

Flight Recovery System

Application used by fleet specialists to manage immediate flight recovery needs for Owner flights.



http://website.url

Fusion Recovery

Events EVENTS HISTORY

RECOVER SELECTED RTD TAIL Details OFF

2 of 4 FLIGHTS

Select all

TAIL (Actual)

KCMH 13:00Z KBOS 14:20Z G-450 / CE-680AS Reason 1

TAIL (Actual)

KCMH 12:00Z KBOS 15:20Z G-450 / CE-680AS Reason 1

KBOS 16:30Z KLAX 18:45Z G-450 / CE-680AS Reason 1

KTEV 22:00Z KREL 23:00Z G-450 / CE-680AS Reason 1

Options

Solve Again

N312QS - 2/2 N315QS - 3/3

LIKE AIRCRAFT

Delays: 0 Fallout: 1 89%

UPGRADE

Delays: 4 Fallout: 3 52%

DOWNGRADE

Delays: 6 Fallout: 6 12%

BLENDED

Delays: 6 Fallout: 6 12%

APPLY

Like Aircraft

10:00 • 11:00 • 12:00 • 13:00 • 14:00

12:45Z KCMH

KCMH P. Marks P. Jones 2 hrs

N312QS

N309QS

N515QS

N519QS

1 Fallout

N519QS

N526QS

KCMH P. Marks P. Jones

KDAL P. Marks P. Jones

The Challenge

Design a new application to fit between 2 legacy applications which needs to automate a process that had been done manually for 50-years.

$$\begin{aligned}\frac{d}{dt}B(t) &= \frac{iH}{\hbar}e^{iHt/\hbar}Be^{-iHt/\hbar} - e^{iHt/\hbar}B\frac{iH}{\hbar}e^{-iHt/\hbar} \\ &= \frac{i}{\hbar}e^{iHt/\hbar}[H, B]e^{-iHt/\hbar} = \frac{i}{\hbar}[H, B(t)]\end{aligned}$$

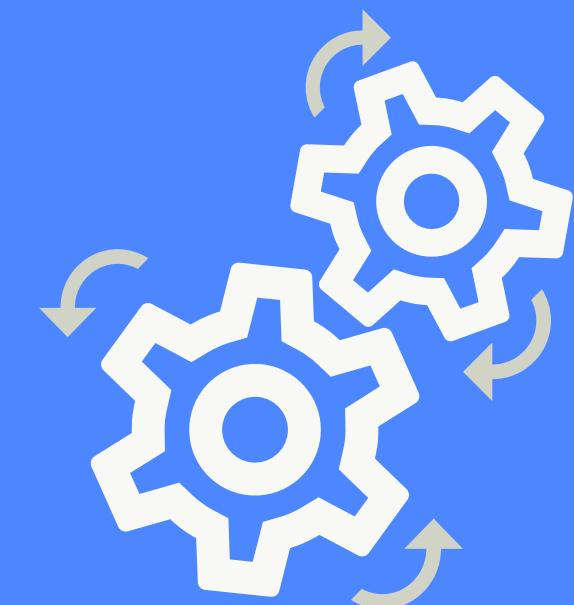
* Actually the Heisenberg Picture

My Role: UX Design Lead

Quickly define the UX strategy and timeline for business stakeholders.

Lead the discovery and design phases with the project team and leverage the existing React component Library and panel system.

