Release Notes

PROIV Version 15.100

Spring 2026

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15.100.11	19/05/2026	Initial PROIV Version 15.100 release

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1.1 Document Structure

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Information on installing PROIV is held in the latest PROIV Install guide for version 15 which can be found on the Documentation page on the PROIV Support Website.

2 Upgrading The PROIV Application

PROIV Version 15 is not ‘gen’ compatible with any previous versions of PROIV. A mandatory rebuild of all code is required when moving to PROIV Version 15. You are required to make a clean install of Version 15 in a new directory, export your application source code from your previous version installation, import into Version 15 and then perform a rebuild of the application (e.g. Bulk Build – All Functions). Additionally, all existing set up options will need to be reconfigured in the PROIV Dashboard. The Dashboard upgrader and EasiMigrate tools are available to assist with moving applications from Version 10 or later to Version 15.

3 System Requirements

3.1 Supported Server Platforms and Databases

This section lists the currently supported operating environments for PROIV Server Software and supersedes all other documents. If a platform or database is not explicitly listed as supported, then it is not supported by PROIV.

The following table (with references to Notes in brackets) provides details about the compatibility of system requirements, platforms and databases for PROIV v15 components. For the installation process, refer to the latest update of the PROIV v15 Installation guide.

Operating System	Arch'	Java	**Jetty**	Oracle [1]	SQL Server	Azure SQL	PostgreSQL
Windows 11	x64	Microsoft 21.0.10	12.1.8	19c 21c 23ai	2019 2022 2025		14-18
Windows Server 2019	x64	Microsoft 21.0.10	12.1.8	19c 21c 23ai	2019 2022 2025		14-18
Windows Server 2022	x64	Microsoft 21.0.10	12.1.8	19c 21c 23ai	2019 2022 2025		14-18
Windows Server 2025	x64	Microsoft 21.0.10	12.1.8	19c 21c 23ai	2019 2022 2025		14-18
RHEL 8	x64	Microsoft 21.0.10	12.1.8	19c 21c 23ai		150 [2,3]	14-18
RHEL 9	x64	Microsoft 21.0.10	12.1.8	19c 21c 23ai		150 [2,3]	14-18
RHEL 10	X64	Microsoft 21.0.10	12.1.8	19c 21c 23ai		150 [2,3]	14-18
AIX 7.3 [4]	Power 8 Power 9	IBM Semeru 21.0.4+7	12.1.8	19c			

Notes

1. Support for Oracle databases and Operating system combinations is in line with Oracle's stated Instant Client interoperability Support Matrix Oracle document ID 207303.1. PROIV includes the Oracle Instant Client, this is the only release of Instant Client which is supported by PROIV Version 15. Zellis will from time to time revise the bundled Oracle Instant Client.
2. Azure SQL has a specified compatibility level equal to that of SQL Server. 150 corresponds to SQL Server 2019.

3. Requires the Microsoft SQL Server Linux version 18 driver, installing this package will bring in the necessary version of unixODBC.
4. Support up to AIX 7.3 LT3 SP1.

3.2 Supported Client Platforms and Browsers

The following table outlines the operating systems and browsers supported by the PROIV MFC, Open and Lite Clients.

Operating System	MFC Client	Google Chrome	Microsoft Edge
Windows 11	✓	✓	✓
Windows 2016	✓	✓	✓
Windows 2019	✓	✓	✓
Windows 2022	✓	✓	✓
Linux		✓	

Notes

- Google Chrome and Microsoft Edge are tested and supported on the latest production releases only; pre-production and older releases are not supported.
- Refer here for end-of-life dates for support of Microsoft Windows.

The MFC Client and Forms Designer are 32-bit applications which are compatible with the Windows 11 operating system. Whilst the installation may be successful on other versions of Microsoft Windows, they are not supported platforms and are not tested; Zellis will not accept any fault reports or support issues on non-supported platforms.

3.3 Forward End of Life Notices

The following sections outline the expected end of life dates for the operating systems and databases detailed in the tables above. Zellis reserves the right to update this information.

