Desktop

Webtop

Mobile

SSO

HTML5

SOA

Windows

XML

iOS

macOS

WSDL

Android

Genero® Enterprise
A Low-Code Development Platform

A smarter, faster way
to build better applications.

Genero.

RESTful

SOAP

JSON

Linux

Cloud

SQLite

Oracle

Informix

DB2

MySQL

PostgreSQL

SQL Server

Genero® Enterprise
A Low-Code Development Platform

A smarter, faster way to build better applications.
A versatile application development and deployment infrastructure for mission-critical business applications

Genero® Enterprise is a unique, cross-platform, Low-Code Development Platform tailor-made for mission-critical, data-intensive business solutions. Its unparalleled versatility adapts to every IT environment with little effort. You'll develop apps faster and smarter. Faster, because you'll model two thirds without writing a single line of code. Smarter, because that code runs everywhere – without recompilation – on servers, desktops, webtops, smartphones, tablets or in the Cloud. You'll enable your enterprise to become more nimble and respond quickly to market changes. You'll improve developer productivity by an order of magnitude and complete projects on-time and within budget.

The Development Continuum

We live in a world of constant change. Who in the early nineties would have predicted the rise of the Internet? Who in the last decade could have anticipated the tidal wave of mobile applications, first for consumers and now for the enterprise? Who could have ever foreseen the COVID pandemic? It is for this reason that core information systems need to adapt and move with the times. Rewriting them is out of the question – they are too critical, too embedded and simply too big to rewrite. The apps you develop today need to evolve and stay relevant for decades to come – you hone them over time. They are never finished.

You focus on creating and adapting your business logic. Leave the infrastructure to Genero – that way your apps will always stay fresh and relevant.

Low-Code – model, build, test, run

At the heart of Genero Enterprise lies Studio and its Business Application Modeller – a Low-Code visual development framework that creates your workflow from which you generate code.

Apps are created from three basic graphical diagrams that describe: the application workflow, the database entity relationships and the user interface. Applications are generated from these diagrams using customizable code templates that can be adapted to suit your own corporate needs and standards.

Start development with the application diagram. This creates the program flow of forms and reports. Now import a database schema. Studio's schema designer will help you create one if you are starting from scratch. Click 'Run' and very quickly you have your basic application ready-to-run. Refine the look & feel with Forms Designer. Add widgets such as radio groups and 'combo' boxes. Add folders to organise displays, lookups to speed data entry, toolbars to navigate around your application.

Custom business rules can be created using Business Development Language (BDL) with Code Editor – a language sensitive editor that corrects syntax in real-time. Its simple, abstract, no-nonsense syntax reduces developer errors by a factor of five and code length by similar orders of magnitude. That makes for quicker development, fewer bugs and shorter test cycles leading to more reliable applications.

BDL code is easy-to-read and maintain. It embeds SQL for seamless integration with the industry's leading databases. It comprises abstract 'display' and 'input' verbs that are rendered natively by an XML-based Abstract User Interface (AUI). This reduces network traffic by sending incremental screen updates rather than refreshing the entire screen each time. This separation between business logic and presentation layer is a key design element that delivers the cross-platform and scalable architecture. This is how applications run on the most popular servers, workstations and mobile devices without recompilation.

Tailor-made for business and the Cloud

Genero Enterprise's server-centric, thin-client, n-tier architecture is ideal for the Cloud. Applications run securely and at grand scale – up to thousands of users. This is because all business logic executes on the server – behind the firewall so protecting it from hackers and virus intrusion.

Infrastructure that adapts to its environment

Genero Enterprise's Dynamic Virtual Machine (DVM) is the infrastructure element that executes BDL as portable bytecode on a broad range of operating systems. Compile your app once and run it everywhere – 'one binary fits all'. You'll reduce test cycles too removing the need for multiple iterations to cover every operating system platform.

Genero Enterprise supports IBM® AIX®, HP®-UX, Oracle® Solaris®, Linux®, MS® Windows and other server operating systems. Apps can be quickly adapted to run on iOS® and Android® Smartphones and tablets too, both in 'connected' and 'disconnected' mode in the event of network outages.

The user interface adapts at runtime to the end-user's display: MS Windows, Linux, macOS®, ASCII, web browsers, Smartphones and tablets running iOS, and Android. Display forms are designed once and run everywhere. Forms and dialogs are modular meaning they can be used and re-used throughout the app, so reducing their number and simplifying maintenance.

The Open Database Interface (ODI) provides seamless SQL compliant access to IBM DB2®, IBM Informix®, MS SQL Server®, Oracle MySQL®, Oracle, PostgreSQL®, SQLite and Sybase®.

Genero Mobile – extend your network to your fingertips

Genero Mobile is a Studio plug-in that enables the creation of iOS .ipa and Android .apk binary executables. Combined with SQLite for iOS and Android devices, there is no development platform more powerful nor simple to use. You'll develop cross-platform, touch-sensitive, gesture-enabled apps in an abstract manner without ever needing to learn the thousands of vendor proprietary API calls.

Genero Report Writer – business reports at a fraction of the cost

Genero Report Writer lets developers seamlessly embed enterprise-class reports into their Genero, Java®, C#, and PHP apps. It supports enterprise features found in products orders of magnitude more expensive; page and group headers, smart page-breaks, running totals, charts, images, fonts, bar-codes, vector graphics, and tables.