Manual Process



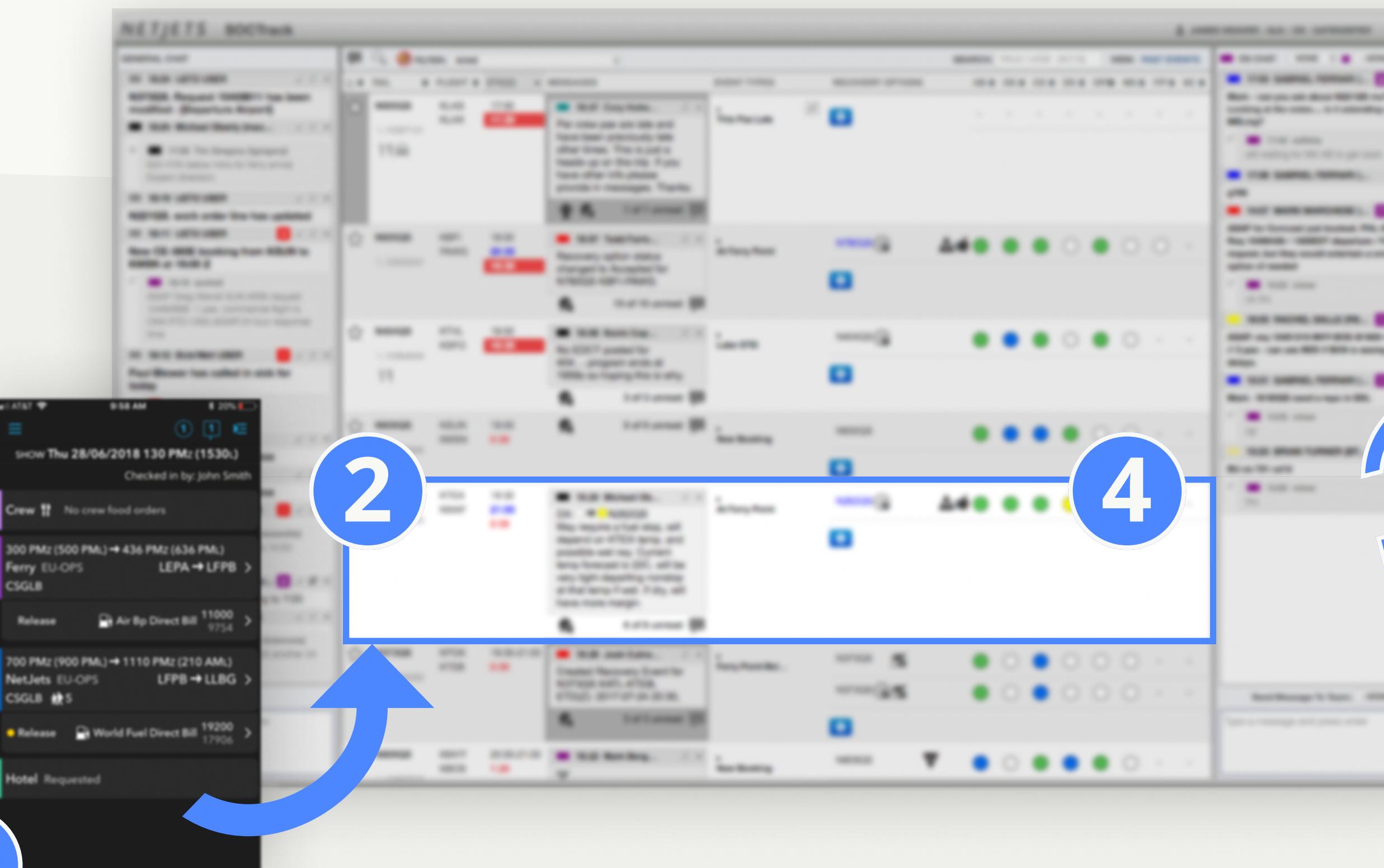
Automated



Current Experience

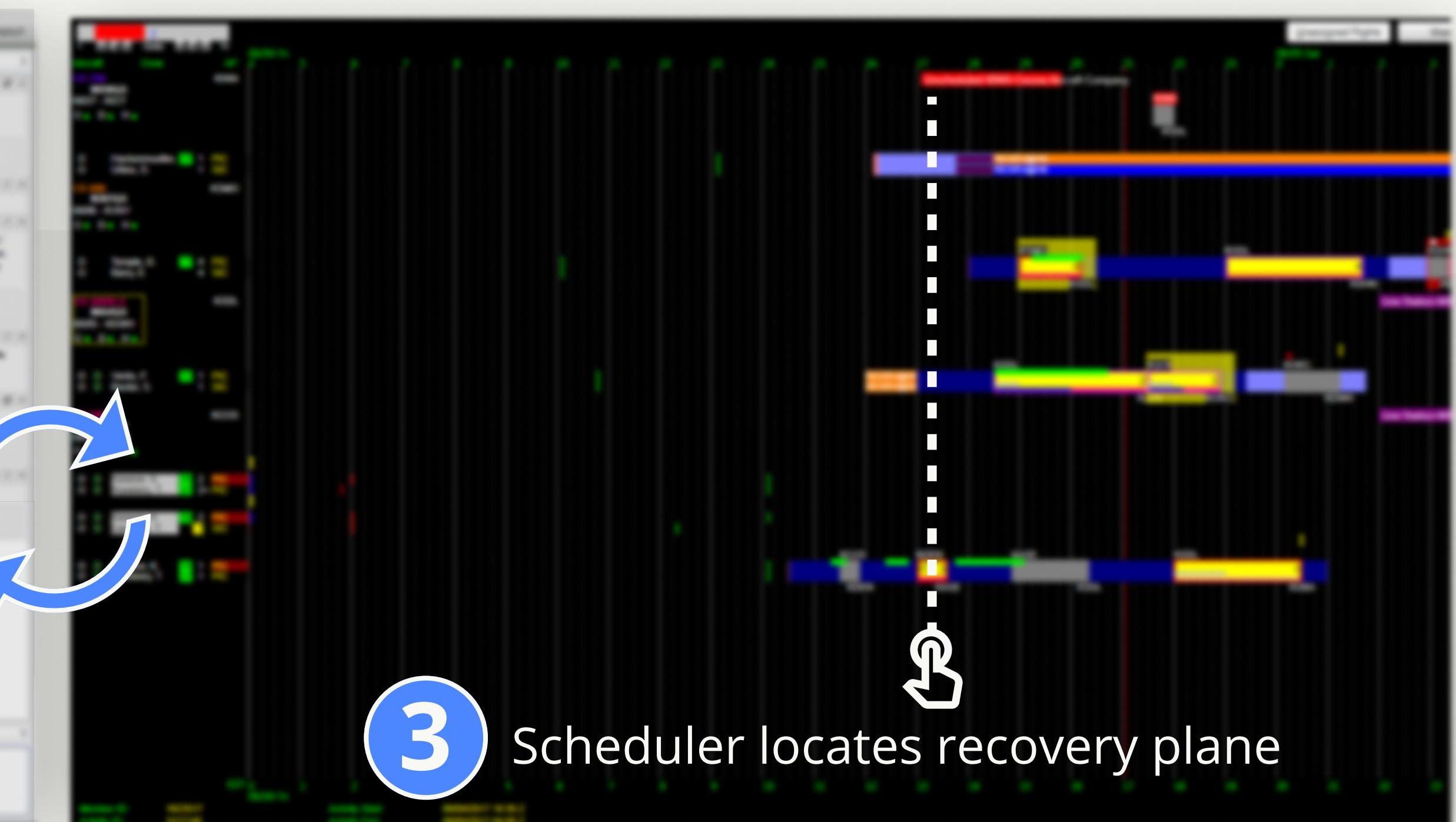
Pilot logs issue which is communicated to all operations departments in the Flights Communications App. The scheduler determines best recovery option and schedules recovery flight and crew movements once all departments agree on a recovery option. Total recovery time is between 10 to 30 minutes on avg.