3.3.1 Red Hat Linux

Operating System	End Of Life Date
Red Hat 8	31 May 2029
Red Hat 9	31 May 2032

3.3.2 Microsoft Windows

Operating System	End Of Life Date
Windows 11	Date Not Set
Windows Server 2016	12 January 2027
Windows Server 2019	9 January 2029
Windows Server 2022	14 October 2031
Windows Server 2025	

3.3.3 PostgreSQL

Database Version	End Of Life Date
PostgreSQL 14	29 September 2026
PostgreSQL 15	12 October 2027
PostgreSQL 16	13 September 2028
PostgreSQL 17	8 November 2029
PostgreSQL 18	14 November 2030

3.3.4 SQL Server

Database Version	End Of Life Date
SQL Server 2019	8 January 2030
SQL Server 2022	11 January 2033
SQL Server 2025	6 January 2036

3.3.5 Oracle

Database Version	End Of Life Date
Oracle 19c	31 December 2032
Oracle 21c	31 July 2027
Oracle 23ai	Date not set

4 Version 15 Features

4.1 New Features for 15.100

4.1.1 SQL Server Driver 2

The SQL Server Driver 2 is a dashboard selectable option that has been primarily introduced due to Microsoft deprecating support for SQL cursors. Instead, it uses key-based updates ensuring continued compatibility with current and future versions of SQL Server. It has also been updated such that when locking hints are enabled, the "DEFAULT" and "V2" Microsoft SQL Server drivers will have the same locking behaviour when separate PROIV sessions are interacting with the same table(s).

4.1.2 SFTP SSO

A secure ftp server-side object that can be invoked from PROIV code to make secure file transfers.

4.1.3 Rooster Rich Text Editor

New HTML Editor implementation based on Microsoft's Roosterjs. Actively maintained, no vulnerabilities, includes industry standard html sanitisation routines via DOMPurify to remove potentially harmful or insecure HTML.

4.1.4 VIP Enhancements

- Command Line Tooling
- Logic Event nodes on Structure
- Linkage View on Global Calls
- Inclusion of VFA References in File Selection
- Parameter Listing Mapping Search
- Function-Level Logic Search and Replace
- Unified Object Xref

4.1.5 Third Party Component Updates

4.1.5.1 Java 21

PROIV 15.100.11 uses Java version 21.0.10 with exception of AIX which uses IBM Semeru 21.0.4+7.

4.1.5.2 Jetty 12

PROIV 15.100.11 uses Jetty version 12.1.8.

4.1.5.3 Spring Boot

PROIV 15.100.11 uses Spring Boot 4.0.6.

4.2 Features Removed from 15.100 onwards

As per prior deprecation notices JAAS security model in Application Connector has been removed from Version 15.100.

4.3 Features Deprecated from 15.100 onwards

The following features are deprecated in Version 15.100.

- Derby database used by the PROIV Lexicon – will be removed from Version 15.200 maintenance release, however the PROIV Lexicon continues to be supported on PostgreSQL, Oracle and SQL Server
- SQL Driver 1 – will be removed from Version 16

5 Platform and Database Specific Information

Note: Prior to upgrading PROIV Server software on any platform it is essential that all users and Web Services are disconnected from the system to prevent various system locks from blocking the installation of essential components during the upgrade process. This includes connections from the Windows Client, Open Client and Lite Client. Any system that connects via SOAP or RESTful Web Services should also be temporarily disabled.

5.1 64-bit Linux

This release is supported on Linux operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed.

5.1.1 Security Enhanced Linux (SELinux)

If installing as non-root user on SELinux the PROIV web services may not start automatically. If this is the case, they will need to be started manually by a user with root privileges for each of the services, e.g.

$ cd <install-path>/ClientServices/bin

$ ./clientServices start

See also Section 7 for Known Issues regarding limitations on <install-path>.

5.1.2 Supported Java Runtime Environments

PROIV on 64-bit Linux (glibc) is bundled with the Microsoft JRE Version 21, the installation uses this, there is no option to search for a different JRE during installation.

