

OpenEdge[®] **12 Platform Compatibility Guide**

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|-------------------|-----------------|
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The OpenEdge® Platform Compatibility Guide reflects the current commercial releases for Progress Software's OpenEdge 12 products. This document does NOT address unannounced future product release plans. The information contained in this document is updated regularly and is subject to change without notice.

A *platform* is a collective term referring to a computing environment explicitly validated by Progress to deploy and use a given OpenEdge release. For this document, a platform includes operating systems, Java, Microsoft .NET, and, where relevant, other third-party products such as Apache Tomcat server and Perl. Expect some of these products to be supplied and maintained by OpenEdge customers, while Progress ships others with OpenEdge. In each case, this guide clarifies the expectations on the minimum supported versions and recommended patching/upgrade practices to ensure our ability to help you.

For platform and product information related to earlier Progress OpenEdge releases or to archived versions of this document, please refer to the Compatibility and Availability information posted on the <u>Progress Content Portal</u>.

Update Summary:

- Updated the list of supported Operating Systems:
 - Amazon Linux 2023 (OpenEdge 12.2)
- Note on Operating System Certifications: we currently have the following certifications in our backlog. This is not a commitment to a timeframe for completing the certifications and is provided for informational purposes only.
 - OpenEdge 12.8: RHEL 9.4
 - o OpenEdge 12.2: RHEL 9.2, RHEL 9.4, IBM AIX 7.3, Ubuntu 24.04
 - OpenEdge 11.7: RHEL 8.10
- Updated terminology to match the current Life Cycle Policy: "De-supported" is now "Retired", and "Deprecated" is now "Removed".
- Added WebSpeed Mapped Web Objects as a removed feature effective with OpenEdge 12.0.

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1 OpenEdge Supported Platforms

1.1 Operating Systems

 Table 1. Supported Operating Systems

| Certified Operating Systems | OpenEdge Version | Supported Processor Architecture |
|-------------------------------|--|--|
| Microsoft Windows Server 2022 | 12.2, 12.5, 12.6, 12.7, 12.8 | x86-64 |
| Microsoft Windows Server 2019 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8 | x86-64 |
| Microsoft Windows Server 2016 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8 | x86-64 |
| Microsoft Windows 11 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8 | x86-64 |
| Microsoft Windows 10 | 12.2, 12.6, 12.7, 12.8 | x86-64 |
| Ubuntu 22.04 LTS | 12.2, 12.7, 12.8 | x86-64 |
| Ubuntu 20.04 LTS | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8 | x86-64 |
| Ubuntu 18.04 LTS | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| Red Hat Enterprise Linux 9.2 | 12.2, 12.8 | x86-64 |
| Red Hat Enterprise Linux 9.0 | 12.2, 12.6, 12.7, 12.8 | x86-64 |
| Red Hat Enterprise Linux 8.8 | 12.2, 12.8 | x86-64 |
| Red Hat Enterprise Linux 8.6 | 12.2, 12.6, 12.7, 12.8 | x86-64 |
| Red Hat Enterprise Linux 8.4 | 12.2, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| Red Hat Enterprise Linux 8.2 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| Red Hat Enterprise Linux 8.0 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| Red Hat Enterprise Linux 7.9 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| Red Hat Enterprise Linux 7.6 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| SUSE Enterprise Server 15 SP3 | 12.8 | x86-64 |
| SUSE Enterprise Server 15 SP2 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| SUSE Enterprise Server 15 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| SUSE Enterprise Server 12 SP5 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| SUSE Enterprise Server 12 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |
| Oracle Solaris 11.4 (SPARC) | 12.2 | SPARC |
| IBM AIX 7.2 TL5 | 12.2, 12.5 | POWER |
| IBM AIX 7.2 TL3 | 12.2, 12.3, 12.4, 12.5 | POWER |
| Amazon Linux 2023 | 12.2 , 12.8 | x86-64 |
| Amazon Linux 2 | 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 | x86-64 |

All supported Operating Systems are 64-bit. For information on supporting 32-bit Windows client application refer to section 1.1.2.

The "x86-64" architecture is also known as x64 or x86_64 and includes both AMD64 and Intel64.

Many Operating Systems have various offerings for a particular release optimized for different operating environments; for example, Microsoft Windows Server has Standard, Datacenter, and Essentials editions. Progress generally only certifies the OS vendor's standard variation and trusts the OS vendor to guarantee binary compatibility with other editions.

Note: Operating Systems vendors regularly issue critical and security patches and updates ("**Patches**") for their releases. Progress relies on the Operating System vendors to guarantee binary

compatibility between their patches and kernel versions and therefore does not explicitly certify these patches.

1.1.1 Supporting Microsoft Windows

Microsoft offers two flavors of its Windows Operating System (OS):

- a) Client OS (e.g., Windows 11) designed to run on personal computers, and
- b) Server OS (e.g., Windows Server 2022) optimized to handle mission-critical, heavy computing loads on production-grade servers.

Progress will make every effort to certify all Active and Mature OpenEdge releases within **60 days** of Microsoft making Windows updates publicly available. Upon completing this certification, Progress will update this document (OpenEdge PCG).

