Progress® OpenEdge®

Scale to
New Heights

OpenEdge 12.2

Introduction

Enterprises across the globe are operating on business-critical applications developed years ago—many of which are built on Progress® OpenEdge®. Considering the reliability and stability of the OpenEdge platform, these business owners may be hesitant to invest in the modernization of those applications.

The original architects, however, never could have imagined the technologies or user demands of today. Nor could they have truly foreseen the technologies, business requirements and user-demands of the future. As these requirements evolve and change, so too should the applications that support them.

> **"By 2023, 90% of current applications will still be in use, but most will have received insufficient modernization investment."**
>
> 2018 Strategic Roadmap for Application Strategy, Gartner
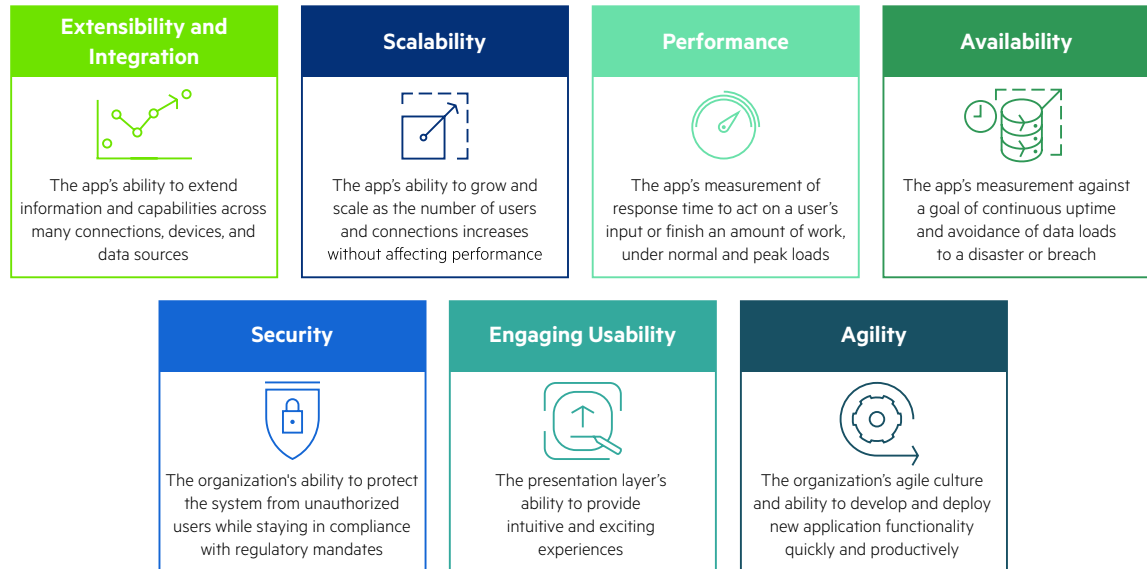> June 15, 2018

Modernizing Your Application

Evolving your application can be complex. You need to continuously provide value to the business, leverage your investment in the core logic and pave the way for future innovation. Yet this evolution is also a necessary undertaking to continue to thrive in today's ever-evolving business environment.

Application users are becoming savvier and expect improved functionality, while the methods of accessing various enterprise systems are changing and the number of target platforms as well as connections to the data continue to increase. As a result,

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developers are struggling to continuously deliver application functionality that will help their organizations keep pace.

It is imperative that your mission-critical application provide the following in order to address today's business demands.

Extensibility and Integration

The app's ability to extend information and capabilities across many connections, devices, and data sources

Scalability

The app's ability to grow and scale as the number of users and connections increases without affecting performance

Performance

The app's measurement of response time to act on a user's input or finish an amount of work, under normal and peak loads

Availability

The app's measurement against a goal of continuous uptime and avoidance of data loads to a disaster or breach

Security

The organization's ability to protect the system from unauthorized users while staying in compliance with regulatory mandates

Engaging Usability

The presentation layer's ability to provide intuitive and exciting experiences

Agility

The organization's agile culture and ability to develop and deploy new application functionality quickly and productively

By embarking on a journey of continuous application evolution, enterprises can position themselves to be more agile while continuing to drive value to the business. As you look to be more proactive in your application evolution strategy, the first step you should take is updating to the latest version of OpenEdge.

What's New in OpenEdge 12.2

The OpenEdge 12 release series provides the technical foundation to facilitate your application evolution effort. Our OpenEdge 12.2 release allows your development team to be highly productive as they build and deploy applications. With a focus on continuous operations, OpenEdge Replication enhancements allow you to support business continuity and service level requirements. While also giving you the ability to minimize downtime through improved monitoring performance and availability
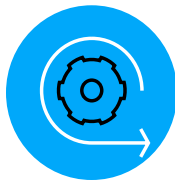
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DevOps tooling. Plus, you'll gain new levels of DevOps and deployment agility and minimize risk with new security capabilities. Here is just a snapshot of the benefits you'll receive when you migrate to OpenEdge 12.2.

