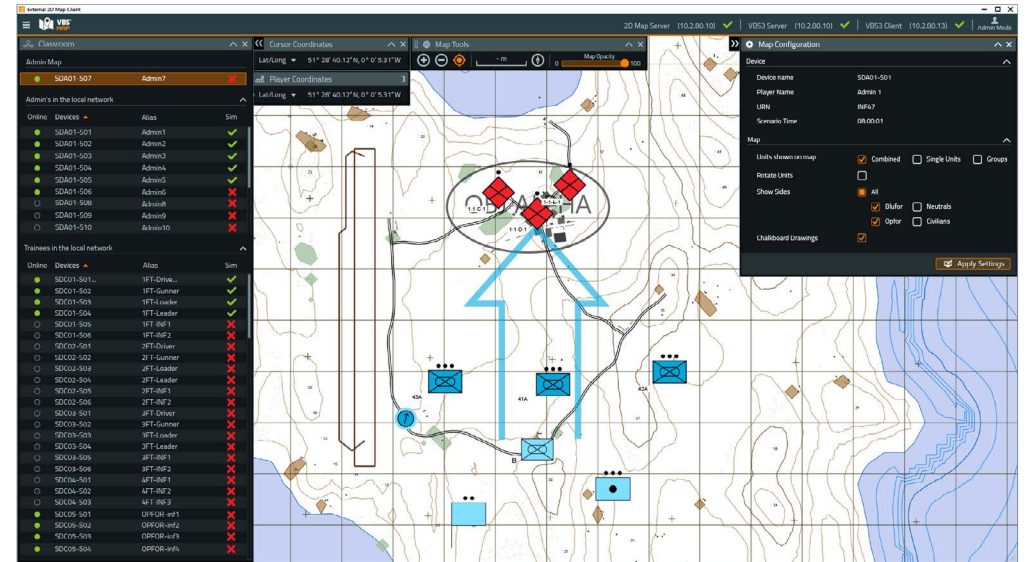
The Team

The team consisted of 11 core developers from outsourced company, 3 leads - one internal PO responsible for the delivery, scope and vision, 1 producer / scrum master, 1 team lead from the outsourced company managing the team, tasks and work and me as UX/UI designer. We've had 4 devs from our company as external oversight - front-end dev, 2 programmers and 1 back-end architect.

Main product features:

- Stand-alone app
- Server based architecture including own server and clients (web based and stand-alone exe) that communicates with VBS server
- Online / Offline mode for the map
- Admin / User mode of the app
- VBS entities and Chalkboard drawings shown on the new map
- Filtering of the entities visible on the map for admin and users
- Customisation of the map to look like a GPS device

VBS MAP



Tools



Why it's significant project

This was the most successful project in this company for me in: UX result and implementation, very close collaboration with the development and the most detailed UX process I've been able to do within the company's limitations.

What happened with the project next

Thanks to the success of the solution and implementation the team has done, it's been branded as its own product within the company. Currently it's on the product roadmap for integration with VBS Plan to provide solution for a project for Australian army.

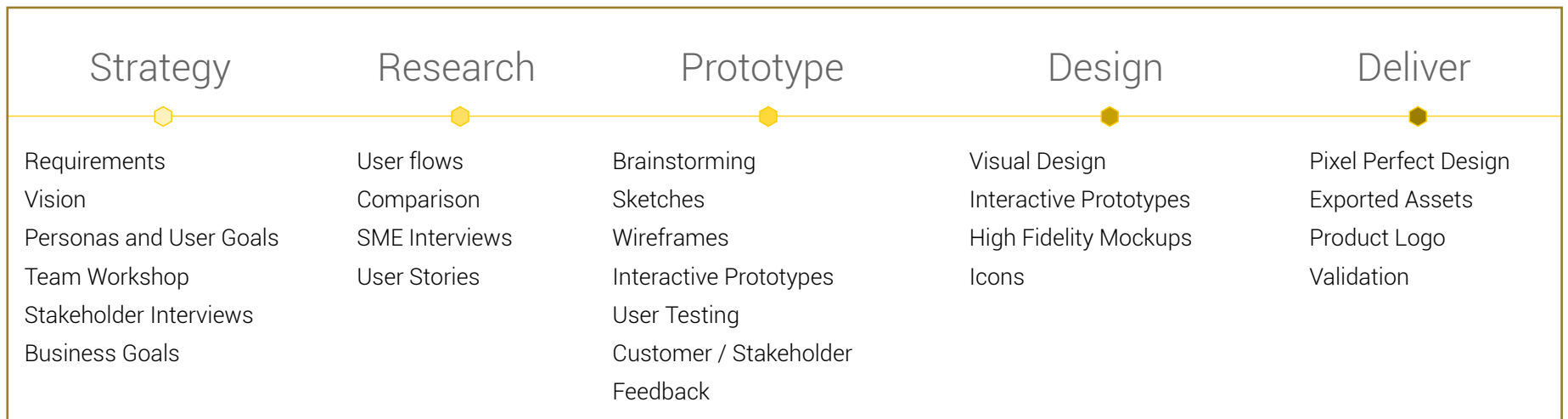
Challenges on the project

- Stakeholders weren't invited to the kick-off workshop and we've missed critical information that shaped our project into the current form. Architecture variations discussions froze development for 1 month and meant complete redesign of the app, change of back-end / front-end architecture, change of design for the users and many discussions that followed.
- We've lost our project manager in the middle of the project so the customer contact was cut off to a large degree.
- As the VBS4 style-guide was still in process of making and being changed on weekly basis it resulted in inconsistent styling of our app and changes being promoted to the dev team too late.

Successes

- Final product was accepted by the French Army without any remarks. The procurement officer liked the product so much that he's decided to release it for the whole French Army, not only the original branch that has commissioned it.
- We've had access to different sources (internal and external) for input about how military systems work which helped us to shape our product.
- Thanks to the dev team lead being very active in organisation of work and communication, the UX changes got to the code very quickly and in good quality so throughout the whole development we've had a stable build that could be tested/demoed at any moment which was very useful in acquiring feedback from the stakeholders and potential users. The original budget was even stretched to facilitate better UX through additional features.
- The whole team participated in shaping the UX, always providing feedback, testing and employing common sense to validate the designs. All devs including documentation were reaching to the UX designer for info and decisions about the design and how things should work.
- All leaders in the team cared about the UX, driving good balance between developing new features, bug fixing and UX improvements, which resulted in a well balanced product.

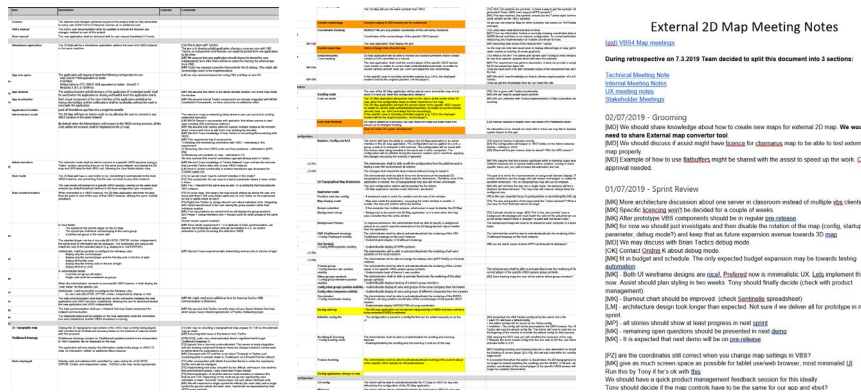
UX Process on this project



UX process

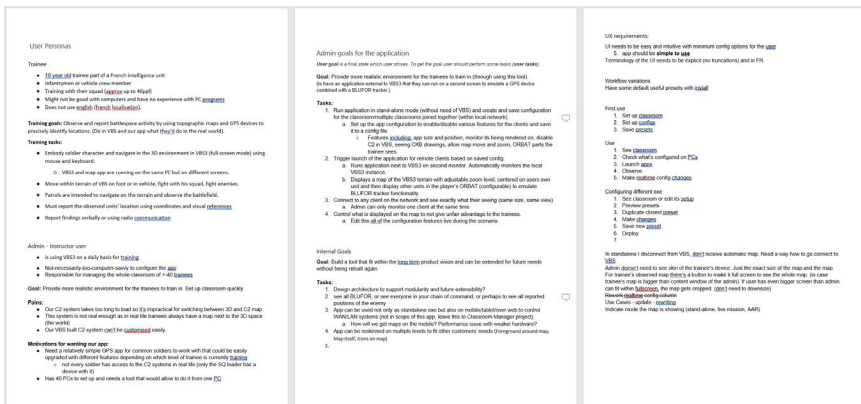
Strategy - Requirements

As most projects this one also started with studying requirements signed with the contract and use cases written by the PM (Project Manager) when the project has been created. At this stage I'd start having UX syncs with the PO (Product Owner = Team Lead), asking various questions about the requirements and starting meeting notes with clarifications that were brought to the team later.



Strategy - User Personas and User Goals

Based on the given use cases I assembled a short list of user personas and their goals and needs while using the product.



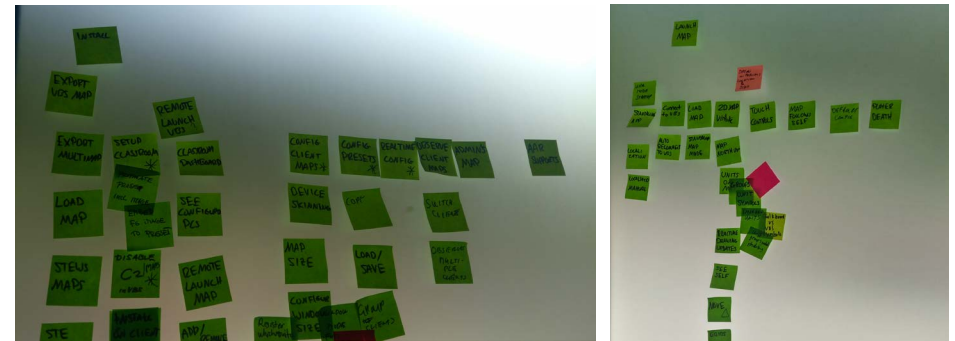
Strategy - Team Workshop

To kick off the project with the team and share project understanding from the start of the development we've done a 5 day workshop with the core of the dev team that flew in to Prague and invited other external specialists (US) which would help us identify key elements of the project that can be built based on our company's technologies.

We'd acquire a high level vision from the development lead, talk to programmers and architecture specialists about back-end technologies and review projects similar to ours if we could build on top of technologies already developed. My role in this was various, on some days I'd help run things, participate in discussions or make notes, on others I'd create supporting documents which moved the discussion further.

Day 2: User Stories Exercise

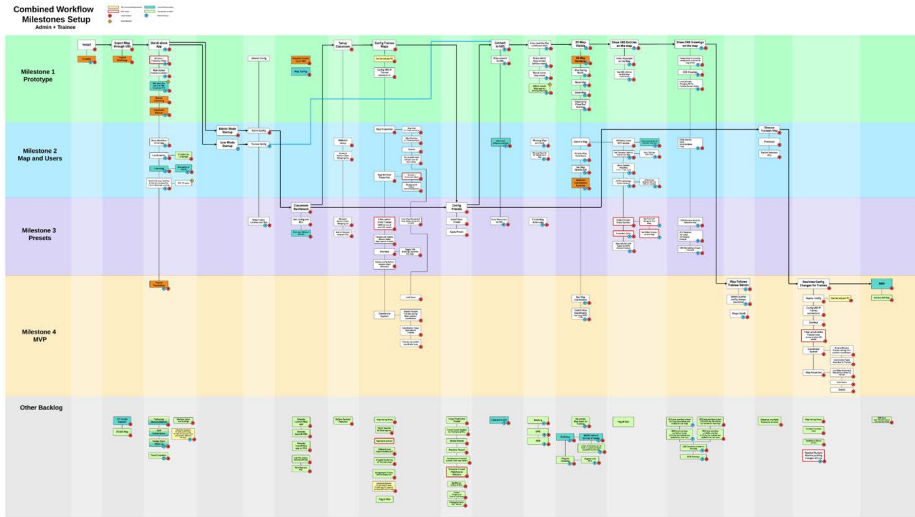
We've employed external facilitator so we could do this as a team and PO could focus purely on answering questions and clarifying details. We ran over the requirements again and constructed user stories for core features.



Day 2: UX Design Exercise

After we'd split the requirements to user stories based on admin and user perspective, we'd do a time-boxed exercise where we'd split into teams of 2 and each team would have 10 mins to design their vision of high level part of the application. We'd do 4 blocks of the designs each followed by 10 mins presentation of the design by every team and getting feedback. The high level blocks were admin dashboard, trainee view of the app, admin configuration and admin's map.

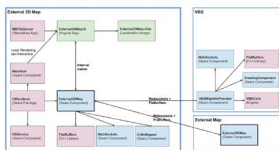
Strategy - Team Workshop



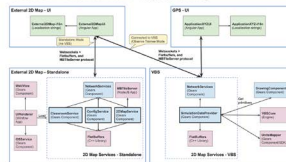
Strategy - Stakeholder Interviews and Business Goals

The last part of the strategy that had huge impact on the development happened right after the workshop and lasted for a month, where we were involving stakeholders, having architecture and business goals discussions and shaping the vision of the project. My role in this was mostly facilitating the meetings (to not waste time in endless discussions), taking notes and spreading shared understanding (often the only issue was two people talking about the same thing not seeing it) while keeping the one source of truth document up to date.

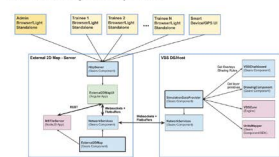
Solution 1 - Heavy focused on Standalone use-case



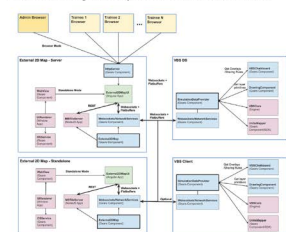
Solution 2 - Focused on 2D Map reusability



Solution 3 - Single 2D Map Server



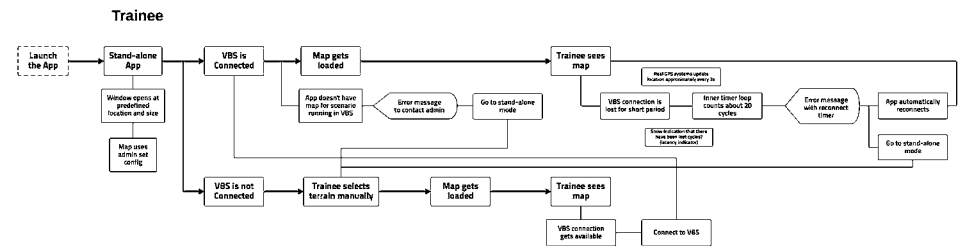
Solution 4 - Single 2D Map Server and Standalone Mode



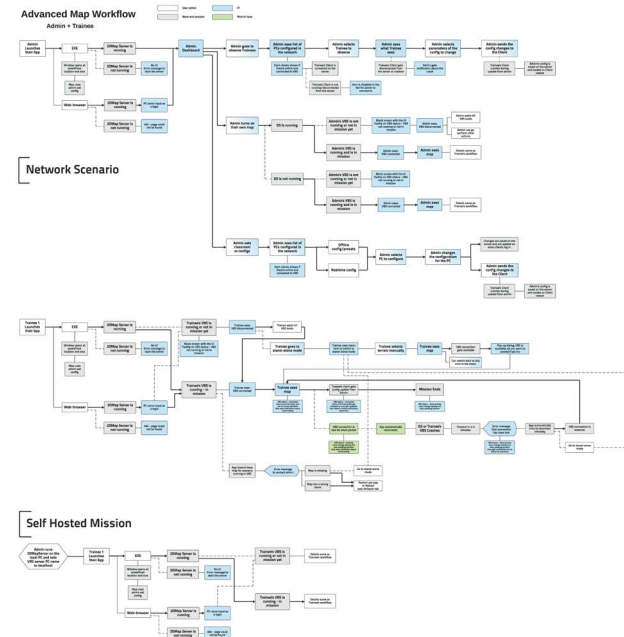
Research - User Flows

At this point we've had an idea of generally what the app needs to do, but didn't know how we'd get there. I've started mapping basic app flows depending on the state of the app and different architecture variants. We'd be having discussions with developers and stakeholders to ensure internal business goals are met and the team will be able to realize the solution. The team has got additional 10% of the budget which was funded internally so we could realize the future-proof architecture solution.

Basic Map Workflow

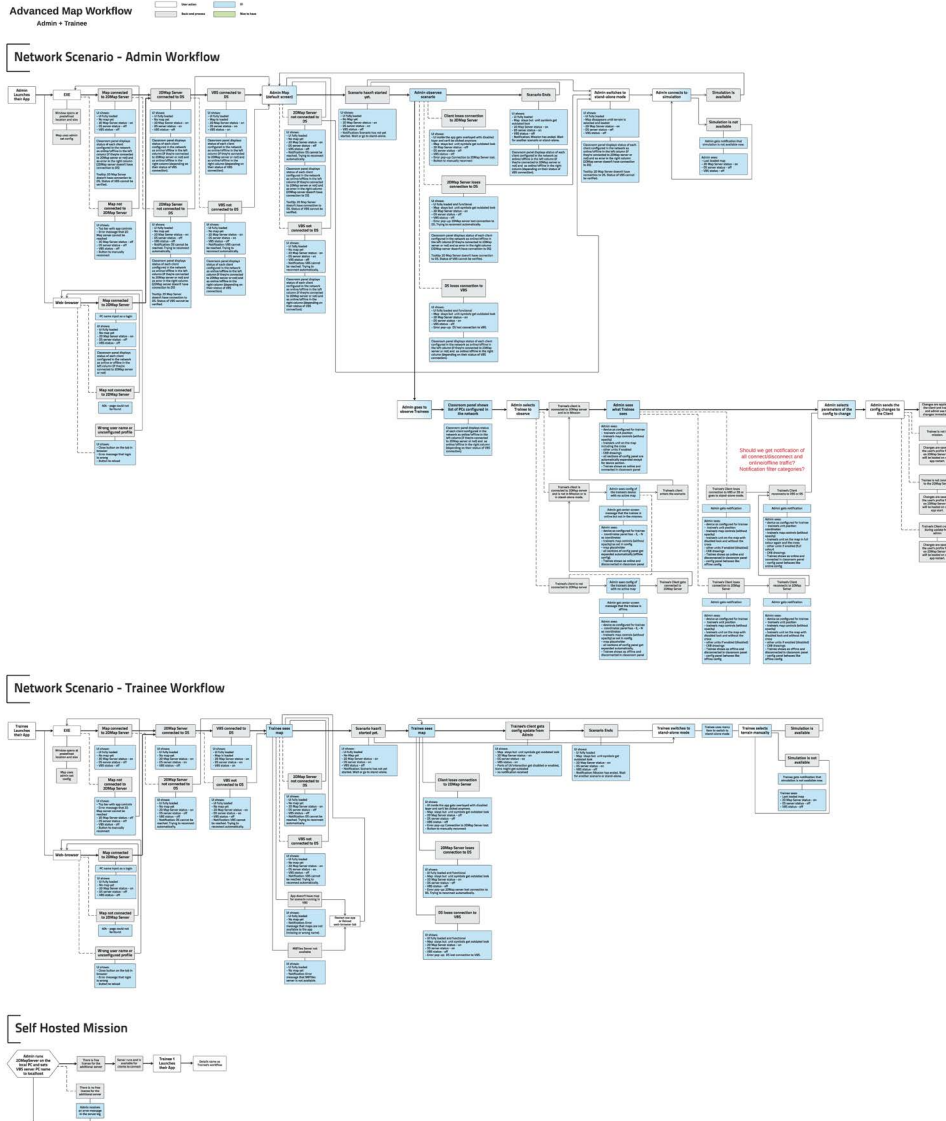


Advanced map of app states depending on network context and showing what users see at each point in UI and in the app:



Research - User Flows

Second iteration of the previous workflow, with more details about the behavior and what users see:



Research - Comparison

While working on the workflows we've started to dig into what our application could look like UI wise. We've looked into commercial map

applications as well as military examples to see what UI elements are most commonly used and what colour schemes are standard.