When you open a support case with our Technical Support, you may have to reproduce the reported issue on the certified Windows update. In some cases, updating to the latest certified version may be the only remedy available to you.

1.1.2 Supporting 32-bit Microsoft Windows Client Applications

Legacy OpenEdge client applications compiled to run on 32-bit Windows often depend on 32-bit ActiveX (or OCX) controls not supported on modern 64-bit Windows. To help our customers maintain these 32-bit applications,

- 1. OpenEdge's latest development tools generate platform-independent output to use on both 64-bit and 32-bit Windows.
- 2. The development tool supports 32-bit client-side AVM to validate the changes made by running updated or modified applications on their native 32-bit platform.

For additional information, please refer to the Knowledge Base Article "<u>HOW TO COMPILE</u> <u>AND RUN AN OPENEDGE APPLICATION WITH 32-BIT OCX USING OPENEDGE 12?</u>"

Note: If your application uses the 32-bit OpenEdge ODBC driver, you should compile the corresponding SQL application in 32-bit mode.

1.1.3 Supporting Linux

- OpenEdge is supported on the Linux Operating System for the following processor architectures:
 - o Intel x86
 - o AMD64
 - Intel EM64T
- Support of the Network File System protocol version 3 (NFSv3) under the Linux Intel x86 platform for Progress OpenEdge products, mainly, the support of RDBMS files (physical and recovery) on an NFS partition, requires updates and features found within the 2.4.21 Linux Kernel and OpenEdge Updates (Service Packs in the past). Network File System (NFS) protocol versions NFSv2 and NFSv4 under Linux have not been certified and are therefore unsupported.

• There are many enterprise-grade Linux distributions based on Red Hat Enterprise Linux that are not listed as supported Operating Systems in this document. With CentOS 8.x reaching end-of-life (December 2021), our customers are exploring Linux options for deploying and operating OpenEdge, including Operating Systems not explicitly listed in this document.

While Progress cannot test and validate all available Operating Systems, we understand our customers' preference for various, often no-cost, offerings based on Red Hat Enterprise Linux. Therefore, customers may choose to operate OpenEdge on a Linux Operating System not listed in this document based on a supported version of the Red Hat Enterprise Linux, at their discretion. However, in case of any issue, the same should be reproducible on the corresponding Red Hat Enterprise Linux version to get support in line with the customer's Progress support agreement to ensure that the changes/customization of the Operating System vendor isn't causing the issue.

Note: (1) Read more on OpenEdge support on CentOS at, <u>https://knowledgebase.progress.com/articles/Knowledge/P114682</u>

(2) This policy is also applicable for the Linux distributions based on SUSE Enterprise Linux.

• Red Hat Enterprise Linux offers both long-term supported and short-term supported releases. Progress will not explicitly certify the short-term supported releases that are generally supported for less than a year. Should you choose to use OpenEdge with a short-term supported release and encounter any issue, you may open a support case with our Technical Support. Progress will make a reasonable effort to investigate the issue and help find a solution or a workaround. In case a solution or a workaround is identified, we will share it proactively with our customers.

1.2 Web Browsers

OpenEdge does not certify any specific web browser with any OpenEdge product release. Except as noted below, if a problem arises using a particular web browser, please contact Progress Support for assistance.

Note: As of June 15, 2022, Microsoft Internet Explorer is retired, and therefore we don't recommend using it.

1.3 Microsoft .NET

OpenEdge 12.2 and later releases are certified to work with Microsoft .NET Framework v4.8.

OpenEdge 12.7 and later releases support both .NET Framework v4.8 and .NET 6 on Microsoft Windows. To learn more, check:

- <u>https://docs.progress.com/bundle/openedge-gui-for-dotnet-in-abl/page/Support-for-.NET-in-OpenEdge-on-Windows.html</u>
- <u>https://docs.progress.com/bundle/openedge-gui-for-dotnet-in-abl/page/Support-for-.NET-in-OpenEdge-on-Linux.html</u>

Progress recommends you monitor Microsoft's critical updates for your supported version of Microsoft Windows and apply them as needed to stay current. As always, before updating your production environment, validate that the change will not cause issues.

Note: Starting with OpenEdge 12.3, .NET Framework is not distributed with OpenEdge.

1.4 Java

A Starting with OpenEdge release 12.1, Java Development Kit (JDK) is no longer included with the product. Instead, the supported JDK version must be available as a pre-requisite to the installation of OpenEdge.

| OS Platform | AdoptOpenJDK OpenJDK (Hotspot) | Oracle Java SE Development Kit | IBM SDK, Java Technology Edition |
|-------------------|-----------------------------------|-----------------------------------|-------------------------------------|
| Microsoft Windows | jdk1.8u222-b10 | 1.8.0_221-b11 | - |
| Linux | jdk1.8u222-b10 | 1.8.0_221-b11 | - |
| Oracle Solaris | jdk1.8u222-b10 | 1.8.0_221-b11 | - |
| IBM AIX | - | - | 8.0.5.20 |

