Case Study **Trinity Logistics**

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Background

Since 1979, Trinity Logistics has been one of the leading, technology-based, full-service transportation and logistics providers in North America. Using a suite of proprietary technology, they provide dependable, multimodal transportation and logistics solutions to shippers of any size, backed by over 70,000 carriers in their network.

While there are several platforms available to their customers and employees, the main tool for Truckload orders is through Shipment AdvantEDGE, via the EDGE TMS- otherwise known as QE.

QE is beginning to show its age, and a new platform, Aspire is slated to take its place. The eventual goal is to have parity between QE and Aspire, but with new features and enhancements to UX/UI.

Our Task

Big Feats was brought onboard to work with the Trinity Product Development Team.
We were tasked with understanding the different users, and their respective workflows for quote management and load building within the current Shipment AdvantEDGE system and identify areas of opportunity or improvement.

Key Objectives

- Create 3 key user personas: Business Development Rep, Account Manager, & Logistics Assistant

- Conduct user interviews with employees across these three user personas

- Identify any insights that can be treated as actionable items

- Create user journey maps based on interview findings

- Create updated user flows that optimize user experience for future implementation efforts

- Provide recommendations on UI and UX design improvements that can be implemented in Shipment AdvantEDGE

- Assist in guiding upcoming development

Key User Questions Asked

- Can you explain how you use Shipment AdvantEDGE as part of your work cycle?

- What are the key pain points that need to be addressed?

- What is your process of building a load, Manual vs Automated (i.e. EDI)?

- Why replicate vs build from scratch?

- What are the "must haves" for building a load?

Our Methods and Approach

After general product onboarding, a series of interviews with employees of Trinity based on the key personas previously identified, were conducted over several weeks - Account Managers, Business Development Reps and Logistics Assistants. Each interview was approx. 30-45 minutes. Each script was similar to establish a consistent baseline for comparative responses.
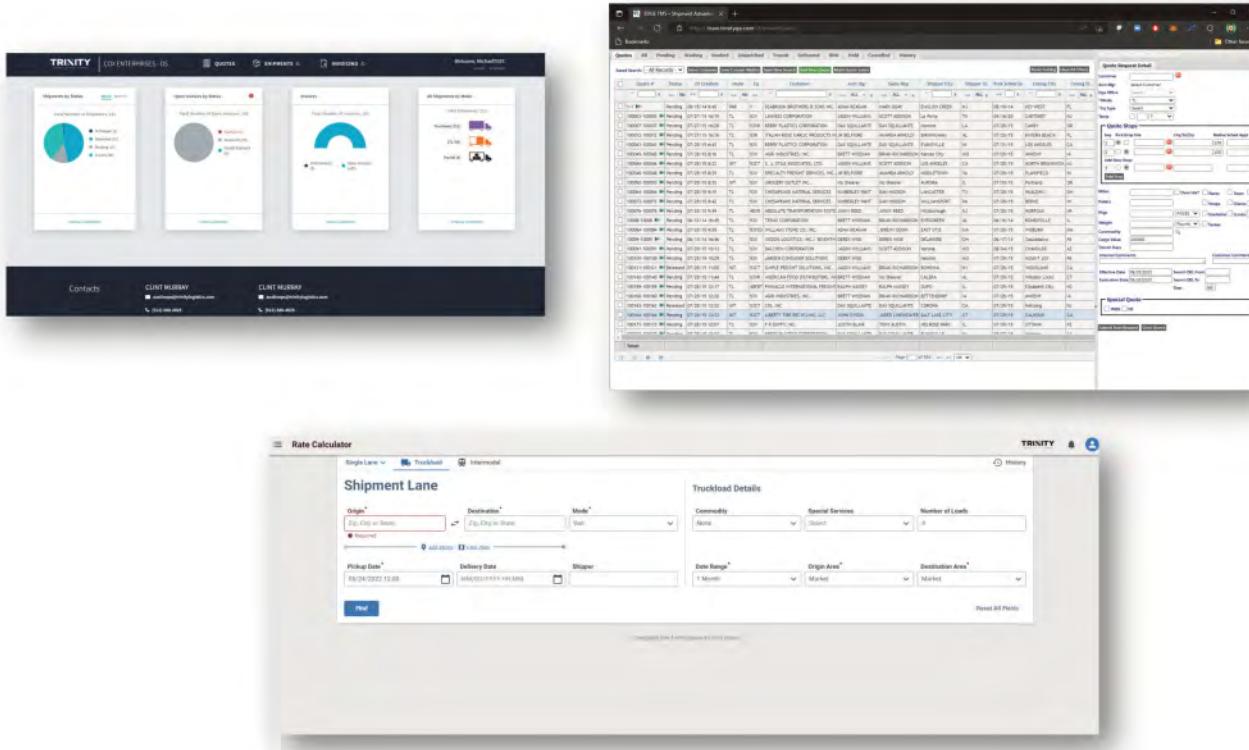
User Personas