5.1.3 PostgreSQL

The solution makes use of native PostgreSQL database drivers making it easier to configure. The drivers required by PROIV on the Linux platform can be found in the following directory which is included in the LD_LIBRARY_PATH environment variable in the runproiv.sh script:

$PROIV_HOME/virtual_machine/lib

5.1.4 Oracle

The Linux platform includes the Oracle 23ai Instant client, it can be found in the directory of your installation as shown below. This directory is added to the LD_LIBRARY_PATH environment variable as part of the ***runproiv.sh*** script. The Oracle 23ai Instant Client is the minimum version required on 64-bit Linux platforms.

$PROIV_HOME/virtual_machine/lib/instant_client

Oracle performance is much better if the Oracle connection information is specified by an Oracle System Identifier (SID). Specify the name of the SID by exporting ORACLE_SID in your PROIV start-up script. The Connection string then only needs to specify username/password.

5.1.5 Azure SQL

Support for Azure SQL is enabled through the Microsoft ODBC Driver 18 for SQL Server (Linux). Instructions for using it can be found at Microsoft. Once installed the driver will have automatically installed the correct version of unixODBC.

The unixODBC shared libraries must be added to the LD_LIBRARY_PATH in the ***runproiv.sh*** script; failure to do so will result in the PROIV SQL Server interface not initialising correctly.

It is recommended that the Microsoft instructions be followed for installing unixODBC.

Access to SQL Server is via an ODBC DSN (Data Source Name), these are configured as per the unixODBC documentation. By way of example; the configuration is a two part process; first the unixODBC driver manager needs to know about the Microsoft ODBC Driver for SQL Server; this is typically done by adding a section similar to:

```
[ODBC Driver 18 for SQL Server]
Description=Microsoft ODBC Driver 18 for SQL Server
Driver=/opt/microsoft/msodbcsql18/lib64/libmsodbcsql-18.3.so.3.1
UsageCount=1O
```

To the `/etc/odbcinst.ini` file.

The data source is then configured; this can either be a system data source in which the system config file `/etc/odbc.ini` or the users specific `.odbc.ini` located in their home directory. The content would include a section similar to the following:

```
[Stock]
Driver = ODBC Driver 18 for SQL Server
Server = localhost,1433
Description = Stock Control Database
```

In this case the Stock data source is defined as being on server local host accessible on port 1433.

To configure PROIV to access the database as the default SQL database you would set the connection string to

username/**password**/Stock

where username and password are replaced with the correct credentials for the database.

5.1.6 Integration with “systemd” services

From Version 15 the names of the “systemd “services have been updated to avoid clashes with PROIV Versions 10 and 11. The new names are listed below.

- p4analytics15.service
- p4appcon15.service
- p4clicon15.service
- p4system15.service
- p4taskserver15.service

On a clean install the systemd unit files will be created with these new names.

5.2 AIX

This release is supported on AIX operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed. See the Supported Platforms section for the currently supported Technology levels.

PROIV is compiled and targeted for Power 8 and 9 processors, execution on older hardware will result in core dumps, this is unsupported.

5.2.1 Supported Java Runtime Environments

PROIV on 64-bit AIX only supports the IBM Semeru Certified Java 21 JDK. The installation process initially refers to the path that is set in the JAVA_HOME variable; in case this is not found, it looks in the following directories (as defined using a regular expression) for a Java 21 JDK and will use it in preference as it is found.

/usr/*[jJ][aA][vV][aA]*21*	/opt/*[jJ][aA][vV][aA]*21*
/usr/*[jJ]2[sS][Ee]*	/opt/*[jJ]2[sS][Ee]*
/usr/*[jJ][dD][kK]*	/opt/*[jJ][dD][kK]*
/usr/*[jJ][aA][vV][aA]*	/opt/*[jJ][aA][vV][aA]*
/usr/*[jJ][aA][vV][aA]*/*[jJ]21*	/opt/*[jJ][aA][vV][aA]*/*[jJ]21*
/opt/*[jJ]21*	/usr/*[jJ]21*

5.2.2 Oracle

The AIX platform includes the Oracle 19c Instant client, it can be found in the $PROIV_HOME/virtual_machine/lib/instant_client directory of your installation. This directory is added to the LD_LIBRARY_PATH environment variable as part of the ***runproiv.sh*** script.

