

Sage ERP X3 Architecture and Technology

Overview

Sage ERP X3 is built on the Sage Application Framework for the Enterprise platform (SAFE X3). This SOA/WOA platform provides users with best-in-class collaboration capabilities in either client/server or Web mode, as well as an integrated business intelligence engine and data warehouse by Business Objects™, a flexible second generation workflow engine. It includes a 4GL development environment for enterprise-specific or vertical applications by VARS. A flexible, highly scalable platform, it easily adapts to your current environment while preserving your ability to grow and meet new challenges over time.

A Robust Multitier Architecture Design

The Sage ERP X3 architecture is organised in layers so that data management, process execution, and information display are handled independently. This multitier architecture ensures highly reliable system operations in all circumstances.

Also, metadata are managed with a clear differentiation of the standard, industry-specific, and custom layers. It guarantees the ability to customise the system and develop enterprise-specific routines while keeping the standard version upgrades safe and easy.

The Best Performance, from 10 to 1,500 Users

Sage ERP X3 can manage data processing across multiple servers. The system automatically spreads the load across one or more servers as needed to always ensure the best performance, whatever the number of users. The system benchmarks from 10 to 1,500 concurrent users without a significant drop in performance, providing your business with extreme scalability. A true web-native system, Sage ERP X3 is designed with particular attention to make possible a transactional utilisation through both a Windows desktop client and a Web browser, while sharing common ergonomics for users. As a result, the system provides comparable processing speed through a Web, MetaFrame (Citrix) or TSE (Windows) network environment. The system also enables deferred processing, which helps increase performance by deferring posting and other offline processes until users require less of your computing capabilities.

Integrated design

Process Integration

- Process Integration
- A common reference system for the whole company
- Streamlined management flows

Data Integration

- Increased business insight
- Real-time management

Technology Integration

- Fast deployment and learning curve
- Low administration and maintenance costs
- High interoperability



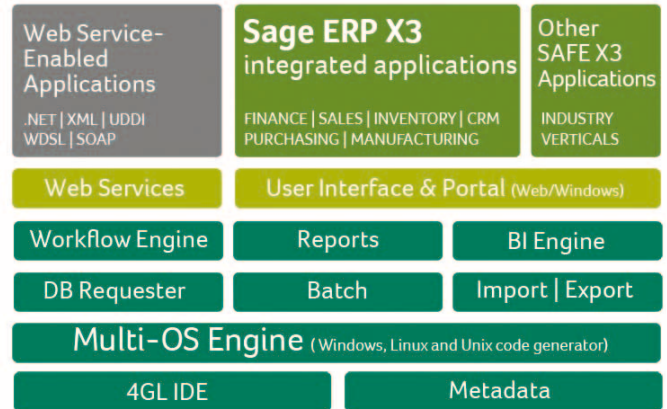
A Free Choice of Deployment Options

At the heart of the Sage ERP X3 design is an open architecture that provides your company with a free choice of operating systems, databases, network environment, and deployment options. Also, a clear distinction between the technology and functional layers gives you the ability to switch from one platform to another without impacting the functional set and user environment. The system runs equally well on Microsoft® SQL Server®, Unix AIX, or Linux Red Hat, with either Oracle or Microsoft SQL databases. It can be deployed as a Web application, a desktop application, or both (dual mode).



A Highly Interoperable Web-Oriented Architecture

The Service-Oriented Architecture (SOA) of Sage ERP X3 makes all management functionality available as interoperable services, which can be easily invoked by external applications. Also, Sage ERP X3 provides functionality as Web Services, which extend interoperability over the Internet with Web-based applications using popular languages such as .NET or Java. Sage ERP X3 supports XML, UDDI, WDSL, SOAP, and .NET standards as part of the underlying SAFE X3 platform. An external server can be dedicated to Web Services and tied into the Sage ERP X3 system. Not only does this Service/Web-Oriented Architecture greatly simplify the system integration with the increasingly complex information environment companies are coping with today, it also enables you to expand control over your business beyond the company walls and involve partners as part of your operations.



Ready for Global Business

Based on the SAFE X3 global application platform, Sage ERP X3 is designed to handle international and/or multicountry operations with ease. The system can be deployed in multiple companies, sites, or warehouses internationally, while sharing common functionality, processes, and data. Its Unicode development enables the system to run in multiple languages, simultaneously. Naturally, Sage ERP X3 can manage multiple currencies, business rules, and legislations as part of the core platform capability.

