

# PROIV VERSION 8.3 RELEASE NOTES

## August 2017

Release 8.3R2



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### Document History

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8.3R0	31-01-2017	Release Notes
8.3R0	13-02-2017	Added Resolved Issues for all point releases of version 8
8.3R0-SR1	01-03-2017	Added support for CORS and Resolved Issues for 8.3.6.31
8.3R0-SR2	29-03-2017	Update on PROADMIN.exe and Resolved Issues for 8.3.6.39
8.3R0-SR3	02-05-2017	Added section 3.5 and Resolved Issues for 8.3.6.43
8.3R1	14-06-2017	Added sections 3.1,3.2, 3.3, 3.6 and 6.1 Updated section 1.3
8.3R1-SR1	22-06-2017	Added Resolved Issues for 8.3.8.29
8.3R1-SR1	29-06-2017	Updated the defect number for the resolved issue in 8.3.8.29
8.3R1-SR2	31-07-2017	Added section 5.5.2, Updated Known Issues and Added Resolved Issues for 8.3.8.33
8.3R2	10-08-2017	Added Resolved Issues for 8.3.10.14

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# 1 INTRODUCTION

## 1.1 DOCUMENT STRUCTURE

- Section 2 – Supported Platforms and Databases
- Section 3 – Getting Started with Version 8.3
- Section 4 – Component Specific Information
- Section 5 – Platform and Database Specific Information
- Section 6 – Issues

## 1.2 UPGRADING YOUR APPLICATION TO VERSION 8.3

PROIV version 8.3 is language and gen compatible with all point releases of version 8 (8.0, 8.1 and 8.2R0, 8.2R1); you do not need to perform a mandatory regen when moving from 8.0/8.1 to 8.3. However, NGA always recommended you should as certain defect correction do require changes to the gen process; doing so ensures you are always up to date with the latest corrections.

However, if you are upgrading from v7 to v8, you must take a backup of your boots folder; export your application source code and import into v8.3; then perform a regen of the application.

## 1.3 END OF LIFE PRODUCTS

The following table details about the software withdrawal and support discontinuance.

END OF LIFE PRODUCTS			
	Components	Platforms	Database Interface
PROIV V8	<ul style="list-style-type: none"> <li>• Active Web</li> <li>• Web Developer</li> <li>• Client Administration</li> </ul>	<ul style="list-style-type: none"> <li>• 32-bit AIX</li> <li>• 32-bit Solaris</li> <li>• 32-bit and 64-bit HP-UX PA-RISC</li> <li>• OpenVMS</li> </ul>	
PROIV V8.3R1 onwards		<ul style="list-style-type: none"> <li>• 32-bit Windows Server</li> <li>• 32-bit Linux</li> <li>• Windows 8.0</li> <li>• Windows Server 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Reality</li> </ul>
<b>AIX 6.1 end of service pack support:</b> NGA forward notifies that support for AIX 6.1 will cease on 31st Dec 2017.			

## 2 SYSTEM REQUIREMENTS AND SUPPORTED PLATFORMS

The following table details about the compatibility of system requirements, platforms, databases and browsers for PROIV 8.3 components. For installation process, refer to PROIV v8.3 Installation guide.

PROIV V8.3R2 Server Supported Platforms											
Platform				Database Interface							
OS Name	Arch	Min OS	Max OS	My SQL	Oracle		SQL Server			Postgre SQL	C-ISAM
				5.7	11g	12c	2012	2014	2016	9.4	7.26
Windows Server	64-bit	2012R2	2016	✓	✓	✓	✓	✓	✓	✓	
Windows Workstation	64-bit	7 Note 1	10		✓	✓	✓	✓	✓ Note 2	✓	
Linux	64-bit x64	RedHat 6	RedHat 7	✓	✓	✓				✓	✓
AIX	Power 6+	AIX 6.1	AIX 7.1		✓	✓					✓
Solaris	SPARC 64-bit	Solaris 10	Solaris 11		✓	✓					✓
HP-UX	la64	11iv3	11iv3		✓	✓					✓

**Notes**

1. Windows 8.0 is not supported
2. SQL Server 2016 is not supported on Windows 7

PROIV V8.3R2 Supported Client / Browser Platforms								
Platform			Browser					
OS Name	MFC Client	Internet Explorer		Edge	Google Chrome		Mozilla Firefox	Safari
		10	11		18	39 Onwards	33 Onwards	8
Windows 7	✓		✓			✓	✓	
Windows 10	✓		✓	✓		✓	✓	
Windows 2012R2	✓		✓			✓	✓	
Windows 2012	✓	✓				✓	✓	
<b>Windows 2016</b>	✓		✓	✓				
iOS 8.1.1						✓		✓
Android 4.x					✓			

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## MFC Client / Forms Designer Platforms

The MFC Client and Forms Designer are 32-bit applications which are compatible with the Windows 7 and Windows 10 operating systems. Whilst the installation may be successful on Windows XP and Windows 8, they are not supported platforms and are not tested; NGAHR will not accept any fault reports or support issues on these platforms.

