Reconceptualizing navigation at Virtual Facility

Jonathan Chang | Virtual Facility | 2023

Contents

Quick disclaimer

This case study focuses on one aspect of a broader, multifaceted initiative that I led. As a result, you may notice some overlap between this case study and the Management Supertool study.

Overview

Virtual Facility is a SaaS product providing facility operations awareness and accountability of their assets.

Despite the exponentially growing interest in VF and excellent feedback throughout the sales and onboarding process, the overall product showed low user engagement.

This caused frustration for employers who invested in VF looking for improvements to their process, reducing the likelihood of renewal.

Role

As the lead designer for this project, I led all the design initiatives and worked with product managers, engineers, SMEs, and the customer success team.
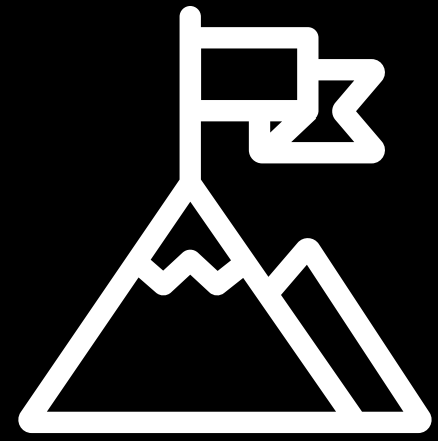
Goals

①

Reduce customer time to value

Reduce the time customers wait to experience value after purchasing the product.

②

Boost the engagement

Increase the number of users using Virtual Facility to triage alarms and increase actions taken.

③

Maintain customer satisfaction

Ensure the product fulfills the customer's primary reason for purchasing.

01

Discovery

Discovery

Focusing on the right direction

Before proposing solutions, I ensured alignment of customer problems and the business goals.
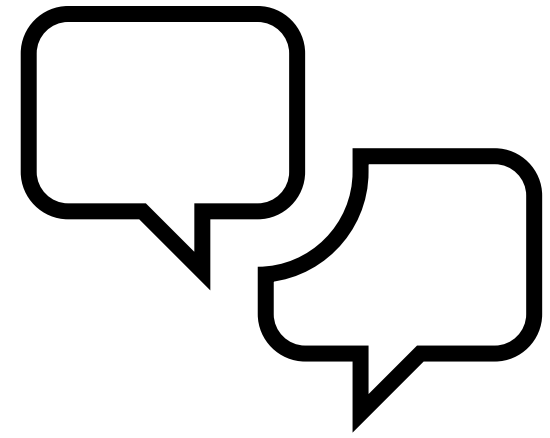
To achieve this, I analyzed:
- Internal conversations
- User sessions and metrics from Pendo
- Competitive Analysis

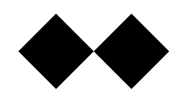... where am I supposed to go to see the alarms we had flagged?

Do you see the Triage bell icon on the bottom left? Click on that.

Okay... I see alarms but I don't understand where they're located.
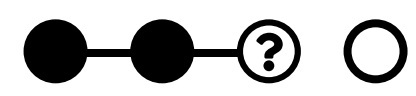
- Customer call with Customer Success

Internal conversations

◆◆

Extremely high learning curve

Many users frequently relied on support guides or request assistance to use the product effectively.

●━●━⊘ ○

4-step process isn't used by customers

The product had a hardcoded four-step processes that didn't align with customer workflows.

★☆☆☆☆

Current UX erodes customers trust in VF

Customers lacked trust in the data because they didn't understand which dataset they were viewing.

User sessions & metrics

Low usage of saved views

Users averaged 25 saved views but utilized only 2. Additionally, the Customer Success team created an average of 13 views per users during onboarding.

