

# CIO

## APPLICATIONS

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**LOW-CODE  
NO-CODE  
PLATFORM**  
— EDITION

# FOUR JS DEVELOPMENT TOOLS

**BRYN JENKINS,**  
*COO*

SPEARHEADING A  
NEW ERA OF LOW  
CODE PLATFORMS

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# FOUR JS DEVELOPMENT TOOLS

## SPEARHEADING A NEW ERA OF LOW CODE PLATFORMS

By Joe Phillip

**T**he idea of low-code development holds immense importance in the modern business world for solving common challenges. Today, IT teams are overwhelmed with user demands revolving around fixing bugs and adding new features to software. Hiring more developers to address these needs is not a feasible option for businesses from both the cost and efficiency perspective. They have to increase the level of innovation with fewer resources.

The situation has become more complicated due to the unprecedented challenges that Covid-19 has presented. The demand for new online apps and services has skyrocketed across the public and private sectors in the last few months. Schools are launching new apps to track attendance in virtual classrooms, hospitals are adding new features to their existing applications to track Covid-19 responses, and the list goes on. In fact, reports state that consumer spending on mobile apps will reach \$171 billion by 2024 from \$85 billion in 2019. Ensuring the optimum performance of these new applications and optimizing the

user experience is the need of the hour for developers. This clearly highlights the requirement of the right low code development platform.

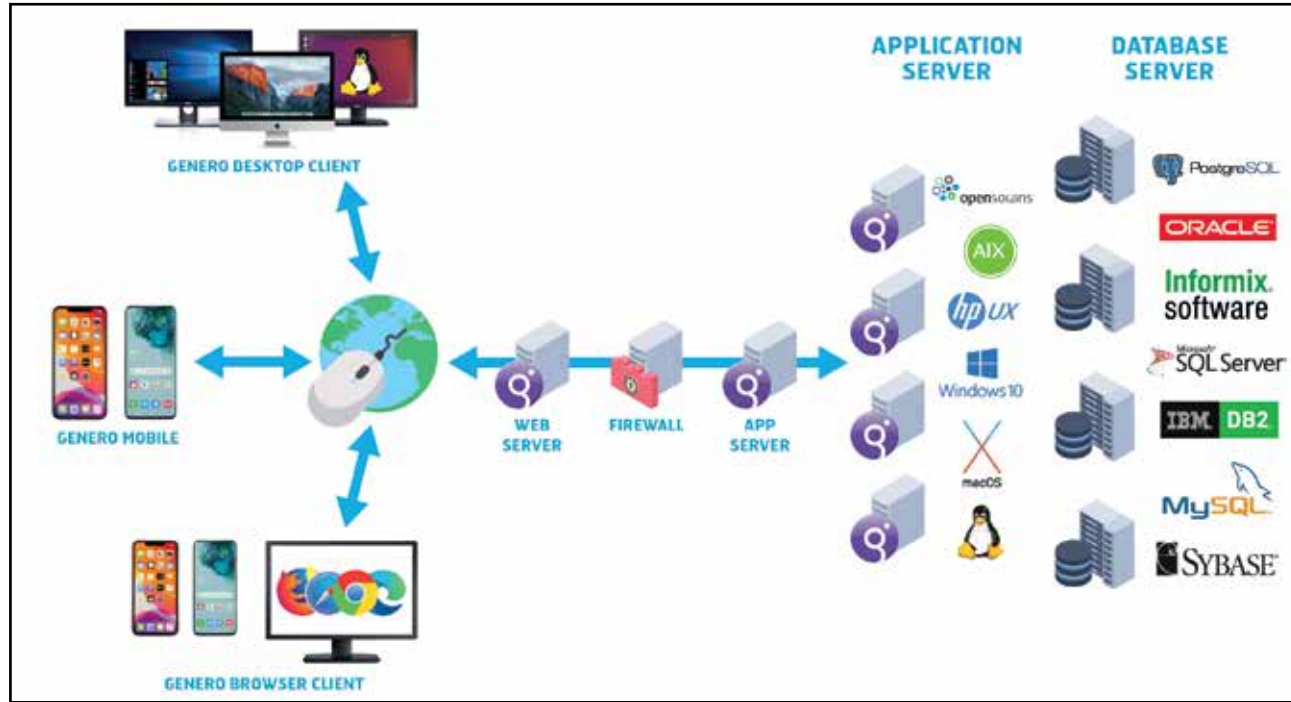
This is where Four Js Development Tools steps in.

### **Fewer Resources, Higher Productivity**

Four Js Development Tools' low code development platform, Genero, enables programmers—be they independent software vendors (ISVs) or in-house corporate development shops—to do more with less. Developers who leverage Genero have more time to innovate because they can code faster without worrying about third-party APIs, database servers, OSes, client UI technology. “By creating more business logic in fewer lines, developers incur fewer bugs, develop scalable code with greater reliability, and deploy it in a fraction of the time (in weeks or months, instead of years),” says Bryn Jenkins, COO, Four Js Development Tools. While developing an application with Genero, developers are completely independent of technology infrastructure. Genero apps can seamlessly



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 CONSTRAINTS**  
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run on Linux, Android, iOS, macOS or Windows. Meaning, they are writing abstract code—insulated by the virtual machine from native calls to the operating system, the graphical user interface, and database. SQL is also embedded in the language.