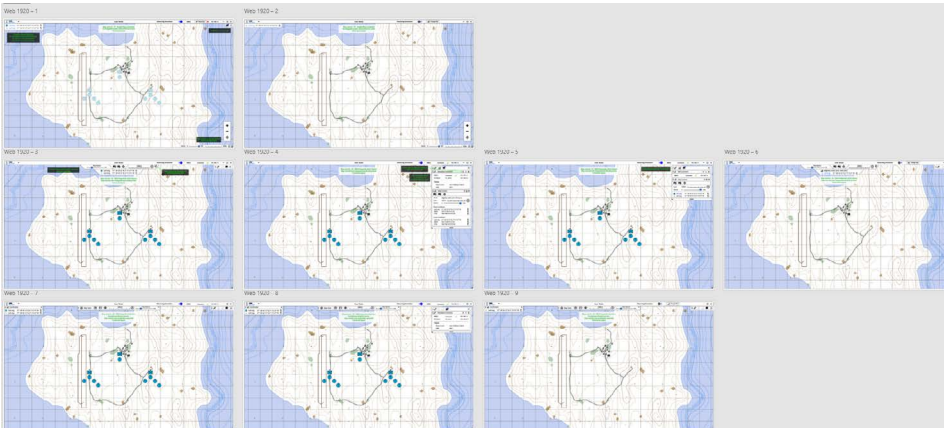
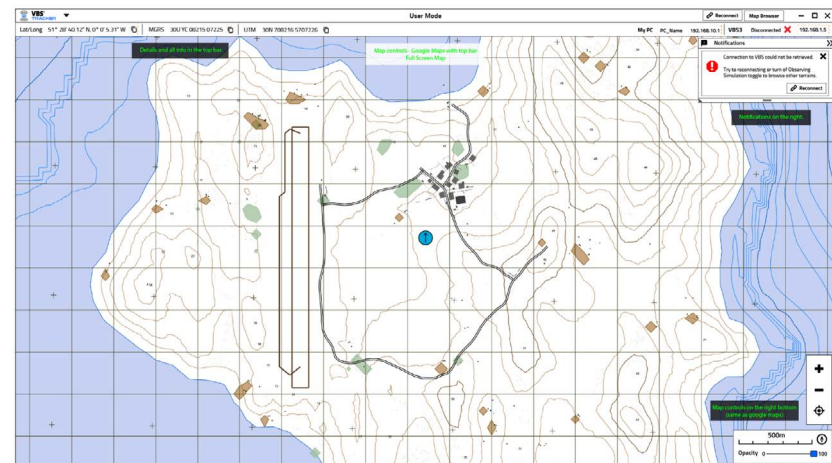
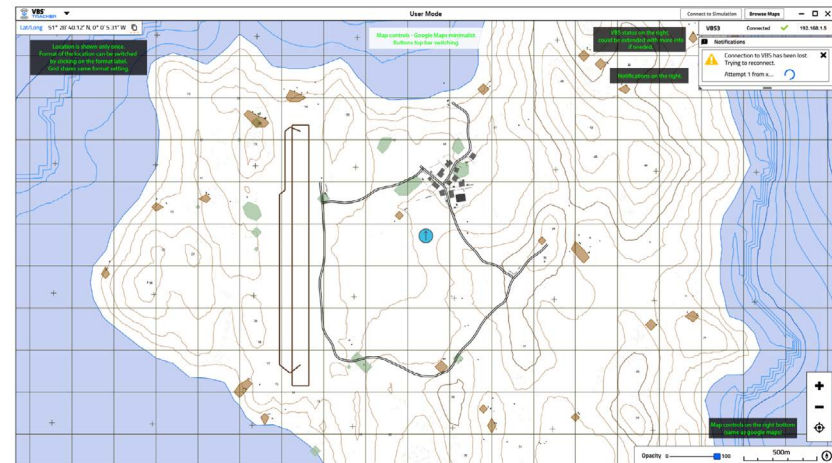
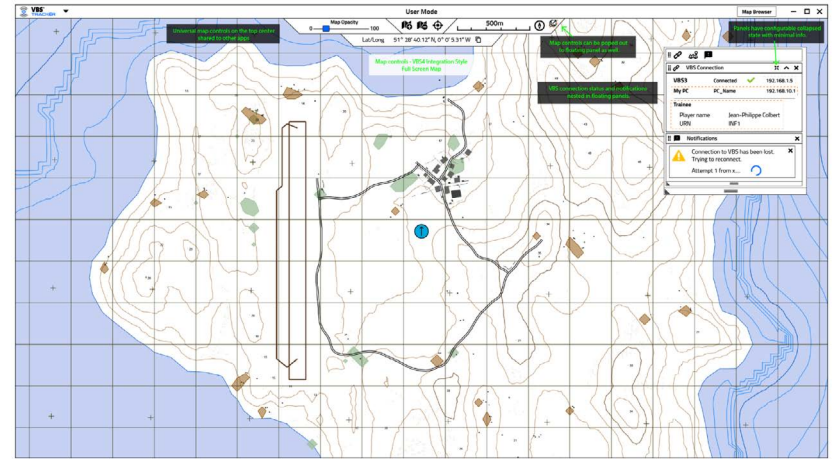
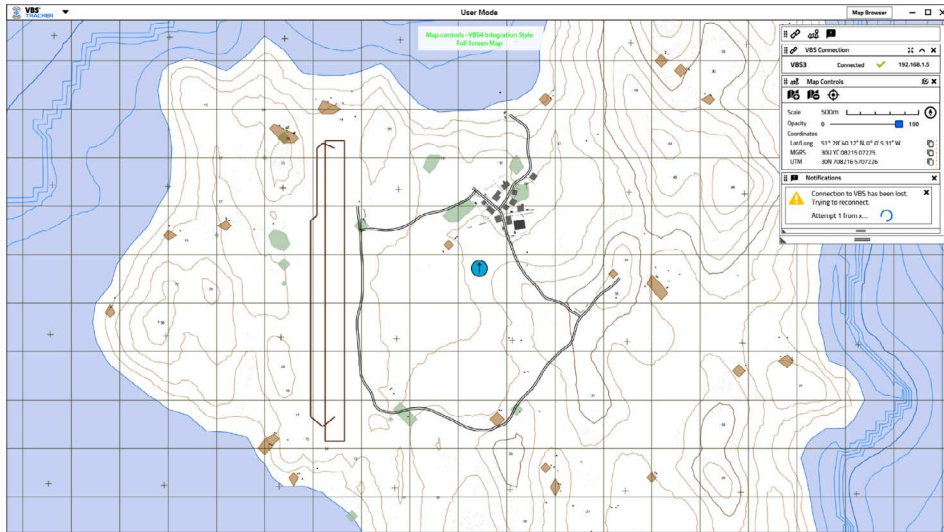




Prototype - Wireframes and Interactive Prototypes

We've started wireframing with the first exploration of map layouts and continued to wireframe for most of new features up till the creation of the final skin. All wireframes were clickable from first iteration.

Early explorations of map layouts:



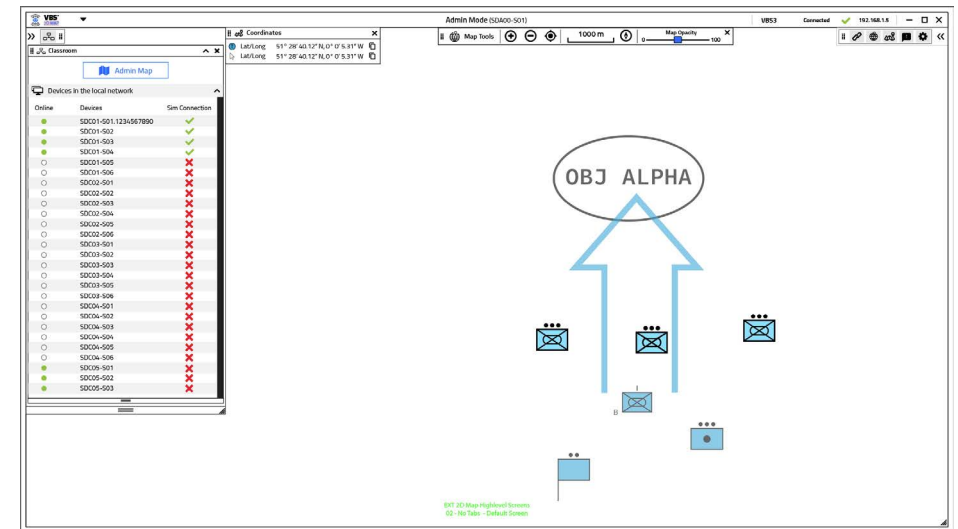
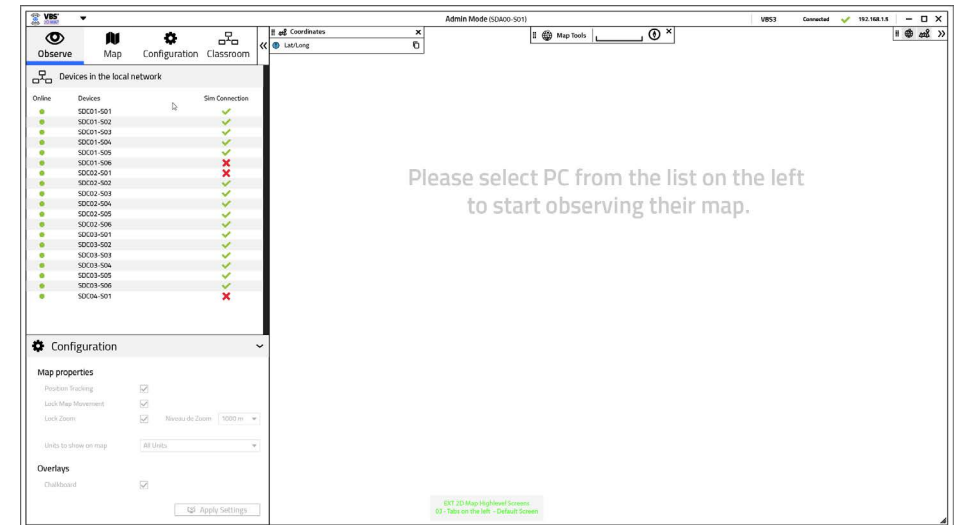
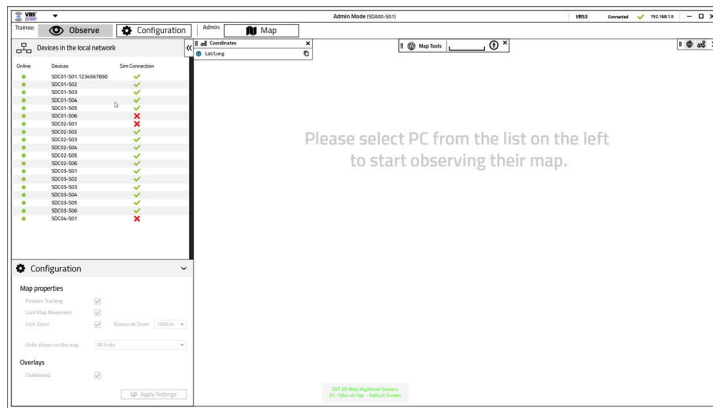
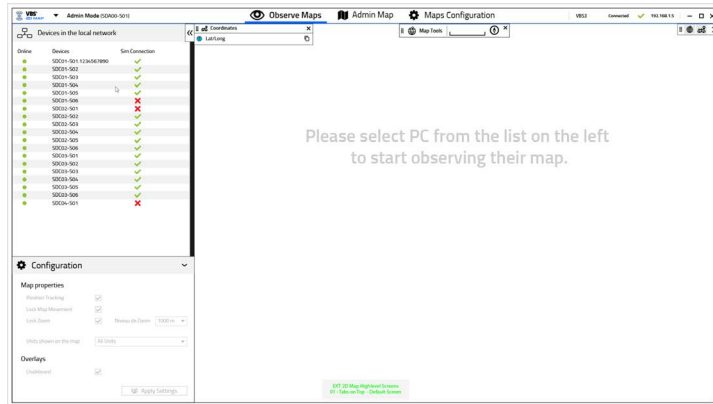
Trainee Workflow





Prototype - Wireframes and Interactive Prototypes

Early variations of the admin layout:



Prototype - User Testing and Customer Feedback

User testing was utilized throughout the whole development of this project. There were several main points where user testing played key role in our decisions.

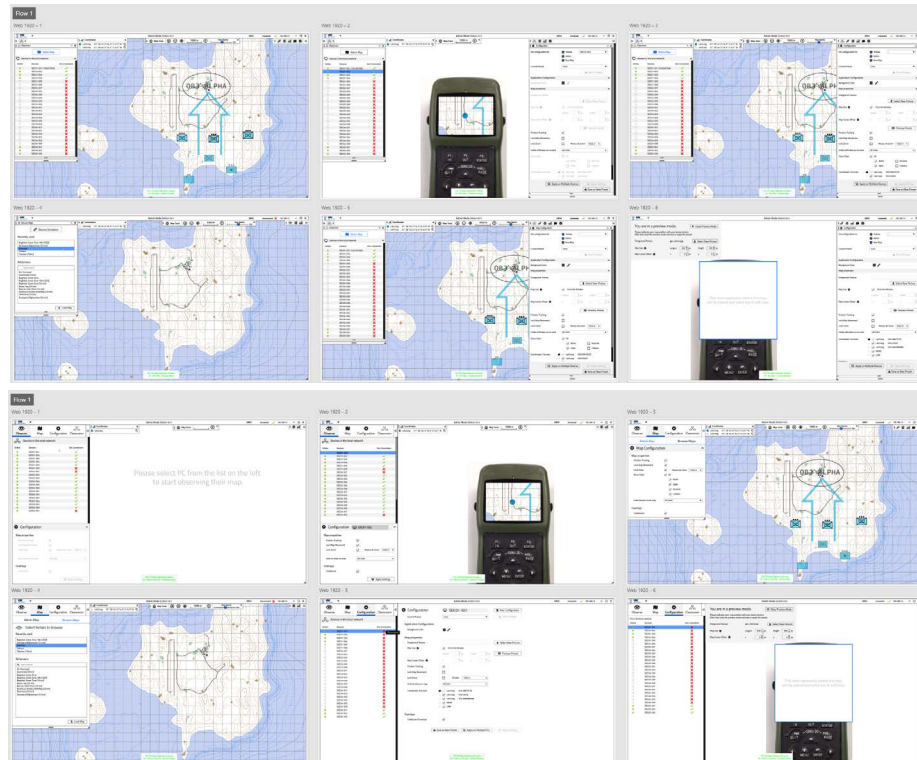
First of them was when we were deciding which layout would best work for admin in operating the map environment. We were split between layout using tabs defining each process in separate screen or free floating panels that presented all processes mixed together.



Prototype - User Testing and Customer Feedback

Two workflows each having a main screen for each of the key processes showed were created and 8 internal users from different disciplines have been recruited to go through the main use cases for admin persona. Each user was asked to fulfill 8 tasks on presented workflows and each user was presented workflows in different order so there would be equal first time interaction for both types. The user testing was assessed in terms of successfully completed tasks, difficulty with which the users completed the tasks and their feedback. In the end the no tab version was more successful with 48 scored points compared to tabbed version with 41. Since no tab design was the favourite version of the product management, PO and was consistent with our newly developed UIs, it was clear choice.

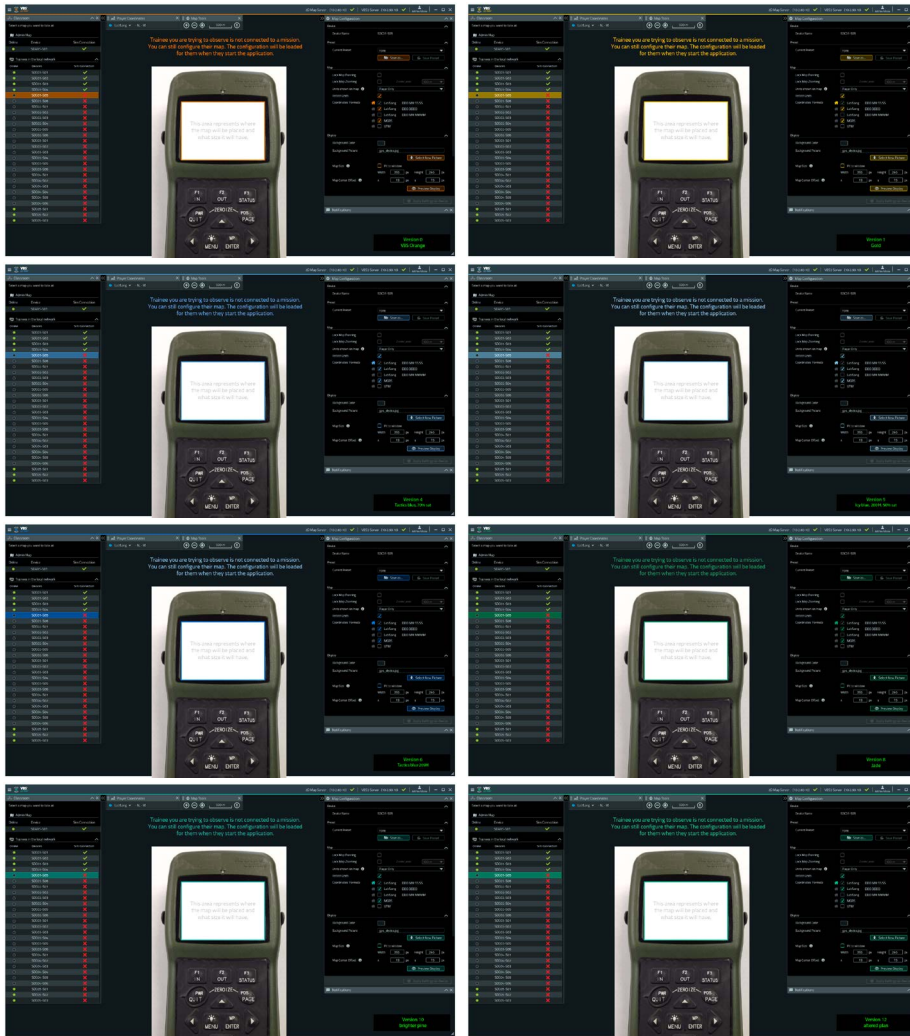
The later testing was done on live product, where we'd keep biweekly play tests with the team. I would do UX checks on live implementation several times a sprint and we would have couple sessions over the project with the French customer, where we would live demonstrate the system and ask them for feedback.



	of 2D External Map application https://xd.adobe.com/view/4ahttps://xd.adobe.com/view/a94	User 1 Lada First tested NT, second tested TT.	User 2 Kamila Rohebova First tested TT, second tested NT.	User 3 Aydin Atay First tested NT, second tested TT.			
Task number	1	1 No Tabs	2 Tabs on Top	2 No Tabs	1 Tabs on Top	1 No Tabs	2 Tabs on Top
Task Description	Do you know what you're looking at this screen?	Yes	Yes	Yes	Yes	NO	Yes
Test feedback	1: The map			1: Looking to find a map.		1: It's a map, looking for connection on the left.	
Task number	2	NO	NO	NO	NO	NO	NO
Task Description	Are you connected to simulation now?	Looked for it in the devices list. Wouldn't see	Can't find it.	No.	Scenario time in the UI? To be sure it's running.		
Test feedback							
Task number	3	Yes	Yes	NO	Yes	Yes	NO
Task Description	You want to see what one of the trainees in the classroom is seeing on their map. Can you show	Go to list and click it.	1: Got stuck, can't find. Would look for it in	1: Click on the list - double click.			
Test feedback							
Task number	4	Yes	Yes	NO	NO	Yes	Yes
Task Description	You want to set the map options for the trainee so they can start moving their map around. Where	1: Lock map movement	1: Have no idea. Right panel is presets. I [PZ] Add currently observing indication to the	1: This is their persons map what			
Test feedback							
Task number	5	Yes	Yes	Yes	Yes	Yes	NO
Task Description	As an admin you want to see what's happening in the scenario now. Where do I access it?	1: Admin map	1: Map button.	1: Click admin map	1: Won't find panel if it's not open.		
Test feedback							
Task number	6	Yes	Yes	Yes	Yes	Yes	Yes
Task Description	You want to configure one of the trainee's maps. Where would you click to make it happen?	1: Click on Trainee in the list and go to config.	1: Would look in config	1: I will switch to Trainee and			
Test feedback							
Task number	8	Yes	Yes	Yes	Yes	Yes	NO
Task Description	You want to create a new preset that you can apply on the devices. How do you do that?	1: In the right configuration. I'd be afraid that	Apply is not prominent enough, all changes	1: Found preset before being	Make options that are disabled to		
Test feedback							
Overall Workflow Assessment		1: The first is more	2: Tab system is more	2: Second is better if	1: Like the first one	1: List is more clear in first	2: Second is simpler
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Overall Workflow Assessment		1: The first is more	2: Tab system is more	2: Second is better if	1: Like the first one	1: List is more clear in first	2: Second is simpler
Test feedback							
Overall Workflow Assessment		1: The first is more	2: Tab system is more	2: Second is better if	1: Like the first one	1: List is more clear in first	2: Second is simpler
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Test feedback							
Overall Workflow Assessment		1: The first is more	2: Tab system is more	2: Second is better if	1: Like the first one	1: List is more clear in first	2: Second is simpler
Test feedback							
Overall Workflow Assessment		1: The first is more					