Back and forth navigation

In various sessions, users jumped back and forth between product pages to get better context of situations.
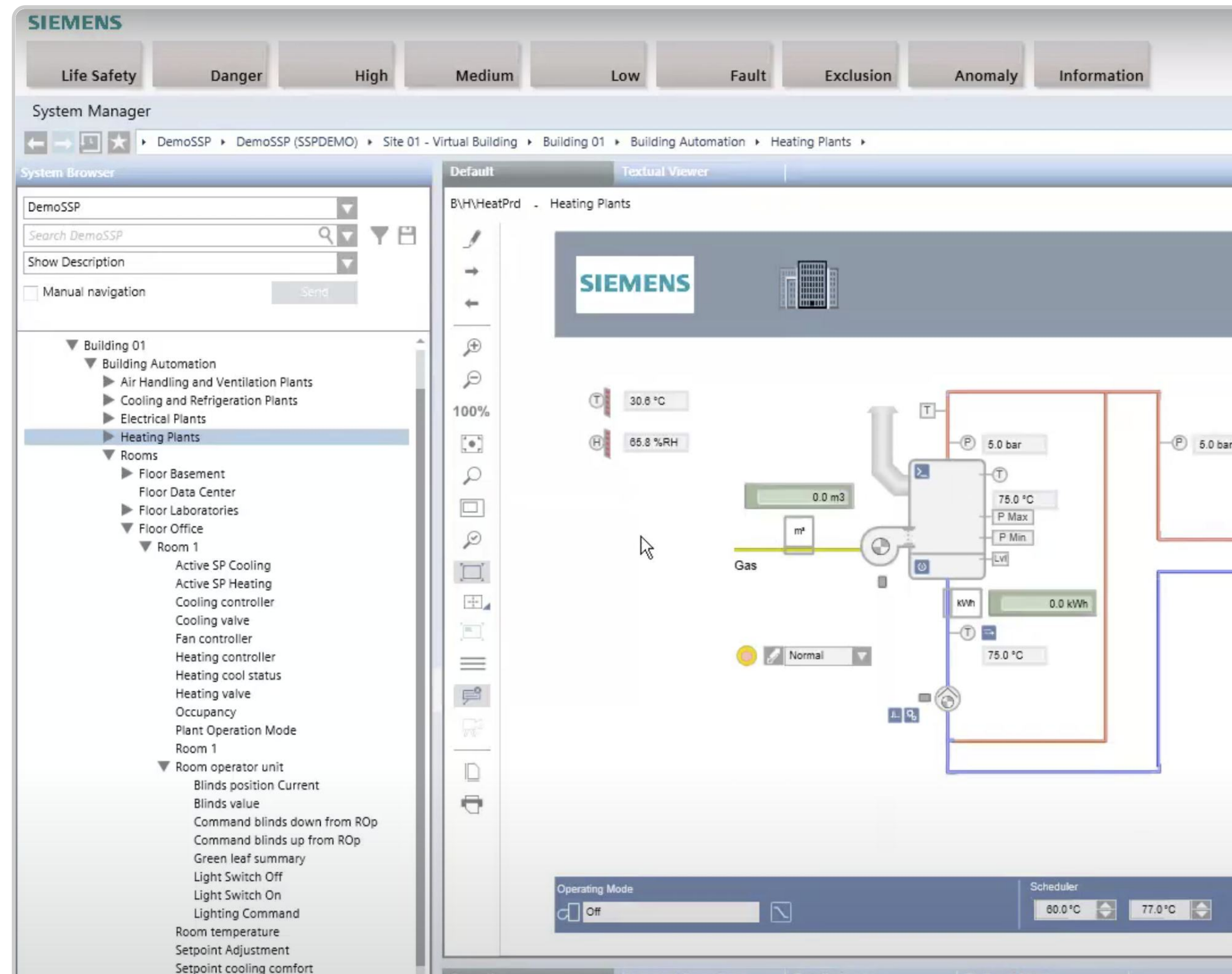
Competitive analysis

Direct competitors

Very dashboard centric and focused on providing insights to a specific point instead of an overview of various problems.