### p4sshlink.exe virus detection

Some third party security software providers' classified p4sshlink.exe as a threat, as it is used in secure connections and may have the possibility to be exploited or used maliciously. There is no specific known virus reported, but it is placed it into 'suspicious' or a 'potential threat' category.

The p4sshlink.exe itself is not dangerous, but it depends on how it is used. It is built from source for every release specifically for use in the PROIV product, so the risk is very minimal.

False positive claims have been submitted to the security software providers to have them ignore the file when detected. Meanwhile, NGA recommends adding an exception on p4sshlink.exe to prevent it from being quarantined and it potentially disabling PROIV.



## 3 GETTING STARTED WITH VERSION 8.3

### 3.1 DYNAMIC TRACING

Dynamic Tracing, a new feature facilitates application developers to programmatically turn ON and OFF the trace files which are generated by the PROIV virtual machine. This provides application developers with a mechanism to generate trace files under their control and not for an entire environment.

For example, as an application developer you can implement a "support screen" in your application on which you can present few check boxes or levels for tracing and can direct the end user to that screen when there is an issue with the application which necessitates a tracing being sent to NGA.

**Note:** This functionality is to be used solely at the direction of support.

### 3.2 ASYNCHRONOUS RESTFUL WEB SERVICES

PROIV 8.3R1 supports asynchronous transmission model in addition to the existing traditional synchronous transmission model for RESTful Web Services.

The request processing in PROIV works by default in a synchronous processing mode, which means when you invoke a web service, the client application waits for the response to return before it can continue with its work. This model is typically sufficient for processing of requests for which the processing resource method execution takes a relatively short time. However, in cases where a service execution is known to take a long time to compute the result, server-side asynchronous processing model may be used. This helps the client application to continue its work and handle the response later on.

There is no change in the definition of a PROIV REST service in order to run a service asynchronously. All currently defined REST services can be run synchronously or asynchronously. You just need to select a check box in PROIV Control Panel to switch the transmission from synchronous to asynchronous.

### 3.3 GENNING FUNCTIONS IN 8.3R1

PROIV 8.3R1 asserts a change to the Gen process; the functions which are 'Genned' in this release will not run in 8.3R0 and its service releases (8.3R0, 8.3R0-SR1, 8.3R0-SR2, 8.3R0-SR3). If you need to Gen functions for earlier versions of PROIV then you must Gen those functions in a version 8 release which is previous to version 8.3R1. Functions 'Genned' in a version 8 release less than 8.3R1 will run in version 8.3R1 without a Re-Gen.

### 3.4 PERFORMANCE MONITOR

PROIV Performance Monitor (PPM) is a simple-to-use, scalable solution that allows you to collect and view performance metrics of a PROIV transaction. Integrated within the Control Panel, it enables monitoring of PROIV components involved in a transaction and provides a holistic view of the elements of a transaction; allowing identification of areas of your application stack which consumed most time.

Key features of PPM are:

- Configuration of data components to collect and analyze performance data.

- APDEX (Application Performance Index) – makes use of a standard method to measure the performance of an application, converts into insights based on the configuration set in PPM.
- Define thresholds that trigger an alert
- Dashboards – provides a way to create customized dashboards for the selected PROIV components to identify trends and make informed business decisions.

## 3.5 LOGGING FRAMEWORK

PROIV V8.3R0 supports a new logging framework for OpenClient, Aurora and PROIV Performance Monitor (PPM). The configuration file is available in the installation directory (\NorthgateArinso\PROIV Version 8\jetty\resources). The logging level is set to 'ERROR' by default, to log any errors which may arise. The code snippet is as follows:

```
<Logger name="performancemonitor" level="error" additivity="false">
```

The logging level can be changed to generate other information such as warnings, info, trace and debug; however these should only be used under the direction of PROIV Support.

## 3.6 SOURCE CODE FOR ACTION CONTROLS

There is a possible loss of data in the source code for action controls. This is specific to the action control that has a translated tooltip with a meaning code. When such an action control is re-imported, the meaning code is lost.

To fix this issue, do either of the following:

- Retrieve the backup file of the action control which is in non-JSON format (.vpx or file from boots folder) and then re-export as JSON.
- Re-key the data in VIP and re-export as JSON, if you don't have a backup file.

## 3.7 UPGRADE BOOTS FOLDER/DIRECTORY

To upgrade additional boots folders/directories:

1. ISIN the developer.out or administrator.out (whichever is applicable).
2. If you want to upgrade DEMO functions automatically then ISIN the demonstration.out file as well (only applicable when you had performed ISIN developer.out). Alternatively, you can also upgrade the DEMO functions manually using the option in the Administrator tools tab at any point of time after installation.

