



KEY TAKEAWAYS

- Creating a custom User Interface (UI) for the Smart Print Controller in SmartDFE™ is easy and fast, significantly decreasing time to market.
- The Vir Softech team took less than three weeks to develop a new UI for SmartDFE using the latest web-based technology stack.

BACKGROUND

In today's competitive environment of industrial inkjet printing, standing out from the crowd is crucial for businesses. Original Equipment Manufacturers (OEMs) demand branded products with unique features that differentiate them from their competitors. So it's not surprising that one of the most frequent questions our OEM customers ask is: how can we build a custom UI for our print controller? Eager for a challenge, Vir Softech, a dynamic team of print technology experts, embraced the opportunity to create a custom UI for SmartDFE's Smart Print Controller.

KEY FACTS

- SmartDFE™ is an AI-accelerated, inline Digital Front End (DFE) for high-speed, single-pass, roll-to-roll inkjet presses.
- SmartDFE is available as a DFE for labels and packaging inkjet presses and a software component for single-pass inkjet printing in industrial settings.
- Smart Print Controller is a fully customizable user interface (UI) and installer that can be easily enhanced with new features to provide a branded front end.

THE SOLUTION

A key feature of the SmartDFE is its integration with an OPC UA protocol: this enables OEMs to quickly bring their press to market using a standard press controller or custom Digital Front End that integrates with existing systems. Having that OPC UA support ensures compatibility with various programming languages, for example C, C++, C# (.NET), Java, Python, and Delphi, enhancing adaptability in different development environments.

While SmartDFE includes a sample UI application that drives the Smart Print Controller, in today's competitive landscape, OEMs demand their own branded UI, reflecting their own style and color scheme, and with the ability to offer unique features.

"We wanted to take the UI for the Smart Print Controller in a different direction - creating a customized application based on a more web-based technology stack, compatible with multiple devices. At the same time, we wanted to demonstrate how quickly and easily we can do this," explains managing director at Vir Softech Deepak Garg.



The Vir Softech team took less than three weeks to develop a UI for SmartDFE using the latest web-based technology stack.

“ This project shows how easy it is to adopt the technology provided by Global Graphics Software to create your own customized environment. ”

Deepak Garg, Managing Director, Vir Softech

It took the Vir Softech team less than three weeks to develop a new UI for SmartDFE using the latest web technology stack.

"From my point of view, the ease and speed with which the team at Vir Softech carried out this project is remarkable - they required very little support from me, which is a testament to their expertise and our documentation," says Sean Lange, senior project manager for Technical Services at Global Graphics Software.

THE RESULT

"The project has demonstrated how easy it is to adopt the Smart Controller UI into your own customized environment," continues Garg. "Because of our experience with these technologies and our understanding of the printing domain, it was straightforward for us. An OEM could do this work if they have technical resources they can deploy, but we claim ourselves to be experts in this field and can do this very, very fast, since we know the technology very well. We believe OEMs can accelerate their time to market and save costs by using our expertise."

Abhijeet Jain, CTO at Vir Softech explains further: "With the rise in industrial inkjet printing there are so many more use cases where you print within the manufacturing environment, but that does not necessarily mean there is software expertise in-house to develop a Digital Front End - the strengths and development skills are in other areas. This is where Vir Softech can do the implementation part."

Jain adds: “If OEMs want to reduce their time to market, the project has demonstrated how we are able to kick-start a new solution very quickly. When SmartDFE is used to add a print substation in a smart factory, where you need a custom UI that integrates with existing production systems and cloud services for monitoring purposes or submitting jobs to print, that front end application can be built very quickly; with an implementation partner like Vir Softech, any obstacles can be quickly overcome and very soon you have your customized solution.”



The team at the Vir Softech headquarters at Noida in India.

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ABOUT VIR SOFTECH

Vir Softech is an innovation-driven Technology Start-Up, with a strong focus on Imaging and Computer Vision Technology products and services. Focus domains include Print & Publishing, Education, and Process Automation in PDF workflows. Its expert engineers have worked on all major RIP technologies and hence are best positioned for integration and optimization of RIP technology in Print OEM/ODM products. Vir Softech's deep understanding of PostScript and PDF specifications and proven experience in print areas such as RIP, color management, job management & settings, printer & cutter workflows, half-toning, VDP, imposition, nesting, tiling, step & repeat, etc enables it to offer services for building PostScript/PDF workflows in a client and/or server environment. The company works with print OEMs across the world such as Japan, USA, Europe, and provides software services across production, enterprise, graphic arts, industrial and large format printing segments. www.virsoftech.com



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