Design - Visual Design

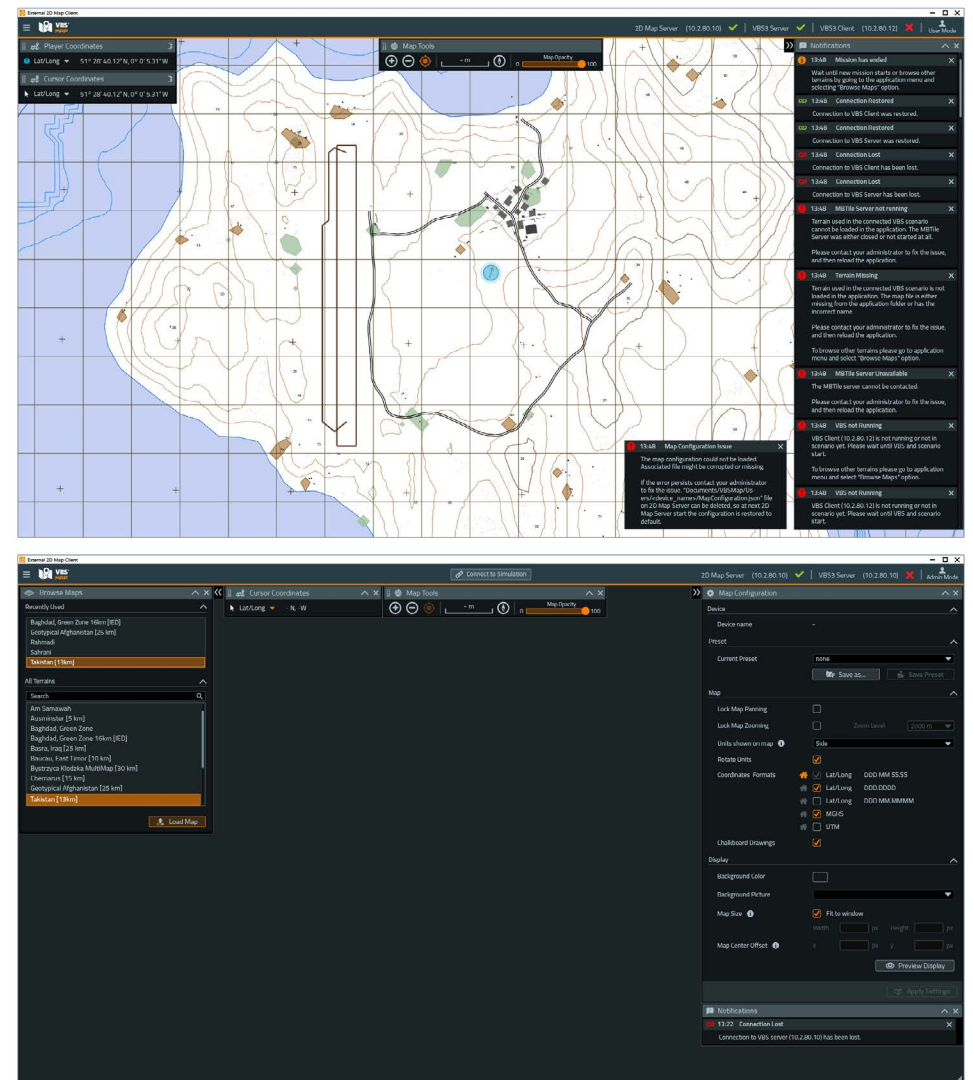
While working on the wireframes, we've explored variations of the visual design. Starting with orange and gold main highlight colour to go with our VBS3 theme, and going through blue and green variations based on other / competition applications we've explored before.



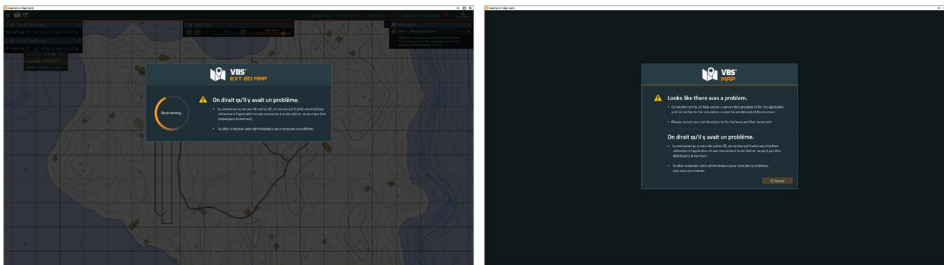
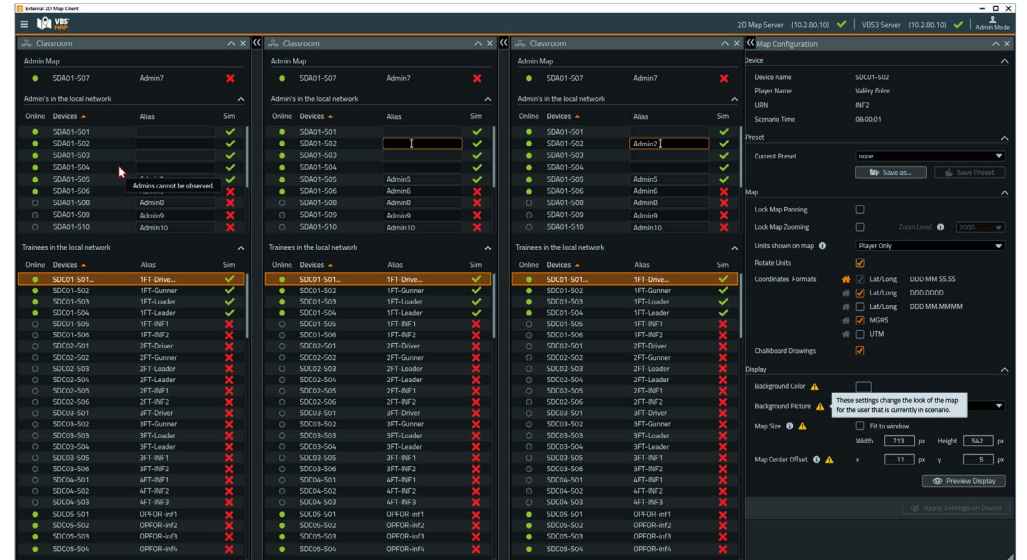
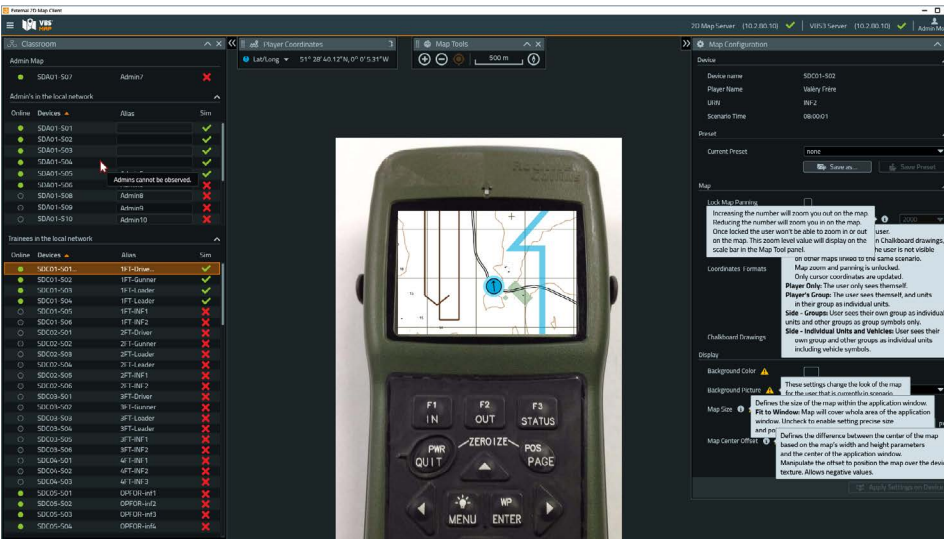
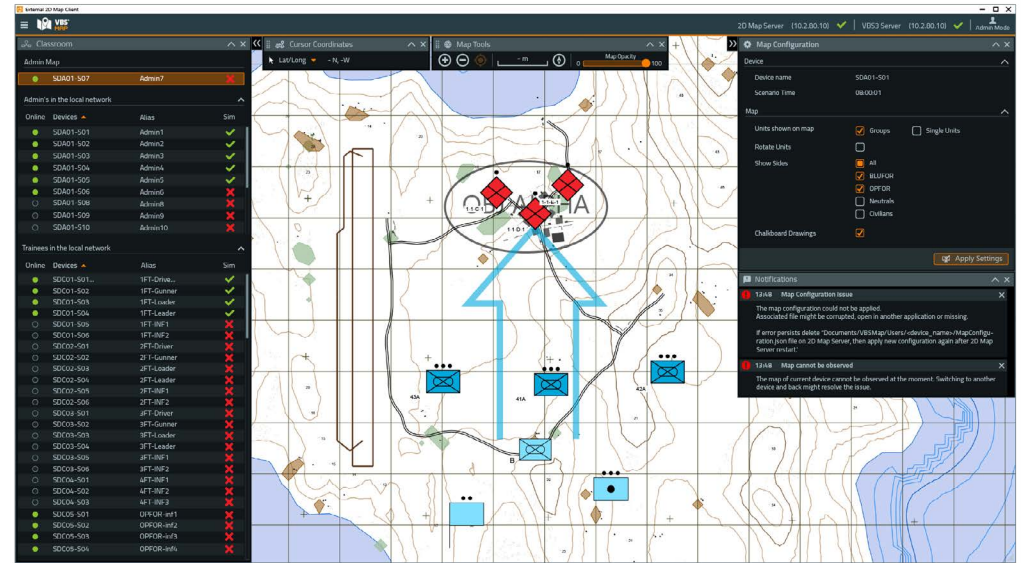
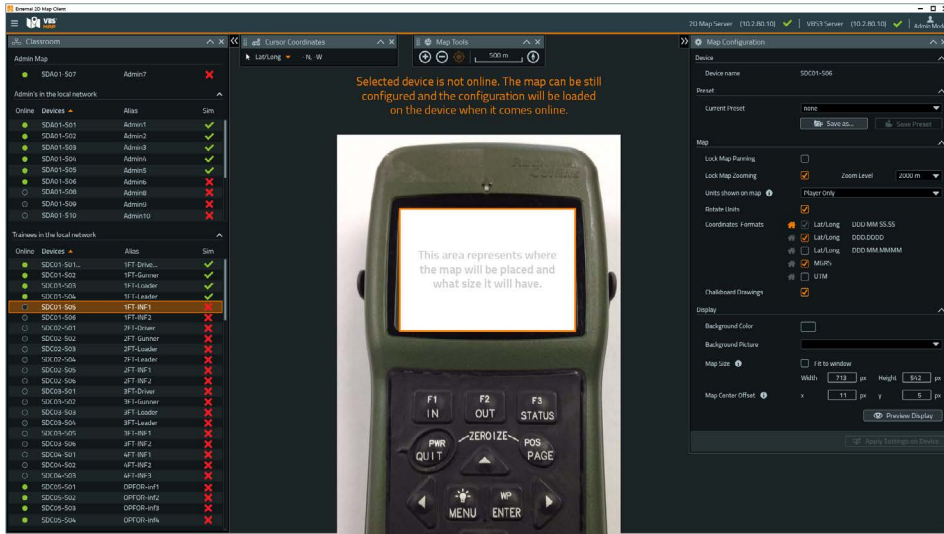
The rest of the colour scheme was based on newly emerging visual style that the UX department was creating for new flagship product of our company. In the end the orange highlight colour was chosen since the map primarily works with VBS3 and new VBS4 style of the rest of the UI.

Design - High Fidelity Mockups

After we've picked the final visual style I have reworked all screens into the coloured form and kept adding features such as dialogs, colour picker, info messages and tooltips, support dialog and other.

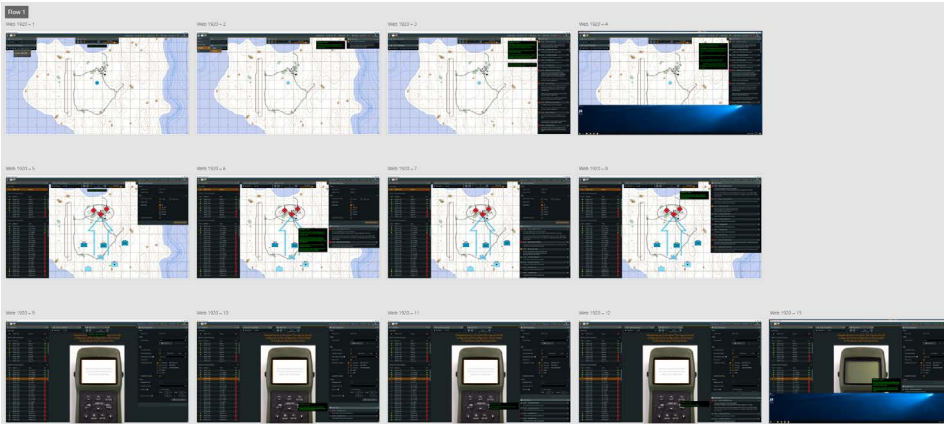


Design - High Fidelity Mockups

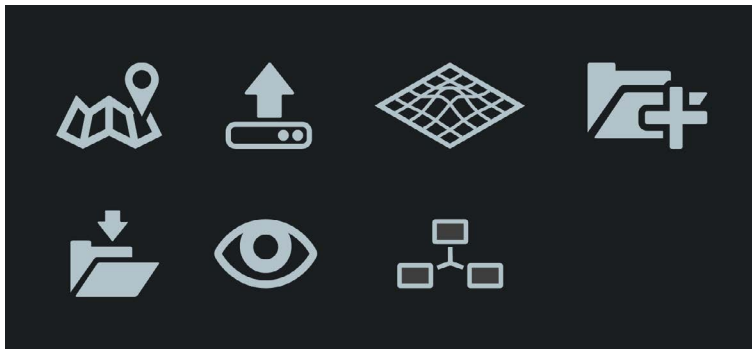


Design - High Fidelity Mockups

Notifications system and responsive UI behavior workflow:

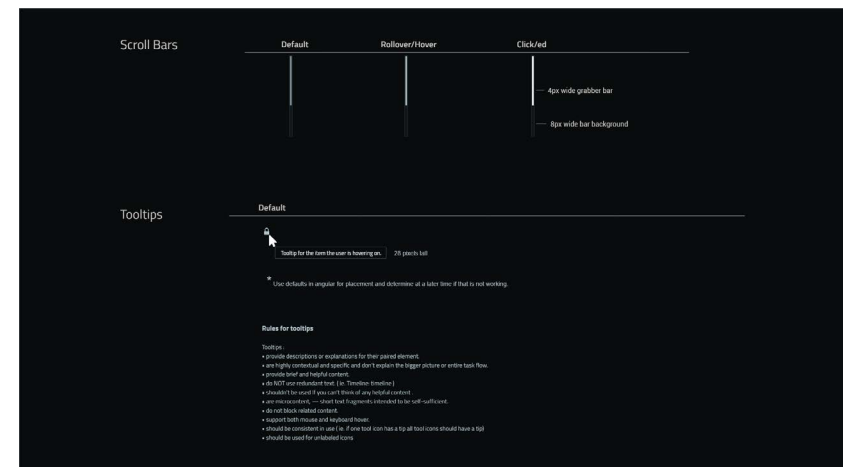
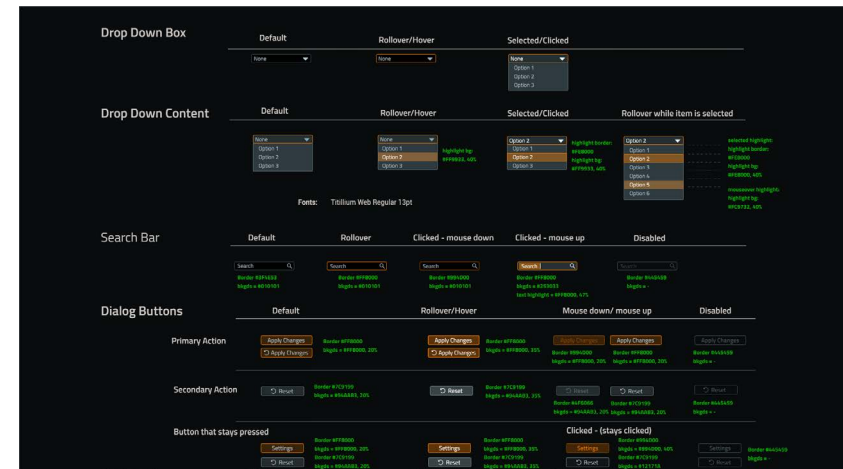


Few custom icons had to be made to suit needs of the product, rest was used from our UX department icons library.



Deliver - Pixel Perfect Design and Exported Assets

As last a pixel perfect design of all elements in the UI was made. Apart from the design exported from XD in dev mode, icons and installer pictures, a reduced version of styleguide was created for devs with UI elements relevant to our app and their interaction states. We have also created vector graphics based on various GPS and C2 devices that military uses so the customer could use it in their presets.



Deliver - Pixel Perfect Design and Exported Assets



Deliver - Product Logo

Multiple options have been explored during to logo creation. The original design was counting with main product logo and then separate logos for server and client apps. After realizing that we can use the main product icon for the client .exe there have been two final icons - one for server and one for everything else.

First exploration of the various logo ideas based on map and C2 systems.



Slimming the selection and refining selected ideas.



Final selection presented in the mini styleguide.





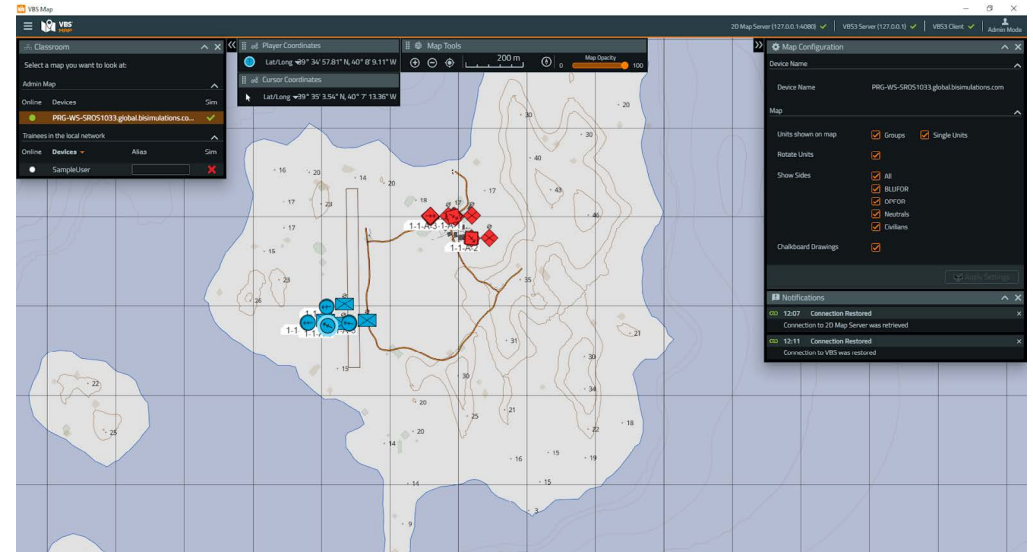
Deliver - Final UX/UI Validation

After all design elements have been implemented by the front end dev, an .exe has been provided for final validation. UI/UX check has been performed with bugs reported and then discussed with the team and PO for priority estimation and Jira tickets creation. Each element of the UI has been checked for tooltip or info bubble.

Reporter	UI Section	Priority	Description	Mockup/Screenshot link	JIRA Ticket	Resolution	Comments
PZ	About panel		If there's no manual tab please decrease the height of the panel so the black space between the support email and close bar is only 15px.				
PZ	About panel		If the support email can't load to opening a default email client with predefined email please make the 4 text selectable so the user can copy it.				
PZ	All panels		Space between panel header icon and the title needs to be 10px.				
PZ	Notifications panel		Notifications don't have header, background behind cards, timestamp and don't include IP of the server and also that's being disconnected from/reconnected to = wrong icons. Please 3 rewrite to format based on mock.	https://xd.adobe.com/spec/0b7762cc-05f8-4b6f-5cac-2c827e71a6d0/74460/screen/35001f58-2274-4b45-bb6d-cf46/			
PZ	Classroom panel		Hide scrollbar background when there's no scrollbar (vs4 styleguide change)				
PZ	Classroom panel		All columns needs to be in line independently on if there's a scrollbar on the right or not.	https://drive.google.com/filed/1KFP7rFu3_gf8uHxjCjGhMRzuzZUBMR/view			
PZ	Classroom panel		Outdent row highlight to missing an outline. The outline is there all the time on the row but changes 3 specify in different states				
PZ	Classroom panel		Panel icon needs update				
PZ	Classroom panel		Increase the width of the whole panel (+ cursor coordinates) so that the margin between the coordinate type and the dropdown is 10px, margin after the dropdown is 20px, margin after the 3 coordinates is 15px.				
PZ	Player coordinates		When there's no coordinate available the value should be following Lat/Long: E, N MGRS: -				
PZ	Player coordinates		3 UTM				
PZ	Map		Unit icon in player coordinates can't have highlight 3 from the map, please remove it.				
PZ	Map Tools		Scale graphics is wrong - please update 3 graphics from the mock	https://xd.adobe.com/spec/0b7762cc-05f8-4b6f-5cac-2c827e71a6d0/74460/screen/191cd003-3e01-4aed-b369-4864c/			
PZ	Map Tools		Text of the scale needs to be centered on the 3 maximum width of the scale bar, not on the right. There is too big space from the end of the scale 4 bar to the compass icon	https://drive.google.com/filed/1KRTh_g01PcSst6WubduF8lYVnYbS/view			
PZ	Map Tools		disable arrows on zoom level when it's disabled + arrows should be visible only on mouse over on the field or when the field is in focus 3 there's a bug when the arrows can be used to change the value now when the field is disabled and the value is not visible until the field is enabled 3 default text colour of the input field when enabled but not in focus needs to be the same as the 3 labels				
PZ	Map Configuration		When fit to window checkbox is checked map 3 center offset label needs to be disabled as well. Can the rounded corners on all elements be fixed so there wouldn't be a gap missing in each of the 3 corner?				