Flight Communications (10 to 20 min)



1 Pilot Logs Issue

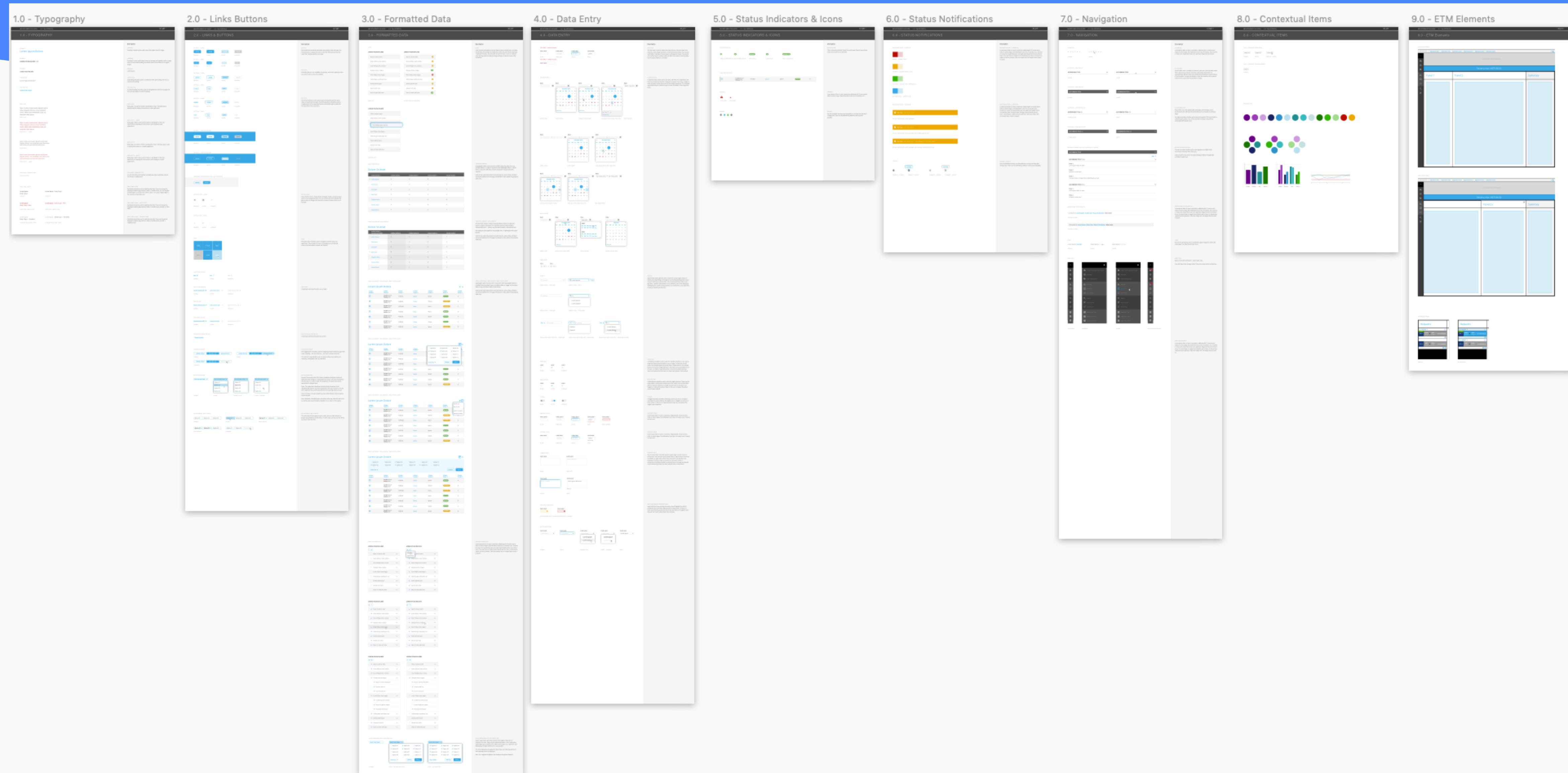
Flight Schedules (10 to 15 min)