Table 2. JDK versions certified for OpenEdge 12.1

| OS Platform | AdoptOpenJDK OpenJDK Oracle Java SE Development Kit | | IBM SDK, Java Technology Edition |
|----------------------|---|-----------|-------------------------------------|
| Microsoft Windows | jdk-11.0.4+11 (x64) (Hotspot) | 11.0.4+10 | - |
| Linux | jdk-11.0.4+11 (x64) for Linux (Hotspot) | 11.0.4+10 | - |
| Oracle Solaris | - | 11.0.4+10 | - |
| IBM AIX | jdk-11.0.6+10_openj9-0.18.1 (OpenJ9) | - | 11.0.12.0 (OpenJ9) |

Table 4. JDK versions certified for OpenEdge 12.6 and later

| OS Platform | Eclipse Temurin(Adoptium) OpenJDK | Oracle Java SE Development Kit |
|----------------------|--|-----------------------------------|
| Microsoft Windows | jdk-17.0.3+7 (x64) (Hotspot) | 17.0.4 |
| Linux | jdk-17.0.3+7 (x64) for Linux (Hotspot) | 17.0.4 |

The certified Java versions receive regular security patches from their vendors. Progress recommends customers to,

a. Monitor Java vendor's updates for the latest security patches.

b. If you decide to apply the latest security patches, test in a non-production critical environment first.

Note: OpenEdge is supported only on the major JDK version specified in this section. For example, OpenEdge 12.2 is supported on JDK 11.0.x, where x can be 4 (i.e., 11.0.4) or later.

For your convenience, we list the sources where you can find security fixes and updates for the below recommended Java distributions,

• AdoptOpenJDK OpenJDK - <u>https://adoptopenjdk.net/index.html</u>

Note: AdoptOpenJDK OpenJDK is rebranded to Adoptium OpenJDK with the new releases available at <u>https://adoptium.net/releases.html</u>

- Oracle JDK https://www.oracle.com/java/technologies/javase-downloads.html
- IBM SDK, Java Technology Edition <u>https://www.ibm.com/support/pages/java-sdk-downloads-version-110</u>

If you are using OpenEdge on Docker containers, refer to the relevant supplied documentation for recommended JDK.

1.5 Cloud and Virtualization Support Policy

Modern computing infrastructure technology continues to evolve towards virtualization and cloud to support growing scalability and performance demands. As a result, our customers are facing new choices and considerations when it comes to deployment and operating OpenEdge, including:

- Server Virtualization including capabilities like VMware® VMotion[™]
- Virtual Desktop Infrastructures (VDI), for example, from Citrix
- Containerization, for instance, from Docker
- Cloud Computing, including AWS, Azure, and others

Unless explicitly stated, Progress supports OpenEdge on Operating Systems listed in this document, irrespective of any given cloud or virtualization technology. In case of any issue, the same problem should be reproducible on a standard OS installation to get support in line with the customer's support agreement, i.e., you must ensure that changes/customization of the cloud virtualization platform isn't causing the issue.

2 OpenEdge Product Availability by Platform

Note, this also covers File Systems. Refer to Note ${\bf A}$ in Platforms and Product Notes.

| Product Category | Product Name | Certification and key functionality details | | Windows Intel | Linux x64 Intel | Oracle Solaris SPARC | IBM AIX | Notes |
|-------------------------|---|--|--------------|---------------|-----------------|-------------------------|--------------|-------|
| | | | 32 Bit | 64 Bit | 64 Bit | 64 Bit | 64 Bit | |
| t | 4GL Development System | | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | |
| ge Jen | OpenEdge Studio | | | \checkmark | | | | |
| OpenEdge Development | Progress Developer Studio for OpenEdge | | | ~ | | | | |
| OF Dev | OpenEdge Ultra Controls for .NET | | | ~ | | | | |
| | WebClient TM | | \checkmark | \checkmark | | | | |
| | Client Networking | | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | |
| | Query/Results | | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | |
| | OpenEdge Personal RDBMS | OpenEdge RDBMS 4GL & SQL RDBMS support | | ✓ | ~ | ✓ | ✓ | |
| | OpenEdge Workgroup RDBMS | Support for SQL Stored Procedures | | \checkmark | \checkmark | \checkmark | \checkmark | |
| | OpenEdge Enterprise RDBMS OpenEdge Advanced Enterprise | Native JDBC Drivers (embedded) Type-4 v4.0 and Type-5 v5.1 | | ✓ | ✓ | ✓ | ✓ | |
| | Edition RDBMS | Native ODBC Drivers (embedded) v5.3 and v7.1 | | ✓ | ~ | ✓ | ✓ | |
| | Transparent Data Encryption | Support for Hardware Security Module | | \checkmark | \checkmark | \checkmark | \checkmark | |
| a ti | Multi-tenant Tables | | | \checkmark | \checkmark | \checkmark | \checkmark | В |
| dge ner | Table Partitioning | | | \checkmark | \checkmark | \checkmark | \checkmark | В |
| OpenEdge Deplovment | | OpenEdge 12.2 and higher – Oracle 19c (19.3.0.0) | ✓ | ✓ | ✓ | ✓ | ✓ | С |
| D _o O | OpenEdge DataServer for Oracle | OpenEdge 12.1 and higher - Oracle 18c (18.3.0.0) | ~ | ✓ | ~ | ~ | ✓ | С |
| | | Oracle 12c R2 (12.2.0.1) | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | С |
| | | Oracle 12c R1 (12.1.0.2) | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | С |
| | OpenEdge DataServer for | OpenEdge 12.2 and higher - MS SQL Server 2022 (ODBC18 driver (for OpenEdge 12.2.11+), ODBC17 driver for SQL Server, SQL Native Client 11, Data Direct ODBC driver) | ~ | ~ | | | | D |
| | Microsoft SQL Server | OpenEdge 12.2 and higher - Azure SQL Database (ODBC18 driver (for OpenEdge 12.2.11+), ODBC17 driver for SQL Server, SQL Native Client 11, Data Direct ODBC driver) | ~ | ~ | | | | D |