Oracle may generate a warning return code "*ORA-24347*" when NULL columns are used in aggregate functions. PROIV regards the warning as an error and rolls back the transaction. Within PROIV, this is only likely to happen with full function SQL.

You can instruct PROIV to ignore the Oracle warning by disabling the Enable Warnings As Error switch in the Oracle section of the Virtual Machine configuration in the PROIV Dashboard.

Oracle performance is much better if the Oracle connection information is specified by an Oracle System Identifier (SID). Specify the name of the SID by exporting ORACLE_SID in your PROIV start-up script. The Connection string then only needs to specify username/password.

5.2.3 AIX Pre-requisites

PROIV Version 15 is compiled with the Open XLC 17 compiler, consequently it has a dependency on the IBM Open XL C/C++ 17.1.1 runtime environment file sets. These must be installed for PROIV to work.

5.3 64-bit Windows

This release is supported on Windows operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed.

5.3.1 Supported Java Runtime Environments

The 64-bit Windows installation is bundled with a Microsoft Java 21 Runtime Environment; any other Java runtime is not supported.

5.3.2 PostgreSQL

The solution makes use of native PostgreSQL database drivers (libpq). If you wish to use PostgreSQL as your database you will need to download and install the PostgreSQL software from https://www.postgresql.org/. The Windows "Path" environment variable should be modified to include the paths to the PostgreSQL lib and bin folders.

5.3.3 SQL Server / Azure SQL ODBC Driver

SQL Server and Azure SQL are only supported with Windows ODBC Driver 18 for SQL Server, the version 17 driver does not function correctly and is not supported.

5.4 Operating System Authentication to connect PROIV with Oracle database

On UNIX platforms, PROIV supports user authentication to establish connection between PROIV sessions and an Oracle database. You can configure an Oracle Database to authenticate (that is, verify the identity of) users or other entities that connect to the database. Authentication must be configured in two ways, such as through the PROIV application and from the Oracle database.

On the PROIV side, the username and/or password provided in the PROIV Dashboard settings should be blank. On the Oracle database side, you must set Oracle configuration to allow OS authentication. For more information, refer to Oracle documentation.

This will not affect standard database authentication of credentials, however should problems arise it is possible to connect using the existing method by setting the OCI Simple Logon property in the PROIV Dashboard. This cannot be used with OS authentication.

5.5 File System Support

PROIV is not supported on shared file systems such as SAMBA (SMB/CIFS), or NFS.

6 Common Vulnerabilities and Exposures

This release of PROIV includes fixes for all the CVEs listed below and those fixed in previous versions.

6.1 CVEs Addressed for version 15.100.11

Number	Description
CVE-2025-69873	ajv
CVE-2026-40175, CVE-2026-25639, CVE-2025-62718	axios
CVE-2026-33750	brace-expansion
CVE-2026-32141, CVE-2026-33228	flatted
CVE-2026-40895	follow-redirects
CVE-2026-29063	immutable
CVE-2019-14540	jackson-databind
CVE-2026-5795, CVE-2026-1605	jetty
CVE-2025-13465, CVE-2026-4800	lodash
CVE-2026-34478, CVE-2026-34480, CVE-2026-34481	log4j
CVE-2026-26996, CVE-2026-27904, CVE-2026-27903	minimatch
CVE-2026-33671	picomatch
CVE-2025-55182, CVE-2025-55184, CVE-2026-23864	react
CVE-2026-27606	rollup
CVE-2026-22733, CVE-2026-22731	spring-boot
CVE-2026-27148, CVE-2025-68429	storybook
CVE-2025-62522	vite

7 Resolved Issues

This release of PROIV includes fixes for all issues listed below and those fixed in previous versions.