Indirect competitors

Most utilize a tree style navigation and various styles of dashboards to highlight 'important' information. Typically, very data heavy.
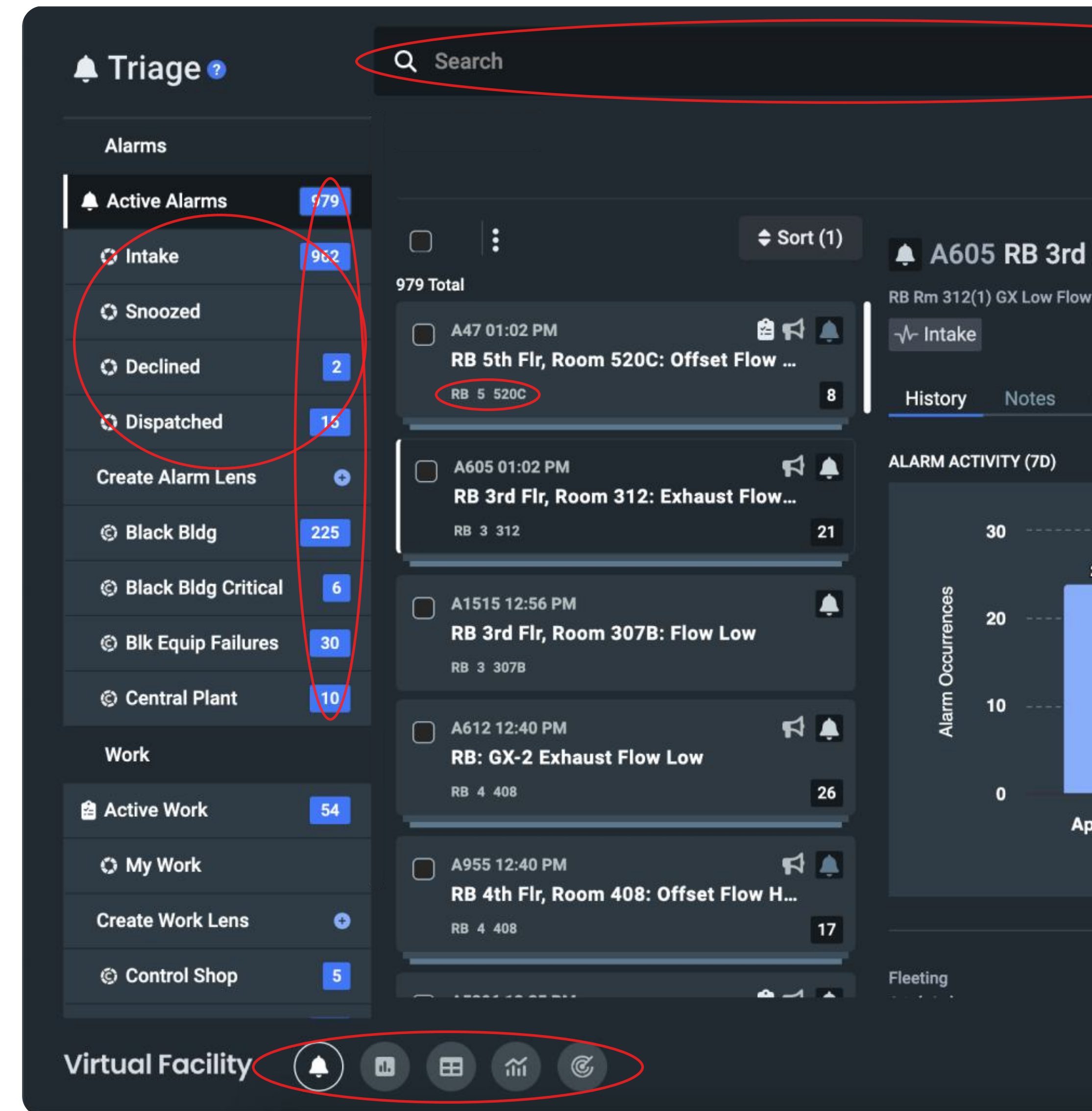
02

Define

Defining the problem

Focusing on the right direction

Using the gathered data, I analyzed the findings and elaborated on them to define and refine key themes and primary problems.