| Product Category | Product Name | Certification and key functionality details | | Windows Intel | Linux x64 Intel | Oracle Solaris SPARC | IBM AIX | Notes |
|---------------------|---|--|-----------|---------------|-----------------|-------------------------|--------------|-------|
| | | | 32 Bit | | 64 Bit | 64 Bit | 64 Bit | |
| | | OpenEdge 12.1 and higher - MS SQL Server 2019 (ODBC18 driver (for OpenEdge 12.2.11+), ODBC17 driver for SQL server, SQL Native Client 11, Data Direct ODBC driver, | | √ | 210 | | | |
| | | SQL server) MS SQL Server 2017 (ODBC18 driver (for OpenEdge 12.2.11+), ODBC17 driver for SQL server, SQL Native Client 11, Data Direct ODBC driver, SQL server) | ✓ | ~ | | | | |
| | | MS SQL Server 2016 (ODBC18 driver (for OpenEdge 12.2.11+), ODBC17 driver for SQL server, SQL Native Client 11, Data Direct ODBC driver, SQL server) | ✓ | ~ | | | | |
| | | MS SQL Server 2014 (ODBC18 driver (for OpenEdge 12.2.11+), ODBC17 driver for SQL server, SQL Native Client 11, Data Direct ODBC driver, SQL server) | ✓ | ~ | | | | |
| | | MS SQL Server 2012 (SQL Native Client 11, Data Direct ODBC driver, SQL server) | ✓ | ~ | | | | |
| | Progress Application Server for OpenEdge | Production and Development | | ~ | ✓ | ✓ | ~ | |
| | OpenEdge Explorer | | | \checkmark | \checkmark | \checkmark | \checkmark | |
| | | Standard Edition Console & Trending Database | | ✓ | ✓ | ✓ | ✓ | |
| | OpenEdge Management | Remote OpenEdge and operating system monitoring SNMP Adapter | | ✓ ✓ | ✓ ✓ | ✓ ✓ | ✓ ✓ | |
| | OpenEdge Replication | OpenEdge Replication | | ▼ ✓ | • • | ▼ ✓ | ✓ | |
| | | OpenEdge Replication Plus | | ✓ | ✓ | ✓ | \checkmark | |

2.1 Progress Application Server (PAS) for OpenEdge

The table below lists the Apache Tomcat versions supplied with PAS for OpenEdge.

| OpenEdge Release | Tomcat Version |
|-------------------------|-----------------------|
| 12.0 , 12.1 | 9.0 |
| 12.2.0 - 12.2.5 | 9.0.30 |
| 12.2.6 - 12.2.7 | 9.0.45 |
| 12.2.8-12.2.10 | 9.0.59 |
| 12.2.11 | 9.0.64 |
| 12.2.12 | 9.0.71 |
| 12.2.13 | 9.0.78 |
| 12.3 | 9.0.37 |
| 12.4 | 9.0.45 |
| 12.5 | 9.0.55 |
| 12.6 | 9.0.64 |
| 12.7 | 9.0.73 |
| 12.8 | 10.1.15 |

Table 6. Apache Tomcat versions

2.1.1 Tomcat Update Policy

Progress OpenEdge embeds a version of the Apache Tomcat Web server in the Progress Application Server (PAS) for OpenEdge product and recognizes customer requirements to keep up to date with Apache Tomcat security patches. The best way to get the latest security fixes for Tomcat is to upgrade to the newest version of PAS for OpenEdge.

Suppose you cannot upgrade to the latest version. In that case, you can try to replace the core Apache Tomcat server libraries that you may update from an official Apache Tomcat distribution (e.g., <u>http://tomcat.apache.org/migration.html</u>) of *the same release version*. The patch is applied must be a higher version. The core Tomcat server libraries contain most of the security patches.

Note: An Apache Tomcat distribution also contains configurable text files that *cannot* be updated without invalidating the PAS for OpenEdge security configuration, ABL language support, and its integration with the overall OpenEdge product set. Please review the "Tomcat configuration file differences" section in the correct version of the link above. Please consult with Progress Technical Support before altering these text files.

The possible list of files that may be safe to update from an official Apache Tomcat distribution includes:

```
$DLC/servers/pasoe/bin/bootstrap.jar
$DLC/servers/pasoe/lib/*.jar
$DLC/servers/pasoe/bin/catalina.{sh|bat}
$DLC/servers/pasoe/bin/daemon.{sh|bat}
$DLC/servers/pasoe/bin/setclasspath.{sh|bat}
```

Patching the PAS for OpenEdge SSL/TLS capability may require updating the JDK version. Please refer to the *Java* section for information on updating JDK versions.

