

Making the ERP as Mobile as the Workforce is

Application Modernization project by fecher turns Goodhart Sons' business-critical VB6 software into a modern browser app

From dust collectors for the cement industry to heat exchangers used by power plants to chocolate tanks—the products that Goodhart Sons manufactures to order cannot be found in any catalogue. What began as a modest two-man shop in downtown Lancaster, PA in 1935, has turned into a renowned steel fabrication and installation company. Goodhart Sons' 120 employees work on projects in all parts of the United States, Canada, Europe, Mexico and South America. After a combined VB6 porting and Web Enabling project by fecher, their business-critical custom ERP software, travels with them - as a modern browser app.

“From start to finish, our whole business runs through the ERP software,” explains Goodhart’s IT Manager Justin Townsend. “Be it the bidding process, time and material, purchasing, receiving, accounts payable, accounts receivable, payroll, or employee management: everything is done in the system.” The software has been developed in Visual Basic 6 (VB6) since 1999, replacing a prior Unix solution that was not fully Y2K compliant. It took the external developer almost 10 years until the software was completed and the old system could finally be shut off in 2008.



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Microsoft dropped the next bit of support for VB6.“*

“Back in the 90s, the decision for VB6 seemed appropriate,” states Townsend. “However, with every new version of Windows, Microsoft put more emphasis on their .NET strategy and dropped the next bit of support for VB6.” Therefore, Goodhart Sons commissioned an external developer to rewrite the software in VB.NET. After struggling for 6 years, the project was eventually cancelled. “Rewriting the whole thing from scratch was just too much of an effort.” But, on the other hand, the problems with VB6 continued to interfere with Goodhart Sons’ business. When a Windows update broke their export to Excel functionality in 2017, it became clear that there was an urgent need for action.

In search of alternatives

Looking for alternative options to a software rewrite, Townsend came across fecher and their tool based VB6 Migration service. The application modernization specialists not only offered to convert

the old source code to future-proof C#.NET. Combined with fecher's Web Enabling service, the new software would also become a cutting-edge HTML5 application, running in any browser on any platform - usable even on mobile devices.

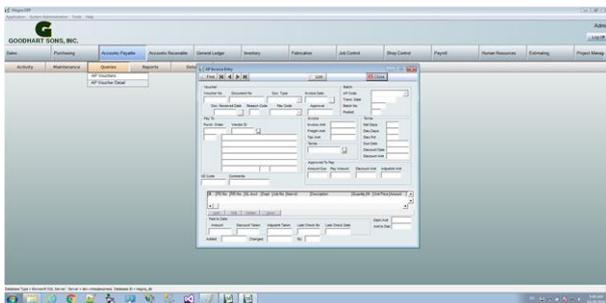
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“Honestly, I originally thought that this was too good to be true,” Townsend remembers. However, after talking to the developers, he decided to go for a proof of concept which turned out successful. fecher then offered a fixed price for the software modernization project and gave a guaranteed time frame in which everything would be done. Goodhart Sons' whole management team was immediately sold. Townsend and his team knew that they “had to do something, and with the budget for a rewrite in mind, it was clear that fecher's approach was a way better alternative.”

The defined target for the migration project was to have the ERP software available as a C#.NET browser application. “We need to be very mobile when it comes to working in the field,” Townsend elaborates on the expectations. “Support for mobile phones and tablets is definitely something that the old VB6 could never give us. And we needed the Excel export functionality back as quickly as possible.”

A bumpy start to a smooth project

The project started in spring 2018 after the source code was delivered to the fecher migration team. But it didn't take long for a number of version mismatches to occur. It turned out that part of the source code had been overwritten by the previous developer with an older release from one of his computers. This meant a bumpy start to the project, but the fecher team could recreate the correct source code later from the different versions provided.



The old screen displays could not deny their origin from the nineties

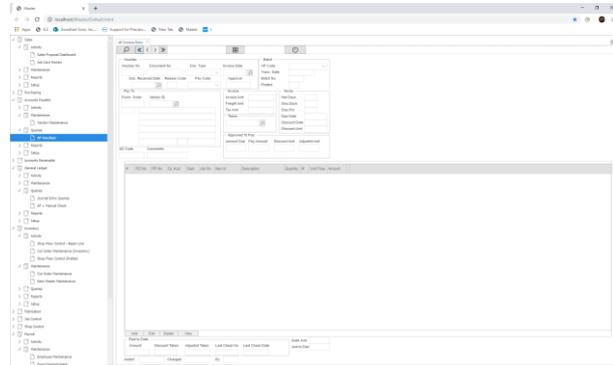
screen videos for testing. Those videos showed the fecher quality team in full detail how to use the software.

“Even after this event, we were absolutely on time and on budget, which was a pleasant surprise,” Townsend reports. During the six-month migration period, a code freeze was necessary which meant that only mission critical issues could be changed in the original VB6 code. “On the few occasions that we had, fecher implemented them right away in C# as well.” The biggest time commitment from Goodhart Sons was to produce almost 100

As Goodhart Sons' had received the ported software in September 2018, the final testing round was on them. “I think we logged roughly 100 issues”, says Townsend. “Although this might sound a lot, all were minor but one or two. From my perspective, fecher hit it very good the first time. No back-and-forth like with previous developers, fecher just fixed it.”

The new software works like a charm

After all issues had been resolved, Goodhart Sons went live with the new ERP software on January 1st, 2019. The users liked the fresh new screen design, which was quite a change compared to the 90s look and feel of the former VB6 software. At the same time, they instantly felt at home with the familiar content and functionality. Therefore, the new software could be used immediately without any training.



After modernization, the ERP software complies with all modern user interface standards

“The performance of the modernized software is actually better than before”, Townsend emphasizes. “There are only two screens for which we have to tweak some SQL queries manually and adjust what data gets loaded by default. But this is no big deal—overall, the new system performs way better than before.”

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Now that the software is modernized, the focus is on utilizing the new functionality of .NET and the Wisej web application framework to further enhance the user experience on mobile devices. “Just by moving from VB6 to web, the UI has undergone quite some remodeling. We already got something that is nice looking, slick and modern. Now, we want to do a little more of that,” as Townsend puts it. “A few more responsive design tweaks, for example to our huge main menu, and the floormen welding in the field can just use their mobile phones looking at job cost or material availability.”

With their custom ERP system on the modern .NET platform and a new browser UI that can be used across devices, all of Goodhart Sons' main challenges have been addressed. “I did not expect any major hick-ups and we did not have them. So all I can say is that this was a quite boring project,” Townsend jokes. “fecher has a well-established migration process that just worked for us!”

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