Tools for Fast Interface and HMI Development

Abstract

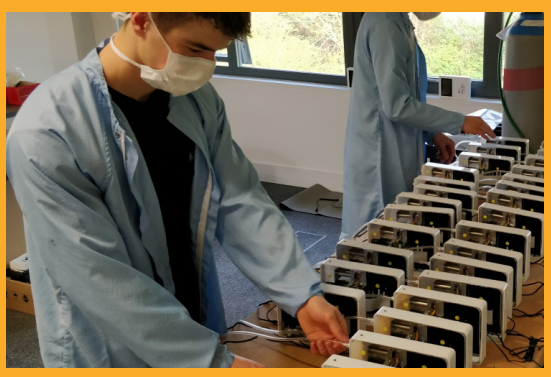
The continuous product evolution cycle that exists in today's engineering industry brings with it enormous pressure for businesses to launch new and exciting products to the market faster than ever. The ability, therefore, to take a product from concept to a fully-functional device, in a greatly reduced time period, is vital.

Organisations may typically find this too much of a challenge, resulting in them falling behind their competitors. A lack of development resource can also lead to products being released with poorly designed user interfaces, a critical factor that will reduce market uptake.

Case in Point

A recent example in which rapid product development was of the utmost importance was when the team at Oxford Optronix were required to provide cPAP (continuous Positive Airway Pressure) medical devices to the NHS.

A project that would normally have taken two years to complete was successfully undertaken in just a few days, helped by using a code-free integrated display hardware and software solution. The team at Oxford Optronix were able to deliver 2,000 of their Flo-Ox monitors – which utilised the PanelPilotACE as the embedded display HMI – to support treatment for COVID-19 patients.



The Right Tools for the Job

To accelerate development so rapidly, two key factors need to be addressed. Firstly, to avoid having to integrate display hardware with the rest of the product, a pre-integrated solution is needed, where the display can be installed immediately and is already integrated with all the digital and analogue I/O required.

The second factor is the need to avoid writing any bespoke code to drive the display and generate the user interface that's so critical to the success of any product. Specifying, writing and debugging code can take many weeks for even a simple interface. Interface design software is required, but of course it must be powerful enough to create the necessary data processing while also be fully compatible with the display hardware.

Ace It with PanelPilot

The PanelPilot range from Lascar Electronics is designed with one simple aim in mind: to dramatically reduce development time through the use of (free) drag-and-drop Design Studio design software which removes the need for any coding. The range consists of PanelPilotACE full-colour touch displays (available in 7" and 4.3" size versions), the lower-cost M Series and the low power e-paper B Series. Between them this range is suitable for applications ranging from hand-held displays, industrial process control, and medical or scientific equipment.

If time is even more pressing, Lascar offer a full custom design service and can rapidly develop interface solutions using the PanelPilot range, or even bespoke hardware if required.

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