More importantly, by using Genero, businesses can adapt legacy applications to new trends, such as service-oriented architectures using web services, software-as-a-service with HTML5, and the mobile revolution with gesture-based, touch-sensitive smartphones and tablets. There is no need to rewrite. Apps have a lifetime measured in decades.

Genero is mainly targeted at enterprise-class applications such as ERPs. But other more ancillary apps used in mobile scenarios are also emerging. Most other low code tools are primarily targeted at satellite applications to ERPs.

Unlike many low-code platforms that perform best as single developer scenarios due to their lack of true team collaboration features such as industry standard version control, Genero is at home with remote team development. This ensures the faster development of more sophisticated applications. It also has strong integration capabilities with corporate IT systems via web services and access to heterogeneous databases such as Oracle, DB2, Informix, MS

SQL Server, MySQL and PostgreSQL. “Since other vendors tend to deploy to the cloud directly, it is difficult for developers to customize deployments to implement containers, high availability or disaster recovery for instance,” says Jenkins.

Furthermore, Genero incorporates a report writer, often lacking in rival low code products, capable of enterprise-class features. It comes with an intuitive user interface and aside from Genero supports other development languages, such as Java, PHP, and C#. The report writer can also use customer-defined XML schemas that provide an elegant and intuitive way of connecting reports to legacy structured data. As such, it can integrate deeply nested data structures into high-volume reports that reflect complex underlying data models of variable depth.

### Going Against the Grain

Jenkins believes that behind such success lies their philosophy of not blindly following tech trends. “When the computer software industry was

running towards OOP, we were running in the opposite direction,” he mentions. “Why would we do that? Very simply because our customers didn’t need it. OOP and relational databases are not a great fit. Ask any Java developer that has to develop with one. We only use OOP where it makes sense, for instance, in the graphical user interface. User interfaces are event driven – so it’s a good fit.”

Low code is a movement driven by developers who are really frustrated with OOP. “Many of our clients who developed applications 25 years ago are now successfully running those on iOS, Windows 10, macOS, Linux and Android. They did not have to rewrite code or reinvent the wheel to do so. With OOP, the release of a new version of an API can provoke massive rewrites. I know because that is what our customers tell us. We want our customers spending time on innovation rather than integrating the latest brainchild of some committee,” Jenkins mentions.

Four Js also holds on to its employees for a very long time and most of them have been working in the organization for over 15 years. This longevity plays a vital role in providing good service to customers who want more than just a tool. “When your employees have been working with the same customers for over 15 years, customers don’t need to constantly re-explain the history of their problems to new hires,” says Jenkins. “When the end-user is a police force, a bank or a hospital that really matters.”

### Unrivalled Expertise for Serving Clients

Having such a cutting-edge platform and experienced employee base, Four Js has served many public and private sector clients over the years. In the public sector, the pandemic has created new opportunities for the Genero low code platform. For instance, hospitals in Mexico were struggling to handle crowded lobbies, filled with relatives

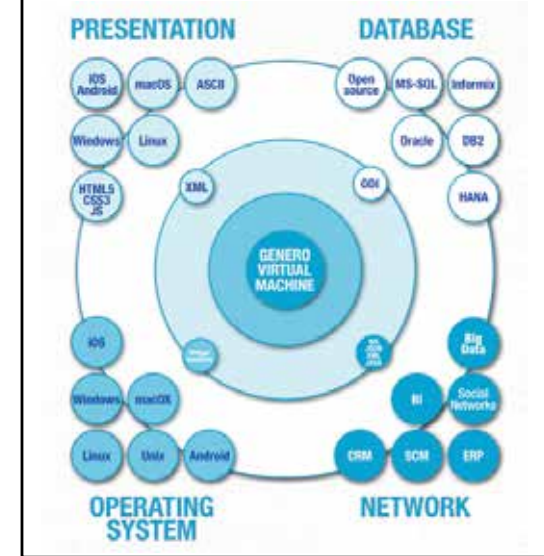
who were eager to learn about the status of their loved ones. Hospital lobbies were fast becoming a source of virus contagion. So, the IT department of a leading Mexican health institution contacted Four Js to build an application to solve this problem. While listening to the clients’ needs for a mobile self-service portal on patient status, Four Js realized that they could deliver a solution within the tight deadline that had been set by the institute’s directors. Four Js successfully delivered on the project and designed a robust application in just five days rather than several months proposed by rivals.

Four Js continues to innovate the platform and is currently pursuing two avenues. First, is to perfect its abstract user interface with a ‘Responsive Layout’ akin to those found on web sites. This will enable developers to create applications that will fit multiple device types and form factors with just one screen definition. Applications will adapt automatically without the need to code for the many different devices. So, an app’s user interface adapts from desktop to smartphone or tablet, implementing on-the-fly tactile gesture commands that provide swipe left and right capabilities when screen real estate dictates it.

Also, the company is working on Genero Online—a clientless low code application platform—to help development teams create and deploy apps from within a browser, without the need to install software locally. Apps can be deployed on-premise or to the cloud automatically. This provides a scalable infrastructure for developers that are less familiar with Internet security concerns.

“Our clients care about ‘the overall experience’, their productivity, getting the job done on time, and within budget. They realize that sometimes one tool cannot be applied to all situations. By ‘matching the tool to the problem’, in our case, enterprise-class business applications, they better serve their own and indeed their company’s needs.” Jenkins concludes. **CA**

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The annual listing of 10 companies that are at the forefront of providing Low Code No Code Platform solutions and transforming businesses