Continuous Operations

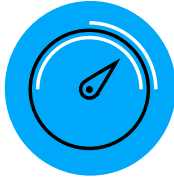| OpenEdge Replication Keeps You Up and Running	OpenEdge 12.2
Reduce disaster recovery downtime	Keep your database up and running when needing to modify startup parameters. The source and target databases remain running throughout the failover transition process for quicker completion, reducing downtime.
Set manual transitions to minimize downtime	Manually transition into a new source and a new target to ensure replication continues when the source database is lost.
Ensure recovery within seconds through auto recovery	Automatically transition into a new source (and a new target) to keep replication going. Automatic database recovery transition kicks in within 10 seconds when the source database is lost.
Change database connection parameters online	Maintain high availability when the OpenEdge database becomes unavailable by specifying an alternate database connection.
Online Database Configuration	**OpenEdge 12.2**
Tune the network message buffer size	Increase or decrease the network buffer size for new database connections while the database is online in order to tune client/server performance.
Online schema changes: Rename field	Change the name of a database table field while maintaining continuous operations for the database and the application that depends on it.
Change-maxAreas	Specify the highest area number available for use without having to restart the database.
Archive After Imaging Data	Minimize fear of losing AI data, if directories become full, with the ability to archive data to a different directory while the database is running.
Increase database user limit without restart	Increase the number of users able to connect to the database without needing to restart the database to support a growing customer base in a highly-available environment.

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dbusernotify architecture change completion and default enablement	Receive timely notifications pushed from the server to the clients in a remote server/client model. Supports pulling from old clients as well as for compatibility (12.2 clients continue to pull from the 12.1 server). Eliminate the need to reconnect for notifications by setting time value defaults.
Decrease ABL session failures with agent self-management	PASOE proactively tests database connections and if a failure occurs, the agent reduces its Max ABL Sessions count and informs the PASOE broker to eliminate the sending of more concurrent requests to the database.

Developer Productivity

OpenEdge 12.2	
Modernize your build and package framework	Spend less time on processes, tools and CI/CD tasks, and more time delivering valuable features to customers using Gradle, the de facto build automation standard. Key PCT ANT tasks have been converted to Gradle and integrated with the Progress Developer Studio for OpenEdge (PDSOE), including: PCTCompile, PCTLoadData, CreateDatabase, CreateProcedureLibrary, DBConnection and LoadSchema.
Integrate custom C code modules with PASOE through Host Language Calls	Make use of Host Language Call (HLC) in your application by calling C functions from the ABL via PASOE, while avoiding security vulnerabilities and threading issues of the current HLC implementation.
Create and deploy new deployment packages for PASOE	Create and deploy a new deployment package into a PASOE instance, for production or staging environments, using the standard command-line scripts.
Minimize errors by preventing Methods/Functions with no RETURN	With this feature methods/functions without a RETURN will be indicated during compile time, finding errors before testing and production.

Gradle build instructions are platform independent and built with empowerment and re-usability in mind. It supports complex rules and logic (essential for CI/CD pipeline), the ability to scale out development with elegant blazing-fast builds, smart compile avoidance, advanced caching, dependency management and incremental builds.

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Performance and Scale

OpenEdge 12.2	
Enhancements in Pro2 6.1: Enterprise View and Job Scheduler	Manage multiple Pro2 instances in one UI. Allow start/stop capability for any thread type directly from the web interface with the enhanced jobrunner process. No longer do you need to "enable" a thread and manually run a batch file/ shell script to start the process.
SSJ for non-forward-only dynamic queries with NO-LOCK	Improve the performance and security of OpenEdge applications by enhancing the record retrieval join logic of the ABL Virtual Machine (AVM). This enhancement minimizes the risk of data exposure and improves performance by reducing the amount of data transferred across the network and reducing computational cost on your local machine.

Security

OpenEdge 12.2	
Upgraded to the latest OpenSSL Library	Benefit from the latest transport layer protection and encryption cyphers
Initialize database user ID prior to accessing tenant data with a safe user ID	Protects integrity in a multi-tenant database by resetting the database connection user to a safe default user with no access permissions.
Strengthen Transparent Database Encryption (TDE) keystore cryptography	Gain improved data protection for your TDE database through strengthened keystore protection.