Theme 1

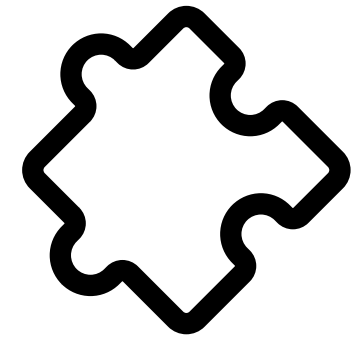# The navigation is difficult to use, which undermines trust in data quality.

Theme 2

The solution complicates the user's daily workflows and responsibilities.

The navigation is difficult to use, which undermines trust in data quality.

Main pain points

1

Confusing and hard to use navigational UX

A heavy reliance on icons and inconsistent design language created lots of confusion and led to a reluctance to adopt the product.

2

Differing methods to achieve similar tasks

The product used different methods to utilize similar features on various pages.

3

High learning curve due to disparate solutions

Various solutions use varying principles and concepts, requiring extensive training to fully understand.

03

Solution

Finding a solution

Collaborating early on

I worked with engineers early in the process to identify technical limitations of the proposed solutions and minimize implementation problems.
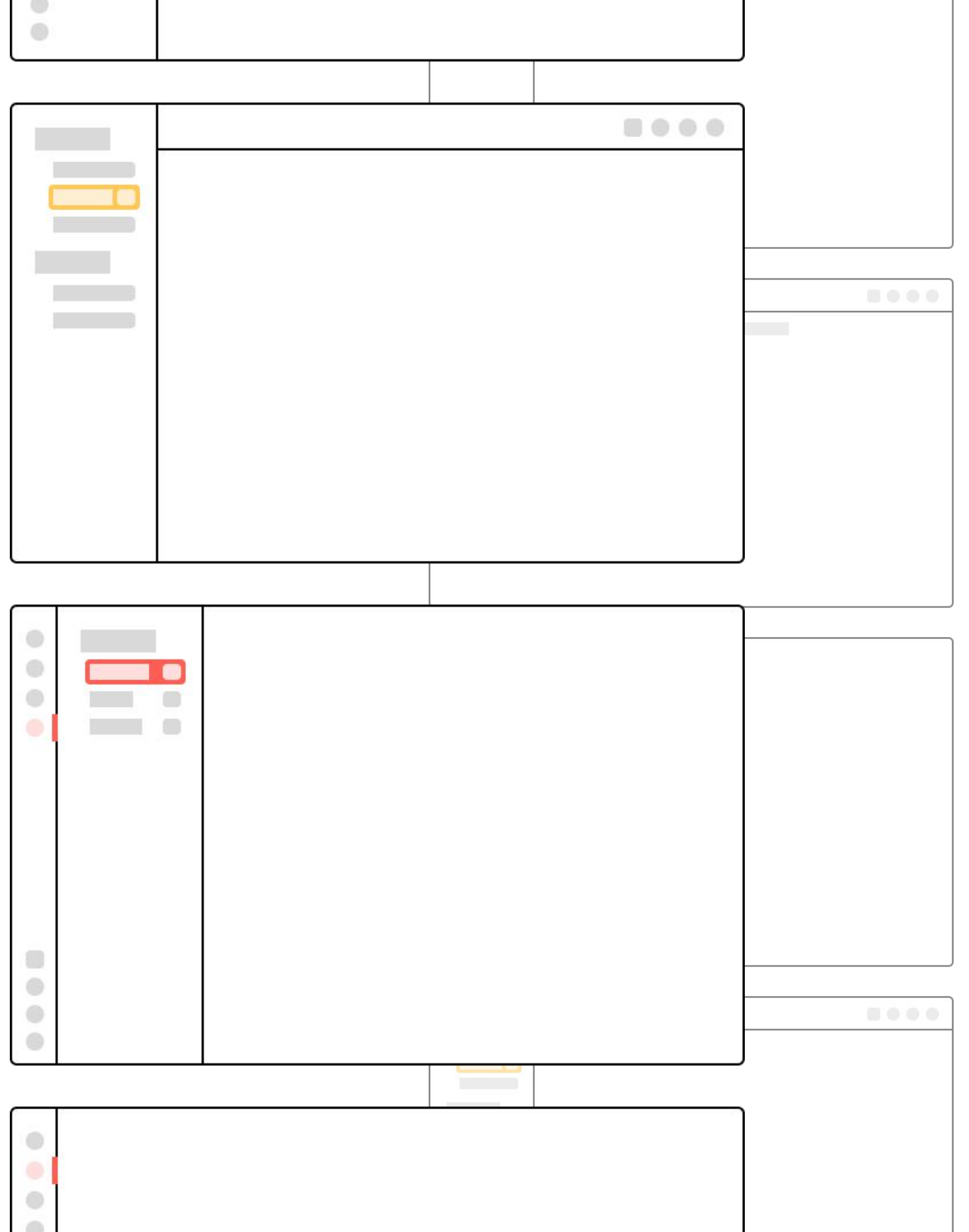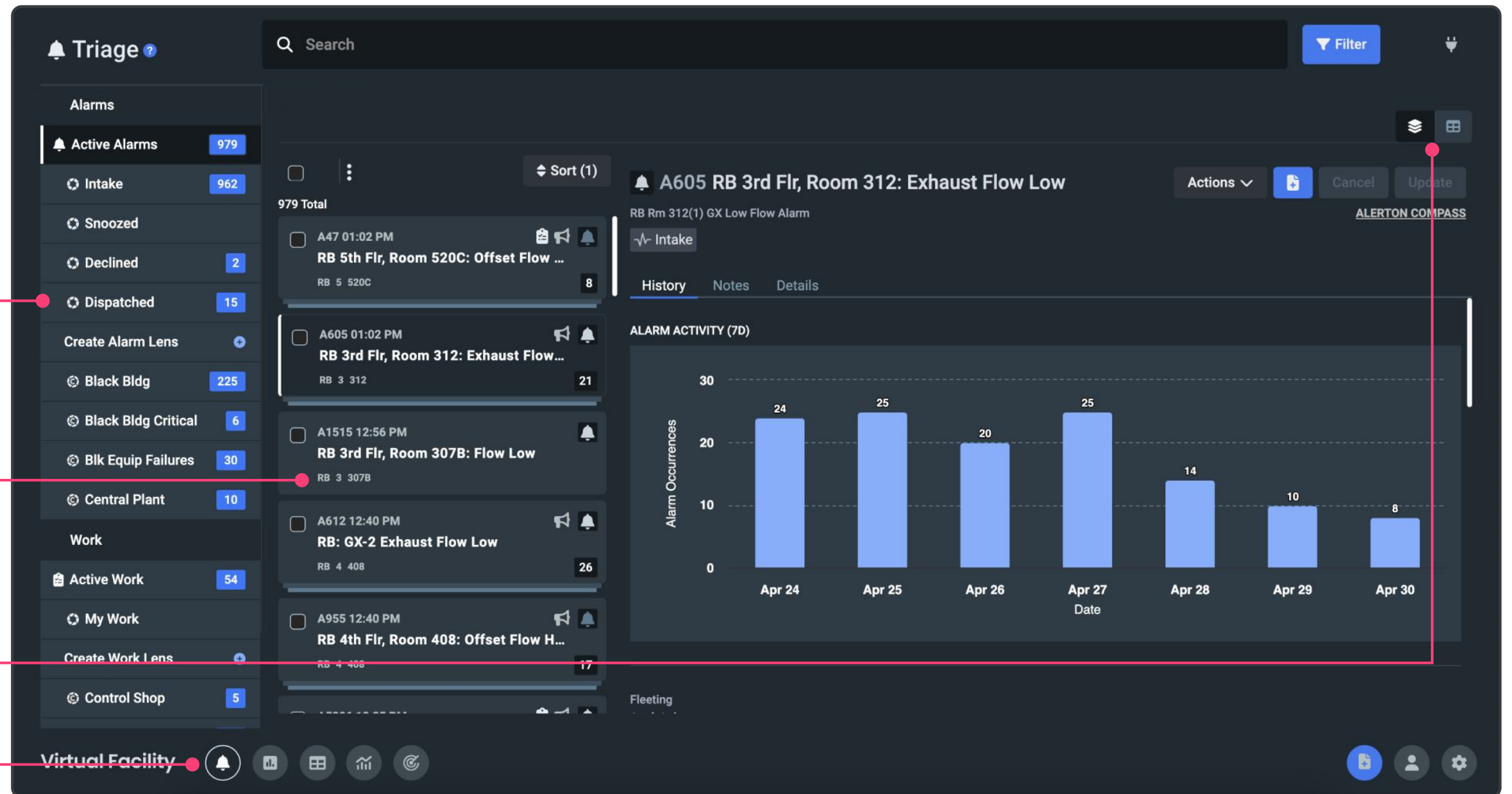
Previous experience