The three following User Personas were created to help understand the three different users and gain a perspective similar to theirs.

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Mark Pearson

Age: **30-45**

Office: **Delaware**

Time in Industry: **5-15 years**

Time at Trinity: **5-15 years**

Account Manager

Job Description

Account Managers are a client-facing role. They manage large accounts and coordinate with clients to ensure that their loads are properly booked and seen through to delivery. These clients are either cultivated personally or transferred from a Business Development Representative.

Key Activities

• Receive new orders from clients, either via email, or EDI
• Gather requirements from clients, and price out quotes on their shipments
• Mange a load's entire life cycle and keep the client informed of any complications
• Ensure customer satisfaction and maintain relationships
• Work with a Logistics Assistant who will cover data entry and scheduling
• Manages on average 30-50 loads a day

Motivation

Mark worked hard to develop a book of business from the ground up. These relationships and the fast-pace keep him engaged.

Needs

• A system that works physically faster
• Consistent information through EDI
• Alerts for missed shipments

Pain Points

• Logistic Specialists prioritize the order of carrier fulfillment, and sometimes there's a bottleneck
• QE tends to overwrite saves if two people are working in the same load

" *I'm part of a group of producers one who bring money through the door. I need a system that works as well as I do.* **"**

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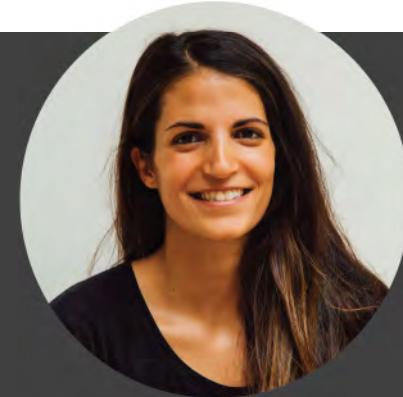
Sabrina Green

Age: 27-35

Office: Delaware

Time in Industry: 3-5 years

Time at Trinity: 3-5 years

Business Development Representative

Job Description

Business Development Reps start with a very low number of clients or none and build their book of business from scratch. They typically maintain a smaller book of business and may not have exclusive access to a Logistics Assistant. They may hand off some of their business to Account Managers.

Key Activities

• Seeks out new sources of business for Trinity
• Cultivates long-lasting relationships with clients; grows the business she currently has
• Gather requirements from clients, and price out quotes on their shipments, and bid
• Mange a load's entire life cycle and keep the client informed of any complications
• Ensure customer satisfaction and maintain relationships
• Manages on average 20-40 loads a day

Motivation

To Sabrina, Trinity has a family-like quality and loves the office energy. She loves being able to solve client problems.

Needs

• Consistent and working EDI
• A better way to handle updates from customers
• Notifications to know the status of a load
• A more streamlined and consistent way to process and track loads

Pain Points

• QE is overwhelming. There's too much information and can get frustrating.
• Notes can be confusing and not relevant
• EDI sometimes goes down which requires manual load builds.

