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D3DLink Redesign

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D4DLink Redesign

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O Research O Strategy O Design O Leadership

Introduction

It takes a lot of parts to build a car, with estimates as high as 30,000 parts per vehicle. A dealership's parts department can't keep all of those in stock. "Fastmoving parts" are those most departments keep on hand, which they frequently use for servicing vehicles. Brakes, rotors, shocks, and filters are good examples of these. The rest are all the other parts that make up a vehicle. They could be as big as a crate engine or as small as the oil tube "Spout" pictured to the right.

For most dealerships, maintaining a lean inventory is key to their financial success. This means that when they come across a vehicle that needs repairs beyond routine maintenance, there is a good chance they'll need to order the part. D2DLink's (Dealer to Dealer Link) core functionality allows a dealership parts department to search against their own inventory, their distribution center, or another dealership's inventory, effectively creating a national virtual inventory to source from. When searching another dealer's inventory, users can also place orders directly from one another through the app.

D2DLink was the single most frequently utilized OEC product during my time and is mission-critical in a parts department.a cursus, sed dictum est iaculis.





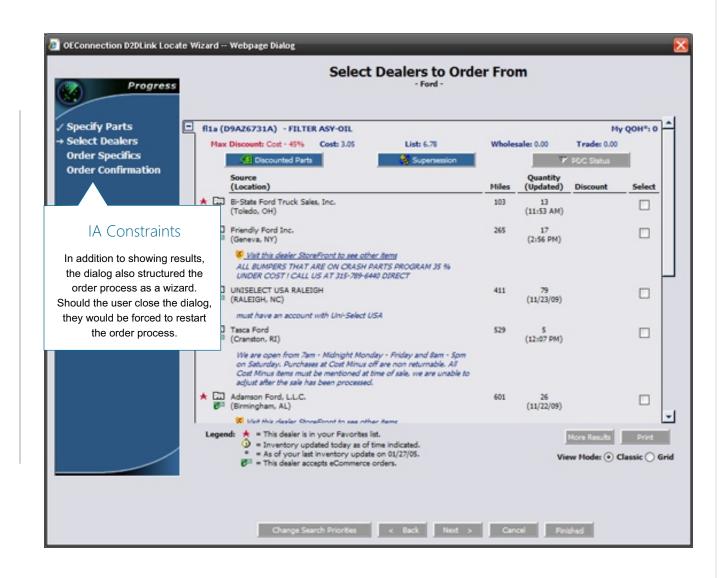
Process

There was a lot of trepidation knowing this was a mission-critical tool with heavy usage. We had some initial usage data on hand that showed users were looking up, on average, less than two parts at a time but lacked the ability to put that metric into context. The orders from leadership, however, were clear. The product team was tasked to take the same approach we used on our CollisionLink product to redesign our parts locator.

The prior generation of the tool was accessed from a search box located at the bottom of the product experience. Searching from here would launch a dialog that sat on top of the main view. This would display results for dealers that had the part in stock. A separate button at the top allowed them to search their distribution center. Should the user want to search for another part, they would have to close the dialog and start again.

Through onsite observation in parts departments, we were able to build a mental model around the act of locating parts, including when and why users locate multiple parts, which dealers they buy from, why they don't buy discounted parts, and the information they need to make a buying decision. We were also able to begin defining our archetypes for different parts departments.

Two key types that surfaced during this research were parts departments that primarily served their service departments and dealerships with "captive body shops"; an on-site body shop operated by the dealership. With these users, a vehicle in an accident could require dozens of parts to repair. It's the parts department's goal to order as many from the same source as possible. With this qualitative data, we could now put the quantitative data generated through usage reports into context.





Early Iterations

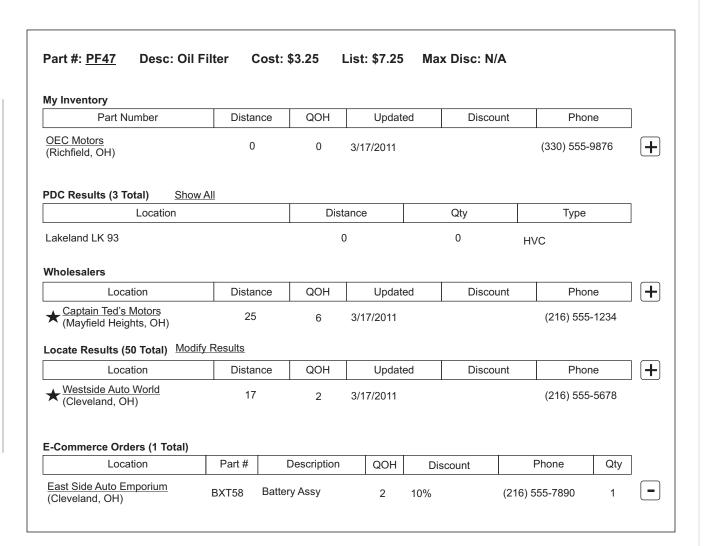
The first decision made was to move D2DLink out of a dialog and embed it as a core workflow in the primary workspace of our applications. This would allow more room for information on each source where a part was available while also leveraging our new patterns established with our CollisionLink project, such as tabs to have multiple searches open concurrently and accessing all parts information by clicking on the part number.