UI Section	Mouse over what	Text	Implemented	Review/Edits
Top bar	Close icon	Click to open the application menu.	Validation passed	
Top bar	3D map server label + icon	Indicates connection status of this client to the 3D Map Server.	Validation passed	
Top bar	VBS Sewer label + icon	Indicates connection of this client to the VBS Sewer.	Validation passed	
Top bar	VBS client label + icon	Indicates connection of this client to the VBS Client.	Validation passed	
Menu	Home Maps	through available network, when a simulation connection becomes available	Validation Failed	by the text on checkboxes application to stand-alone mode. You will be disconnected.
Menu	Connect to Simulation	Switches application to the connected mode.	Validation passed	
Coordinates panel	Dropdown arrow	Changes player / cursor coordinate types. Also affects map grid lines.	Validation passed	Changes player / cursor coordinate types. Also affects map grid lines.
Player Coordinates panel	Coordinate value	Shows current coordinates of the player unit.	Validation passed	
Cursor Coordinates panel	Coordinate value	Shows current coordinates of the user's cursor.	Validation passed	
Map Controls	zoom in button	Map zoom in.	Validation passed	Map zoom in.
Map Controls	zoom out button	Map zoom out.	Validation passed	Map zoom out.
Map Controls	center map button	again. Does not adjust zoom.	Validation passed	map again. Does not adjust zoom.
Map Controls	admin	inewed.	Validation Failed	
Map Controls	center map button / stand alone mode	Repositions map to its center.	Validation passed	change when it's
Map Controls	Scale indication	Length of the bar corresponds to the distance written above it on the map.	Validation passed	Length of the bar represents the distance written above it on the map.
Map Controls	Map opacity function	Sets opacity of the map, but not symbols and drawings.	Validation passed	Sets opacity of the map, but not symbols and drawings.
Map Configuration	Device name (label + value)	Device the map configuration is applied to.	Validation passed	Device the map configuration is applied to.
Map Configuration	units shown on map (label)	Filters units that are shown on the map.	Validation passed	Filters units that are shown on the map.
Map Configuration	Groups checkboxes + label	And you only have Groups checked, your own single unit symbol will not be shown on the map.	Validation passed	And you only have Groups checked, your own single unit symbol will not be shown on the map.
Map Configuration	single units checkboxes + label	All units on the map are shown as single unit symbols.	Validation passed	All units on the map are shown as single unit symbols.
Map Configuration	rotate units label + checkbox	units always face North.	Validation passed	disabled, units always face North.
Map Configuration	Show units label and values	Filters which unit details will be visible on the map.	Validation passed	
Map Configuration	checkboxes/drawings label + checkbox	Enables/Disables drawings visibility on the map.	Validation passed	
Map Configuration	Save as button	Choose the preset of parameters you want to apply to the device.	Validation passed	Choose the preset of parameters you want to apply to the device.
Map Configuration	Save Pres button	Save configuration to a file on your hard drive.	Validation passed	Save configuration to a file on your hard drive.
Map Configuration	Save Pres button	Save Pres button	Validation passed	
Map Configuration	Lock map panning (label + checkbox)	follows the player's position.	Validation passed	follows the player's position.
Map Configuration	Lock map zooming (label + checkbox)	locks user ability to zoom in / out	Validation passed	locks user ability to zoom in / out
Map Configuration	Zoom level label + dropdown	the scale bar in the Map Tool panel.	ERR: please	Set the zoom level for the user.
Map Configuration	dropdown	see more about the options	Validation passed	icon to see more about the options.
Map Configuration	checkboxes/units	panels and as grids shown on the map.	Validation passed	
Map Configuration	coordinates format (mouse icon)	Sets the default coordinate type that will be loaded on application start.	Validation passed	
Map Configuration	background color label and button	doesn't occupy the whole window	Validation passed	
Map Configuration	dropdown	device.	Validation Failed	for the whole
Map Configuration	map size label	Click the info icon to see more information about the options.	Validation Failed	for the whole
Map Configuration	fit to window (checkbox + label)	Enable to set the size of the map to the size of the window.	Validation passed	
Map Configuration	width (label and value)	Sets width of the map in pixels.	Validation passed	
Map Configuration	height (label and value)	Sets height of the map in pixels.	Validation passed	
Map Configuration	Map center offset label	see more information.	ERR: please add	
Map Configuration	x (label and input)	Defines horizontal offset of the center of the map from the center of the window.	Validation passed	
Map Configuration	y (label and input)	Defines vertical offset of the center of the map from the center of the window.	Validation passed	
Map Configuration	apply settings on device button	Applies map configuration on the selected device.	Validation passed	
Classroom panel	green dot	Client connected to the 3DMap Server.	Validation passed	
Classroom panel	grey dot	Client disconnected from the 3DMap Server.	Validation passed	
Classroom panel	checkboxmark	Client connected to VBS scenario.	Validation passed	
Classroom panel	X	Client not connected to VBS scenario.	Validation passed	
Classroom panel	Circle label	Click to sort by this column.	Validation Failed	Click to sort the column.
Classroom panel	Downward label	Click to sort by this column.	Validation Failed	Click to sort the column.
Classroom panel	Upward label	Click to sort by this column.	Validation Failed	Click to sort the column.
Classroom panel	Align text field place	returns and other admin can see it in their classroom panels.	Validation Failed	Click to sort the column.
Classroom panel	Align text field place	field to confirm the value.	Validation Failed	field to confirm the value.
Classroom panel	Sim label	Click to sort by this column.	Validation passed	(the column).
Classroom panel	above	Click to obscure the device.	Validation passed	
Classroom panel	above	Admins cannot be observed.	Validation passed	

Screenshot from final implementation:





NL, CHALKBOARD

Contracted redesign of internal drawing tool to support mission planning by placing drawings over the map. Main purpose was to simulate real world paper map and planning missions on it - reworked into digital form.

Duration

14 months
11/2017 - 12/2018

Work-time

Work: 1029 h / 129 d
Meetings: 120 h / 15 d

Overview

Project contracted by the Dutch army to rework a simple drawing tool developed by our company about 11 years ago. The original scope of the project was supposed to revamp all old features and enhance them with few customer requested tools and options. During the development of the project this has turned into whole new mode of editor which offered extended versions of the original tools, new tools and ease of use the original tool was lacking.

The Team

The team consisted of 5 developers from a team in US and their lead, later 5+ developers from outsourced company and their lead + PO and producer / QA from our company and me as UX/UI.

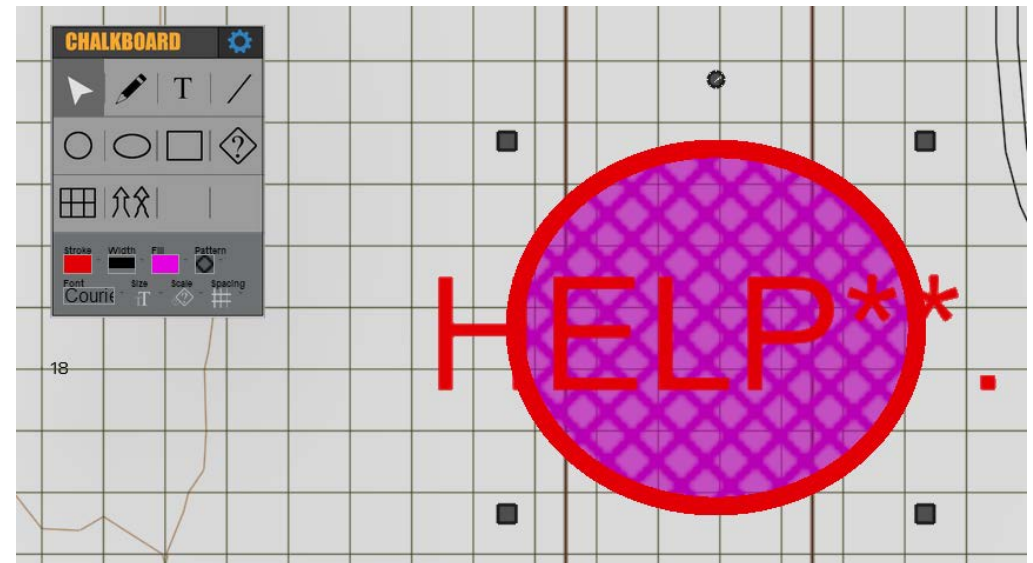
Main product features:

- Separate drawing mode within VBS editor
- Added support for briefing screen to review plan before entering the mission
- Collaborative network transfer of drawings when in mission
- Admin controlled rights who in mission sees what drawings through layer system
- Support of placing 2D and 3D drawings on 2D map and in 3D mode.
- Custom patterns allowing designation of zones on the map
- Support of placing images and map overlays into the mission
- Ability to export drawings into separate file and load on different client

VBS CHALKBOARD



New Product



Original Tool

Tools



Why it's significant project

This was the first big project I ran UX completely on my own with mentoring from my boss. It was also the first time I have collaborated with US based team (6h timezone difference) and outsourced company with integration of internal devs. This project had the largest amount of project iterations through which it built base of new product VBS Plan (desktop and VR) and is set to be the core of editor of future company flagship.

What happened with the project next

The project was successfully delivered to the Dutch army in December 2018. In May 2019 it was picked for internal competition to be extended as part of STE Planner with tactical planning and mission building features (drawings that turn into AI behaviour) and after successful delivery of this demo it has become base for code and UX hardening in VBS Plan, which was delivered in April 2020 and became core part of new company flagship VBS4 released in summer 2020. Extension of this project was also created as VBS Plan VR and future integration with VBS Map is planned to be a stand-alone app.

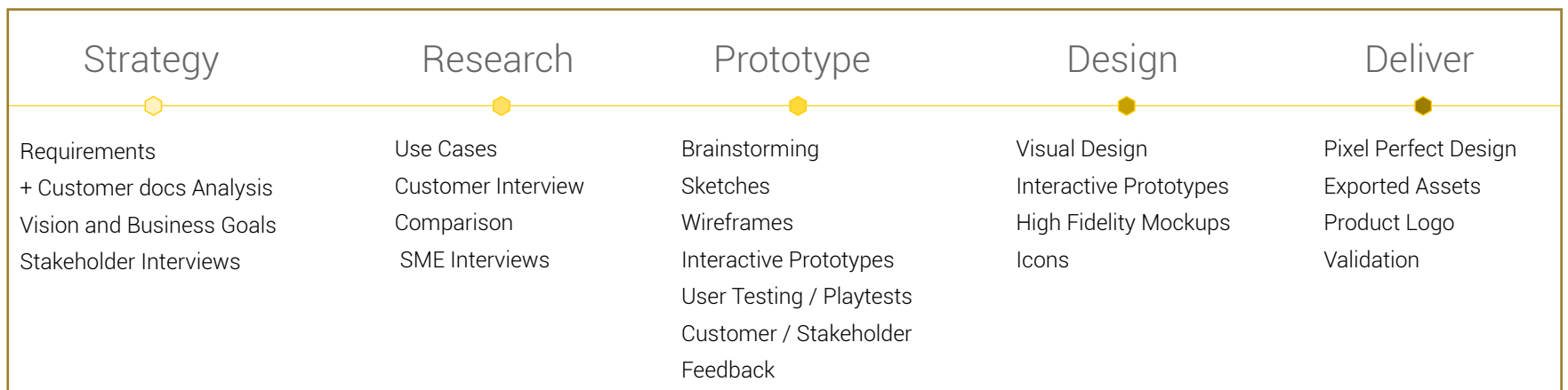
Challenges on the project

- I started with UX months before the team was assigned and as a junior at that time it was hard to put together vision for the project, because high level stakeholders were pulling in completely different directions and it kept changing based on which of them took initiative and pushed on others the most.
- I was under the mentorship of my direct manager who was instructing me in one direction with pre-production phase and also his boss who was telling me complete different instructions.
- The company had a hard time to find a team to assign to the project and during the development it changed 3 times before settling on one dev team.

Successes

- We've had excellent relationship with the end customer and had a chance to meet with them in pre-production phase and discuss all requirements and functionalities with them. At that point we had wireframes already so we could get feedback on those too.
- We've had regular demos to the customer, where we were able to show the progress and get their feedback on the current tools functionality and usefulness.
- In mid project I went to support a training exercise to artillery school in France. Thanks to the nature of the training there were people who matched profiles of projects' end users exactly and I was able to do extensive interviews and get their feedback on the system.
- I was able to talk to the training center admins and instructors and get info on critical bug that prevented them to use the old tool and would prevent using the new as well. I pushed it to the development and we fixed it so they and other customers can use the product easily.
- Based on feedback from both customer and French we integrated briefing screen functionality so the whole tool usage mimicked more how army trains and does it in real world.
- We've lead UX on this looser from use cases than most of our department did. Thanks to this the tool had incredible wide usage and it was partially why it won internal competition for another project that was crucial for the company's future progress with US army.

UX Process on this project



UX process

Strategy - Requirements + Customer docs Analysis

Since this was paid refactor of already working internal tool, the requirements already contained functionality of the old tools and requirements for new features from customer in form of presentation with feedback on usability of the old tools and how they imagine new ones would work.

The image shows a detailed requirements document. At the top, there's a section for 'DEPRECATED' items and a note to 'New Location - Please add any new info there.'. Below this is a list of requirements, each with a unique ID and a description. To the right, there's a 'Background Info' section with numbered questions. In the center, there's a hand-drawn tactical map with various units labeled: FOC, ACP, MAIN, and others. Below the map, there's a small diagram labeled 'HIDE CZ' and another diagram showing a 3D perspective of a control room or interface with various screens and controls.



Strategy - Vision and Business Goals

Vision for this project was very unclear from the start and it changed over the course pre-production phase many times. The company was exploring future possibilities for this project and was trying to find a way how to plug it into its long term roadmap together with other products. There were regular meetings with Design Director, company's co-CEO and other members of product management to figure out how this project should be approached.

Strategy - Stakeholder Interviews

Meanwhile I have started to collect data from internal various stakeholders: business side - sales guys, technical sales support, people who've worked on the original tool, QA, product management, designers. Template for interviews was made in various roles and then 11/25 people agreed to provide interview. 31 new features was distilled from the interviews out of which 24 were implemented in this and STE Planner and VBS Plan projects.

Role: Business Stakeholder

Background Info

1. What is your position/role towards the tool?
2. Who is this product for? Who do you use this tool?
3. Can you think of any tools provided by our competition that would provide similar or better functionality?
4. What is your vision for this tool?
5. Can you think of any improvements for this tool with other products?
6. What are the goals you'd like to achieve from this tool?
7. How do you measure if the tool is successful?

User Goals

8. Who do you think uses the tool and how? Are there any use cases you can walk me through that would show how this tool is used?
9. Do you think users can do everything they need to with how it works atm?

Usability

10. Do you use the tool? How often?
11. Do you know where to find it and how to start it?
12. Can you think of any improvements to how it's used?
13. What do you want to use the tool for? Is it easy to get done what you need?
14. How do you get to your goal?
15. Would you do anything in this process differently?
16. Do you use the tool for anything other than its intended use?
17. Have you used tactics before? How do you find it use? Have you used symbol/badge or any other features inside?

Design specifics

18. Are specified on parts of the system: finding it, use of menu, drawing, manipulating objects.

End questions

19. Can you think of anyone I should talk to about this as well?
20. How would you like to be involved in the rest of the project, and what's the best way to reach you?

Other questions

What do customers complain about or ask for most often and why?
 What are the most common problems users face?
 What do you think our customers would like to do with this tool? How do you think they'd use it?

ID	Use Case	Value	Requirement source	Requirement
1.1	Use Cases			
1.1.1	coverage for the mission.			
1.1.2	Universal drawing plugin loadable in all our products	Dutch	CSH - Andrew, Y	CSH - Req 021, CSH - Req 022
1.1.3	Universal drawing plugin installable in 32-bit Java tools	Dutch	ISH - Zdenek	CSH - Req 021
1.1.4	Scenario Planning tool - stand alone without VBS	ISH - Alastair		CSH - Req 021
1.1.5	Locations with large polygons and heavy coordination	ISH - Alastair		CSH - Req 021
1.1.6	Other settings related to VBS (CSH tool and radio)	ISH - Ivan		CSH - Req 021
1.1.7	briefing screens to explain the plan before mission execution. Initial	ISH - Ivan (FR Use case)		CSH - Req 021
1.1.8	incorrectly AAR, differences in AAR which drawings were clear since	ISH - Ivan		CSH - Req 021
1.1.9	Signal leaders drawing plan for the squad. Platoon leaders where all	ISH - Jeremy		CSH - Req 021
1.1.10	Drawing a map report for products	ISH - Richard Kiesel		CSH - Req 021
1.1.11	Interact with various zones of different volume shapes and calculating	CSH - Richard Kiesel		CSH - Req 021
1.1.12	Analysis coordination	Dutch		CSH - Req 021
1.1.13	Collaboration	Dutch		CSH - Req 021
1.1.14	Boundary lines	Dutch		CSH - Req 021
1.1.15	Areas	Dutch		CSH - Req 021
1.1.16	AAR drawing	Dutch		CSH - Req 021
1.1.17	Grid	Dutch		CSH - Req 021
1.2	Integration into Chalkboard and connectivity between products			
1.2.1	Load markers and entities from other games used from the system	ISH - Jacob Jarvis		CSH - Req 021
1.2.2	scenario - draw it outside of VBS, select list of entities and add	ISH - Jacob Jarvis		CSH - Req 021
1.2.3	the scenario in VBS (intelligence markers for entities, entities)	ISH - Alastair		CSH - Req 021
1.2.4	customers use their own scenario planning tools and would like to load	ISH - Jacob Jarvis		CSH - Req 021
1.2.5	Legacy markers locations and properties to VBS system	ISH - Jacob Jarvis		CSH - Req 021
1.3	markings over terrain			
1.3.1	get data and can be viewed through this file in other terrain mapping	ISH - Earl, Martin Kabanov		CSH - Req 021
1.3.2	Loading markers over large numbers	ISH - Jacob Jarvis		CSH - Req 021
1.3.3	of data and viewing through a while rendering	ISH - Jacob Jarvis		CSH - Req 021
1.3.4	well	ISH - Jacob Jarvis		CSH - Req 021
1.3.5	Planning scenarios with required bottom maps	ISH - Jacob Jarvis		CSH - Req 021
2	New Features			
2.1	Realtime drawing preparation on the network to clients			
	Feedback drawing with saving and drawing			
	Building custom markers library that could be shared			
	Making Chalkboard's backend independent to a default track systems			

Research - Use Cases

There were 7 iterations of use cases written. First 4 written at the beginning of the project, next 3 when the project was handed to outsourced team, last 2 were updated at the end and have become base for FAT (Factory Acceptance Testing) test cases that QA have created based on last iteration and were used demo the finished product to customer for official delivery of the project.

Research - User and SME Interviews

The exercise was part of training for JTACs (Joint Terminal Attack Controller) and FOs (Forward Observer) which were simulating realistic procedures for planning missions, coordinating airspace and using real artillery calls in virtual environment. There were two platoons of live soldiers role playing force on force mission.

During this exercise I was able to present the project to the trainees as well as their instructors who were JTACs with real experience and who explained to me in detail how missions are planned, what's most useful for virtual training and how some of the tools are used in military.

Outcome of these discussions were: I was later able to persuade stakeholders and PO to implement Chalkboard into mission briefing, creation of two workflows for height stacks - one military based, one generic tool supporting parts of the military procedure, support of different than English keyboard in case some customers have keys physically on different places.