Product knowledge
We required users to learn the product's nuances before they could find a solution.

1. Select the experience (how to view the data)

2. Select which dataset to view

3. View dataset

4. Select between tile or table view (not saved)

Brainstorming

Building for the future

My goal was to break the existing navigation pattern that isolated features and build a base that enables growth.

Utilizing the same language

Our navigation should flow similarly to how users communicate with each other. This would later become what we call 'data first.'

Collaborative feedback

I consistently looped in Product and Engineering on the various concepts I had in mind.
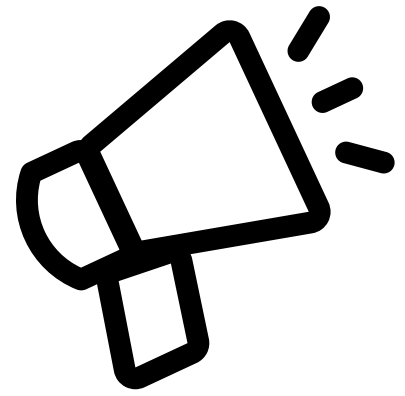
Feedback from internal teams

1

Support for future features and pages

The new direction should support growth while maintaining simple navigation.

2

Alignment with Assets vs Alarms concept

To optimize resources, engineering wanted the solution to support the ongoing data changeover project.

3

Enable Customer Success to be as hands off as possible

Customer Success should not need to spend time educating customers on basic navigation.

High-fidelity explorations

I advanced to designing a high-fidelity prototype to conduct studies and refine the design before delivery.

Moderated tests

'Saved view icons' was replaced with icons reflecting the feature being used.

6 out of 6 users didn't understand the saved view icons.

'Work views' was removed altogether.

4 out of 6 users did not utilize the work views. Those who did were better off using the analytics page.

Virtual Facility

- ◎ Command Center
- 📈 Analytics

Triage

- 🌐 All issues
- ◉ Dispatcher lens
- ◉ **Healthcare**
- ◉ Central plant issues

Work

- 📋 All work
- 📋 HVAC Shop
- 📋 View 124

Healthcare

⇕ Sort | Alarm Priority: Highest, High, ...+2 ×

	Alarm Time	Building
🔧	02/20/2024 01:25 AM	The Commons Mixe
🔧	02/20/2024 02:42 AM	Building 41
🔴	02/20/2024 05:42 AM	Building 112
🔴	02/20/2024 05:54 AM	Building 115
🔴	02/20/2024 05:54 AM	Building 109
🔴	02/20/2024 05:54 AM	Studio F
🔴	02/20/2024 07:17 AM	Cafe 34/35
🔴	02/20/2024 07:17 AM	Redwoods C
🔧	02/20/2024 08:32 AM	Building 43
🔴	02/20/2024 11:39 AM	Studio B
🔴	02/20/2024 04:41 PM	Building 34

New experience

1. Select which dataset to view

2. Adjust and save how the dataset is viewed

New experience - Feature Relocation

'Filter pills' provided context to users, removing the need for long pill names and instilling confidence in the data shown.

'View type' combined features from the main navigation and ancillary settings into a single location.