Following these steps emulates the install of the new version into the default installation location.

## 3.8 CROSS-ORIGIN RESOURCE SHARING SUPPORT

The Cross-Origin Resource Sharing (CORS) for PROIV REST services has been updated to fully conform to the W3C Recommendation (<https://www.w3.org/TR/cors/>). CORS defines a way for client web applications that are loaded in one domain to interact with resources in a different domain. The implementation of CORS in PROIV is standardized and easy-to-use.

You can set the configuration for CORS in PROIV Control Panel and manage the RESTful web services.

## 3.9 VIRTUAL MACHINE SERVICE ADMINISTRATION (PROADMIN.EXE)

The proadmin utility has been updated with an option to stop the resolution of a connected client's IP address to hostname; this allows sites / installations which do not automatically update DNS with DHCP clients to avoid an unnecessary delay when proadmin generates the list of connected client sessions.

The new option **Resolve Client IP** on the connection dialog allows for the DNS lookup to be turned off. The computer name on the user information screen will then display the client machine's IP address instead of the name.

To use this option, the registry key

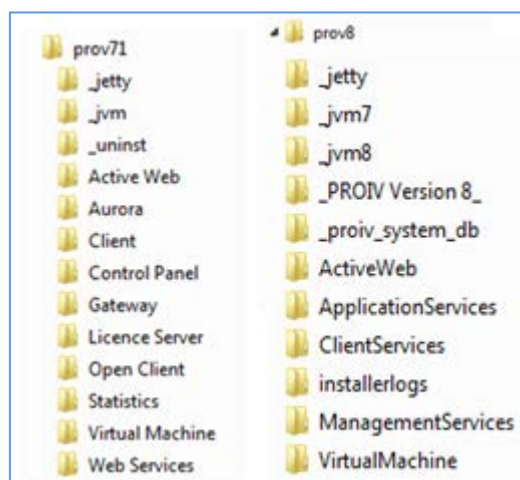
**HKEY\_LOCAL\_MACHINE\SOFTWARE\NGAHR\ProAdmin\ResolveIPToName** needs to exist as a DWORD on the machine that the prosvr executable is running.

## 3.10 DIFFERENCES BETWEEN VERSION 7 AND VERSION 8 INSTALLATIONS

Version 7 comprised 11 different server processes, either service on Windows or daemon processes on UNIX. This number has been reduced significantly to 5 and the names of the services changed to reflect their function. The table below lists the new V8 services and their V7 equivalents.

V8 Service / Process Name	V7 Service / Process name
<b>Management Services</b>	Control Panel Statistics Licensing Virtual Machine Configurator
<b>Client Services</b>	OpenClient Aurora
<b>Application Services</b>	Gateway Web Services
<b>V8 Client Virtual Machine</b>	V7 Server
<b>V8 Gateway Virtual Machine</b>	V7 Windows Kernel Server

The PROIV version 8 installed directory structure is revised to reflect the new server grouping. The following snapshot illustrates the difference of version 7 and version 8.



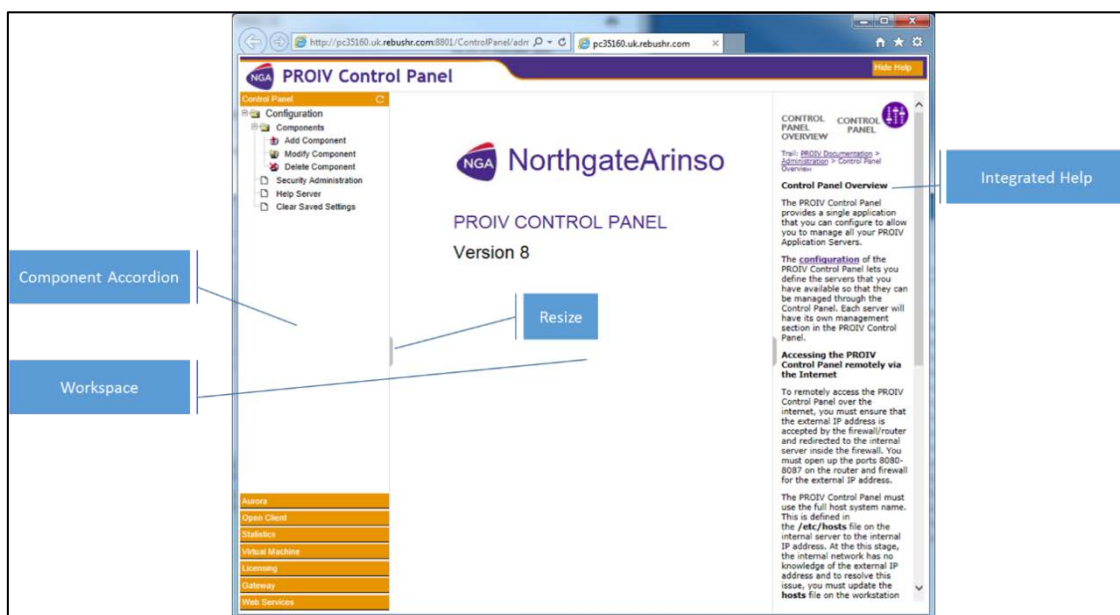
- `_jetty` – the jetty web application server V9.1 and all the Jar files used by the V8 web applications. Note that the web applications no longer have multiple copies of the jar files
- `_jvm8` – the Java Virtual Machine used by the installation