" I love learning about new businesses and being able to help in emergencies. Our customers deserve the Trinity Experience. "

TRINITY

Heather Thomas

Age: **23-30**

Office: **Delaware**

Time in Industry: **0-4 years**

Time at Trinity: **0-4 years**

Logistics Assistant

Job Description

A Logistics Assistant is a part of the sales team that focuses on building loads and scheduling appointments. They typically work exclusively with an Account Manager but can also support multiple AMs or BDRs. They may be at times customer facing, but typically are managing the day-to-day data.

Key Activities

- Supporting Account Managers and Business Development Reps in building loads, either from EDI or Manually
- Coordinating with pickup/dropoff locations to schedule appointments
- Gathering requirements for loads and following up for more information, if required
- Acts as a backup to their AM, if needed
- Manages on average 30-50 loads a day

Motivation

Heather enjoys talking to shippers/receivers and building relationships with them. She appreciates feeling needed and being relied on.

Needs

- To have a clear mind to focus on diving deep on tasks
- Consistent information through EDI
- Clarity on exactly which tenders need to be built and in what priority
- Fast running software

Pain Points

- Sometimes too many loads come in at once and can be difficult to process in a timely manner
- Learning new lanes is time consuming
- Customers change their EDI format without notice to Trinity

" Supporting my Account Manager is a very rewarding experience. Around the office we're known as Chaos Coordinators. "

Standout Findings

- The current Shipment AdvantEDGE data entry and saving functionality are in need of improvement.

- The Shipment AdvantEDGE Priority System needs to be used more accurately.

- Users would like more alerts; eg: Finish Building Load, Late Arrival Notification, etc.

- Improvements to how external EDI is received would limit manual correction and errors, and save time.

- A Build Load process where "Build from Scratch" is just as easy as "Replicate" would reduce the chances of human error.

- Users would like a feature that auto-tracks lost loads - data can then be analyzed for patterns and used in objection handling training.

- A Co-Editing feature would allow efficient collaborative efforts when building a quote, and eliminate potential data loss.

Workflows

We created three workflows to help define, standardize and identify critical areas of the quote-building process each user would experience. In doing so, we discovered that two workflows for each persona were required to complete the entire process.

SIPOC Methodology

Senior Trinity management suggested the SIPOC methodology would be helpful in creating logical user work flows.

A SIPOC diagram is a tool used by a team to identify all relevant elements of a process improvement project before work begins. It helps define a complex project that may not be well scoped and is typically employed at the Measure phase of the Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) methodology. It is similar and related to process mapping and 'in/out of scope' tools but provides additional detail.

The tool name prompts the team to consider the *Suppliers* (the 'S' in SIPOC) of a process, the *Inputs* (the 'I') to the process, the *Process* (the 'P') your team is improving, the *Outputs* (the 'O') of the process, and the *Customers* (the 'C') that receive the process outputs. In some cases, requirements of the customers can be appended to the end of the SIPOC for further detail.

S → **I** → **P** → **O** → **C**

SUPPLIER:
Shipper

INPUTS:
Request
Tender

PROCESS:
Pricing:
Accept /
Reject

QUOTE:
BOL

CUSTOMERS:
Shipper

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SIPOC Methodology - Account Managers

SIPOC Diagram: Account Manager - EDI

Supplier	Large Client	Smaller Client	New Client
Inputs	EDI · Email · Phone	Quote Req. · Email · Phone	Quote Req. · Email · Phone