Stream high-volume graphic reports merged from multiple data sources comprising complex, nested data structures. No matter how long your report is – just a few pages or thousands – Genero Report Writer streams output with the first page emerging in just seconds.

Reports may be streamed to a multitude of clients including HTML, PDF®, SVG, MS Excel®, MS Word® and high-speed printer devices. Streaming eliminates the need to create voluminous temporary files that consume precious system resources and impair performance. Genero Report Writer streams data in XML format, minimizing memory usage which delivers fast 'first page' printing.

Increase report production significantly by empowering end-users to tailor their own dynamic reports from existing templates and free scarce developer resources for more value-added feature development. Genero Report Designer separates the task of designing superb graphical layouts from the process of data selection. This enables separate teams to work in parallel, which eases the development and ongoing maintenance of large report libraries.

Build robust, scalable Service Oriented Architectures

Service Oriented Architectures (SOA) are the future for any company that needs to move quickly with the times. Genero Web Services hides complexity and enables the development of SOA business services in double-quick time. Developers work seamlessly from within BDL to create RESTful applications without having to learn SOAP, http(s) and other complex protocols.

With Genero, developers generate and publish business services quickly and easily. In addition, the Genero Web Services Extension can import WSDL from existing Web services and use it to automatically generate BDL code stubs as well as create WSDL files from BDL code.

Read more:
Web site: www.4js.com
Support business hours: www.4js.com/en/support/contact/business-hours
Online training videos: www.4js.com/en/training/videos

Highlights:

GENERO ENTERPRISE:
Genero Dynamic Virtual Machine
Genero Web Services
Genero Studio
Genero Mobile
Genero Report Writer

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CLOUD READY, SCALABLE & SECURE PERFORMANCE:
A secure, thin client, n-tier architecture is perfectly adapted to Cloud deployments. Network traffic is optimized for Internet scalability by rendering raw incremental data via native GUIs. User access to applications may be governed using SSO, SAML and OPEN ID APIs.

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CONNECTED OR DISCONNECTED MOBILE APPS:
An embedded version of Genero combined with SQLite creates the ideal environment for rapid development of mobile business applications on iOS and Android Smartphones and tablets.

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GUI INDEPENDENT BUSINESS LOGIC:
An XML-based Abstract User Interface ensures that the GUI development is separate from the business logic and the environment in which it is deployed. A single source code stream supports Windows, iMAC, Linux, HTML5 browsers and VT220 compatible ASCII user agents all at the same time.

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DATABASE INDEPENDENT BUSINESS LOGIC:
Using native drivers, Open Database Interface provides support for simultaneous access to multiple databases including: IBM, DB2, IBM Informix, Oracle, MS SQL Server, Sybase, MySQL, PostgreSQL and others.

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OS INDEPENDENT BUSINESS LOGIC:
Write once, deploy anywhere. One compilation supports HP/UX, IBM AIX, MS Windows, Oracle Solaris, macOS and all major versions of Linux.
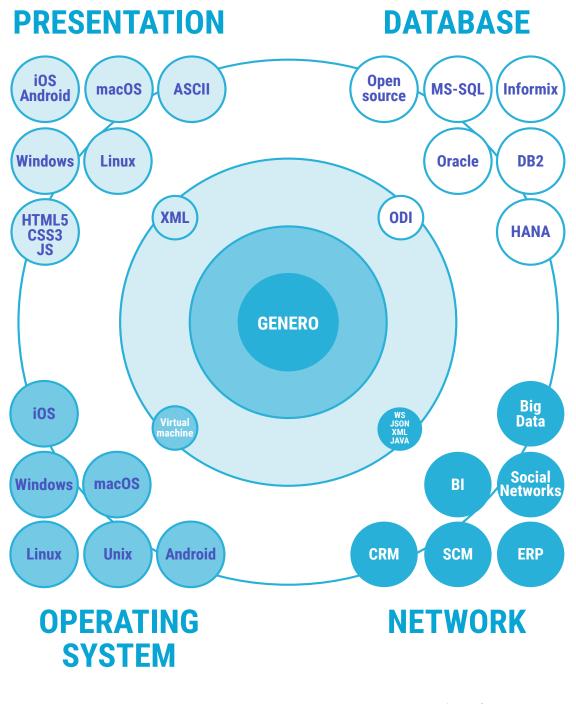
•   •   •   •   •

SOA VIA SEAMLESS WEB SERVICES:
Web Services complexity is hidden from the developer with tools that generate WSDLs from code or code from WSDLs.

Time you focused on Low-Code

With Genero® Enterprise, you get everything you need to deliver unparalleled developer productivity, platform flexibility and application deployment reliability and performance in one package – just what you need to put your focus where it belongs.

PRESENTATION

- iOS Android
- macOS
- ASCII
- Windows
- Linux
- HTML5 CSS3 JS
- XML

DATABASE

- Open source
- MS-SQL
- Informix
- Oracle
- DB2
- ODI
- HANA

GENERO

Virtual machine

WS JSON XML JAVA

OPERATING SYSTEM

- iOS
- Windows
- macOS
- Linux
- Unix
- Android

NETWORK

- Big Data
- BI
- Social Networks
- CRM
- SCM
- ERP

ODI = Open Database Interface
SCM = Supply Chain Management
SFA = Sales Force Automation
CRM = Customer Relationship Management
ERP = Enterprise Resource Planning

To learn more contact Four Js online at: **www.4js.com.**

FOUR Js
The Power of Simplicity