

Desktop

Webtop

Mobile

SSO

HTML5

SOA

Windows

XML

iOS

OSX

WSDL

Android

Genero[®] Enterprise

A **smarter, faster** way
to build better applications.



Linux

SOAP

JSON

Unix

Cloud

SQLite

Oracle

Informix

DB2

MySQL

PostgreSQL

SQL Server



Genero® Enterprise

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, rapid application development framework tailor-made for mission-critical, data-intensive business solutions. Its unparalleled versatility adapts to every IT environment with little to no 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 at the same time and be confident about completing projects on-time and within budget.

The Development Continuum

We live in a world of constant change. Who would have predicted the rise of the Internet? Who could have anticipated the tidal wave of mobile applications, first for the consumer and now for the enterprise? It's 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. That means the apps you develop today need to evolve and stay relevant for decades to come – they are never finished.

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

Tailor-made for business and the Cloud

At the heart of Genero Enterprise lies Studio and its Business Development Language (BDL) compiler purpose-built for transaction-oriented applications. Its simple, no nonsense syntax reduces developer errors by a factor of five and code length by similar orders of magnitude. That makes for quicker development with fewer bugs and shorter test cycles leading to more reliable applications.

BDL code is easy-to-read and maintain. It includes SQL for seamless access to the industry's leading databases. It comprises abstract display and input verbs that are rendered natively by an XML-based Abstract User Interface (AUI). The AUI reduces network traffic by exchanging only the screen updates entered by the user. This level of separation between business logic and presentation layer is a key design element in the cross-platform architecture. This is how applications run on the most popular servers, workstations and mobile devices without recompilation.

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 concurrent 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, 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 terminal: MS Windows, Linux, Mac® OSX®, 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®, MySQL®, Oracle®, PostgreSQL®, SQLite and Sybase®.

Genero Mobile – apps all the way to the network's edge

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 touch-sensitive, gesture-enabled apps without ever needing to learn the thousands of vendor proprietary API calls.

Genero Studio – enterprise applications in a fraction of the time

Genero Studio – a visual programming development framework that models apps from three basic diagrams that describe: the application workflow, database relationships and the user interface. The application is generated from these diagrams using customizable code templates that can be adapted to suit your own corporate needs and standards. Custom business rules can be inserted using Code Editor – a language sensitive editor that corrects syntax in real-time.

Model, build, test, run

Apps are developed using Genero Studio's Business Application Modeller – a graphical tool that creates your workflow from which you generate code. Templates are provided with the most commonly used patterns that you customize to fit your needs.

Start development with the Application Diagram. This creates the program flow of the forms and reports. Now import a database schema. Studio's schema designer will help you create one if need be. Click on 'Generate' and very quickly you have your basic application ready-to-run. Refine the look & feel with the forms designer. Add widgets such as radio groups, comboboxes. Add lookups. Add toolbars. Add graphics...

Custom business rules are added with Code Editor and sit within protected 'code tags'. These tags remain untouched when you eventually revamp your app.

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

Genero Report Writer lets developers seamlessly embed enterprise-class reports into their Java®, C#, PHP and Cobol 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 (SOAs)

Service Oriented Architectures are the future for any company that needs to move quickly with the times. The Genero Web Services Extension hides complexity and enables the development of Service Oriented Architecture business services in double-quick time. Developers work seamlessly from within BDL 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

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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 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 distinct 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, and all major versions of Linux.

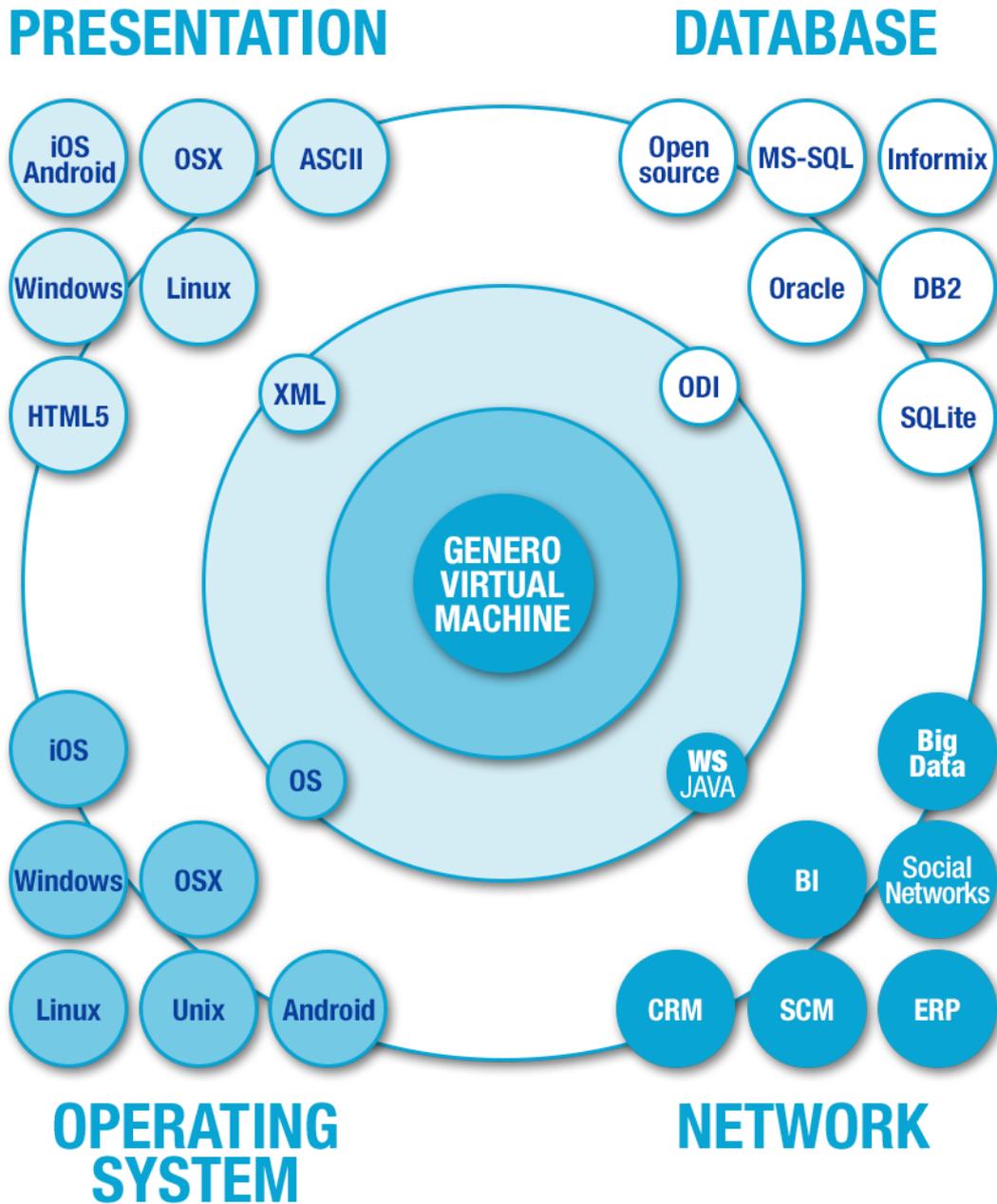
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SOA VIA SEAMLESS WEB SERVICES:

Web Services complexity is hidden from the developer with tools that generate WSDLs from code or code from WSDLs.

Time you focused on your business logic

With Genero® Enterprise, you'll get a solution that delivers unparalleled developer productivity, platform flexibility and application deployment reliability and performance—just what you need to put your focus where it belongs.



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 J's online at: www.4js.com.



FOUR Js
The Power of Simplicity