Process
EDI tender from client → Tender accepted / Tender rejected → Send to LA

Output	Quote	Load Acceptance	Load Acceptance
Customers	Client	Client	Logistics Assistant
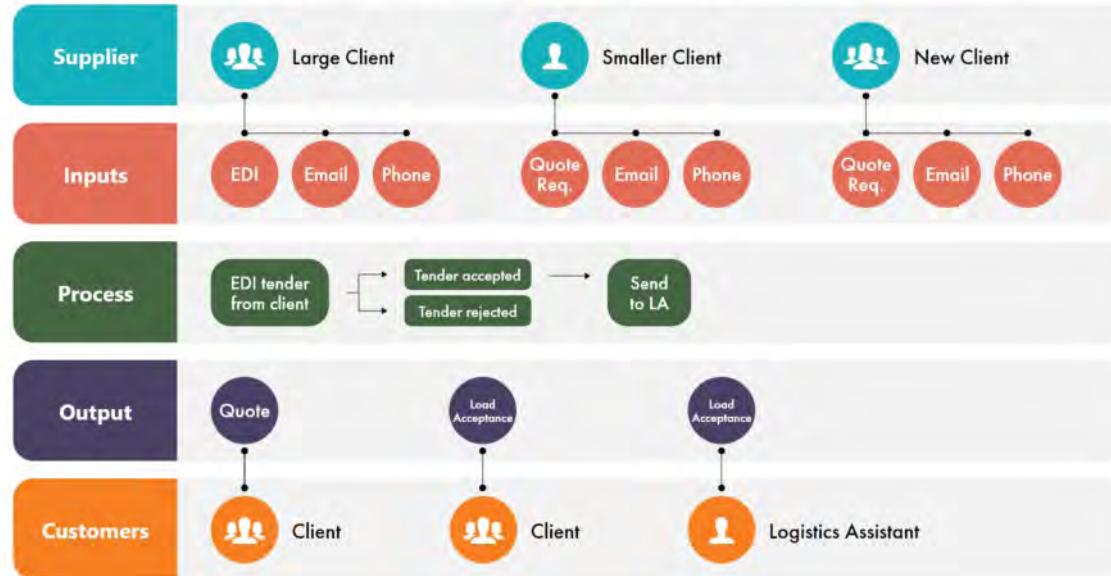
SIPOC Diagram: Account Manager - Quote

Supplier	Large Client	Smaller Client	New Client
Inputs	EDI · Email · Phone	Quote Req. · Email · Phone	Quote Req. · Email · Phone

Process
Client request for quote → Gather requirements → Send quote to client → Quote accepted / Quote rejected → Send to LA

Output	Quote	Load Acceptance	Load Acceptance
Customers	Client	Client	Logistics Assistant

SIPOC Methodology - Business Development

SIPOC Diagram: Business Development Rep - EDI

Supplier	Large Client		Smaller Client		New Client		
Inputs	EDI / Email / Phone		Quote Req. / Email / Phone		Cust. Portal / Quote Req. / Email / Phone		
Process	EDI tender from client	→ Tender accepted / Tender rejected →	Convert EDI to load →	Send to LS			
Output	Quote		Load Acceptance		Load		
Customers	Client		Client		Logistics Specialist		
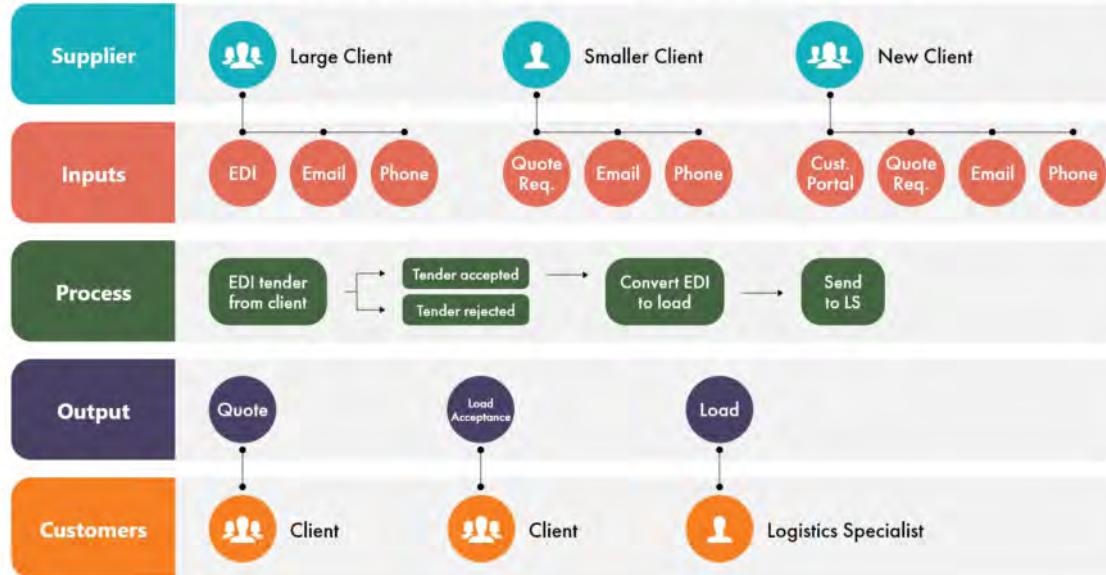
SIPOC Diagram: Business Development Rep - Quote

