What's New in OpenEdge™ 10.0B

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PROGRESS SOFTWARE

Contents

Introduction

OpenEdge™ 10.0B continues to expand the range of deployment and integration opportunities for distributed Progress applications. OpenEdge 10.0B is a maintenance release—the next step for any OpenEdge 10 users looking for bug fixes, new platform support, and ever-increasing performance. In addition, there are new features and capabilities specifically aimed at security, ProDataSets deployment, and data type support.

The new features and enhancements included in this release have been designed so as not to impact the quality or stability of code developed on OpenEdge 10.0A. A maintenance release replaces the release that precedes it, therefore, OpenEdge 10.0A will only be available for 2 months following the first commercial shipment (FCS) of 10.0B (that is, until the end of October, 2004). For more information on product lifecycle, please see http://www.progress.com/products/lifecycle.pdf.

Platforms

OpenEdge 10.0B introduces support for the following platforms: AIX 5L v5.2 for Power 64-bit kernel, SCO UnixWare, and HP-UX Itanium. For complete information on supported platforms, please see the Product Availability Guide at http://www.progress.com/progress/products/docs/openedge_10_availability_guide.pdf.

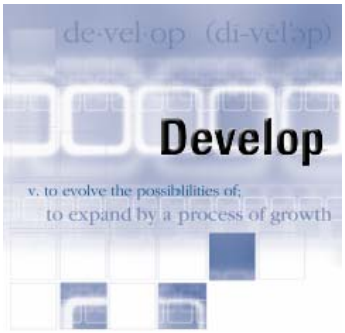
Security

Application security is fast becoming a requirement for the majority of the business application market. Globally government regulations (such as HIPAA, CFR Part 11, and Sarbanes-Oxley in the U.S.) are having a dramatic effect on the way business applications are designed, installed, and run. Software houses are scrambling to educate their developers on these security topics in order to understand how the regulations affect their products and to develop strategies to comply with their customers' needs.

The technical solution to complying with the data privacy and integrity requirements presented by these regulations is achieved through the use of cryptographic operations such as encryption, message digests, and MACs (Message Authentication Code). OpenEdge 10.0B contains support for multiple new cryptographic operations within the Progress 4GL. These functions support a number of well recognized algorithms including DES, DES3 and AES for encryption and MD5 and SHA for data integrity.

Another method to protect data privacy is through the use of channel encryption. 10.0B supports channel encryption between OpenEdge components. This means that you can now connect OpenEdge clients and servers using SSL.

Two new white papers available in the PSDN Library (http://psdn.progress.com/library/white_papers/index.ssp) present a primer and best practices for getting started with implementing data privacy and integrity through encryption and designing and managing the use of encryption keys.



Develop

OpenEdge Studio

- The AppBuilder has a new utility for maintaining temp-tables.
- The OpenEdge Studio tools and methodologies support the OpenEdge 10 data types. You can develop applications that handle BLOB, CLOB, datetime, and datetime-tz data. However, the Progress Dynamics® repository does not support using these data types to define attributes.
- A new SmartLOBField object extends the Field class and allows you to add LOB fields that do not use the default visualization on viewers.
- You can now specify a PASSWORD-FIELD attribute for fill-in fields. The PASSWORD-FIELD follows Microsoft conventions and complies with US Gov. 508A Accessibility requirements so that passwords are not read aloud by screen readers.

ProDataSets

- You can now pass a ProDataSet as a parameter.
- SYNCHRONIZE event fires whenever a user executes a SYNCHRONIZE method on a buffer. All members of a buffer hierarchy are synchronized.
- COPY-DATASET method
- ROW-STATE allows a programmer to evaluate a row's state within a WHERE clause for the ability to work with changed datasets. (Introduced in Service Pack 10.0A01) 10.0B introduces additional functions to use in a WHERE clause such as ROW-ERROR, ROW-REJECTED, and DATA-SOURCE-MODIFIED.
- Data batching capabilities have been extended with BATCH-SIZE, MORE-ROWS, OFF-END, FIND-FAILED attributes to control batching between the client and the server.
- SAVE-ROW-CHANGES allows programmers to choose to save changes to data made in the database or in the dataset. (Introduced in Service Pack 10.0A01)

Progress Dynamics

- Progress Dynamics Web is now supported in the Mozilla browser on the Mac.
- Treeviews are now available for the Progress Dynamics Web interface.
- The AppBuilder has a new utility for building temp-tables based on existing entities in the repository.
- Progress Dynamics supports the OpenEdge 10 data types with the exception of longchar. You can develop applications that handle BLOB, CLOB, datetime, and datetime-tz data. However, the Progress Dynamics repository does not support using these data types to define attributes.
- Print preview now includes HTML and XML options, allowing applications to print reports independent of Crystal Reports. (Introduced in Service Pack 10.0A01)
- Calculated fields in dynamic objects have been enhanced for greater usability and performance.

