



## SUCCESS STORY

# Material Handling OEM Benefits From the Flexibility and Ease of Programming in Parker's PHD Displays

## CHALLENGE

In the off-road machinery industry an easy to use operator interface is increasingly important. Because of innovation and technology enhancements users expect encoder, push-button and touch screen access to real-time data on the machine. With a comprehensive range of material handling equipment, the OEM was looking for a rugged, full-feature, color display that could be easily implemented with a variety of its fork trucks, including both electric and internal combustion engine (ICE) vehicles.

Parker's PHD displays are general purpose displays that offer full color, touch capable screens with built in CAN and I/O. The PHD displays are designed to withstand a variety of environments from outdoor weather to industrial freezer to high impact applications. The OEM needed a flexible solution in how and where the display would be mounted. They also needed easy to use software to program the display for a wide variety of operator screens for various fork trucks.

## SOLUTION

**Easy to program customized display** - Each fork truck application required a slightly different operator interface. For example, the screens on the display for a small electric drive fork truck are different from the screens used on a large container handler. However, the OEM required that all the displays share several common images and screen arrangements.

### Market

Material Handling

### Customer

OEM

### Application

Fork Trucks - End Rider, Reach Stacker and Very Narrow Aisle Electric Trucks

### Solution

PHD Displays

### Results

- Common display solution across fleet
- Scalable solution
- Flexible and easy to program



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Parker's displays have easy to use software that allows for rapid application development. The programming tool uses a graphical development environment that allows the programmer to see the screens being developed as they would appear on the actual display. The software uses a "no hardware in the loop" simulation that allows the developer to "run" the application on the PC to see how the screens and transitions would appear without needing the hardware.

The programming tool allows for image files and screen layouts to be easily imported between applications. Images of screens do not have to be recreated which reduces development time for new applications.

**Various sizes and mounting requirements** - Since the OEM was looking to use the same display on a wide range of fork trucks, they had a need for different display sizes. Parker's display screens are available in three sizes, 2.8-inch, 5-inch and 7-inch. All three sizes have a core design that allow for a variety of bezel and mounting adaptors to be developed without having to redesign the PHD housing. Since the PHD housing is standard, many hours and thousands of dollars in testing and certification are saved when a new mounting approach is needed.

Parker's PHD display screens continue to gain and ever-increasing role in the design and enhancement of modern machinery. Parker's experience developing highly engineered components and systems, combined with its engineering and manufacturing expertise, enables its OEM customers to take advantage of the developments to create more productive and efficient machines.

## RESULTS

This OEM considered several other mobile display platforms prior to deciding to leverage its existing partnership with Parker to create a unified solution to meet their need for an advanced cost-effective display solution across their fleet of fork trucks. Flexibility and ease of programming were key to the PHD display's success at this OEM.

By partnering with Parker, the OEM successfully implemented a common display solution for lift trucks used for very different material handling applications. The PHD displays are used on the OEM's end rider, reach and very narrow aisle electric trucks. The same display family is used on the OEM's internal combustion engine large truck container handler and counter balance trucks. By using the same display solution, the OEM was able to keep development costs low while implementing a scalable solution that fit their various design and functionality requirements.