- `_proiv_system_db` – a directory containing two databases, one for the lexicon and one for statistics; this is an internal database for statistics and lexicon it should not be modified by anything other than the tools provided. It is not used to hold any application source and cannot be used as a file type for PROIV.
- `_PROIV Version 8_` - a directory containing the uninstaller for the product
- `installerlogs` – a directory with the log file created by the installer; if you have problems with installation then it is a good idea to send this into support if you need to report an issue
- `VirtualMachine` – the PROIV VM and bootstraps
- `ApplicationServices` – a configuration instance of Jetty which serves Gateway and Web Services
- `Client Services` – a configuration instance of Jetty which serves OpenClient and Aurora
- `ManagementServices` – a configuration instance of Jetty which serves ControlPanel, Licensing, Statistics and Virtual Machine Configuration

It is important to understand that there are multiple web application contexts created within each Jetty based web application server instance.

## 3.11 NEW PROIV V8 CONTROL PANEL

The V8 Control Panel is updated with a new look and feel making it quicker and easier to manage your PROIV installations.



On the left side is an accordion displaying the components configured within your Control Panel, simply click on the orange bar to open the component you wish to manage and set the configuration by clicking on the items in the tree.

Additionally, the Help system is now integrated within the Control Panel, click the “Show Help” button at the top right and the Help panel will slide out from the right side displaying the context sensitive help for the screen in the workspace.

You can adjust the width of the accordion and the Help using the grey thumb nails present on the dividers.

The operation of the screens presented in the workspace is the same as Version 7.

## 3.12 PROIV SYSTEM DATABASE

New for V8, the PROIV System database is used to hold the statistics generated by your installation and the lexicon for any multi-lingual translations. The database starts automatically as part of the Management Service and cannot be disabled.

If you wish to utilize a different database as per V6 and V7 (Oracle, PostgreSQL or SQL Server) for statistics or lexicon then you are free to do so and should reconfigure the statistics component and lexicon in Control Panel with the correct connection details.

**The system database is not available for use as a relational database for a PROIV application, it is purely for use by the PROIV installation.**

## 3.13 LICENCE SERVER

The Licence Server is no longer a separate process within your PROIV installation; it is now part of the Management Service. In order for Open or MFC clients successfully get a license **you must** run the Management Service.

## 3.14 CONNECTING TO PROIV

There are three ways to connect to the PROIV Virtual Machine:

- Legacy Green Screen
- Classic MFC Client
- OpenClient / Aurora

On UNIX platforms the PROIV Virtual Machine may be started with the *runproiv* script as per V7.

On Windows the default port for the Client VM server has changed to 8023 and the default port for the Gateway VM Server is now 8033.

### 3.14.1 PROIV SERVERS

As previously stated, V8 has reduced the number of services which need to be started on your system.

On Windows these can be found in the windows Service Manager and can be started / stopped as per previous releases.



Program Compatibility Assistant...	This service provides ...	Started	Automatic
PROIV V8 Application Services	PROIV V8 Application...	Started	Automatic
PROIV V8 Client Services	PROIV V8 Client Servi...	Started	Automatic
PROIV V8 Client VM	Provides PROIV VM S...	Started	Automatic
PROIV V8 Gateway VM	Provides PROIV VM S...	Started	Automatic
PROIV V8 Management Services	PROIV V8 Manageme...	Started	Automatic
Protected Storage	Provides protected st...	Started	Manual

On Unix there are shell scripts in each of the following directories to start and stop the server instances.

```
$PROIV_HOME/ApplicationServices/bin  
$PROIV_HOME/ClientServices/bin  
$PROIV_HOME/ManagementServices/bin
```

---

## **3.15 Co-EXISTENCE WITH EARLIER VERSIONS OF PROIV**

### **3.15.1 WINDOWS PLATFORMS**

Version 8 (client and servers) can now coexist with Version 7 on the same operating system instance; the servers utilize different listening ports. PRO-ISAM locks will also be shared between versions, however it is important to ensure that file definitions match otherwise there will be unexpected behavior.