Please note that Progress cannot formally certify each security patch released by Apache. You can report the issues that arise from installing these patches to Progress Technical Support for further assistance, so long as they are part of the same major Tomcat release version. But realize Progress may not resolve the issue without requiring you to upgrade to the latest version of OpenEdge.

2.2 Progress Developer Studio (PDS) for OpenEdge

The table below summarizes component versions within PDS for OpenEdge.

Table 7. Eclipse IDE Versions

| OpenEdge Release | Eclipse Version | |
|------------------|-----------------|--|
| 12.0 and 12.1 | 4.9 | |
| 12.2 - 12.5 | 4.13 | |
| 12.6 - 12.8 | 4.23 | |

2.2.1 Eclipse Update Policy

Progress ensures the version of Eclipse shipped with OpenEdge is fully supported. We advise you against changing the Eclipse version as it may render the product inoperable and/or lead to difficult troubleshoot issues. If, despite this advice, you change the Eclipse version and then contact Progress Technical Support with problems caused by this change, we may ask you to reproduce the reported issue with the supported Eclipse version.

2.3 Progress OpenEdge Adapters

Starting with OpenEdge release 12.2, both JMS Adapter and Sonic ESB Adapter have separate installers.

Unlike other OpenEdge products that require JDK 11 or JDK17, these adapters require JDK 8 as a pre-requisite. Table 2. JDK versions certified for OpenEdge 12.1 lists the certified versions for JDK 8.

The Aurea platform support and compatibility guide is available at <u>https://docs.progress.com/bundle/OpenEdge-adapters-aurea-sonic/resource/openedge-sonic-matrix.pdf</u>

2.3.1 Progress OpenEdge JMS Adapter

Progress OpenEdge JMS Adapter supports any JMS1.1 compliant vendor implementation. Progress validated this with Aurea Messenger MQ (formerly known as Aurea SonicMQ), ActiveMQ Artemis, and WebSphere MQ.

2.3.2 OpenEdge Adapter for Sonic ESB

Table 8. Compatibility between OpenEdge Adapter for Sonic ESB and Aurea Messenger ESB (formerly known as Aurea Sonic ESB). Other vendors are not supported.

| OpenEdge Adapter for Sonic ESB | Aurea Messenger ESB |
|---------------------------------------|---------------------|
| 12.1 and higher | 2018 R2 and higher |

2.4 Progress OpenEdge Docker Container Images

Progress offers Progress Application Server for OpenEdge and Progress OpenEdge RDBMS as container images available at <u>Docker hub</u>.

| Table 9. | OpenEdge | Docker | Container | Images |
|----------|-----------------|--------|-----------|--------|
|----------|-----------------|--------|-----------|--------|

| OpenEdge Container Image | OpenEdge Releases | | |
|---|---|--|--|
| Progress Application Server for OpenEdge | 12.0.0, 12.1.0, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8 | | |
| Progress OpenEdge RDBMS Enterprise/Advanced | 12.1.0, 12.2, 12.3, 12.4, 12.5, | | |
| Enterprise | 12.6, 12.7, 12.8 | | |

Note: The container images are available at the Progress OpenEdge ESD for all supported releases.

2.5 Progress OpenEdge on AWS

For OpenEdge customers looking to deploy their on-premises applications on a highly available three-tier Progress OpenEdge stack on the AWS Cloud, Progress partnered with Amazon Web Services to develop AWS Quick Starts. To learn more, visit <u>Progress OpenEdge on AWS</u>.

AWS Quick Starts uses the Progress Application Server for OpenEdge and Progress OpenEdge RDBMS Amazon Machine Images (AMIs) to support OpenEdge applications' deployments on AWS Cloud. The images are available in the <u>AWS marketplace</u>.

2.6 Progress OpenEdge DevOps Framework

To facilitate the continuous integration for OpenEdge applications, the OpenEdge DevOps Framework offers the following Gradle plugins,

- progress.openedge.abl
- progress.openedge.abl-base

The OpenEdge DevOps Framework Gradle plugins are released independent of the OpenEdge platform release.

To learn more about these plugins, refer to Learn About the OpenEdge DevOps Framework

2.6.1 Gradle

The latest OpenEdge DevOps Framework version 2.3.0 is certified and supported on Gradle 8.

Note: Progress OpenEdge 12.2 and later comes with a shell script '*progradle*' that downloads and installs the compatible Gradle version when executed for the first time and sets up the JDK required by Gradle.

2.7 Progress OpenEdge Pro2

Progress OpenEdge Pro2 is released independently of the OpenEdge Platform release, and its lifecycle is covered separately under <u>Progress OpenEdge Pro2 Life Cycle Policy Guide</u>.

2.7.1 Supported Operating System

Progress OpenEdge Pro2 is supported on all the Operating Systems mentioned in Table 1. Supported Operating Systems.

2.7.2 Compatibility with OpenEdge Release

The compatibility matrix between the active Pro2 release and OpenEdge releases is available at <u>OpenEdge Life Cycle</u>.

2.7.3 Supported Target Databases

Progress OpenEdge Pro2 supports replication of an OpenEdge database to Microsoft SQL, Oracle, and other OpenEdge Databases.