3 Scheduler locates recovery plane

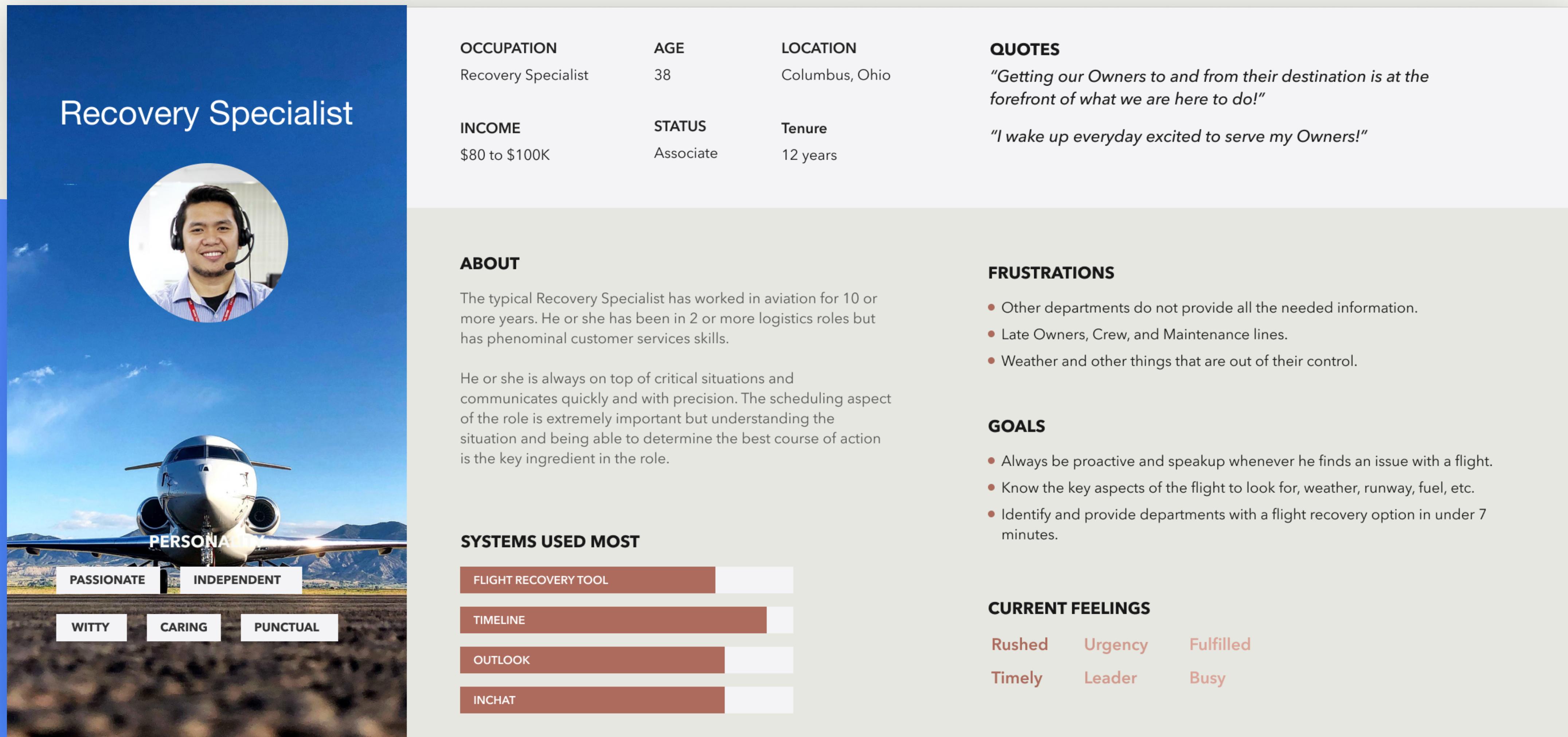
Design System

Leverage the styleguide and React component library previously designed for internal applications.