### **3.15.2 UNIX PLATFORMS**

You are able to install PROIV Version 8 on the same system as PROIV Version 7; although it should be noted that some of the pre-requisites for version 8 are different to version 7.

## 4 COMPONENT SPECIFIC INFORMATION

### 4.1 AURORA

#### 4.1.1 URL TO ACCESS AURORA

The URL to access Aurora depends on the port number provided during the installation of PROIV. The default port number is 8804 and the full URL is:

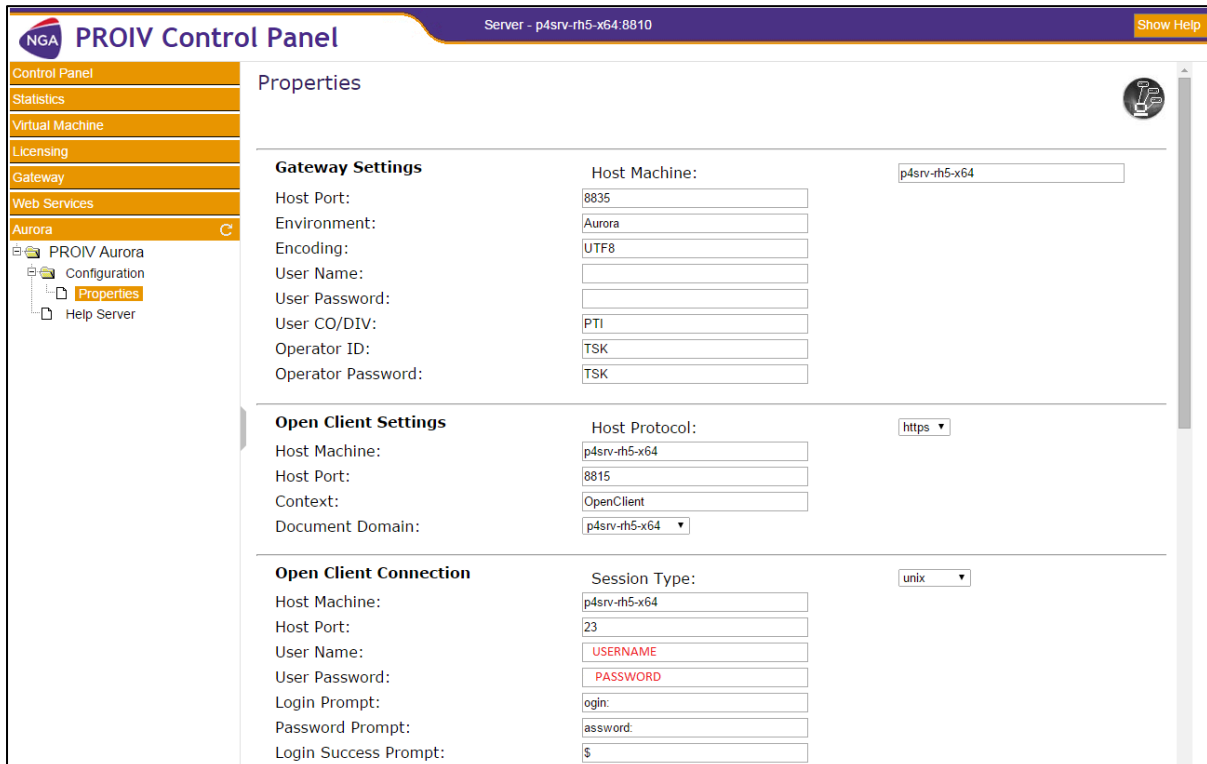
<http://machine:8804/Aurora>

Where machine is the fully qualified domain name of the server on which you have installed PROIV.

#### 4.1.2 UPDATES TO AURORA CONFIGURATION ON UNIX

Once you have installed version 8.3 on UNIX, you will need to make some further configuration changes to allow the Aurora to function.

Using the Control Panel navigate to the Aurora area and select properties from the tree on the left side; in the OpenClient Connection section enter a username and password which will successfully log into the Unix host. Also, ensure that this user can connect either an OpenClient session or an MFC Client session by running the *runproiv* script which was created during the installation process. If required, update the prompts specified to allow processing of the Unix login.



Section	Property	Value
Gateway Settings	Host Machine:	p4srv-rh5-x64
	Host Port:	8835
	Environment:	Aurora
	Encoding:	UTF8
	User Name:	
	User Password:	
	Operator ID:	TSK
Open Client Settings	Host Protocol:	https
	Host Machine:	p4srv-rh5-x64
	Host Port:	8815
	Context:	OpenClient
	Document Domain:	p4srv-rh5-x64
Open Client Connection	Session Type:	unix
	Host Machine:	p4srv-rh5-x64
	Host Port:	23
	User Name:	USERNAME
	User Password:	PASSWORD
	Login Prompt:	login:
	Password Prompt:	assword:
	Login Success Prompt:	\$

When configuring Aurora it is important to ensure that the Document Domain and Host Machine are the same otherwise Aurora will not successfully launch tabs within the framework.

