

OpenEdge™ Reference Architecture

The OpenEdge™ Reference Architecture is a blueprint for designing applications that can evolve as your business needs change and technical innovations emerge.

HIGHLIGHTS

The OERA is a roadmap for the most effective and efficient use of current and emerging technologies.

FEATURES AT A GLANCE

- Building block approach
- Focus on business needs
- Make interoperability easier
- Develop collaborative applications

A good business application is a well planned balance of functionality, usability, and information storage. But a great business application builds those features on top of a great architecture. Solid software architectures are the basis that helps to ensure scalability, reliability, security and flexibility. Poorly architected software is good for a few years; well architected software is good for a lifetime.

The OpenEdge™ Reference Architecture (OERA) is a great starting point for anyone wishing to construct the best business applications using the OpenEdge™ platform. Based on the principles of Service Oriented Architectures (SOA) and Service Oriented Business Applications (SOBA), the OERA provides a blueprint of best practices designed specifically

to ensure maximum flexibility and productivity while ensuring a greater ability to accommodate the enhancements in technology and changing business requirements that will be surely coming in the future.

While the standards-based OpenEdge platform is flexible enough to accommodate any design methodology, the OpenEdge Reference Architecture provides a sound roadmap for the most effective and efficient use of these technologies. The aim of the OERA is to describe a generalized design that is independent of any implementation details. It maps out a building block approach for describing various high level software architecture elements that vary in scope and by subject matter.

The diagram below graphically depicts the OERA building block approach:

OERA Approach



Process oriented architectures are all about focusing on your business first. These approaches break the application up into small segments defined by the business processes that the application provides. This process-based approach is designed to make interoperability easier. Each process exists separate from all others, but each can also call on any other process to help perform a task or present a set of information. This is where the concept of “business services” comes from in the application world – a process that exists as a service for any other process. Think of it in this way:

For years now, people have been talking about separating business logic from the user interface. But the components were separated in only a single dimension – between process and screen. With Service Oriented Architecture (SOA), we need to also split the application into pieces by functionality. There should be a single, standalone component, for example, that checks for customer credit. It may be used in dozens of places, but it is only designed and developed once. And yes, this is like object orientation – but at the business component level. It has nothing to do with technology or programming widgets.

Service Oriented Architecture (SOA) is built on two basic premises:

- 1) The concept that applications should consist of components built to and supporting standards that allow sharing between components and applications.
- 2) The business processes are at the heart of the application and provide the basis for the application. Processes are organized into services that can be used both within and between applications.

There are four parts to a SOA:

- 1) Business process components that contain the intelligence of the application.
- 2) User interface methods that provide human input and output sources for the business processes.
- 3) Integration methods and platforms that provide non-human input and output sources for the business processes.
- 4) An agreed upon set of standards and contracts that describe all of the interface methods between the components.

To move to collaborative applications, you have to start at the architecture level. Monoliths don't collaborate. Even when they exchange, they don't collaborate. While previous architec-

tural transformations were primarily system-driven, this change will be business-driven. By positioning the business processes as the primary architectural force, you can start thinking about applications differently and you can implement an architecture that supports your central role.

Your business gets a return on its investment value when the solution gives both;

- 1) Reuse – the ability to harvest a component for multiple purposes
- 2) Efficiency – the performance, economy and flexibility of the system

The OpenEdge Reference Architecture is a core component of the information and educational resources that Progress provides to empower its partners. As part of a whole approach to delivering product, partners have access to the knowledge and support you need to maximize the technology investment you have made. Education services, Consulting offerings, Customer Support services, conferences, seminars, and the Progress Software Developers Network™ (PSDN) are resources that are available to you when applying the concepts of the OpenEdge Reference Architecture to existing or new applications.

Corporate Headquarters

Progress Software Corporation, 14 Oak Park, Bedford, MA 01730 USA Tel: 781 280 4000 Fax: 781 280 4095

Europe/Middle East/Africa Headquarters

Progress Software Europe B.V. Schorpioenstraat 67 3067 GG Rotterdam, The Netherlands Tel: 31 10 286 5700 Fax: 31 10 286 5777

Latin American Headquarters

Progress Software Corporation, 2255 Glades Road, One Boca Place, Suite 300 E, Boca Raton, FL 33431 USA Tel: 561 998 2244 Fax: 561 998 1573

Asia/Pacific Headquarters

Progress Software Pty. Ltd., 1911 Malvern Road, Malvern East, 3145, Australia Tel: +61 39 805 8500 Fax: +61 39 885 9473

Progress is a registered trademark of Progress Software Corporation. All other trademarks, marked and not marked, are the property of their respective owners.

**PROGRESS
SOFTWARE**

www.progress.com

Specifications subject to change without notice.
© 2005 Progress Software Corporation.
All rights reserved.