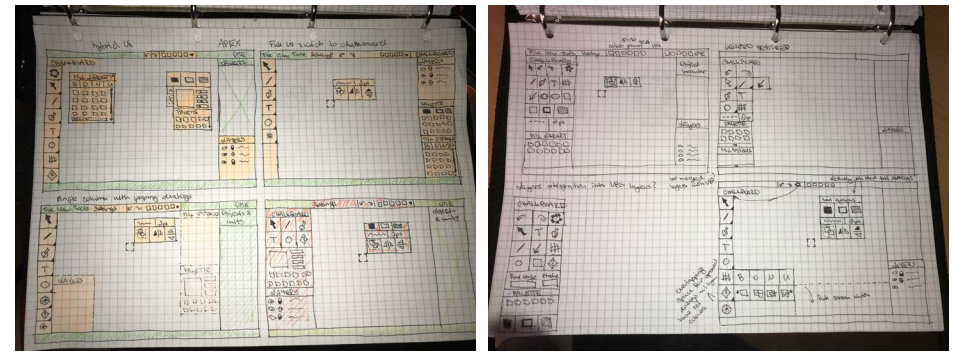
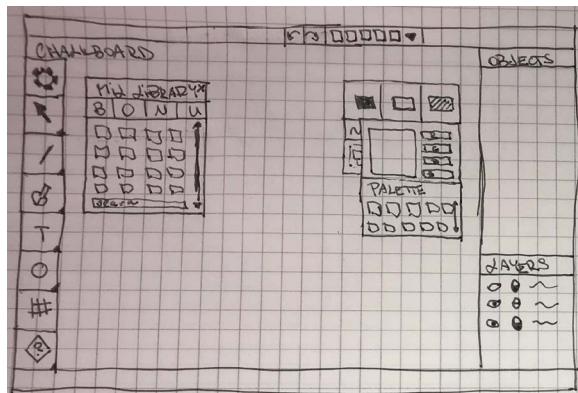
Prototype - Brainstorming

In the first half of the project, brainstorming was mostly done within UX department, as team in US was trying to deliver another project at the same time and had hardly any capacity to spare on this project.

6 months before the delivery the project was handed to newly hired PO in PRG office and his sidekick producer / QA to help organise a dev team from outsourcing company that was hired for us to work on major project for the first time. The collaboration with these was very close and there were discussions about UX happening multiple times a week on UX reviews and during sprint meetings.

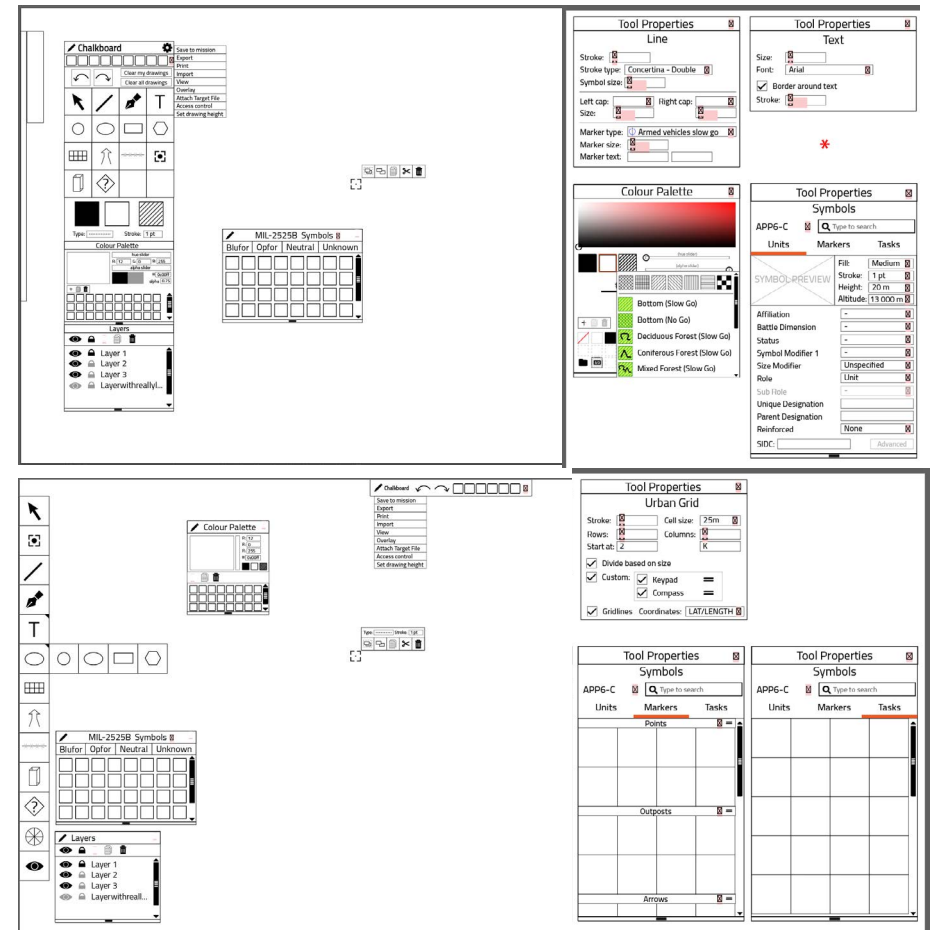
Prototype - Sketches

Sketches were mainly done at the early stages when we were deciding on product integration into parts of VBS.

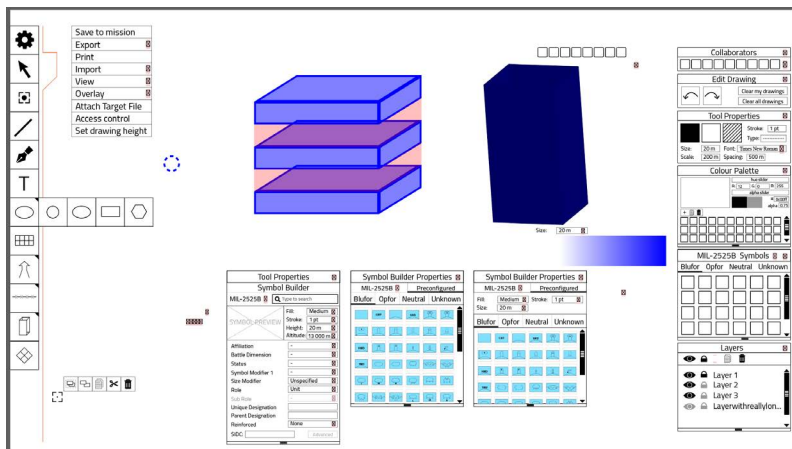
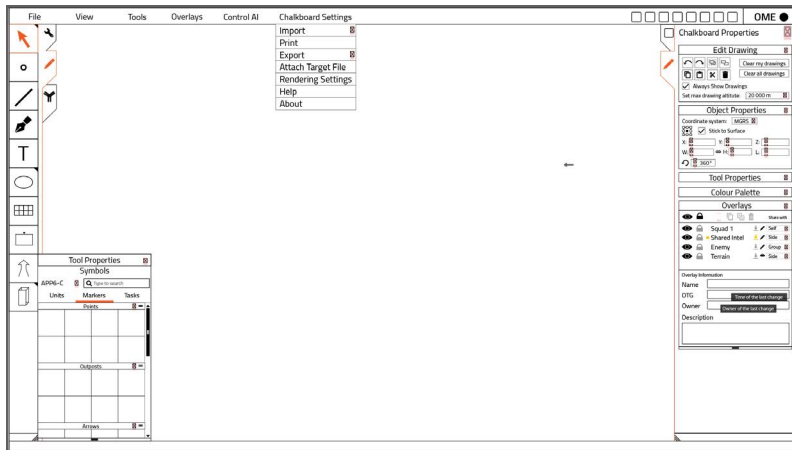
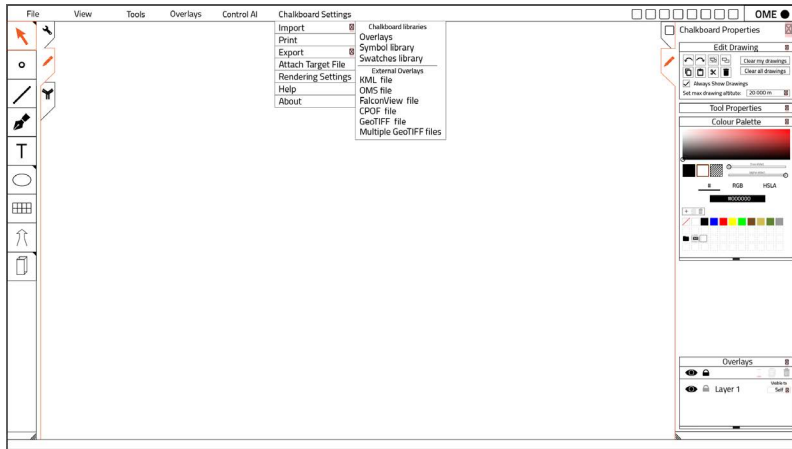


Prototype - Wireframes

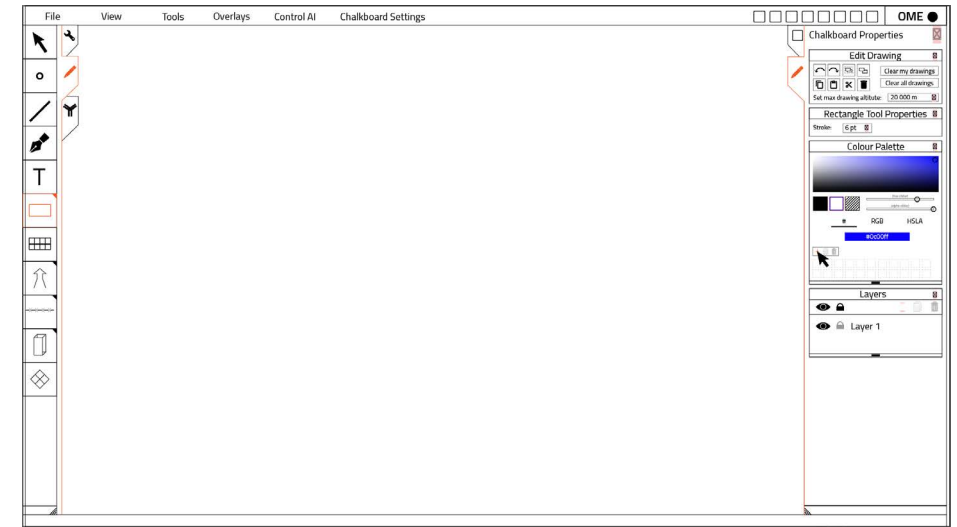
Early versions of wireframes based on the sketches.



Prototype - Wireframes

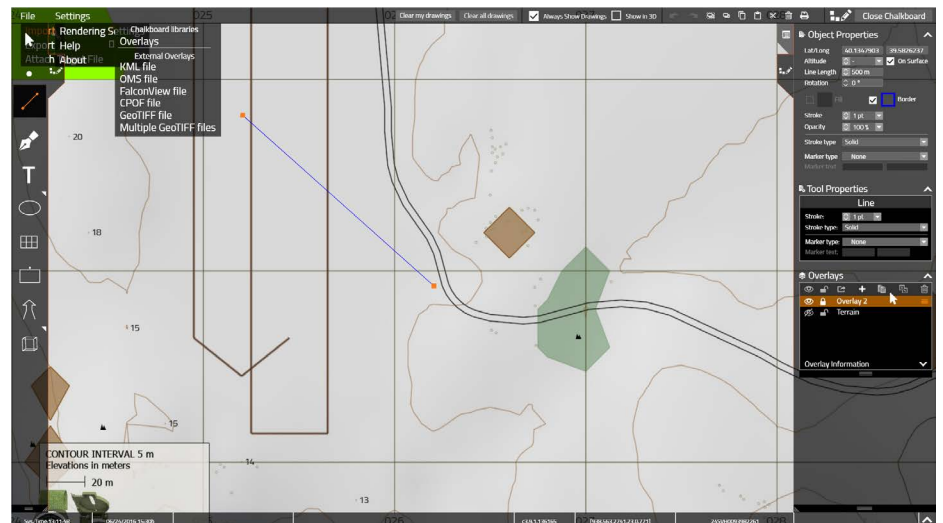


After collecting feedback from stakeholders one approach has been picked from various integration versions and become base for roughly **166 design iterations** of the design in wireframes and interactive high fidelity prototypes.

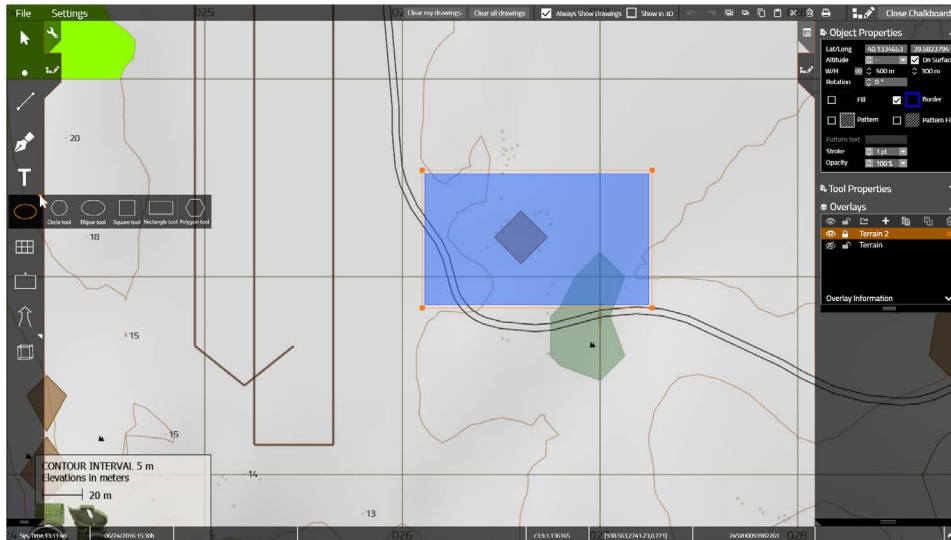


Prototype - Interactive Prototypes and Skin

To allow better collection of feedback on the prototype during sprint demos we've created simple skin to colour the wireframes. The skin followed current style of VBS3.



Prototype - Interactive Prototypes and Skin



Separate workflows were done for basic and Pro version of the product for features that needed to distinguish differences between those two. For most tools and features simple workflows focusing only on the concrete part were done and then implemented into the prototype.



Prototype - User Testing / Playtests

User testing of the product has been done in various stages, starting with early wireframes and mockups, where internal developers, stakeholders and customer have been used to get feedback either on targeted testing on a mockup, demo on meetings and customer calls or regular sprintly playtests where we tried to play through the use cases using our prototype.

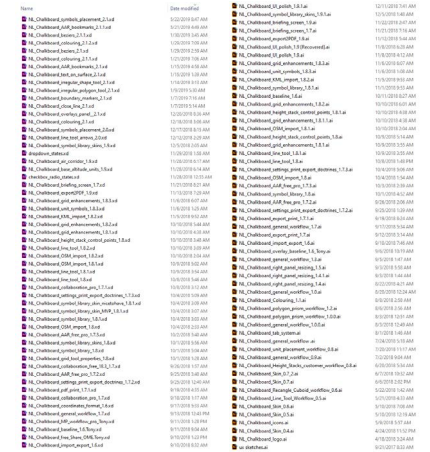
Prototype - Customer / Stakeholder Feedback

Stakeholder feedback was collected on sprintly UX reviews and sprint demos, discussed within the leads and UX and then if time and technical

limitations have allowed it was converted into UX tasks to make mockup and implementation tasks. Customer feedback was acquired every couple of weeks through demo calls and if needed by email directly to the customer.

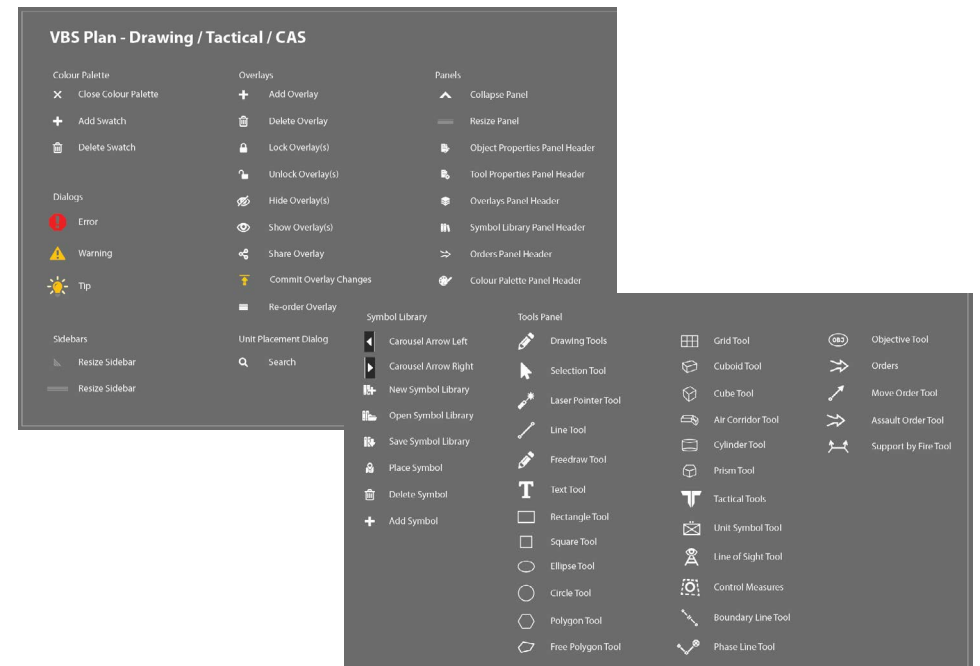
Design - Interactive Prototypes and High Fidelity Mockups

There were roughly 160 individual design documents holding workflows and designs for different features of the product split between Illustrator and XD.



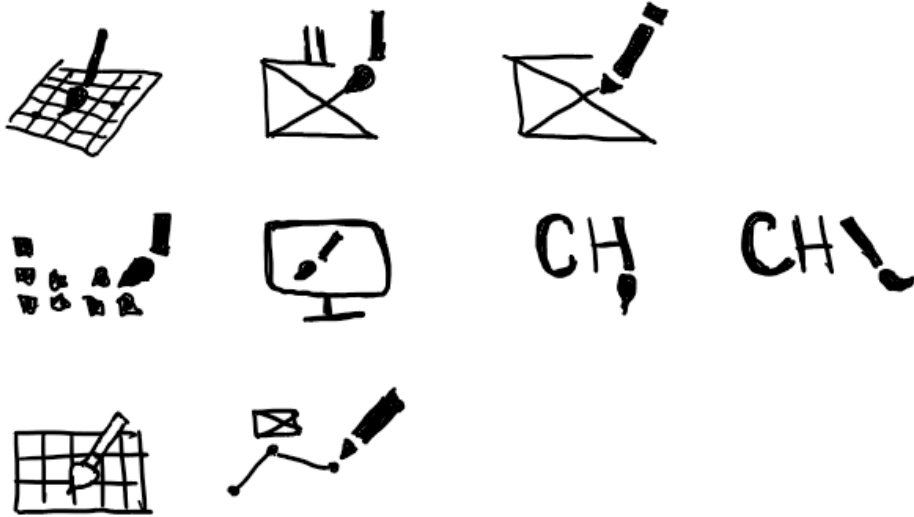
Design - Icons

As drawing tool with complex UI, there was large need for custom icons library. I have created majority of the custom used icons that were later reviewed and corrected by the UX lead.



Deliver - Product Logo

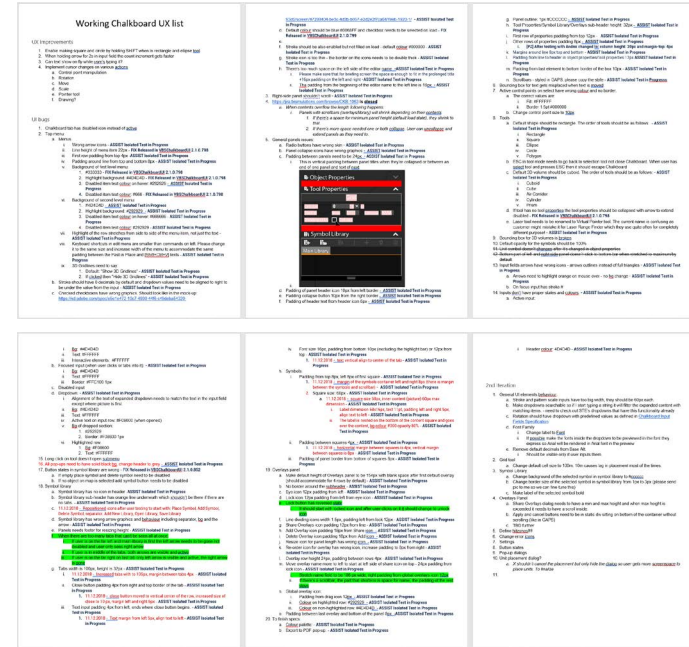
Work on product logo started as always by brainstorming ideas which would fit the specific context of the app. Sketching few of them on paper, then re-drawing to digital form and discussing with product management until one design was picked as final.