## 5 PLATFORM AND DATABASE SPECIFIC INFORMATION

### 5.1 64-BIT LINUX

#### 5.1.1 SUPPORTED JAVA RUNTIME ENVIRONMENTS

PROIV on 64-bit Linux supports Oracle Java 7 and Java 8 Runtime Environments. The installation process initially refers to the JRE path that is set in the JAVA\_HOME variable; in case not found, it looks in the following directories (as defined using regular expression) for an Oracle JRE 8 before JRE 7 and will use it in preference as it is located.

/usr/*[jJ][rR][eE]*1*8*	/usr/*[jJ][aA][vV][aA]*8*	/opt/*[jJ][sS][Ee]*/jre
/opt/*[jJ][rR][eE]*1*8*	/opt/*[jJ][aA][vV][aA]*8*	/opt/*[jJ][rR][Ee]*
/usr/*[jJ][aA][vV][aA]*1*8*	/usr/*[jJ][sS][Ee]*	/usr/*[jJ][rR][eE]*
/opt/*[jJ][aA][vV][aA]*1*8*	/usr/*[jJ][sS][Ee]*/jre	/opt/*[jJ][rR][eE]*
/usr/*[jJ][rR][eE]*8*	/usr/*[jJ][rR][Ee]*	/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][rR][eE]*8*	/opt/*[jJ][sS][Ee]*	/opt/*[jJ][aA][vV][aA]*
/usr/*[jJ][aA][vV][aA]*/*[jJ]*	/opt/*[jJ][aA][vV][aA]*/*[jJ]*	/opt/*[jJ]*
/usr/*[jJ]*	/usr/jre1.8.0	/usr/local/jre1.8.0
/usr/java/jre1.8.0	/opt/jre1.8	/opt/jre1.8.0
/usr/jre8.0	/usr/local/jre8.0	/usr/java/jre8.0
/opt/jre8	/usr/jre8	/usr/local/jre8
/usr/java/jre8		

#### 5.1.2 POSTGRESQL

The Linux platform requires unixODBC 2.3.2 or above which can be installed from [www.unixODBC.org](http://www.unixODBC.org); its libraries are available on the LD\_LIBRARY\_PATH of the user running the PROIV Virtual Machine.

This release of PROIV has been compiled and linked against libodbc.so found within an installed distribution of unixODBC build from source code. This file is a symbolic link and points to libunixodbc.so.2.0.0; a proper installation of unixODBC should have this symbolic link setup correctly.

PROIV with PostgreSQL has been tested and compiled against standard distributions of the following components

PostgreSQL Database	9.4
PostgreSQL ODBC Driver	9.02.0100 (no other version is supported)
unixODBC	2.3.2 (or above)

#### 5.1.3 ORACLE

The Linux platform includes the Oracle 12c Instant client (version 12.1.0.2.0) 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** script.



## 5.1.4 MYSQL

The Linux 64-bit includes MySQL - Connector/C Library “libmysqlclient.so” which can be found in the PROIV\_HOME/virtual\_machine/lib/mysql directory of your installation. This directory is added to the LD\_LIBRARY\_PATH environment variable as part of the *runproiv* script.

## 5.2 SOLARIS

This release is supported on Solaris 10 (minimum release is Solaris 10 1/13) and Solaris 11. It is very important that the operating system has all vendor-supplied patches installed.

**Note:** The Reality database is no longer supported on this platform.

### 5.2.1 SUPPORTED JAVA RUNTIME ENVIRONMENTS

PROIV on 64-bit Solaris supports the Oracle Java 7 and Java 8 Runtime Environments on the Solaris platform. The installation process initially refers to the JRE path that is set in the JAVA\_HOME variable; in case not found, it looks in the following directories (as defined using regular expression) for an Oracle JRE 8 before JRE7 and will use it in preference as it is located.