Supplier	Large Client		Smaller Client		New Client		
Inputs	EDI / Email / Phone		Quote Req. / Email / Phone		Cust. Portal / Quote Req. / Email / Phone		
Process	Client request for quote →	Gather requirements →	Send quote to client →	Quote accepted / Quote rejected →	Convert quote to load →	Send to LS	
Output	Quote		Load Acceptance		Load		
Customers	Client		Client		Logistics Specialist		

SIPOC Methodology - Logistics Assistant

SIPOC Diagram: Logistics Assistant - EDI

Supplier	Large Client	Smaller Client	New Client
Inputs	EDI · Email · Phone	Email · Phone	Email · Phone
Process	EDI tender from client → Replicate Load → Book Appointment → Send to LS		
Output	Quote	Load Acceptance	Load
Customers	Client	Client	Logistics Specialist

SIPOC Diagram: Logistics Assistant - Quote

Supplier	Large Client	Smaller Client	New Client
Inputs	EDI · Email · Phone	Email · Phone	Email · Phone
Process	Receive quote from AM → Gather requirements → Replicate load / Create new → Add customer → Build quote → Book Appointment → Send to LS		
Output	Quote	Load Acceptance	Load
Customers	Client	Client	Logistics Specialist

UX Findings

The culmination of our UX research was presented to Trinity in the form of Key Insights that influenced the final design and feature set of the new UI.

Key Insights

1. The grid is overwhelming

The main view for any user coming to QE will be faced with a grid view displaying every tracked entity in the system. This causes users to be frustrated and will stop them from using the system in any meaningful way.

Why?

Hicks Law states that the more choices you give an individual, the longer it takes for them to make a decision. Flooding the screen with a large amount of information will cause mental fatigue and eventually the user will check out.

Key Insights

2. Quote Creation is underutilized

When creating a quote from scratch, users are faced with multiple steps in order to do so, causing users to instead to opt for the "Replicate" feature.
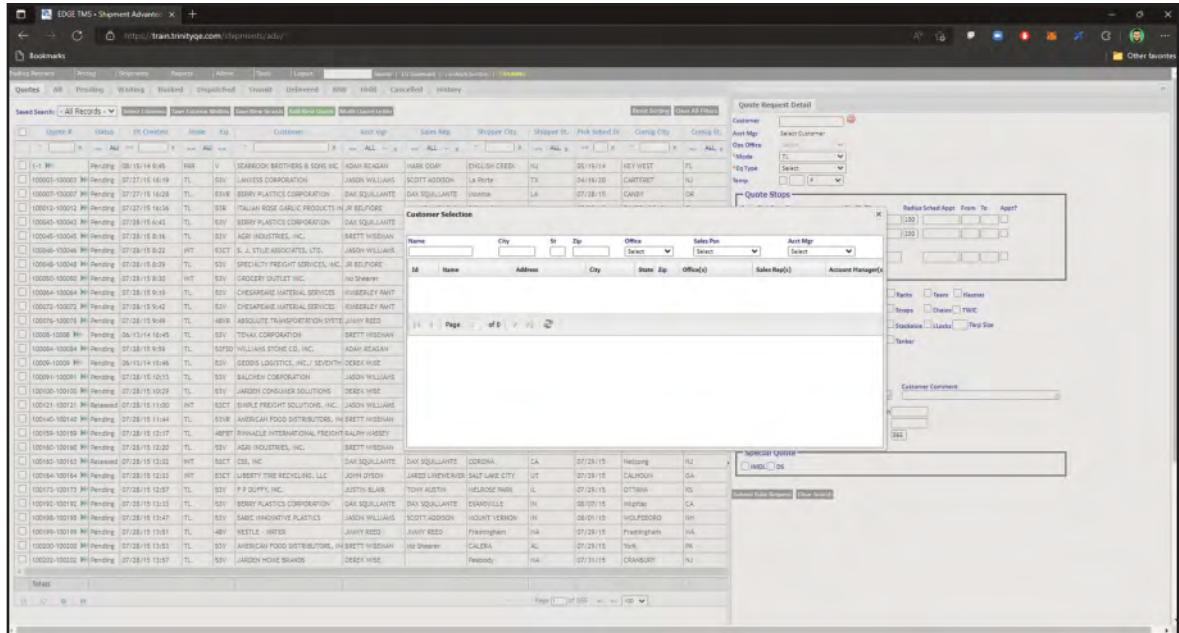
Why?