We structured the results for D2DLink similar to CollisionLink by matching the decision tree a user would go through. First, users want to see if the part is in their own inventory. Once they determine that it's not, the next check is their distribution center. Parts departments get incentives when ordering parts from the OEM. The higher the volume, the more incentives. They also know the part will be in good condition, and if it's not, they can return it.

If the distribution center is out of the part or they need it faster than the distribution center can send it, they may look at wholesalers. Wholesalers are themselves dealerships but have a business model that supports keeping large amounts of parts in stock and can often supplement the OEM's distribution center.

Should neither location have the part, the user can then look at the inventory of other dealers nearby. Most local dealerships have trade agreements with one another and frequently move parts between one another. For urban areas, these dealers may be within a 15-20 mile radius. For more rural dealers, this could extend to 50 miles or more.

Once this structure was in place, iterations focused on the details and order of information for each section.



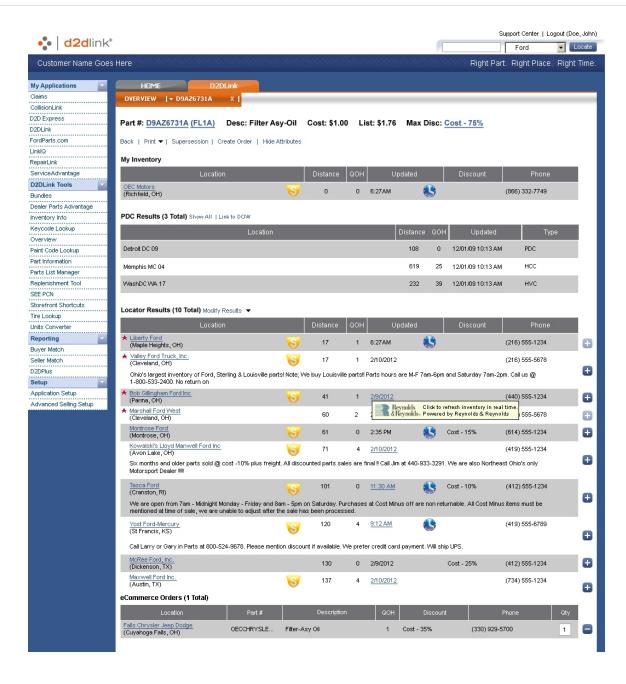


Final Version

As we moved into our final designs, two unique features under consideration were discussed. The first was dedicating a section of the screen to wholesalers. Due to how our systems were structured and agreements with OEM, we decided to omit that section and treat wholesalers the same as any other dealer. The system had a favorites feature going back to the prior generation of the tool, so the workaround was to make wholesalers favorites, and they would display higher in the results than other dealers.

The second feature was to allow the orders to persist across searches. Instead of conducting five unique parts searches and then submitting five unique orders, orders would be bundled together and routed to the appropriate dealers. Aside from the time savings when submitting an order, this approach also allowed users to keep track of their work as they worked through their parts list.

The final piece was dedicating screen real estate for starting a search from any product in the system. A search box in the upper right corner of the screen allowed users to enter their part number and, if they happened to be a multi-OEM dealership, select the OEM the part belongs to.





Summary

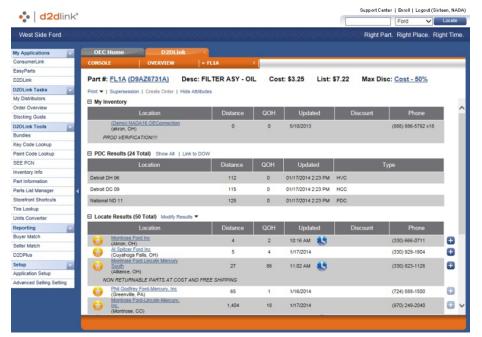
When we took a working beta tied into production data to dealers in the Cleveland area to get initial feedback, something interesting happened. Not only were they excited about the design, but they continued to use the pre-production link we were using to present the new approach, despite its limited functionality and early bugs. That's when we knew we had hit our mark.

I visited a Ford dealer in the summer of 2024 to purchase and photograph the parts I displayed earlier in this document. In the 13 years since I worked on this design, I saw that very little had changed with it. Aside from visual language updates and some new applications that have been added over the years, the overall structure and layout were effectively unchanged.

It's easy to assume that designs that go unchanged for years are being neglected. And while that can often be the case, here the case can be made that approaching the work the right way, gaining a deep understanding of users' needs and translating that into a design that matches their expectations, can have staying power that lasts decades.



Learn about our approach
while at OEC from the
Nielsen Norman Group



2024