Progress is dedicated to providing the latest security to ensure your OpenEdge applications are safeguarded. Review our OpenEdge Security Guidelines: progress.com/support/openedge-security-guidelines

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Move at Your Own Pace: Introducing the First OpenEdge Long-Term Support (LTS) Release

With OpenEdge 12.2 comes the introduction to a new product lifecycle for a long-term support (LTS) release that enables customers to realize the benefits of OpenEdge while continuing to receive technical support for several years. This gives customers greater operational stability and longevity on a release while allowing informed, confident decisions to modernize at your own pace.

Customers also have the option of using non-long-term support releases that appeal to customers with highly competitive application development and delivery strategies. They enable accelerated access to new features and functionality. Customers can migrate from one non-long-term support release to another non-long-term support release more frequently than they would from a long-term support release to another. This ability to consume versions more quickly gives customers enhanced freedom to add new features and functionality to their OpenEdge applications.

Drive Product Direction

Your feedback and collaboration is key to our delivering essential iterative improvements and delivering technology that drives your success. Here are two new ways for you to influence OpenEdge product direction:

Submitting New Ideas

Sharing your enhancement requests through our new portal is easy and collaborative! You can enter, comment and vote on ideas as in the past, now with much-improved searching and filtering capabilities. In addition, as ideas are actioned by the OpenEdge team, idea creators and subscribers receive automatic emails on significant status changes and comments. You can access the new portal at www.openedge.ideas.aha.io, and we look forward to your continued idea collaboration!

Customer Validation Program (CVP)

Designed to provide you with direct insight into features that are currently under development. When you become a member, you will have the opportunity to

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influence the OpenEdge roadmap so we can produce capabilities that meet your most pressing business needs. You will also have access to demos and test builds, allowing you to preview pre-release software and provide feedback before the release becomes commercially available, along with product webinars, sprint reviews, roadmap surveys, pre-release software and more. It's easy to join, and you will have direct communication with and influence over the OpenEdge product team while gaining insight into what your peers are requesting as well.

Join Our Community

Remember to join us in the Progress Community to submit ideas, learn, and collaborate with other Customers, Partners, and Progress employees. Feel free to ask and answer questions as well as browse Knowledge Base, download product, and even post jobs for roles your company is looking for! We even have a Gamification Platform, where you'll be given the opportunity to accept missions, snag some badges, earn some points, climb our leaderboard, and level-up!

Join here:
community.progress.com/s/

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Loxam Powered Access Division (PAD)

Loxam Modernizes OpenEdge-Based ERP to Provide a Better User Experience

Loxam Powered Access Division's complex in-house ERP was a very sophisticated and comprehensive application. However, given the always-on nature of today's businesses, the ERP needed to be modernized to support real-time, 24x7x365 access to critical systems. This would improve the accessibility of the ERP system, both in-house and in the field, and streamline operations. Loxam PAD's ERP is a traditional client server-based application with 2.2 million lines of code. Despite this level of complexity, the company was able to upgrade the database from OpenEdge 11.7 to OpenEdge 12 and recompile the entire application with only one change to one procedure.

We were looking for performance improvements and high availability. Our users are all connected real-time on line and giving the best performance is critical in order to deliver business benefit."

Philip Leslie,
Group IT Development Director, Loxam

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Constellation Financing Systems

Constellation Financing Systems Evolves Their Business with OpenEdge

A Progress customer for 30+ years, Constellation Financing Systems wanted to meet the needs of its clients by evolving its ASSET financial management solution from a client-server application to a web-based app to improve performance and security.

Constellation modernized from OpenEdge 11.7 to 12.1, leveraging Progress Application Server for OpenEdge (PASOE) to give them the ability to truly scale. Significant database enhancements helped them to achieve 3x faster data throughput performance.

"With OpenEdge 12.1, we're particularly excited about its performance and ability to truly scale. We're glad to have it in our production environment, especially for our larger customers."

Ken Walsh,
Product Manager, Constellation Financing Systems

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The Application Evolution Approach

With Progress as your partner, there is no need to delay the Application Evolution process any longer. You are in an ideal position to seize the new opportunities that will present themselves with a move to a lighter and more fluid cloud architecture that increases collaboration and communication within the organization as well as with business partners and suppliers.

Get started today with the Application Evolution eBook.

Test Drive 12.2 today!
www.progress.com/trial-openedge

About Progress

Progress (NASDAQ: PRGS) provides the leading products to develop, deploy and manage high-impact business applications. Our comprehensive product stack is designed to make technology teams more productive and we have a deep commitment to the open source community. With Progress, organizations can accelerate the creation and delivery of strategic business applications, automate the process by which apps are configured, deployed and scaled, and make critical data and content more accessible and secure—leading to competitive differentiation and business success. Over 1,700 independent software vendors, 100,000+ enterprise customers, and a three-million-strong developer community rely on Progress to power their applications. Learn about Progress at www.progress.com or +1-800-477-6473.

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