2.8 Progress OpenEdge Command Center

Progress OpenEdge Command Center (OECC) is a cloud-ready OpenEdge management console for managing multiple Progress AppServer for OpenEdge (PASOE) instances.

The table below list the compatibility of OECC with OpenEdge releases,

 Table 10. OpenEdge Command Center Releases
 Page Command Center Releases

| OpenEdge Command Center Release | OpenEdge Releases | |
|------------------------------------|--|--|
| 1.3.0 | 12.2.7 and higher, 12.5, 12.6, 12.7, 12.8 | |

To learn more about OECC, visit Learn about OpenEdge Command Center

2.9 Apache Kafka with Progress OpenEdge

Apache Kafka is a fast, highly scalable, and fault-tolerant distributed data store that centralizes communication between producers and consumers of streaming data in real-time.

Starting with OpenEdge 12.5, Progress OpenEdge provides an API for using Apache Kafka. The Apache Kafa support is only available on the 64-bit Linux and Windows Operating Systems (all supported versions).

The Apache Kafka C/C++ library, *librdkafka* is a prerequisite for Apache Kafka that must be separately downloaded and installed. The installation steps for Windows and Linux are listed at Install the Apache Kafka C/C++ library on Windows and Install the Apache Kafka C/C++ library on Linux, respectively.

To learn more, visit Use Apache Kafka with Progress OpenEdge.

2.10 Progress OpenEdge WebClient

The OpenEdge WebClient enables you to build and distribute updates for web-based OpenEdge applications. It requires the following 32-bit and 64-bit Visual C++ redistributable packages to be installed for the 32-bit and 64-bit OpenEdge WebClient installations, respectively.

 Table 11. Required VC++ redistributable packages

| OpenEdge Release | VC++ Redistributable Packages |
|------------------|--|
| 12.2.x | Visual Studio 2015, 2017, 2019, and 2022 |
| 12.8 | Visual Studio 2015, 2017, 2019, and 2022 |

Note: Before installing the WebClient with a non-admin user, the above listed packages should be installed in the system. To know more, visit <u>Requirements for using WebClient</u>

2.11 Apache Ant

The Apache Ant build tool is used by Progress OpenEdge, by the installer for tailoring, by PDS for OpenEdge, and is required with PCT.

OpenEdge 12.2 and later releases ships with and is certified to work with Apache Ant 1.10.6. Progress does not recommend replacing the shipped version of Ant with another version.

2.12 Perl

Some of the Progress OpenEdge tools (e.g., PAS for OpenEdge Migration Wizard) use Perl programming language.

OpenEdge 12.2 and later releases ships with Perl version 5.26.1 compiled by Progress directly from the source code. Progress does not recommend replacing the shipped version of Perl with another version.

Note: Except for Linux and AIX-based distributions, a 32-bit version of Perl is shipped with OpenEdge 64-bit Product. Before using Perl (or utilities using Perl), install all dependent libraries (32-bit) of Perl as specified in the corresponding documentation.

3 Feature / Functionality Obsolescence

Progress OpenEdge Life Cycle Policy Guide defines the terms for De-Support and Deprecation.

3.1 **Retired** Features and Functionality

The following table contains the current list of retired features (not yet removed so likely will still operate, with best-effort by Progress support) and operating systems for OpenEdge 12. Timeframe details are published to help partners and customers with their planning. We recommend substituting obsolete functionality with appropriate equivalents as indicated in the following table.

| | | De-Support Information | | | |
|---|--------------------------------|-----------------------------------|---|--|--|
| Retired Feature or FunctionalityReplacement Feature | | De-Support Scheduled For | Notes | | |
| Sonic ESB Web Services Invocation | Sonic ESB Native Invocation | OpenEdge 12.2.13 and 12.8.0 | To address security vulnerabilities, removed SOAP library in OpenEdge 12.2.13 and 12.8 leading to the discontinuation of 'Web Service Invocation' methodology support. As a result of these changes, the Proxy Generator no longer supports the generation of Aurea Sonic Web Service artifacts. The recommended alternative is to use Aurea Sonic ESB supported 'Native Invocation' methodology. For more information, refer to the <u>documentation</u> . | | |
| Windows Server 2012 R2 | None | OpenEdge 12.0 | Microsoft Windows Server 2012 R2 reached its mainstream end of life in September 2018 and is not supported for OpenEdge 12.0 and later. An earlier version of the Product Availability Guide published on May 19, 2020, incorrectly listed Windows Server 2012 R2 as supported. | | |
| Windows 8.1 | None | OpenEdge 12.1 | Microsoft Windows 8.1 reached its mainstream end of life in January 2018 and is not supported for OpenEdge 12.1 and later. | | |
| Supplemental PROMSGS | None | | In addition to English, OpenEdge supports 13 languages out of the box. OpenEdge also provides 21 downloadable supplemental languages that will not be maintained. | | |
| CentOS 8.x | N/A | OpenEdge 12.5 | Red Hat has discontinued CentOS and has announced an early end of life for CentOS 8 by December 31, 2021. CentOS 7.x reaches its end of life in June 2024. | | |
| Oracle Solaris 11 | None | OpenEdge 12.5 | OpenEdge is not supported on Oracle Solaris for OpenEdge 12.5 and later releases | | |
| IBM AIX | None | OpenEdge 12.6 | OpenEdge is not supported on IBM AIX for OpenEdge 12.6 and later releases | | |