Deliver - Validation

Validation was done as the last step from my side before delivering the project. It involved UI validation on prototype compared to final mockups and working together with project front end developer to fix the issues,

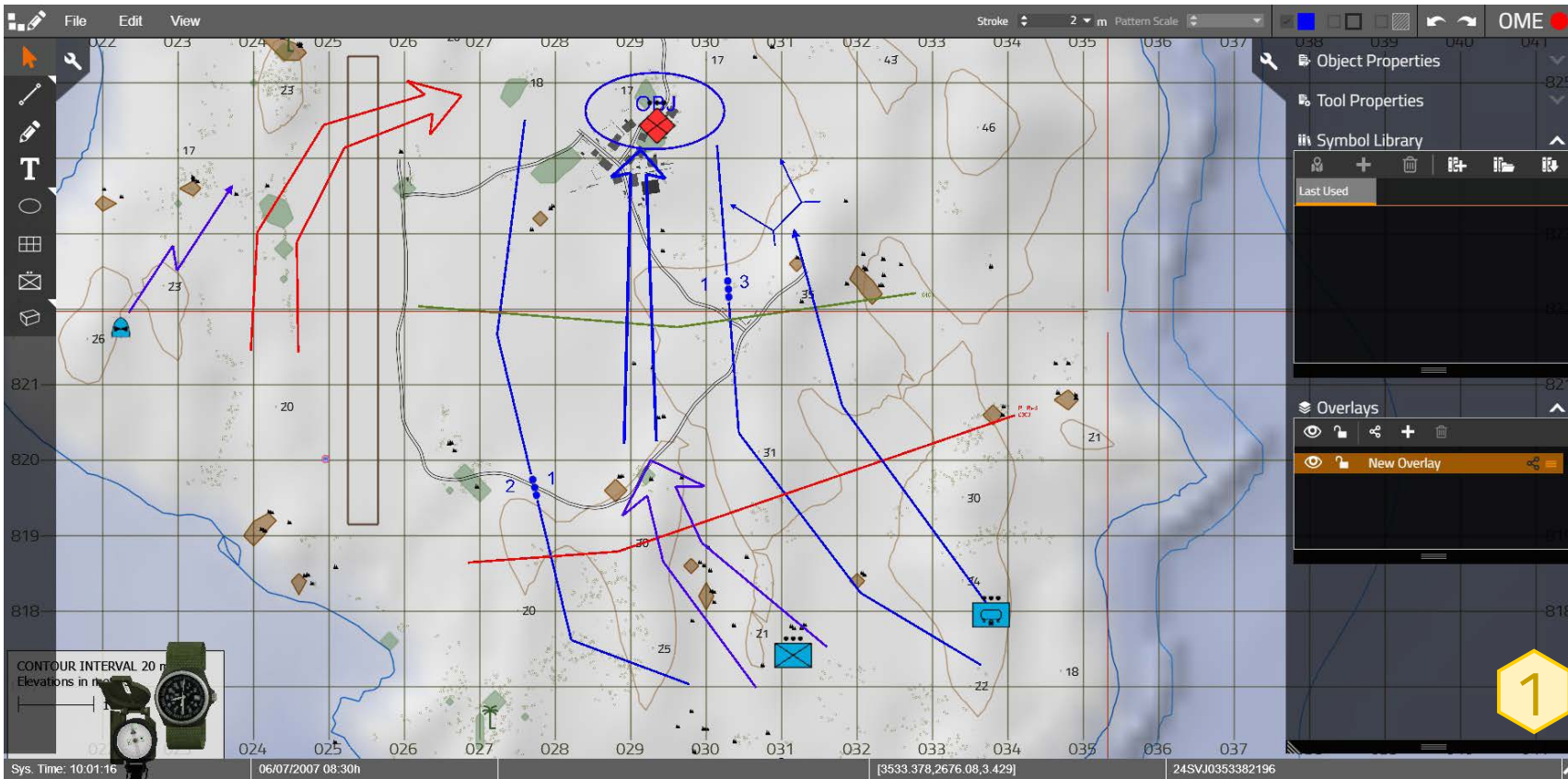
checking UI strings for grammar and proper capitalisation based on company styleguide, review of all tooltips and info bubbles.



I've also playtested the product and marked potential usability and UX issues. We've reviewed the list with leads and producer, prioritised and created implementation tasks to fix the highest priorities.

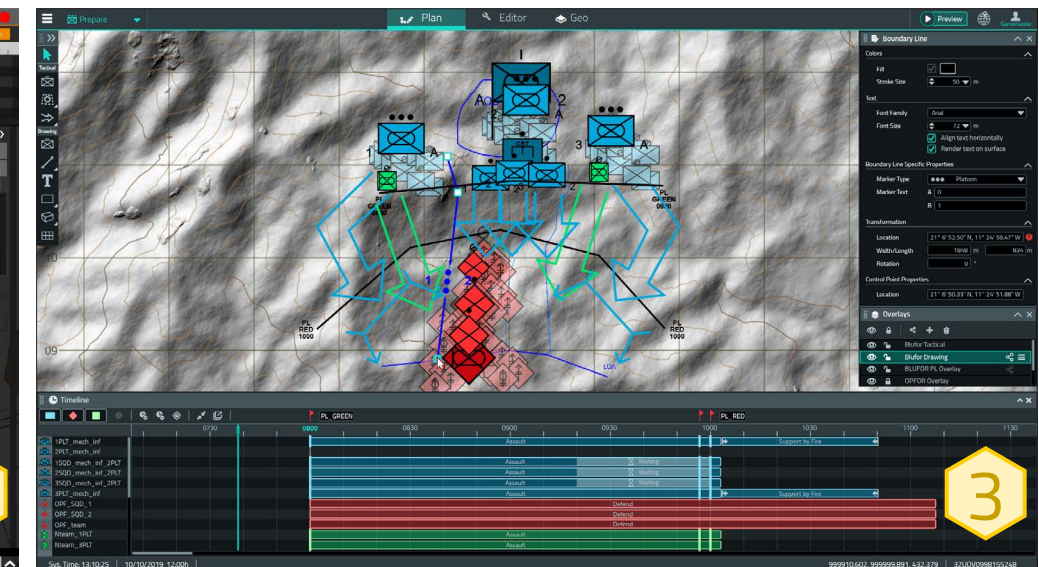
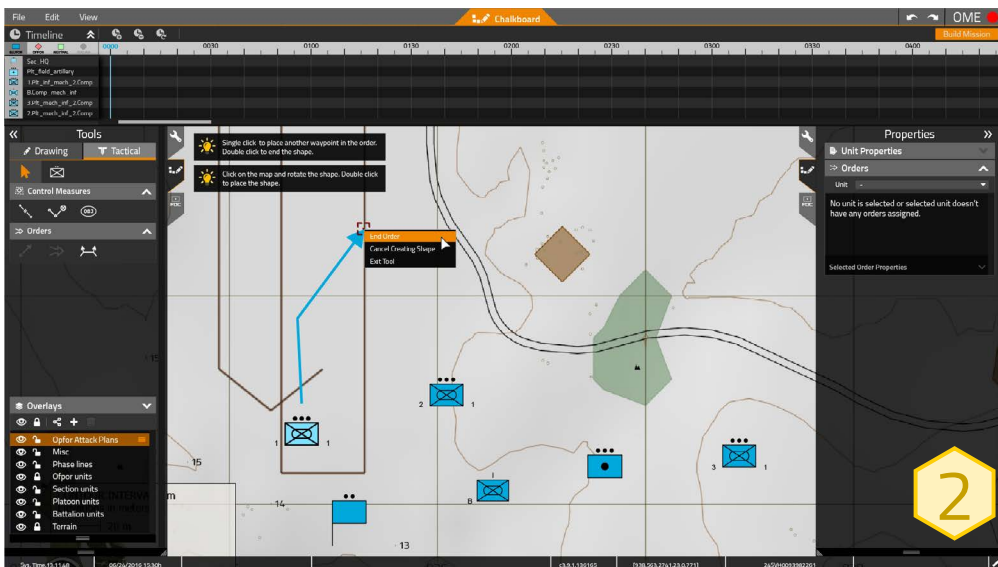
Portion of these issues were fixed immediately, some of them after FAT and some were carried over to the next two iterations on this product when we hardened the UX.

Issue	Source	Fix	Comments	Status
... [Issue description] ...	User Testing	Blocked	UX requires change to update and colour workflow already designed	CRB INTS 543
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 544
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 545
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 546
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 547
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 548
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 549
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 550
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 551
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 552
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 553
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 554
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 555
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 556
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 557
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 558
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 559
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 560
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 561
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 562
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 563
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 564
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 565
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 566
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 567
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 568
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 569
... [Issue description] ...	User Testing	Blocked	UX flow can't support 2-step process and an error message that says 'very hard to understand' and 'not clear' ...	CRB INTS 570



Other - How the design evolved in years

1. *NL Chalkboard 2017-2018*
2. *STE Planner 2018*
3. *VBS Plan 2019-2020*





SE, IOS

Contracted stand-alone real-time monitoring app (dashboard) for networked run VBS3 for Swedes.

Duration

10 months
11/2016 - 08/2017

Work-time

Work - UX: 608 h / 76 d
Work - SM: 912 / 114 d
Total: 1520 h / 190 d

Overview

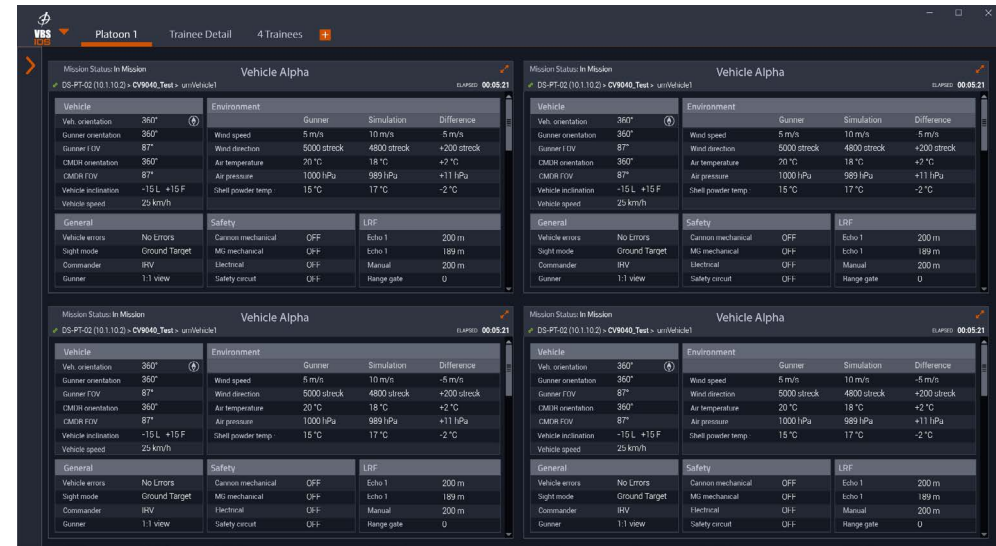
One of the largest work-packages of the contract for a Swedish customer. IOS is monitoring app that shows real-time data and statistics from VBS3. Though developed by 1 team it had to interface with work from all other teams working on the contract. Several different APIs were used to communicate the data to our app. This was also the first project where HTML UI was used to build a standalone new product.

The Team

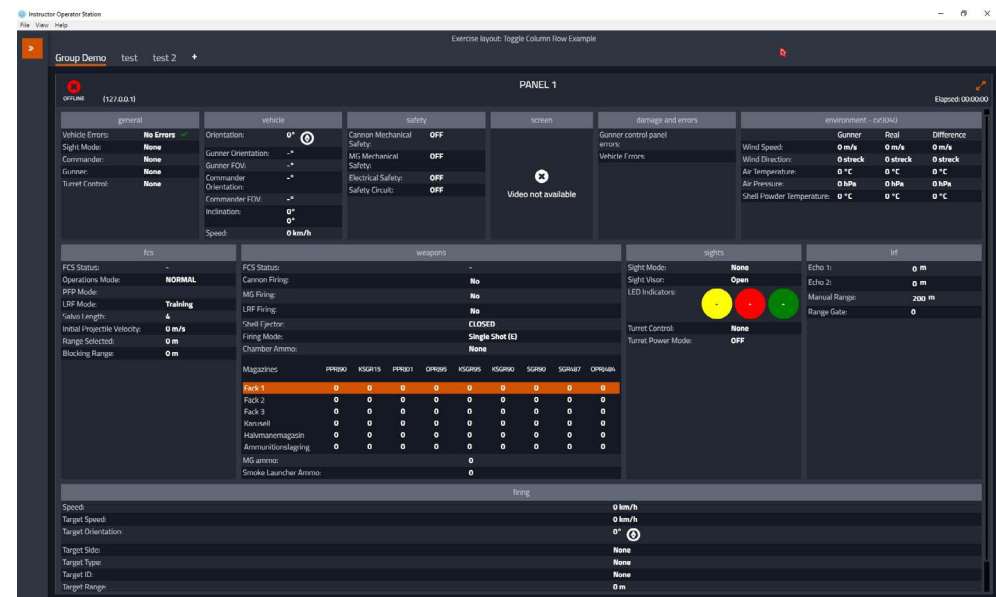
The team consisted of 5 developers of newly created agile team, me (UX/UI/SM) and PO. We've just transitioned to agile in development. This was one of the newly formed "cross-functional" teams that we introduced the scrum to and had to learn how to work together as a team trying to blur boundaries between departmental specialties and specifics and communicate to tackle the project.

Main product features:

- Stand-alone dashboard application connecting through network to VBS
- HTML based UI made from draggable panels
- Users can customize the UI and save it into presets
- Panels show data from the simulation and live stream video of selected units
- Default support of the UI was for touch monitors and optionally tablets
- Modular component system allows creating custom panels with data sent by VBS SDK APIs (Software Development Kit, Application Programming Interface).



Final skin mockup



Implementation Screenshot

Tools



Why it's significant project

I ran UX process in newly formed agile team composed for the first time, while being a scrum master and helping run the team too. UX composed minority of work on this project. It was one of the most challenging projects and times during my work in BISim. I sacrificed my professional growth in favour of team results. UX designers became a global resource after completing this project - standing outside of teams but still as part of development structure (to enable better focus on just UX).

This was the first time we introduced web based interfaces into any of our products which became later base for all our new interfaces and way into the future for our UI.

What happened with the project next

Project was accepted and released to the Swedish army as part of huge contract that contained multiple other parts and teams we had to interface with.

Project was last year reused and extended when contracted by the US Army to be used for their search and rescue training on touch devices.

Challenges on the project

- I had to learn completely new development style and then persuade other people to follow it as well while having only partial knowledge of it. My soft skills at that time were below 0, so communication, persuasion and leadership were huge pain points on daily basis. It was extremely stressful time.
- I was handling multiple roles that are challenging on their own while being complete junior in the company and my profession.

- The company has switched to agile while having no official training for the people. The introduction we got was from a person who've heard about it and studied it a bit in theory but had no practical experience. We had one person who understood it and was great at it and he had to mentor all newly recruited POs and SMs to do the job as best as they could.

- PO of my team was a junior programmer who didn't have sufficient leadership skills and was cracking under the pressure. I shared his responsibilities and workload in order to help him and the team out.

- This company is up to this date programmer driven. This means they're treated and can act differently than everyone else. They're allowed to have very strong opinions on how things should work and be done and often they're heard as the true and final point to make decision on which way to go. This translated into a situation, where on every UX review the design was brutally shredded and declined by the programmers and it was hard to make any productive UX in this environment.

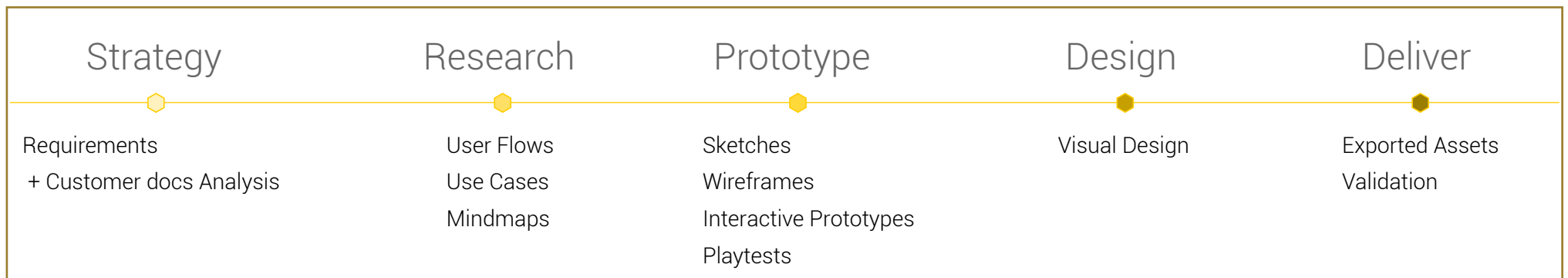
Successes

- After months of tumbling we have delivered the project to the customer and it was usable and had better UX standard than our company usually shipped.

- I've learnt that it is unproductive to handle so many roles and with support of my bosses oriented purely on UX/UI role.

- I was able to setup basic team workflows and "agile" processes that were implemented and kept the team running for months until they got better leadership that built on top of this system.

UX Process on this project



UX process



Strategy - Requirements + Customer docs Analysis

After reading through the requirements with the team we've done a workshop including relevant stakeholders to break down the project into feature sets and brainstorm together how a solution might look like.

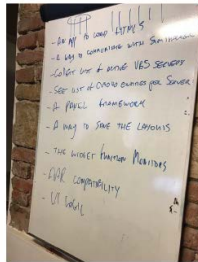
IOS Breakdown Notes

- IOS Breakdown Notes
- IOS Summary - what needs to be done
- Slicing up work-package
- List of epics based on horizontal slices
- Epics with high level user stories
- End to end Prototype
- Panel Framework
- Server/Entity List
- Widgets
- Presets for Layouts
- IOS UI/UX Style/Skin
- Localization

*All epics and stories below will be transferred into spreadsheet so we can break it down further and create timeline/roadmap for the IOS.

Timeline will be created with Team Q on next backlog grooming on Tue 14/03/2017.