'Data type' became editable by users rather than being tied to specific features. (e.g. Asset only available in Tile view)

| Virtual Facility	Dispatcher Work ☆								Table	Asset
📄 Create work	⇅ Sort | Class: Electrical Distribution Systems, ...+9 ×	Space Type: Art Classroom, ...+9 ×		Criticality: 1 - Critical Primary ×	Alarm Type: Service Failure ×	+				
Workspace	Alarm Time	Building	Floor	Alarmed Asset Name	Alarm Name	Associated Service	Time in Alarm	Open Work		
⊗ Views ⌄	🔧 02/20/2024 01:25 AM	The Commons Mixer	6	VAVS-6-1	Flow High	Flow	00:00:03			
⊞ Dispatcher Work	🔧 02/20/2024 02:42 AM	Microsoft Building 41	6	VAVS-6-2	Flow Low	Temperature	00:00:09			
⊚ Healthcare	● 02/20/2024 05:42 AM	Building 112	Roof	CVR-5-13	Alarm Name	Temperature	00:00:10			
📊 Analytics	● 02/20/2024 05:54 AM	Building 115	Ground	EX-ALH-G-2	Network, Static Pressure	Flow	00:00:21			
	● 02/20/2024 05:54 AM	Building 109	Ground	EX-ALH-G-2	Network, Static Pressure	Flow	00:00:21			
	● 02/20/2024 05:54 AM	Studio F	Ground	EX-ALH-G-2	Network, Static Pressure	Flow	00:00:21			
	● 02/20/2024 07:17 AM	Cafe 34/35	2	VAVS-2-6	Flow Low	Flow	00:00:28			
	● 02/20/2024 07:17 AM	Redwoods C	2	VAVS-2-6	Flow Low	Flow	00:00:28			

04

Outcome

Delivering

Keeping a close eye

When delivering the product, I worked with Engineering, Product, and Customer Success to collect feedback and monitor our metrics.