Understanding the User

Created a Recovery Specialist Persona after conducting 3 interviews with end users and running a 2 hour workshop with subject matter experts.



Recovery Specialist



PERSONA

PASSIONATE **INDEPENDENT**

WITTY **CARING** **PUNCTUAL**

OCCUPATION Recovery Specialist **AGE** 38 **LOCATION** Columbus, Ohio

INCOME \$80 to \$100K **STATUS** Associate **Tenure** 12 years

ABOUT
The typical Recovery Specialist has worked in aviation for 10 or more years. He or she has been in 2 or more logistics roles but has phenomenal customer services skills. He or she is always on top of critical situations and communicates quickly and with precision. The scheduling aspect of the role is extremely important but understanding the situation and being able to determine the best course of action is the key ingredient in the role.

SYSTEMS USED MOST

FLIGHT RECOVERY TOOL	<div style="width: 75%; background-color: #803322; height: 10px; display: inline-block;"></div>
TIMELINE	<div style="width: 70%; background-color: #803322; height: 10px; display: inline-block;"></div>
OUTLOOK	<div style="width: 65%; background-color: #803322; height: 10px; display: inline-block;"></div>
INCHAT	<div style="width: 60%; background-color: #803322; height: 10px; display: inline-block;"></div>

QUOTES
"Getting our Owners to and from their destination is at the forefront of what we are here to do!"
"I wake up everyday excited to serve my Owners!"

FRUSTRATIONS

- Other departments do not provide all the needed information.
- Late Owners, Crew, and Maintenance lines.
- Weather and other things that are out of their control.

GOALS

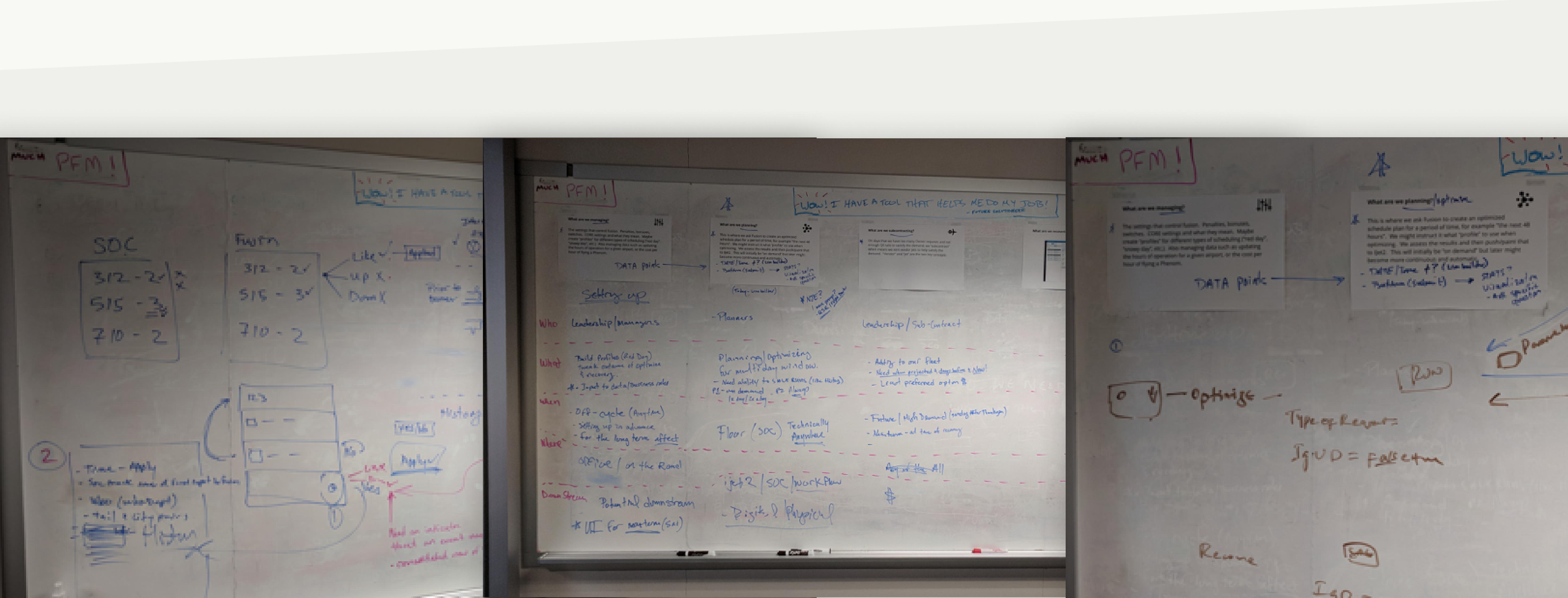
- Always be proactive and speakup whenever he finds an issue with a flight.
- Know the key aspects of the flight to look for, weather, runway, fuel, etc.
- Identify and provide departments with a flight recovery option in under 7 minutes.