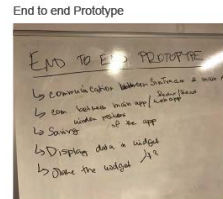
IOS Summary - what needs to be done



Slicing up work-package



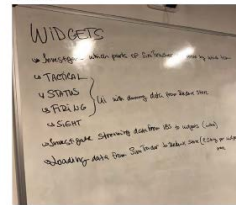
Epics with high level user stories



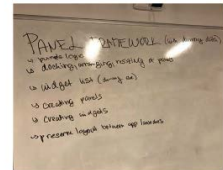
Server/Entity List



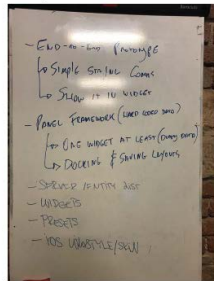
Widgets



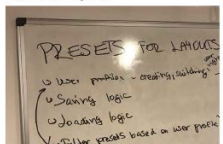
Panel Framework



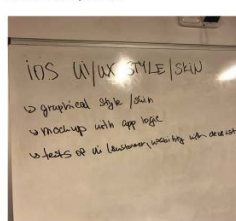
List of epics based on horizontal slices



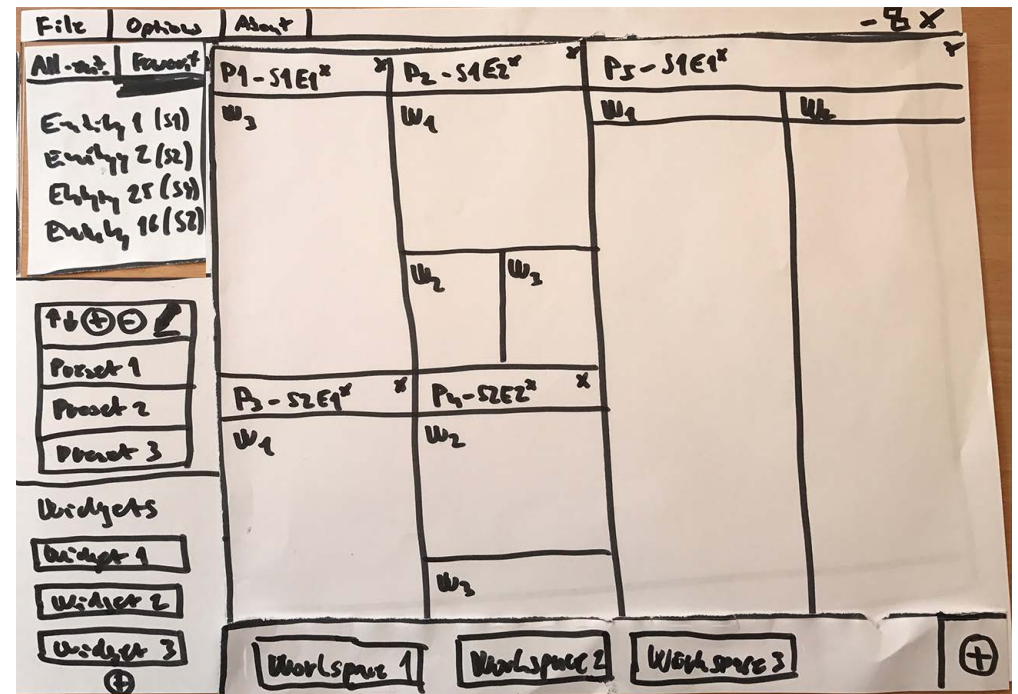
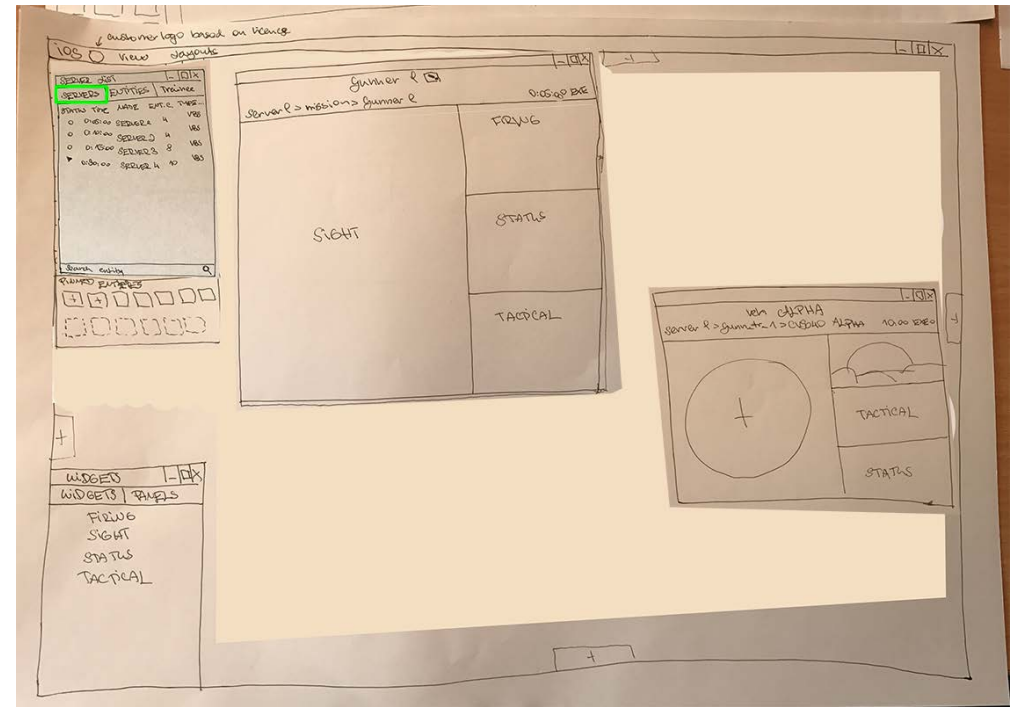
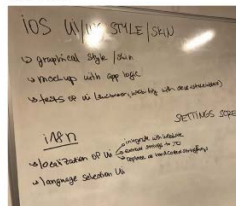
Presets for Layouts



IOS UI/UX Style/Skin



Localization



Research - User Flows

I created a basic user flow and very simple use case.

Basic IOS workflow

Iteration 1

1. Start IOS
 - a. Batch file to start VBS and IOS
 - b. Start IOS manually and launch VBS separately
2. Pick user
 - a. With startup parameter, can't be changed while app is running
3. UI state:
 - a. First setup: IOS will be blank with only entity list and widget list docked on right side
 - b. Relaunch setup: IOS will load with customer setup widgets (in state before app was closed) if entity and widget lists aren't present in UI, it will open and dock them on the right side of the app
4. Open Server List
 - a. IOS will automatically pop-up server list on top of widgets or blank app space
 - b. User can also open it manually from View > Server List
5. Choose servers to monitor
6. Filtrage server identifier initials and pick server colour
 - a. This will be reflected in Entity List and panels and widgets
7. Drag servers that will be monitored to slots in Entity List
8. Close Server List
9. Choose server in Entity List
10. Show entities belonging to the server
 - a. Filter out entities
11. Set up widget for entity
 - a. Drag and drop widget from Widget List > drag entity into the widget (whole area)
 - b. Drag entity from Entity List on widget in Widget List (it will create widget linked to this entity in space of the app starting top left corner)
 - c. Right click on entity and choose which widget to create from right click menu
 - d. If user already created and saved panels with widgets, whole workflow above could work the same for panel presets that would link all widgets inside to the chosen entity already
12. Placed widget/panel can be repositioned and resized
13. Layout of the current workspace is saved

IOS Main Use Case

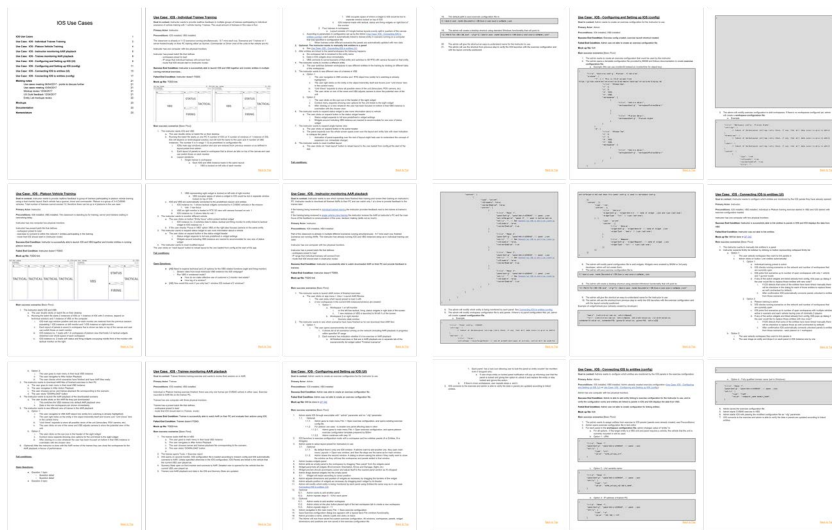
1. Start IOS
2. Connect to server
3. See server entities
4. Pick entity to monitor
5. Set up widgets for that entity
6. Re-arrange widgets/panels
7. Repeat 2-6 multiple times for different entities or servers
8. Save layout

Training based use cases

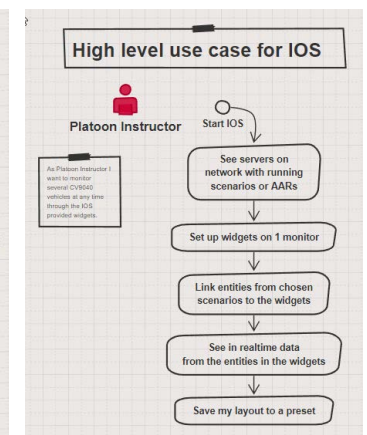
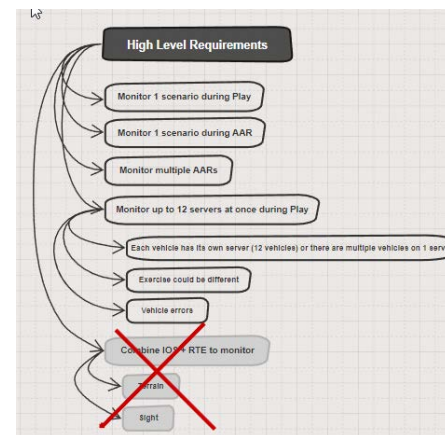
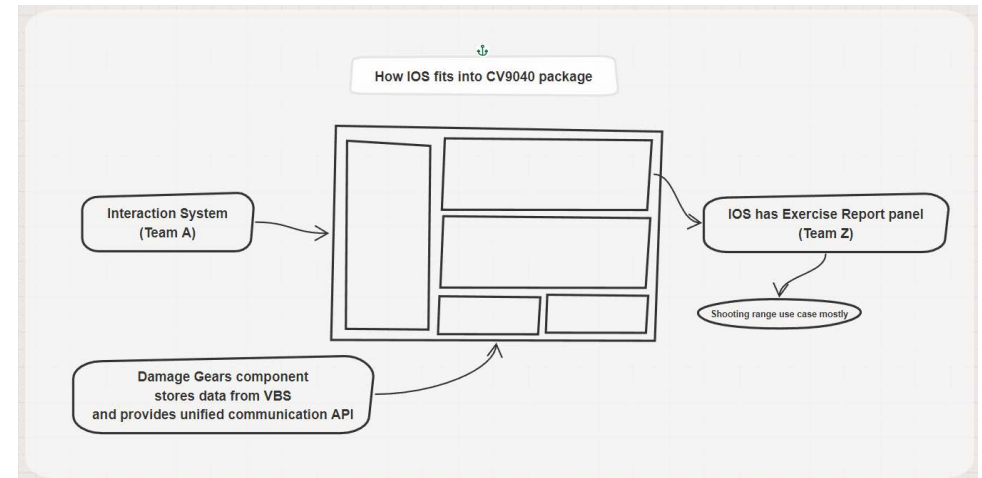
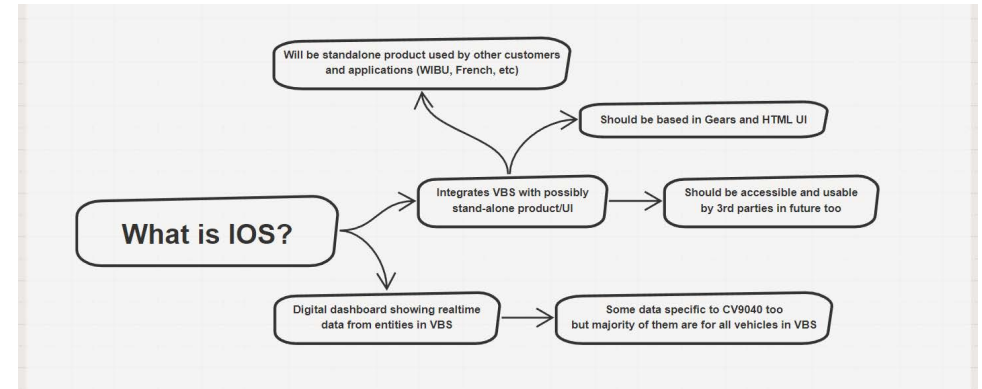
- **Most used:** Gunnery training (4) - 4 servers each holding 1 CV9040 with 1 player that's focused on training (Gunner or Commander)
- 1 server holding CV9040 with 3 players, rest is AI
- 1 server playing AAR with 1 vehicle with 1 player
- Platoon level training - 1 server holding 4 CV9040 vehicles, each has 3 players inside
- **Least used:** Gunnery training (12) - 12 servers each having 1 vehicle with 1 player - Gunner

Research - Use Cases

Detailed use cases were written (24 pages long for 8 use cases).



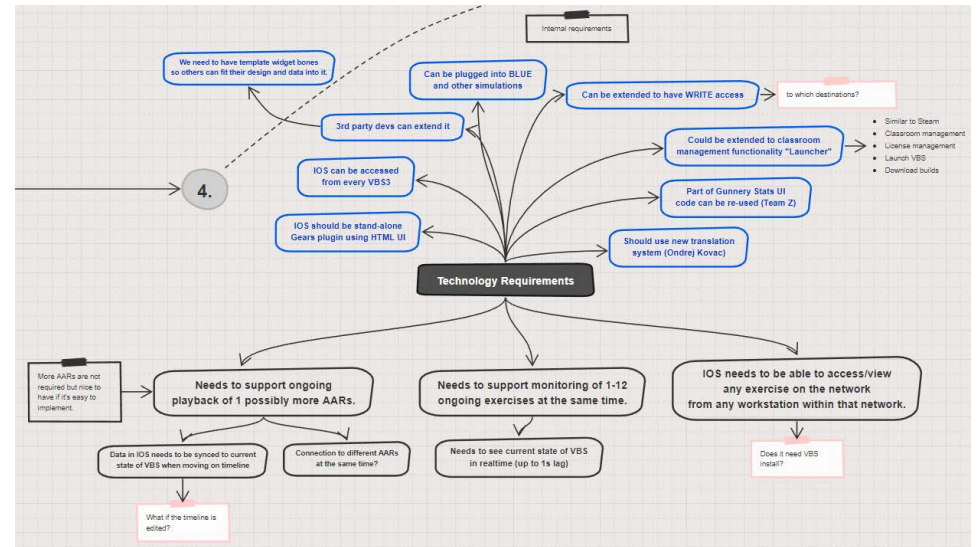
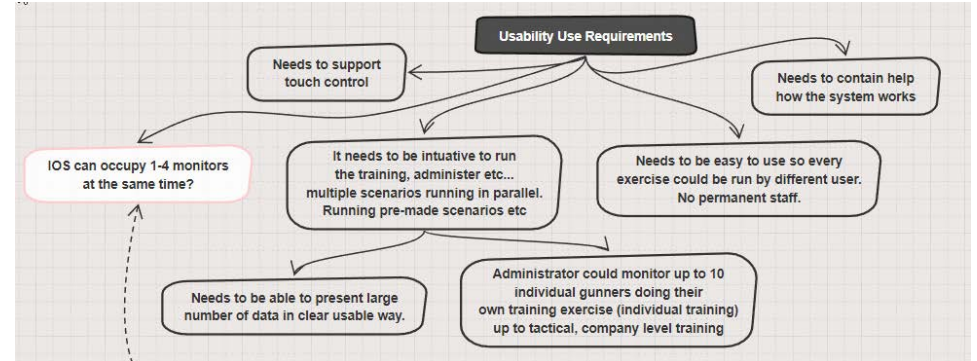
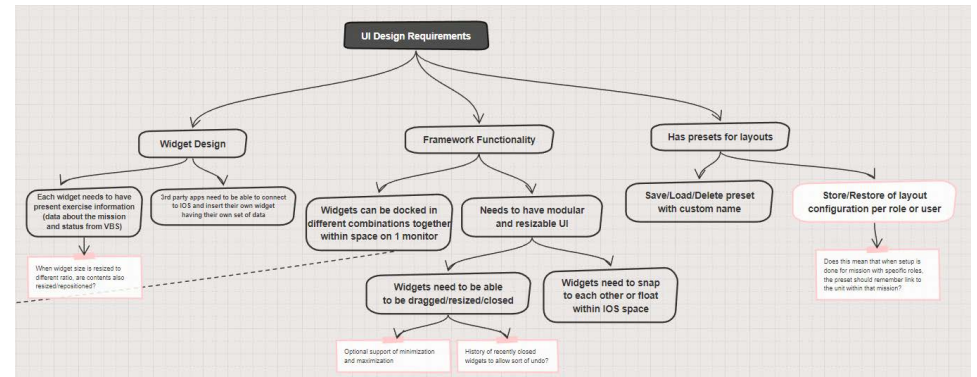
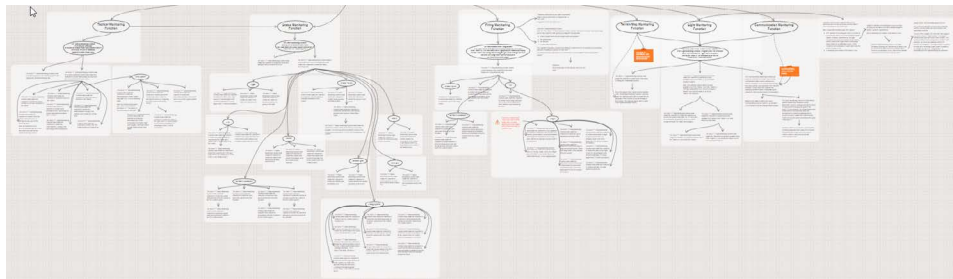
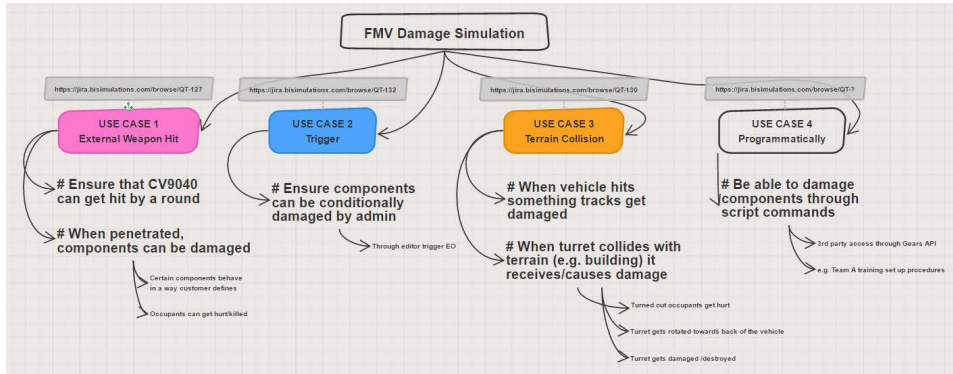
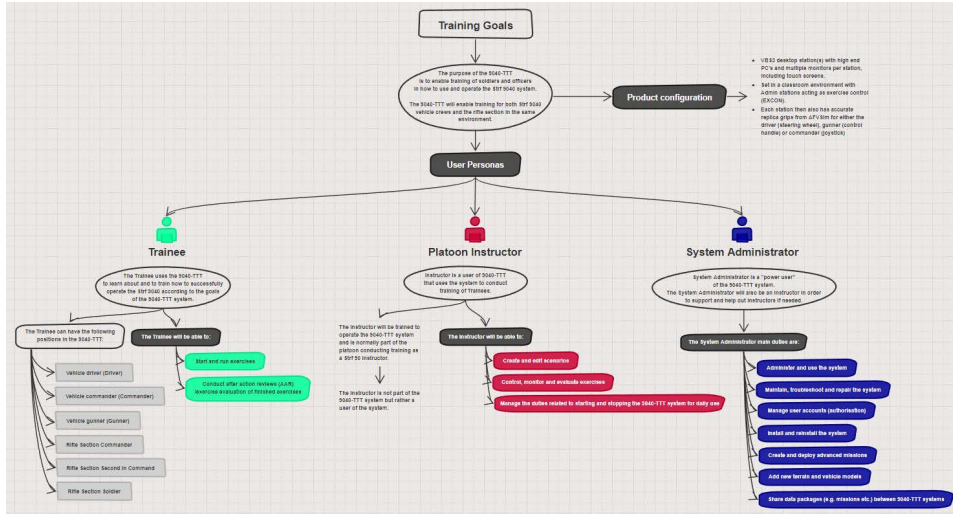
Research - Mindmaps





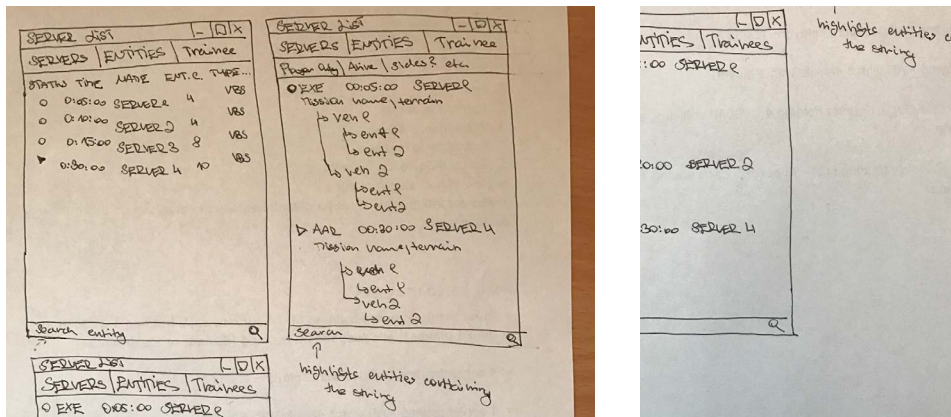
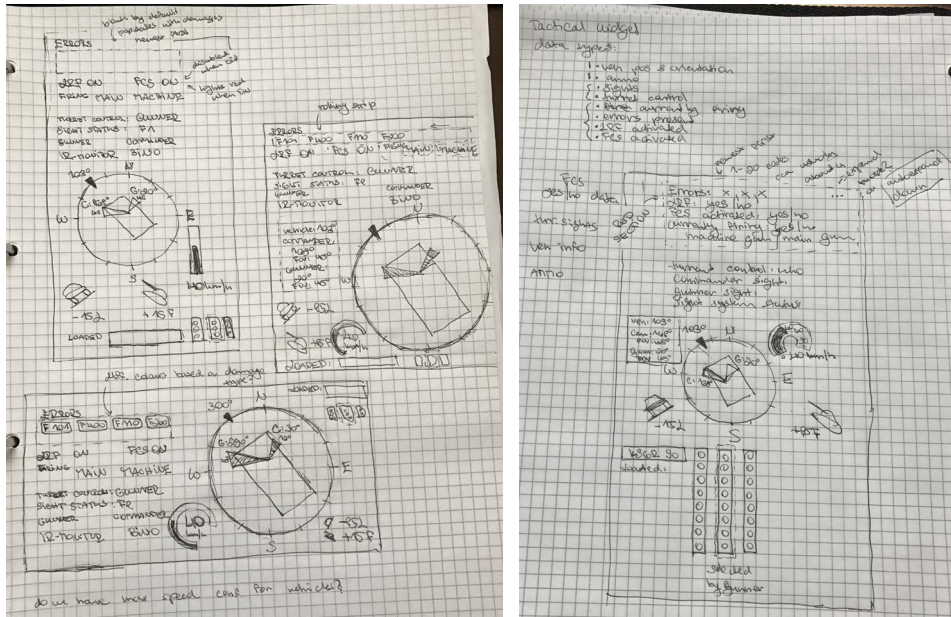
Research - Mindmaps

The company has been huge on mindmaps and workflows back then because they were supposed to be quicker to do and less costly than analyses we used to do before in waterfall.