Table 12. Retired Features and Functionality

3.2 **Removed** Features and Functionality

The following table contains the current removed features and operating systems for OpenEdge 12.x and 13.0. Timeframe details are published to help partners and customers with their planning. We recommend substituting obsolete functionality with appropriate equivalents, as indicated in the following table.

| | | Deprecation Information | | |
|---|---|---|---|--|
| Removed Feature or Functionality | Replacement Feature | Announced OpenEdge Version | Notes | |
| OpenEdge Explorer and OpenEdge Management | OpenEdge Command Center | OpenEdge 13.0 (remains available for OpenEdge 12.8, 12.2, 11.7) | OpenEdge Command Center is a modern, lightweight, browser-based solution that is highly performant and scalable. It supports industry standards to easily integrate OpenEdge operating environment data to Application Performance Management (APM) tools. | |
| Aurea Messenger (Sonic) MQ client jar is included with OpenEdge distribution | Generic JMS Adapter | OpenEdge 12.2 | Since OpenEdge 12.2 requires Java 11, and Aurea Messenger still requires Java 8, the latest Aurea Messenger MQ client jar is no longer distributed by Progress. Progress OpenEdge JMS Adapter now supports multiple JMS 1.1 implementations, not just from Aurea. If required, Aurea Messenger MQ client jars are available directly from Aurea. The 'Generic JMS Adapter' is a separately downloadable component available on ESD, post OpenEdge installation. | |
| Enhanced support for Aurea Messenger MQ by Progress OpenEdge Management (OEM) and Progress OpenEdge Explorer (OEE) | None | OpenEdge 12.2 | OEM/OEE will continue supporting Aurea Messenger MQ Adapter configuration, management, and monitoring for OpenEdge releases before 12.2. | |
| Failover Cluster Managers | None | OpenEdge 12.2 | Microsoft Windows Server 2016 Failover Clusters (64-bit OpenEdge only). PowerHA 7.1 (HACMP 7.1) with AIX 7.1. | |
| Progress OpenEdge Application Server (Basic and Enterprise), including Progress WebSpeed | Progress Application Server (PAS) for OpenEdge | OpenEdge 12.0 | Trade-in Value is available for OpenEdge Application Server licenses under a current Maintenance contract towards the purchase of PAS for OpenEdge. | |
| WebSpeed Mapped Web Objects | None | OpenEdge 12.0 | This feature is not supported in PASOE. Customers should modernize their application to remove use of Mapped Web Objects. | |
| WebSpeed Workshop | Progress Developer Studio (PDS) for OpenEdge | OpenEdge 12.0 | WebSpeed Workshop was part of Progress WebSpeed, which is already removed. | |
| V9 Debugger | V12 Debugger | OpenEdge 12.0 | | |

 Table 13. Removed Features and Functionality

| | | Deprecation Information | | | |
|---|---|----------------------------------|--|--|--|
| Removed Feature or FunctionalityReplacement Feature | | Announced OpenEdge Version | Notes | | |
| Embedded SQL-89/C | None | OpenEdge 12.0 | | | |
| Translation Manager | None | OpenEdge 12.0 | | | |
| Progress Dynamics | None | OpenEdge 12.0 | Progress Dynamics source code can be used and maintained by users in OpenEdge 12. | | |
| OpenEdge Replication Synchronous Commit | None | OpenEdge 12.0 | Not a performant solution | | |
| MD5 & RC4 ciphers | RC4 ciphers Assorted current ciphers OpenEdge 12.0 Both ciphers have d While these ciphers by OpenEdge, they application use. A encouraged to upd these algorithms because the ciphers because the courage of the ciphers because | | Both ciphers have documented vulnerabilities. While these ciphers are removed from internal use by OpenEdge, they continue to be available for ABL application use. ABL application developers are encouraged to update their products and replace these algorithms because OpenEdge may drop their support in a future release. | | |
| Ability to directly link C code to the AVM running on the application server | Host Language Call (HLC) feature in OpenEdge 12.2 | OpenEdge 12.0 | Progress supported this in Classic AppServer, which is not part of release 12.x. PAS for OpenEdge has never supported this. | | |
| New Relic Plugins for PAS for OpenEdge and OpenEdge Database | OECC 1.2 Agents | All OpenEdge Releases | New Relic will no longer support or maintain its plugins after June 16, 2021 https://discuss.newrelic.com/t/new-relic-plugin-eol- wednesday-june-16th-2021/127267 The OpenEdge Command Center 1.2 agents are capable of collecting performance metrics from PASOE and Database. For more information, refer to the <u>documentation</u> | | |
| Shared AVM feature in Progress Developer None OpenEdge 1 Studio for OpenEdge | | OpenEdge 12.5 | Shared AVM allowed sharing an instance of AVM across multiple projects in PDSOE. | | |
| Tools for Business Logic in Progress Developer Studio for OpenEdge | None | OpenEdge 12.6 | To know about Tools for Business Logic visit https://docs.progress.com/bundle/openedge- developer-studio-help/page/Learn-About-Business- Logic-Tools_2.html | | |
| Database block sizes 1024 and 2048Database block size 4096 or 8192 | | OpenEdge 12.7 | Support for the smaller database block sizes, 1024 and 2048 kilobytes, will be removed in OpenEdge 12.7. | | |