/usr/*[jJ][rR][eE]*1*8*	usr/jre1.8.0	/usr/*[jJ][dD][kK]*1*8*
/opt/*[jJ][rR][eE]*1*8*	/usr/*[jJ][rR][eE]*1*8*0*	/opt/*[jJ][dD][kK]*1*8*
/usr/*[jJ][aA][vV][aA]*1*8*	/opt/*[jJ][rR][eE]*1*8*0*	/usr/*[jJ][dD][kK]*1*8*/jre
/opt/*[jJ][aA][vV][aA]*1*8*	/usr/*[jJ][aA][vV][aA]*1*8*0*	/opt/*[jJ][dD][kK]*1*8*/jre
/usr/*[jJ][sS][eE]*	/opt/*[jJ][aA][vV][aA]*1*8*0*	/usr/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ][sS][eE]*/jre	/usr/*[jJ][rR][eE]*8*0*	/opt/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ][rR][eE]*	/opt/*[jJ][rR][eE]*8*0*	/usr/*[jJ][sS][eE]*
/opt/*[jJ][sS][eE]*	/usr/*[jJ][aA][vV][aA]*8*0*	/usr/*[jJ][sS][eE]*/jre
/opt/*[jJ][sS][eE]*/jre	/opt/*[jJ][aA][vV][aA]*8*0*	/opt/*[jJ][sS][eE]*
/opt/*[jJ][rR][eE]*	/usr/*[jJ][rR][eE]*8*	/opt/*[jJ][sS][eE]*/jre
/usr/*[jJ][rR][eE]*	/opt/*[jJ][rR][eE]*8*	/usr/*[jJ][dD][kK]*/jre
/opt/*[jJ][rR][eE]*	/usr/*[jJ][aA][vV][aA]*8*	/opt/*[jJ][dD][kK]*/jre
/usr/*[jJ][aA][vV][aA]*	/opt/*[jJ][aA][vV][aA]*8*	/usr/*[jJ][dD][kK]*
/opt/*[jJ][aA][vV][aA]*	/usr/*[jJ][sS][eE]*	/opt/*[jJ][dD][kK]*
/usr/*[jJ][aA][vV][aA]*/[jJ]*	/usr/*[jJ][sS][eE]*/jre	/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][aA][vV][aA]*/[jJ]*	/usr/*[jJ][rR][eE]*	/opt/*[jJ][aA][vV][aA]*
/opt/*[jJ]*	/opt/*[jJ][sS][eE]*	/usr/*[jJ][aA][vV][aA]*/[jJ]*
/usr/*[jJ]*	/opt/*[jJ][sS][eE]*/jre	/opt/*[jJ][aA][vV][aA]*/[jJ]*
	/opt/*[jJ][rR][eE]*	/opt/*[jJ]*
	/usr/*[jJ][rR][eE]*	/usr/*[jJ]*
	/opt/*[jJ][rR][eE]*	
	/usr/*[jJ][aA][vV][aA]*	
	/opt/*[jJ][aA][vV][aA]*	
	/usr/*[jJ][aA][vV][aA]*/[jJ]*	
	/opt/*[jJ][aA][vV][aA]*/[jJ]*	

### 5.2.2 ORACLE

The Solaris platform includes the Oracle 12c Instant client (version 12.1.0.2.0) 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* script.

## 5.3 HP-UX ITANIUM

This release is supported on HPX 11iv3. It is very important that the operating system has all vendor-supplied patches installed.

### 5.3.1 SUPPORTED JAVA RUNTIME ENVIRONMENTS

PROIV on 64-bit HP-UX supports Java 7 and Java 8 Runtime Environments. The installation process initially refers to the JRE path that is set in the JAVA\_HOME variable; in case not found, it looks in the following directories (as defined using regular expression) for an Oracle JRE 8 before JRE 7 and will use it in preference as it is located.

/opt/*[jJ][rR][eE]*1*8*
/usr/*[jJ][rR][eE]*8*
/opt/*[jJ][rR][eE]*8*
/usr/*[jJ][dD][kK]*1*8*/jre
/opt/*[jJ][dD][kK]*1*8*/jre
/usr/*[jJ][aA][vV][aA]*1*8*
/opt/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ][aA][vV][aA]*8*
/opt/*[jJ][aA][vV][aA]*8*
/usr/*[jJ]2[sS][Ee]*
/usr/*[jJ]2[sS][Ee]*/jre
/usr/*[jJ]2[rR][Ee]*
/opt/*[jJ]2[sS][Ee]*
/opt/*[jJ]2[sS][Ee]*/jre
/opt/*[jJ]2[rR][Ee]*
/usr/*[jJ][dD][kK]*/jre
/opt/*[jJ][dD][kK]*/jre
/usr/*[jJ][dD][kK]*
/opt/*[jJ][dD][kK]*
/usr/*[jJ][rR][eE]*
/opt/*[jJ][rR][eE]*
/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][aA][vV][aA]*
/usr/*[jJ][aA][vV][aA]*/[jJ]2*
/opt/*[jJ][aA][vV][aA]*/[jJ]2*
/opt/*[jJ]2*
/usr/*[jJ][rR][eE]*1*8*
/opt/java1.8
/opt/java1.8/jre
/opt/java8/jre
/opt/java8

### 5.3.2 ORACLE

The HP-UX platform includes the Oracle 12c Instant client (version 12.1.0.2.0) 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* script.

### 5.3.3 ENVIRONMENT SETTINGS

#### TTY\_MIXED\_CASE

This platform supports terminal ids which include both upper and lower case characters. It is advised that the TTY\_MIXED\_CASE variable is set to "Y" to ensure terminal id's when used by PROIV are unique. Refer to PROIV Help for more information.