Powerful System Customisation and Management Tools

Sage ERP X3 provides all the tools you need to manage the system effectively from one singular administration console, avoiding complex integration issues. Advanced administration tools are included here within one coherent environment:

Workflow Engine

The workflow engine enables control of information flow and processing using the standard templates provided with the system or through advanced parameterization to better fit enterprise-specific procedures. Triggering events may include any user action such as printing, creating new records, deleting data, or can be based on the result of a database inquiry. When a condition is met, the workflow engine can initiate processing, trigger the dispatch of e-mail messages or warnings, allowing users to take action by simple response, and provide users with work schedules based on a given process or workflow circuit. Also, the workflow engine can trigger circuits based on batch processes such as data import or exports.

Security and System Administration

Security is controlled and managed at the system level for all users. You can easily decide who can access what information at the function, screen, and/or field level. Aggregated data handled by the embedded Business Intelligence engine as well as external reporting tools inherit from all the security rules that have been defined for the system.

Also, whether users are accessing the system locally or remotely through the Internet, Sage ERP X3 manages standard security network protocol to provide users with a safe connection to the system.

For system administration, Sage ERP X3 provides a comprehensive set of tools enabling administrators to manage general parameters (per company, site, user groups, and user), deploy new functions or updates, manage the database properties, import/export data, and control batch processes.

Also, administrators can customise the online help to provide users with further instructions about standard or custom procedures.

Development Tools

Sage ERP X3 includes a 4GL Integrated Development Environment (IDE) that enables companies to tailor the system to meet individual needs, without jeopardising the system's ability to evolve. Custom developments are signed with an "Activity Code" that can be activated/deactivated at will, ensuring the protection of enterprise-specific customisations from standard updates or upgrades of the system. Also, the 4GL code is independent from both the execution environment (Windows, Linux, Unix) and the user interface (Windows client, Web browser, portable terminals, and others). So one version of your code may apply to any environment without rewriting.

This powerful object-oriented development environment provides programming abstraction suitable for business while emphasising development of business processes. The development dictionary (metadata) includes database descriptions (tables, views, indexes, traceability rules, data models), business intelligence descriptions (datamart, universes, ETL procedures), objects, functions, report templates, and user interface descriptions (generating XML description independent from GUI), as well as actions and procedures descriptions used to generate Web services.

To further accelerate your development, the 4GL IDE provides template elements that may be used to create new custom elements. Also, standard components of the system are reusable and modifiable.

Once prepared, subprograms can be published as Web Services and made available to third parties seeking connectivity. Also, Sage ERP X3 processes can integrate data from external Web Services and use them in subsequent steps. Interoperability is also ensured through OCX, system commands, and extensible Java server (OSGI plug-ins).

Sound Ergonomics

Regardless of the interface selected—the Windows user interface or Web browser version—Sage ERP X3 promotes rapid learning and ensures intuitive navigation for both new and experienced users. All functions have a common look and feel to ensure continuity for users who work with different functions.

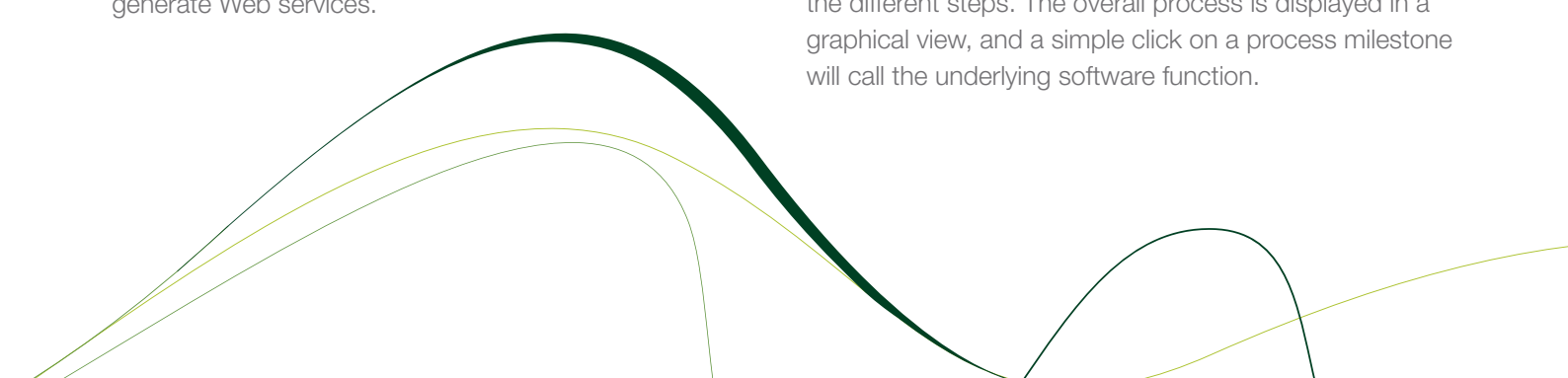
Special features include a Sage ERP X3 Explorer-style window on the left of the screen for displaying lists of products, business partners, and documents; multiple tabs within each function to segregate different types of information such as headers and lines; "tunneling" at prompts to zoom in on more detailed information; and direct access to function and field-level help in HTML format. Any Microsoft Office® document can be attached to an object—and stored in the system database—enabling users to access images and videos and manipulate data in spreadsheets or text documents within the Sage ERP X3 application environment.