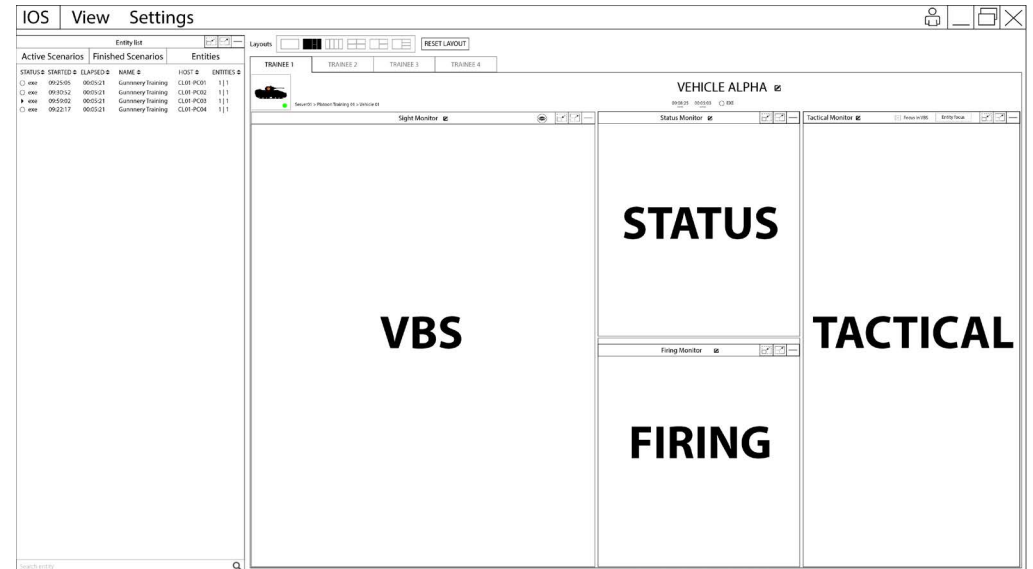
Prototype - Sketches

After the workshop I used sketching mostly to try out different variations of the widgets' content.



Prototype - Wireframes

Various layout options were explored based on the sketches and the 3 paper workflows made on the workshop and discussed with product management and developers for technical limitations.



Prototype - Wireframes

The main dashboard wireframe includes the following sections:

- IOS** (top left)
- Layouts Settings** (top right)
- Sight Monitor** (top left panel)
- Tactical Monitor** (top right panel)
- Server > Mission Name > Entity** (top navigation)
- 00:05:03 O EXE** (top status)
- ENTITY LIST** (right side panel)
- VBS 3D View of the units HUD** (large central area)
- Crew Optics** (top right sub-panel)
- Vehicle stats** (top left sub-panel)
- Firing Monitor** (middle left panel)
- VBS 3D View of the target and hit lines projected in real time** (middle left sub-panel)
- Target Stats** (middle right sub-panel)
- Vehicle + LRF** (middle right sub-panel)
- Text Optics Stats** (bottom left sub-panel)
- Weather Conditions** (bottom middle panel)
- Status Monitor** (bottom middle panel)
- Vehicle specs + sight + LRF + Ammo** (bottom left sub-panel)
- Weapons + FCS** (bottom right sub-panel)
- Weather Conditions** (bottom right sub-panel)
- WIDGET LIST** (bottom right panel)

The View Settings wireframe shows a configuration screen for multiple tactical monitors:

- IOS** (top left)
- View Settings** (top right)
- WORKSPACE 1** and **WORKSPACE 2** (top navigation)
- Tactical Monitor #** (top left panel)
- Server #1 > Platoon Training #1 > Vehicle #1** (top navigation)
- 00:05:03 O EXE** (top status)
- TACTICAL TACTICAL TACTICAL TACTICAL** (four large viewports for tactical monitors)

This workspace wireframe displays detailed data for a vehicle and its environment, with several annotations:

- active and finished scenarios are separate tabs** (top left)
- missions are sorted under servers on which they're running** (top left)
- units and their status can be shown after expanding mission** (top left)
- header labels act as sorting filters** (top left)
- multiple missions within active scenarios can be dropped onto a workspace to link panels inside** (top left)
- selected missions act as filter for entities - if no mission is selected all entities are shown** (top left)
- scenarios finished in past 24h from actively running servers on the network are shown in finished scenarios section** (top left)

The workspace contains multiple panels for:

- ENTITY LIST**
- VEHICLE FOXTROT** (multiple instances)
- ENVIRONMENT** (multiple instances)
- VEHICLE** (multiple instances)
- ERRORS AND DAMAGE** (multiple instances)

This workspace wireframe displays mission and entity data, with several annotations:

- header labels act as sorting filters** (top left)
- multiple missions within active scenarios can be dropped onto a workspace to link panels inside** (top left)
- selected missions act as filter for entities - if no mission is selected all entities are shown** (top left)
- scenarios finished in past 24h from actively running servers on the network are shown in finished scenarios section** (top left)

The workspace contains multiple panels for:

- ENTITY LIST**
- VEHICLE FOXTROT** (multiple instances)
- ENVIRONMENT** (multiple instances)
- VEHICLE** (multiple instances)
- ERRORS AND DAMAGE** (multiple instances)

Prototype - Interactive Prototypes

In early stages we used Axure as prototyping tool. We didn't have built any UI component library back then and every project was built from scratch. It soon became very inefficient because we had to rebuild everything in Axure again because it didn't support direct import from Illustrator and because of the paging and interaction principles of the program. Early after the implementation has started it was easier just to share static mockups with devs who quickly turned them in live HTML.

Prototype - Playtests

As new scrum team we were trying to maintain good quality of the user stories in the backlog. And on sprintly playtest, where we live tested main use case of the project with the whole team and later with bigger stress tests with other teams, we'd create buglist right after and convert to user stories.

Type: Task

Priority: Rank

Affects Version/s: None

Component/s: None

Labels: None

Epic Link: IOS - Instructor

Story Points: 8

Fix Version Wanted: IOS 0.9

Sprint: Team Q - 17S15 - A

Status: OPEN (View Workflow)

Resolution: Unresolved

Fix Version/s: None

Description

As an Instructor, I can monitor the safety variables of the CV90

Use Case

- As an Admin, I setup my exercise layout to contain at least 1 panel with a Safety widget which contains the 'Main Gun Safety, Machine Gun Safety, Mechanical and Electrical safety' variables
- As an Instructor, when I launch IOS and connect to VBS, I will be able to observe the correct statuses of the CV90's safeties be displayed in the IOS widget

Acceptance Criteria

- Variable must be present in the CV90 variant of the Safety widget
- Variable data must be shown in the following form:
 - Main Gun Safety: ON/OFF
- Variable will be text based
 - Graphical elements will be done later
- Variable must be received on an event basis (when user toggles safeties)

Not expected

- AAR support not required

PLATOON 1				PLATOON 2				PLATOON 3				PLATOON 4			
VEHICLE ALPHA				VEHICLE ALPHA				VEHICLE ALPHA				VEHICLE ALPHA			
VEHICLE				VEHICLE				VEHICLE				VEHICLE			
Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F			
Vehicle speed 25 km/h				Vehicle speed 25 km/h				Vehicle speed 25 km/h				Vehicle speed 25 km/h			
Vehicle orientation 5700 mil				Vehicle orientation 5700 mil				Vehicle orientation 5700 mil				Vehicle orientation 5700 mil			
ENVIRONMENT				ENVIRONMENT				ENVIRONMENT				ENVIRONMENT			
Wind speed 26 km/h				Wind speed 26 km/h				Wind speed 26 km/h				Wind speed 26 km/h			
Wind direction 6000 mil				Wind direction 6000 mil				Wind direction 6000 mil				Wind direction 6000 mil			
Air temperature 25 °C				Air temperature 25 °C				Air temperature 25 °C				Air temperature 25 °C			
Air pressure 1029 hPa				Air pressure 1029 hPa				Air pressure 1029 hPa				Air pressure 1029 hPa			
OBSERVATION				OBSERVATION				OBSERVATION				OBSERVATION			
Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil			
CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil	
GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil			
TARGET				TARGET				TARGET				TARGET			
Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil			
CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil	
GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil			
LRF				LRF				LRF				LRF			
LRF firing YES				LRF firing YES				LRF firing YES				LRF firing YES			
Range to target 500 m				Range to target 500 m				Range to target 500 m				Range to target 500 m			
Actual range to target 522m				Actual range to target 522m				Actual range to target 522m				Actual range to target 522m			
Echo values 3				Echo values 3				Echo values 3				Echo values 3			
WEAPONS				WEAPONS				WEAPONS				WEAPONS			
Firing status Cannon MG				Firing status Cannon MG				Firing status Cannon MG				Firing status Cannon MG			
Firing mode Single shot				Firing mode Single shot				Firing mode Single shot				Firing mode Single shot			
AMMO				AMMO				AMMO				AMMO			
Currently loaded OPRI4B4				Currently loaded OPRI4B4				Currently loaded OPRI4B4				Currently loaded OPRI4B4			
Ammo MG 325				Ammo MG 325				Ammo MG 325				Ammo MG 325			
Smoke launcher 2				Smoke launcher 2				Smoke launcher 2				Smoke launcher 2			

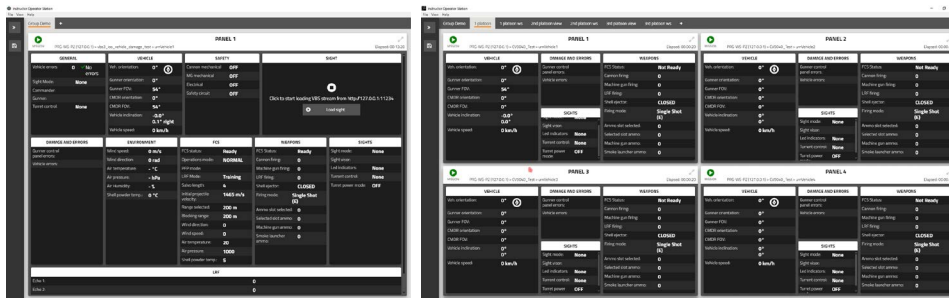
VEHICLE ALPHA				VEHICLE ALPHA				VEHICLE ALPHA				VEHICLE ALPHA			
VEHICLE				VEHICLE				VEHICLE				VEHICLE			
Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F			
Vehicle speed 25 km/h				Vehicle speed 25 km/h				Vehicle speed 25 km/h				Vehicle speed 25 km/h			
Vehicle orientation 5700 mil				Vehicle orientation 5700 mil				Vehicle orientation 5700 mil				Vehicle orientation 5700 mil			
ENVIRONMENT				ENVIRONMENT				ENVIRONMENT				ENVIRONMENT			
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OBSERVATION				OBSERVATION				OBSERVATION				OBSERVATION			
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CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil	
GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil			
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Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil			
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GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil			
LRF				LRF				LRF				LRF			
LRF firing YES				LRF firing YES				LRF firing YES				LRF firing YES			
Range to target 500 m				Range to target 500 m				Range to target 500 m				Range to target 500 m			
Actual range to target 522m				Actual range to target 522m				Actual range to target 522m				Actual range to target 522m			
Echo values 3				Echo values 3				Echo values 3				Echo values 3			
WEAPONS				WEAPONS				WEAPONS				WEAPONS			
Firing status Cannon MG				Firing status Cannon MG				Firing status Cannon MG				Firing status Cannon MG			
Firing mode Single shot				Firing mode Single shot				Firing mode Single shot				Firing mode Single shot			
AMMO				AMMO				AMMO				AMMO			
Currently loaded OPRI4B4				Currently loaded OPRI4B4				Currently loaded OPRI4B4				Currently loaded OPRI4B4			
Ammo MG 325				Ammo MG 325				Ammo MG 325				Ammo MG 325			
Smoke launcher 2				Smoke launcher 2				Smoke launcher 2				Smoke launcher 2			

VEHICLE ALPHA				VEHICLE ALPHA				VEHICLE ALPHA				VEHICLE ALPHA			
VEHICLE				VEHICLE				VEHICLE				VEHICLE			
Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F			
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CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil		CMDR orientation 5000 mil		CMR FOV 800 mil	
GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil				GUN orientation 533 mil			
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Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil				Turret orientation 5700 mil			
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Ammo MG 325				Ammo MG 325				Ammo MG 325				Ammo MG 325			
Smoke launcher 2				Smoke launcher 2				Smoke launcher 2				Smoke launcher 2			

VEHICLE ALPHA				VEHICLE BRAVO				VEHICLE CHARLIE				VEHICLE FOXTROT			
VEHICLE				VEHICLE				VEHICLE				VEHICLE			
Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F				Vehicle inclination -15 L +15 F			
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Smoke launcher 2				Smoke launcher 2				Smoke launcher 2				Smoke launcher 2			

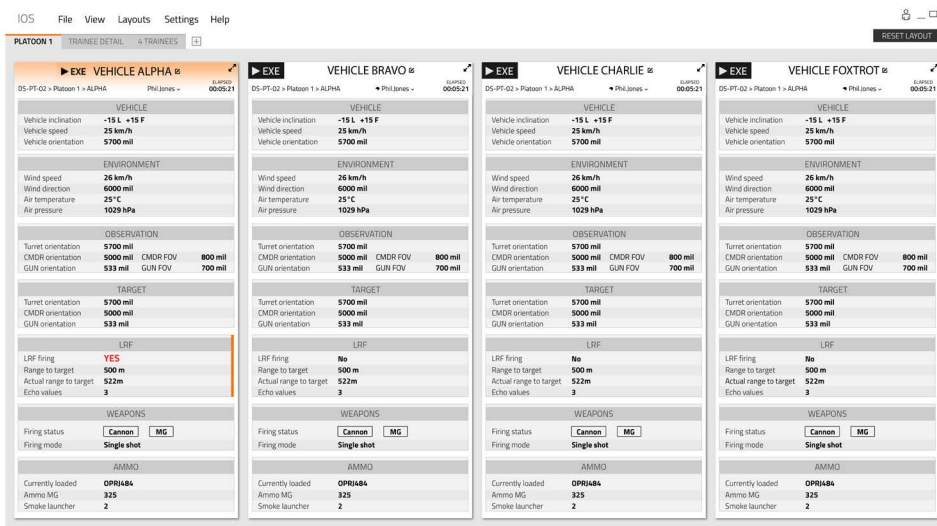
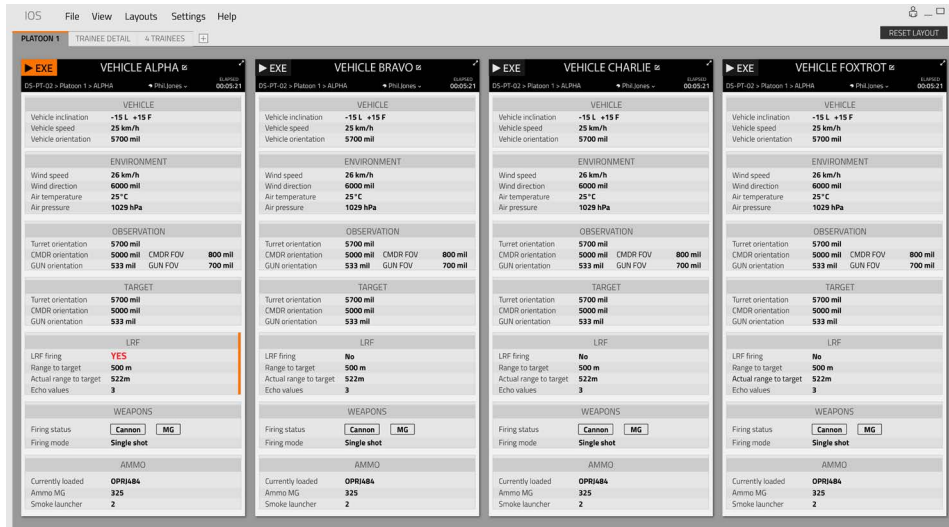
Design - Visual Design

While developers have applied simplified version of VBS3 look alike style on their working prototype, I have started to work on proper skin for the app.



Design - Visual Design

Majority of the skins were made in dark theme, which was the new style of our company UI, but I also made two light theme examples just to see if it would be something that might work.



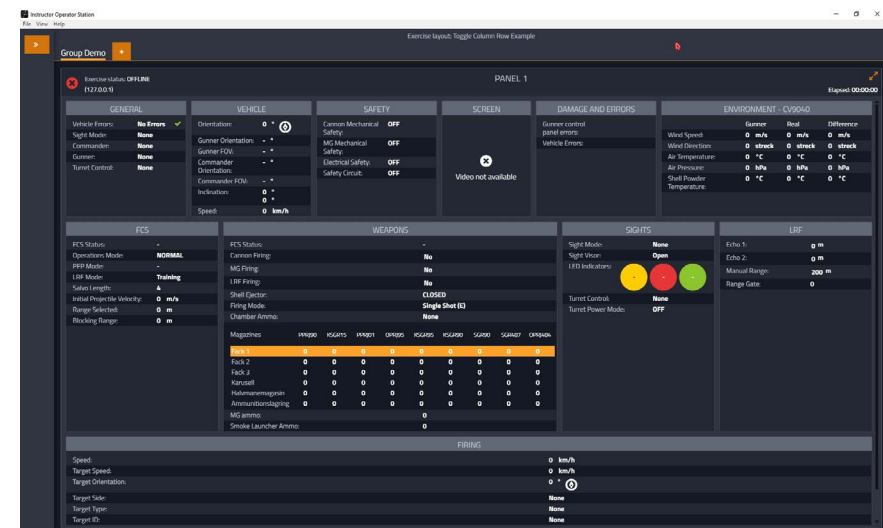
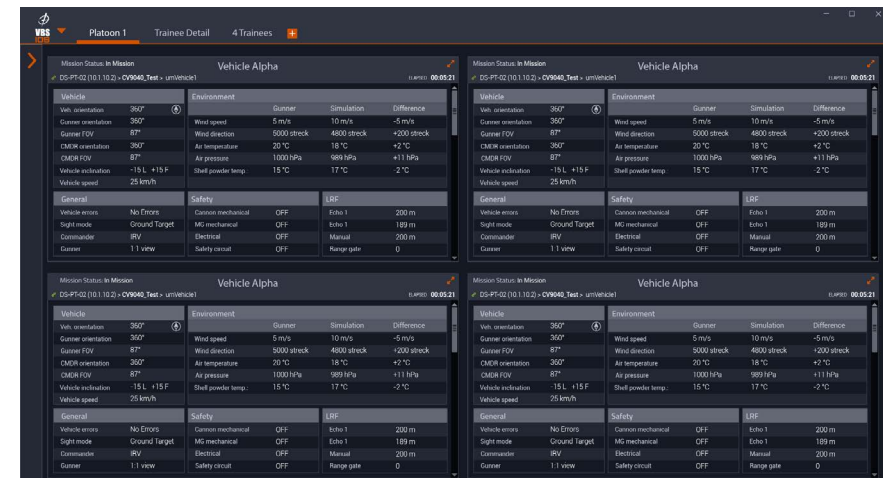
Since our UX department was very young at this time we didn't have defined stable styles yet. At this time a new product License manager was being created. It was later defined that IOS - stand-alone app like license manager should share its skin with this other application.

Deliver - Exported Assets

At this point we didn't have library of custom icons either so we used material UI library for the most things. All exports were dev docs from XD to inform spacing and colouring.

Deliver - Validation

Front End developer working with the team has shown me how to use Git to download code updates directly to my PC so I could test skin changes often with little delay. Final mockup (top), implementation (bottom).



Good job making it to the end!

Hope you liked my work and will consider giving me and my talents a chance. Stay in touch!

petra@honeydesigns.cz

honeydesigns.cz

<https://linkedin.com/in/petra-znamenackova>