| | | Deprecation Information | | | |
|--|------------------------|----------------------------------|--|--|--|
| Removed Feature or Functionality | Replacement Feature | Announced OpenEdge Version | Notes | | |
| | | | Sizes 4096 and 8192 were introduced in Progress V8.2 (1997). The defaults were changed early in OpenEdge 10.x (4096 for windows and linux, 8192 for unix). | | |
| | | | To identify your database block size, use: proutil describe and locate the Block Size in the output. | | |
| | | | To change the database block size, you must perform a dump and load of the data into a database with a new structure. You are able to do this using your current version. | | |
| InstallShield One-Click Install | None | All OpenEdge Releases | One-Click install is no longer available as it retired with the Internet Explorer on June 15, 2022 | | |

4 Platforms and Product Notes

A. File System Support (NFS, iSCSI, CIFS, ZFS, and Encrypted file systems): No matter which operating system you prefer, there are numerous choices for file systems available, each with different performance characteristics and limitations.

In general, Progress Software does not support or certify specific file systems for use as OpenEdge RDBMS storage. File systems are part of an operating system, just as device drivers are, and are supported by their respective operating system suppliers. If there are bugs or defects, Progress cannot correct them - the operating system supplier is responsible for that. Furthermore, certification testing of any operating system using any file system is done from correct functionality and does not consider performance metrics. Different file systems may have performance-related side effects that are a by-product of how the file system operates. Progress advises users to carry out extensive acceptance testing and seek vendor guidance if performance issues arise. Progress Software cannot help customers configuring any file system to manage performance or other characteristics.

The OpenEdge RDBMS works well with most file systems. As long as the operating system's file access API implementation is correct, the file system's options configuration is proper, and the supplier's patches are up to date. Only rare instances have Progress Software certified file systems or other storage products as OpenEdge RDBMS storage. These were done on an exception basis, usually in cooperation with the respective vendors, and include Network File System (NFS), which is supported starting with NFS Version 3; NetApp Filers; EMC SRDF; and iSCSI, which is supported beginning with the OpenEdge 10.1A release.

For leveraging UNIX/Linux/Windows Encrypted File Systems, OpenEdge products have no restrictions provided the encryption technology is truly transparent to the Operating System. There are no plans to certify Encrypted File System Technology formally. The EFS technology transparently allows files to be stored encrypted on NTFS file systems.

XFS is the default file system for RHEL 8.0 64-bit/CentOS 8.0 64-bit, and OpenEdge certifications have been carried out using XFS.

- B. Report Builder Engine is not supported with tables with Table Partitioning, or Multi-Tenancy enabled against them. Also:
- The Report Builder Engine will only work with tables in a partitioned database that is not partitioned. The Report Builder Engine will return an error if the report in question attempts to access a table in a partitioned database that has been partitioned.
- The Report Builder Engine will only work with tables in a multi-tenant database that is shared tables. The Report Builder Engine will return an error if the report in question attempts to access a table in a database that has been defined as multi-tenant.

C. Oracle RDBMS Support: Indicates platforms where the Oracle RDBMS product may not be commercially available, but the OpenEdge DataServer can be installed to provide client/server access to remote Oracle RDBMS instances. For operating systems that support 32-bit and 64-bit applications, Oracle 12 and later are only available as 64-bit products. The 32-bit based OpenEdge DataServer for Oracle can access a 64-bit Oracle Database instance via 32-bit Oracle Client software.

The table below provides information on the OpenEdge certification of Oracle for the OpenEdge DataServer for Oracle. The Oracle client version given in the table was used for certification testing. However, other client versions of the same Oracle release are also supported. The same version (listed in the "Oracle Certified Version" column) of Oracle Server and OCI Client Libraries were used for certification.

| | Oracle Database | Oracle Certified | Microsof | t Windows | Linux x86 on Intel | Oracle Solaris** | IBM AIX |
|---|--------------------|---------------------|----------|------------|-----------------------|---------------------|---------|
| | | Version | 32-bit | 64-bit | | (SPARC) | |
| | 19C | 19.3.0.0 | 12.2 | 12.2, 12.8 | 12.2, 12.8 | 12.2 | 12.2 |
| | 18C | 18.3.0.0 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |
| ſ | 12c R2* | 12.2.0.1 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| | 12c R1* | 12.1.0.1 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |

 Table 14. OpenEdge certification of Oracle for the OpenEdge DataServer for Oracle

* In addition to the current support for Oracle 19c, the OpenEdge DataServer for Oracle is certified for Oracle18c with multi-tenant enabled databases.

** Oracle Solaris was discontinued starting with OpenEdge 12.5.

D. While migrating OpenEdge sequences to Microsoft Azure SQL Database, the native sequences should be used instead of the revised sequences. The revised sequences do not work with Microsoft Azure SQL Database.