Overall feedback was outstandingly positive with an uptick in measurable impact.
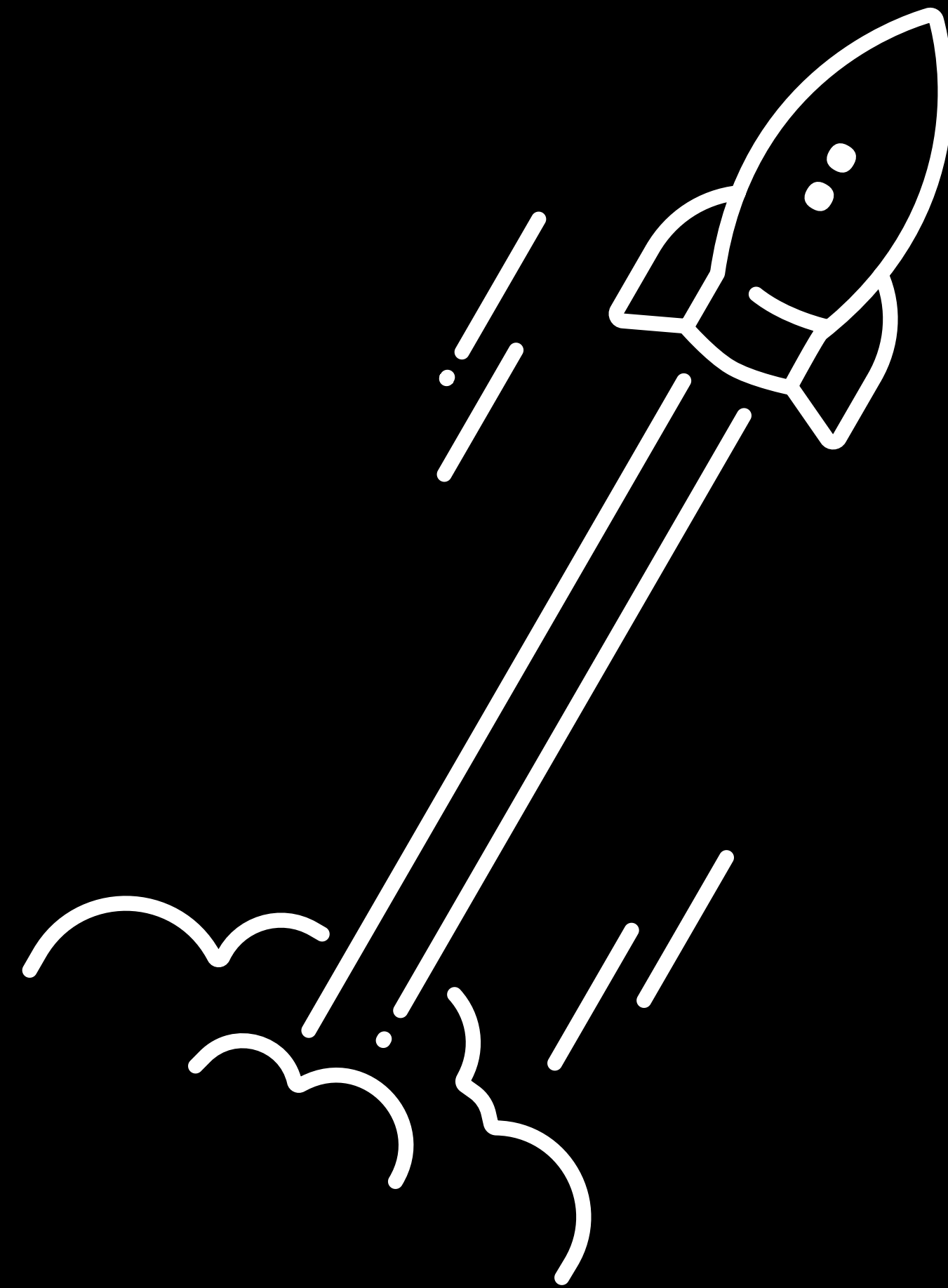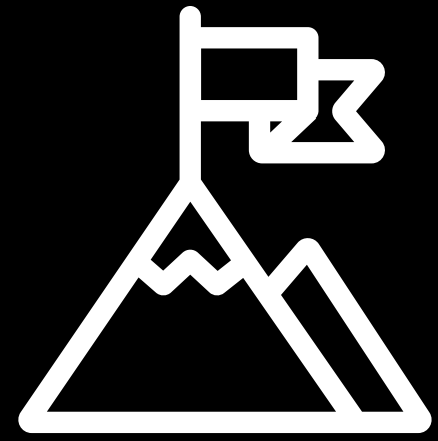
The new navigation gained positive feedback and impacted the business

+29%

Increase in customer engagement.

-37%

Reduction in onboarding time for customers.

-95%

Decrease in excessive and unused saved views.

Next iteration

1

Improve the clarity of unapplied filters

Switching between data types may disable certain filters. This caused some confusion for a few users.

2

Tweaking filter pills to occupy less space

Some users apply numerous filters to their view, leading to excessive vertical space usage.
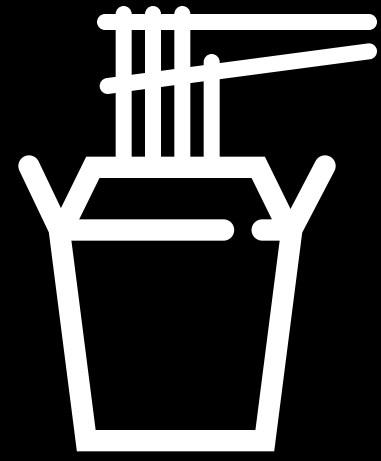
3

Description fields for saved views

A few customers have requested a description field to provide additional context to saved views.
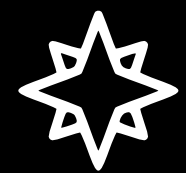
05

Reflection

Takeaways

North stars provides purpose

The project provided a clear guidance of how our recent features intertwined, ensuring alignment.

Customer data in user testing

Utilizing customer data in structured testing reduces confusion and distractions.

Strategic collaboration

Engaging with Engineers early in the process enables quicker turn arounds and less roadblocks.

Thank you!

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