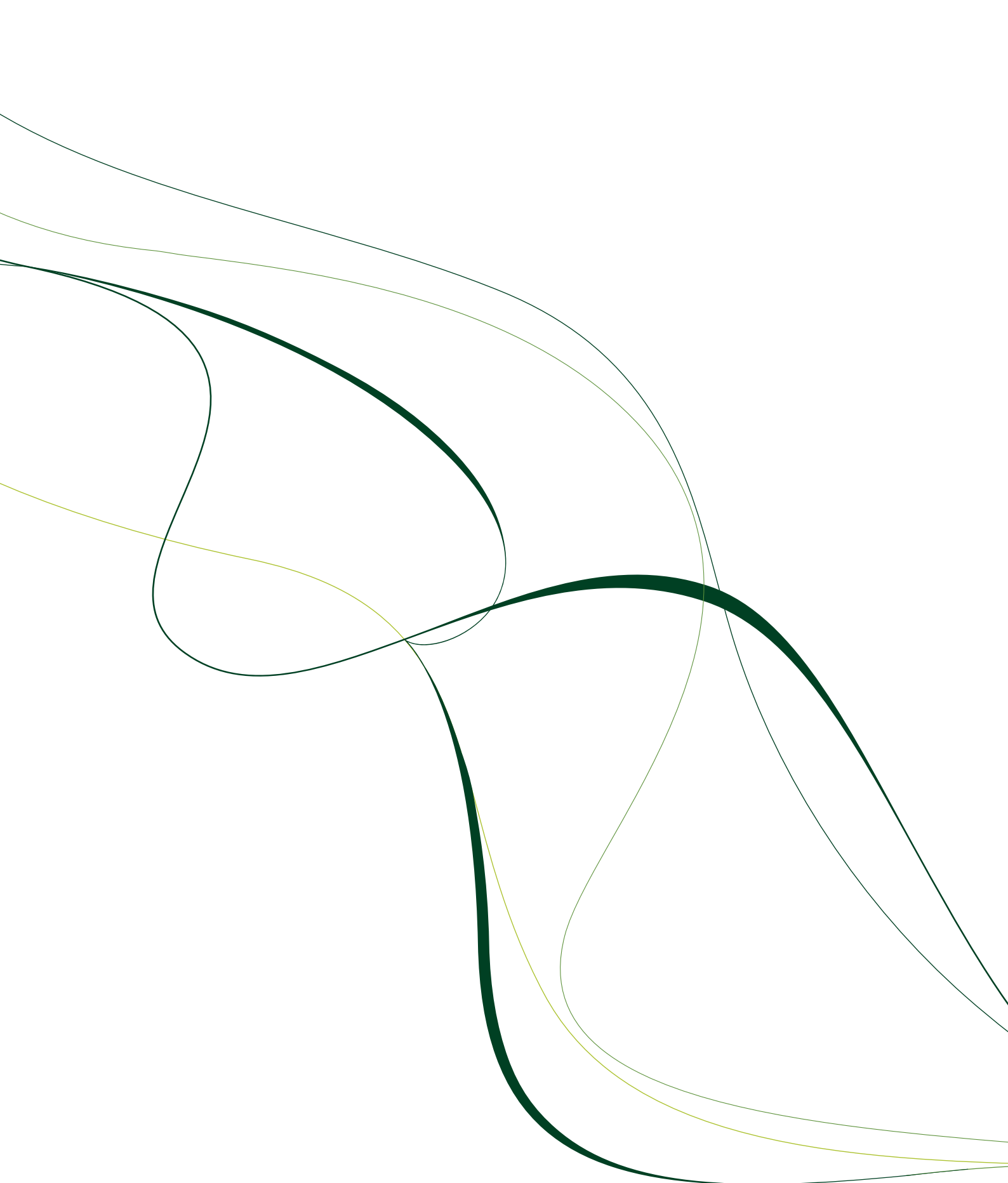
A Collaborative Webtop

Sage ERP X3 also provides users with a user-defined portal, allowing them to monitor their activity at a glance as well as to interact with third-party applications online. Portals may include a mashup of Sage ERP X3 functions, key performance indicators, CRM agenda, third-party RSS flows, and widgets.

Sage Visual Processes™

While traditional user interfaces are often hiding complexity through never-ending drop-down menus and convoluted access to subfunctions, Sage ERP X3 Visual Processes provide users with a graphical, job-oriented user interface that gives each user a clear view of the task they need to accomplish and drive them through the different steps. The overall process is displayed in a graphical view, and a simple click on a process milestone will call the underlying software function.





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