When users are given a choice to do seemingly the same thing, they will always take the path of least resistance, regardless of any cons.

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Key Insights

3. Manual load building slows the process down

The typical load using EDI will only take approximately 30 seconds to process.
If a load must be created manually, it could take upwards to 5-8 minutes, depending on the complexity.

On a 50-load day, this translates to 250 - 400 minutes, vs. 25 minutes.

Why?

When a client does not have capability to use EDI they will send their quote requests via email to Trinity. Once approved, these approved quotes are then manually inputted into the system.

Key Insights

4. Quoting wins and losses are not tracked

The current process for understanding any lost quote is underutilized and not analyzed as part of any review process. BDRs and AMs have no data to help improve their process.

Why?

When a quote is lost, the user has an option to enter a note into the system but is not mandatory or automatic. Most users typically focus on the positives, especially when they're making money on a commission-basis.

UI Recommendations

We pushed the possibilities within the Aspire UI Toolbox to create a brand new improved user interface. Concerns gathered from our user interviews and user personas creation were implemented through newly streamlined workflows and by the addition of new features. The final High Fidelity mockups were created in Adobe XD, and were requested by the client.

New Main Dashboard
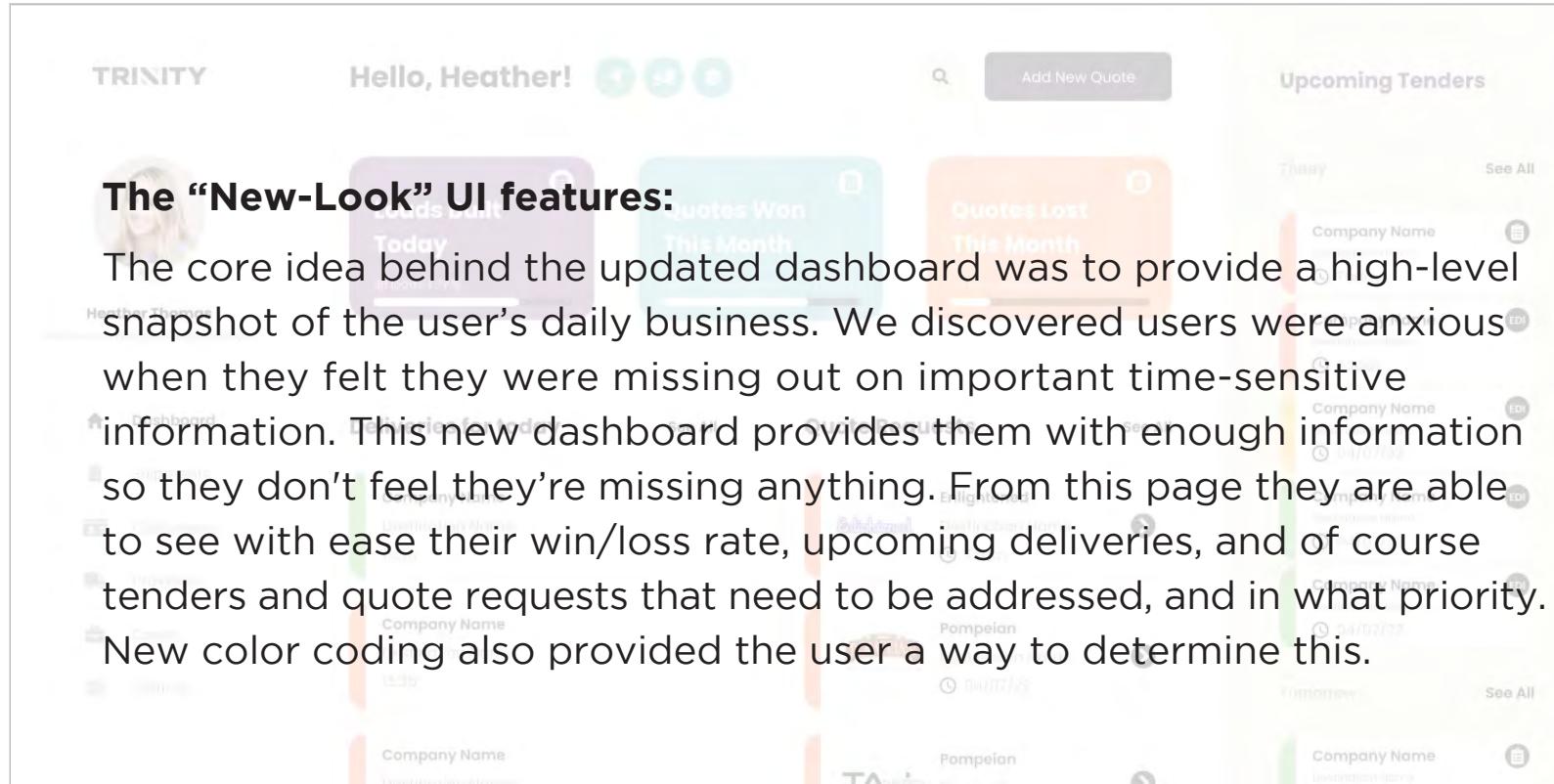
The "New-Look" UI features:

The core idea behind the updated dashboard was to provide a high-level snapshot of the user's daily business. We discovered users were anxious when they felt they were missing out on important time-sensitive information. This new dashboard provides them with enough information so they don't feel they're missing anything. From this page they are able to see with ease their win/loss rate, upcoming deliveries, and of course tenders and quote requests that need to be addressed, and in what priority. New color coding also provided the user a way to determine this.

New Main Dashboard

New Quote Request

Recommended improvements to the Quote Request process:

The new layout incorporates efficiencies developed in the workflow. It also allows the user to create quotes while remaining in touch with any upcoming tenders - a pain point discovered in our user interviews and resolved in the new UI.