7.1 Resolved Issues for version 15.100.11

Support Ref.	Description	PROIV Ref.
	Accessing multiple REST header values	326937

8 Known Issues

8.1 Creation of Full-Function SQL in Global Logic

The creation of Full-Function SQL in Global Logic has a known issue in all releases of PROIV. Full-Function SQL should only be created in Local Logic i.e. associated with the appropriate event points.

Customers who wish to detect if they have used Full-Function SQL in their Global Logic can do this using the "Bulk Logic Search and Replace" as follows:

1. Create a work list of all their Global Logic via "Object Type" on the "Advanced" tab.
2. Search for "ENDSQL" with "Ignore Case?" and ""Word" Match?" selected.

It may contain some false positives, but they can be eliminated by reviewing the generated report.

8.2 Displaying and interacting with combo boxes containing dates

The PROIV VM in the case of combo boxes doesn't provide the date format along with the date data sent to OC/LC (other types such as list box are not susceptible). OC/LC display dates in the locale set in the browser OC/LC have settings in the message.properties for the format of dates as sent to/from the PROIV VM PROIV VM has a date format setting in the system defaults.

There is a requirement to keep the PROIV VM, message.properties and browser locale date formats aligned for combo boxes with dates to function as expected. Care must also be taken with the use of enable/disable(&#@EUROF) in logic as this can misalign the date format sent from the PROIV VM.

8.3 URL Parsing in the RESTful Interface

Changes have been made to URL parsing in the RESTful interface to PROIV, where previously an incoming request might match multiple paths (and select the longest matching path) an exact match is now required.

8.4 Remember Settings

The MFC Client may become unresponsive when "Remember Settings" is selected on a paging screen where no column headings are specified. Either specifying column headings or removing "Remember Settings" resolves the issue.

8.5 Migration of Configuration between UNIX and Windows

Configuration migration currently allows a unix configuration to be migrated on a windows installation and vice-versa. This is not supported and will corrupt your configuration so should not be attempted under any circumstances.

8.6 Image accessing in PROIV Client

When the PROIV client is running with a secure connection some browsers will convert any non-secure image requests to a secure one (e.g. change http to https). If the server supplying the image does not support https then the image will not be found. Chrome and Edge do the conversion but Firefox does not. We would recommend that all images accessed by the PROIV clients as a URL use the secure protocol (https) that way they will always show in all browsers.

8.7 Apache FOP

PROIV uses Apache FOP version 2.6 and this expects image paths to be enclosed in url format. E.g.

The following format is no longer supported

```
<xsl:attribute name="src">
<xsl:value-of select="//PdfImage"/>
</xsl:attribute>
```

And should be changed to this supported format:

```
<xsl:attribute name="src"> url('file:<xsl:value-of select="//PdfImage"/>')
</xsl:attribute>
```

8.8 VIP Wrapper Functions

The wrapper function @VIPWP03 is a run-time function which gives the user the ability to bulk build functions outside of PROIV Developer. If this function is run within the PROIV Developer then the programmer should save the value of Communication Variable 6 (@$COM6) before and restore after running the function

8.9 SE Linux Services

SELinux prevents running a system service where the binary to execute (e.g. /home/user1/v14/ClientServices/bin/clientServices) is in a user's home directory or root user's home directory. As a result, SELinux is not supported.

8.10 Difference between OpenClient and Windows Client with Icons

There is a difference in behaviour between the Open Client and the Windows Client when processing graphics assigned to an Icon when they are to be obtained from the internet. The Windows Client requires the internet settings to specify the URL of the graphics location on the internet and this is then used to access a file specified as the graphic for the icon. The Open Client allows the full URL, including the name of the file, to be assigned to the icon. The name of the file used for the Windows Client is case sensitive.

8.11 Temporary Files in Application Services and Client Services

Over time the number of files in the temp folders of ApplicationServices and ClientServices will increase due to deploying and re-deploying configurations. You should periodically remove these files to reduce problems with disk space and the impact on the time it takes to uninstall and re-install the application.

8.12 Demo Send and Receive

Under Windows the @DemoFileSendRecieve demo function will not transfer files to the default boots directory if the running process does not have permission to do so.

For further information please visit zellis.com

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