- New tools simplify object class customization and maintenance.
- Extending object classes has been streamlined and their deployment simplified.
- The requirement for a Progress 4GL Compiler license for Progress Dynamics deployments has been lifted because migration programs are now delivered as compiled r-code on the product media.

Open Client

- .NET Open Clients now support HTTP and HTTPS.
- .NET and Java™ Open Clients support all the OpenEdge 10 data types, including arrays, longchar, datetime, datetime-tz (BLOB and CLOB in temp-table fields). The ProxyGen tool handles mappings to the native .NET and Java data types.
- .NET and Java Open Clients have a new NO-SCHEMA-MARSHALL attribute which allows temp-tables to be passed to the clients without any schema information to significantly increase transmission of data.
- .NET and Java Open Clients can now operate in a session-free model. This model is useful for applications or modules that are not connection-oriented, that is, where maintaining context is not necessary. Running session-free when appropriate allows you to make better use of AppServer™ resources and increases performance.

Internationalization

- Code page GB18030 is now supported (that is, OpenEdge reads and writes GB18030 files and converts them to Unicode). China requires that all new software sold there supports this code page. (Introduced in Service Pack 10.0A01)
- The International Components for Unicode library tools have been implemented to support linguistic sorting (as opposed to binary sorting based on code-point value). Linguistic sorting handles special characters according to language-sensitive collations.
- NORMALIZE function allows you to specify a Unicode normalization mode for returning CHAR or LONGCHAR input data.

Progress 4GL

- You can now pass ProDataSets and arrays as parameters.
- The browse widget supports mouse-wheel scrolling.
- COPY-TEMPTABLE method
- Arrays are now supported as parameters to DLLs.
- LONGCHAR, datetime, datetime-tz are supported for COM objects.
- TRIM functions and PUT-STRING now support LONGCHAR and CLOB data types.
- Programmers can call a procedure that accepts LONGCHAR with either a LONGCHAR or a CHAR parameter.
- SpeedScript® only: A new method for the WEB-CONTEXT system handle allows a WebSpeed® application to pass large amounts of character data (CLOBs).

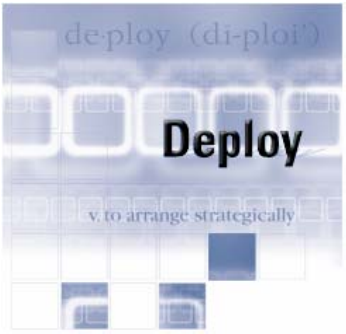
Diagnostics

- The log file now includes entries with filename and file ID so that you can associate the file ID reported by Progress ®error 290 with a filename.
- Logging for the AIA, Unified Broker, and NameServer is consistent with 10.0A client logging.

- The Debugger now allows you to set a watchpoint and an optional condition. When the condition is met, the Debugger interrupts program execution.
- For debugging code running in an AppServer process, you can now "attach" the Attachable Debugger to a process regardless of the mode it's running in or which client is connected to it.

Installation

- The installation can be launched from a UNC path to the setup.exe.
- Application Partners who invoke the silent install to include OpenEdge 10 as part of their application installation now have the option of displaying a progress bar or other indicator of the percentage complete (on UNIX and Windows).



Deploy

WebClient

- A new tool for modifying locator definitions in the prowcapc file supports customizing information for WebClient™ deployment sites.
- The features listed below also benefit WebClient applications.

OpenEdge Application Server

- The AppServer Internet Adapter (AIA) supports session-free applications running over HTTP to better support a common Internet application design that is not connection-oriented and does not rely on maintaining context.
- The AIA has been redesigned to eliminate the use of native libraries so that the AIA and the Web Services Adapter (WSA) can use the same JSE, thereby simplifying deployment.