New Shipment Board
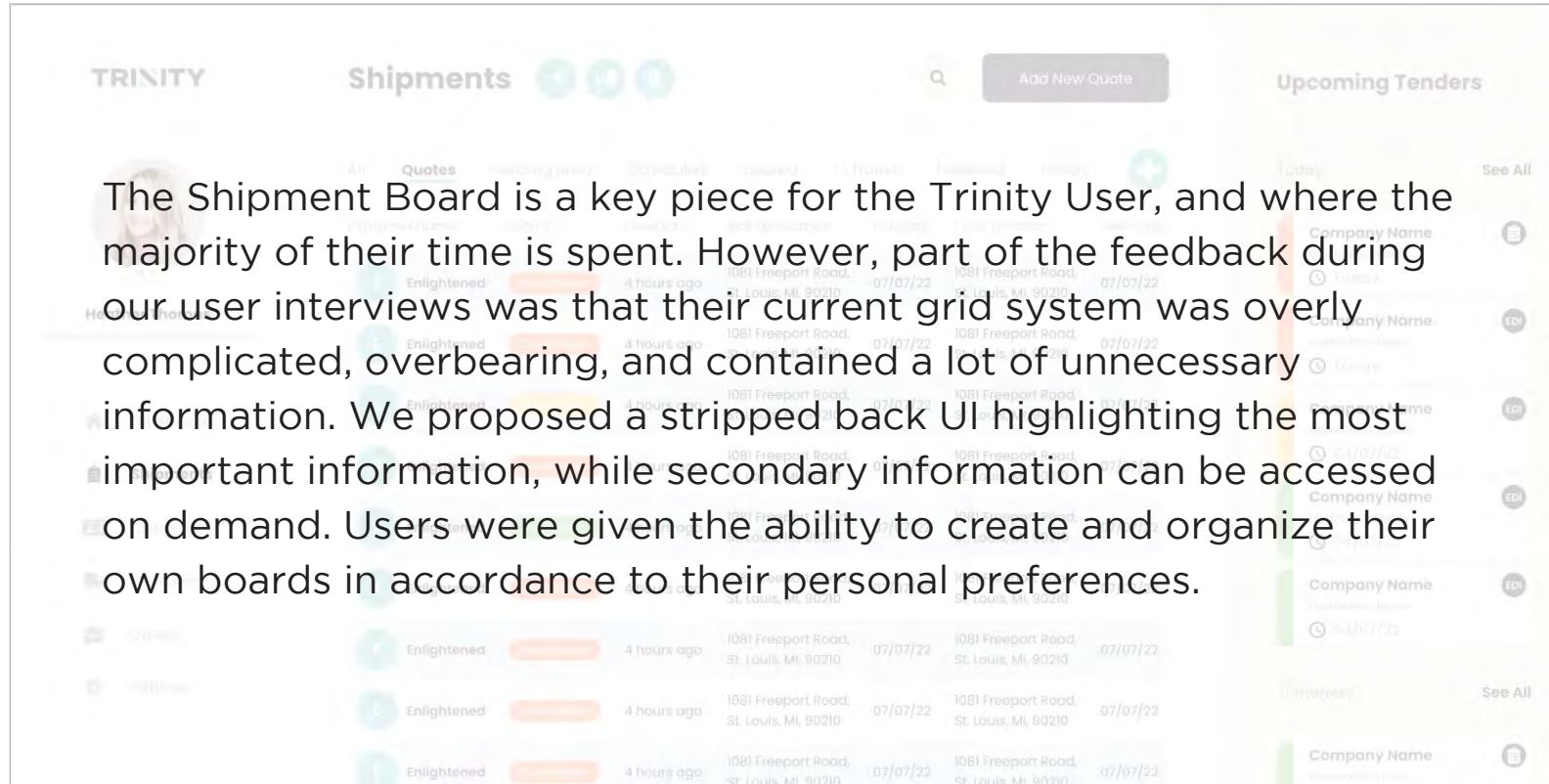
The Shipment Board is a key piece for the Trinity User, and where the majority of their time is spent. However, part of the feedback during our user interviews was that their current grid system was overly complicated, overbearing, and contained a lot of unnecessary information. We proposed a stripped back UI highlighting the most important information, while secondary information can be accessed on demand. Users were given the ability to create and organize their own boards in accordance to their personal preferences.

New Shipment Board

Summary of Achievements

- Built out a "Current Template" as the Aspire Toolkit was lacking one

- Conducted User Interviews to establish patterns and pain points within the daily work day and with the two softwares currently in use

- Created User Personas for each of the three identified key users

- Provided a list of main findings from the interviews that helped in creating workflows

- Using the SIPOC Methodology, created two workflows for each user persona

- Provided a list of key insights summarized from the research data

- Created and presented a new UI design recommendation to Trinity as the culmination of all our research and findings - the design streamlined the user interface, addresses the users' concerns we discovered, and updates the current interface while staying within the client's licenced UI toolkit.

Thank You