CURRENT FEELINGS

Rushed	Urgency	Fulfilled
Timely	Leader	Busy

Discovery and Workshops

The team met once a week for an hour or two at a time to discuss the designs and whiteboard upcoming functionality.



Design Iterations

In-between our weekly meetings I would detail out the screen designs and gather feedback from end users.

The image displays three versions of a software interface, likely representing design iterations, with a large white arrow indicating a progression from left to right.

Left Panel (Version 1): Recovery Event Dashboard

- Header: Recovery Event Dashboard
- Buttons: RECOVER ALL EVENTS, REFRESH
- Table: Shows 3 rows of data with columns: Tail #, Description, Requested Aircraft, and Crew.
- Buttons: CREATE EVENT, RUN RECOVERY

Middle Panel (Version 2): Solutions

- Header: Solutions
- Buttons: MORE OPTIONS, REFRESH
- Table: Shows 3 rows of data for Tail # N384QS, labeled Option 1, Option 2, and Option 3.
- Buttons: Use this option

Right Panel (Version 3): Fusion

- Header: Fusion
- Section: Recovery Events and Solutions
- Table: Recovery Events (3 NEED SOLVED, 2 SOLVED)
- Table: Recovery Events (3 NEED SOLVED, 2 SOLVED)
- Timeline: Shows flight paths and arrival times for aircraft N938QS, J309QS, and N313QS.

Outcome

Users are now able to recover multiple flights at once with an efficiency gain of 50% to 70%. On a typical day the department will save 4 hours of time for every recovery specialists.

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Options

Solve Again

LIKE AIRCRAFT

N312QS - 2/2 N315QS - 3/3

Delays: 0 Fallout: 1

Select...

UPGRADE

Delays: 4 Fallout: 3

Select...

DOWNGRADE

Delays: 6 Fallout: 6

Select...

BLENDED

Delays: 6 Fallout: 6

Select...

APPLY

Like Aircraft

Feedback

View Isolations 9

Fallout ON

10:00 • 11:00 • 12:00 • 13:00 • 14:00 • 15:00 • 16:00 • 17:00 • 18:00 • 19:00 • 20:00 • 21:00 • 22:00 • 23:00 • 00:00 • 01:00 • 02:00 •

N312QS 12:45Z KCMH 14:25Z KBOS 17:20Z KBOS 19:55Z KATL

KCMH 2 hrs SL1 SL1

PIC: P. Marks
SIC: P. Jones

N309QS

N515QS 16:35Z KDAL 17:55Z KTEB 18:45Z KTEB 20:00Z KATL 22:00Z 23:15Z KJFK

KDAL SL2

PIC: P. Marks
SIC: P. Jones

1 Fallout

N519QS 14:45Z KCMH 16:45Z KBOS 14:45Z KCMH 16:45Z KBOS

KCMH SL3 SL3

PIC: P. Marks
SIC: P. Jones

N526QS