OpenEdge RDBMS

- Failover Clusters are now included as part of the Enterprise RDBMS license. They were previously sold separately as part of the Fathom™ product line.
- Client-server encryption between the database manager and SQL ODBC/JDBC or 4GL clients.
- Implemented the SQL components of security.
- Higher concurrency index lock protocol
- I/O improvements to lower checkpoint cost
- Faster temp-tables for the 4GL
- Index rebuild improvements

- Improved performance and stability
- Administrative utilities' performance has been increased through efficient use of the Advanced Storage Areas II introduced in OpenEdge 10.0A

OpenEdge DataServers

- OpenEdge DataServer for ODBC utilities include better support for accessing schema information in DB2/400 libraries. Enhanced Data Dictionary utilities to reflect DB2/400 terminology and functionality. These optimized Data Dictionary utilities simplifying database migration and administration by providing user definable configurations that are unique to the DB2/400 database.
- The OpenEdge DataServer for MS SQL Server now uses connection pooling which results in significantly stronger performance. Connections do not have to be re-established for every request, improving cursor management and speeding the return of results, especially for applications with multiple NO-LOCK queries that process results simultaneously.
- The OpenEdge DataServer for MS SQL Server applications can benefit from firehose and fast-forward cursors when connection pooling is enabled. Firehose cursors are Microsoft's default result set. The default result set does not require cursor management, which speeds the delivery of data. A fast-forward cursor is used as an alternate to firehose cursors. These cursors have minimal cursor management, resulting in comparable performance in most cases. The DataServer log file includes information that allows you to monitor connection and cursor usage so that you can optimize queries for performance.
- In addition to the supported Oracle versions and platforms supported in 10.0A, the OpenEdge DataServer for Oracle is certified for Oracle 9.2 on Windows 2000, AIX 64 5.2, HPUX 64 11.11, Solaris 64 v9.

Integrate

Web Services

- Web services functions can be called asynchronously.
- You can now create two Web service procedure objects bound to the same portType, which allows you to run more than one Web service on a server.
- The WSDL Analyzer's usability has been enhanced to include parameter settings from the CONNECT method, display the WSDL URL for easier viewing, generate an alphabetical list of all operations with hyperlinks to details, and list data types and element definitions alphabetically.
- The Web Services Open Client supports all the OpenEdge 10 data types, including arrays, longchar, datetime, datetime-tz (BLOB and CLOB in temp-table fields). The ProxyGen tool creates proxies that allow business logic using these data types to be called as Web services.

OpenEdge Adapters for SonicMQ, Sonic ESB

- The OpenEdge Adapter for SonicMQ® supports the BLOB and CLOB, data types to ensure architectural consistency across the OpenEdge platform, including supporting datetime information included in message headers.
- The OpenEdge Adapter for Sonic ESB™ supports both Sonic ESB V5.0 and 5.55.

Manage

Fathom

Fathom Management — New functionality includes the ability to group multiple (like) resources as one collection and monitor them as a collection to quickly view the status of key areas of focus, as well as more in-depth, and real-time graphing capabilities for an even deeper level of granularity for optimal, strategic and tactical decision making.

Fathom Replication — Online backup and deferred system startup for greater system availability for 24/7 businesses; logins at startup for better database access; enhanced capability for AI extents for improved data validation; and enhanced internal processing for improved performance.
See What's New in Fathom Management and What's New in Fathom Replication for more details. These documents are available at http://psdn.progress.com/library/fathom/index.ssp.

Business Intelligence: Crystal V10

With Crystal Reports V10, Business Objects strengthens its commitment to cross-platform development through the addition of several new features to simplify integration, make it easier to maintain, and make for easier migration to Crystal Enterprise. Report designers also gain increased flexibility in report creation to support for a fully managed reporting system, so that designers will be more productive through all stages of the report development and maintenance cycle. Finally, information consumers can easily navigate information delivered in a Crystal Report through familiar devices or software including Microsoft Office.

Crystal Enterprise 10 allows greater flexibility in choice of operating systems, platforms, and programming languages, based on individual application requirements. This ensures that each business unit or application use its existing resources most efficiently. Crystal Enterprise 10 allows users to decentralize the administration of large deployments, for example users can delegate or automate specific tasks. Finally, Crystal Enterprise 10 provides greater fluidity between reports and between data sources through the new Business Views, through the Crystal Repository, and through new report navigation features.

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