## 5.3.4 POTENTIAL PROBLEM WITH DISK SPACE DURING INSTALLATION

When attempting to install on HP-UX Itanium the installer reported insufficient disk space in the temporary directory used by the installer although adequate space exists.

This is due to a fault in installation software used.

Firstly, ensure that your system actually does have sufficient disk space; then set the following environment variables prior to installing

```
export CHECK_DISK_SPACE=OFF  
export IATEMPDIR=/plenty/of/space (a directory on a file system with adequate disk space)
```

This issue will be resolved in a later release.

## 5.4 AIX

This release is supported on AIX 6.1. It is very important that the operating system has all vendor-supplied patches installed.

The technology level must be at least 08 with Service Pack 02.

### 5.4.1 SUPPORTED JAVA RUNTIME ENVIRONMENTS

PROIV on 64-bit AIX supports Java 7 and Java 8 Runtime Environments. The installation process initially refers to the JRE path that is set in the JAVA\_HOME variable; in case not found, it looks in the following directories (as defined using regular expression) for an Oracle JRE 8 before JRE7 and will use it in preference as it is located.

/usr/*[jJ][rR][eE]*1*8*
/opt/*[jJ][rR][eE]*1*8*
/usr/*[jJ][dD][kK]*1*8*/jre
/opt/*[jJ][dD][kK]*1*8*/jre
/usr/*[jJ][aA][vV][aA]*1*8*
/opt/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ]2[sS][Ee]*
/usr/*[jJ]2[sS][Ee]*/jre
/usr/*[jJ]2[rR][Ee]*
/opt/*[jJ]2[sS][Ee]*
/opt/*[jJ]2[sS][Ee]*/jre
/opt/*[jJ]2[rR][Ee]*
/usr/*[jJ][dD][kK]*/jre
/opt/*[jJ][dD][kK]*/jre
/usr/*[jJ][dD][kK]*
/opt/*[jJ][dD][kK]*
/usr/*[jJ][rR][eE]*
/opt/*[jJ][rR][eE]*
/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][aA][vV][aA]*
/usr/*[jJ][aA][vV][aA]/*[jJ]2*
/opt/*[jJ][aA][vV][aA]/*[jJ]2*
/opt/*[jJ]2*
/usr/*[jJ]2*
/opt/java1.8
/opt/java1.8/jre

## 5.4.2 ORACLE

The AIX platform includes the Oracle 12c Instant client (version 12.1.0.2.0) 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* script.

## 5.5 ORACLE

Oracle may generate a warning return code “ORA-24347” when NULL columns are used in aggregate functions. This happens for all PROIV V8 versions (8.0, 8.1, 8.2 and 8.3). 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 setting the following environment variable in the pro4v8.ini file – Environment section or in the operating system environment.

IGNORE\_ORACLE\_WARNINGS= “Y”

### 5.5.1 ORACLE

The 32-bit Linux platform includes the Oracle 12c Instant client (version 12.1.0.2.0) 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* script.

### 5.5.2 OPERATING SYSTEM AUTHENTICATION TO CONNECT PROIV WITH ORACLE DATABASE

On UNIX platforms, PROIV supports user authentication to establish connection between PROIV session and Oracle database. You can configure 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 connection string or via the SQL\_USERNAME/SQL\_PASSWORD variables 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 environment variable OCI\_LOGON=Y. This cannot be used with OS authentication.

## 5.6 MYSQL

MySQL allows only one active SQL query for each connection. All the results of the query have to be “retrieved” prior to another query being issued.

PROIV will fetch all rows from a query from the database server to the PROIV Virtual Machine prior to issuing another query. Subsequent fetches for the query as per the PROIV timing cycle will use the locally retrieved copy.

Transaction will work as expected but developers need to be aware that issuing a “Select” which retrieves a large number of rows will require additional memory for temporary storage.

## 6 ISSUES

### 6.1 KNOWN ISSUES

#### Non-compliance of File Naming Levels for existing PROIV Objects

It is possible to copy functions and create file browsers with names that do not comply with the "File System Safe" and "Strict" naming levels.

#### JSEException Error during a mouse click from a field outside paging area

JSEException error doesn't appear during a mouse click from a field outside paging area while working on Firefox 47; however it occurs on Firefox 44.

### 6.2 RESOLVED ISSUES FOR V8.3R2 BUILD 8.3.10.14

Issue No	Description	Linked Issues
DFCT0071372	VIP Allows a User to Open Function Belonging To A Non-Assigned Function Category	
DFCT0062554	Paging area elements ignore bgcolor property	
DFCT0076852	Aurora screen function displays in centre of screen if we are moving between Menu tabs.	
DFCT0074990	PROIV is not allowing to install without demo function	
DFCT0076987	Java out of memory error in ExcelSSO while inserting more than 160,000 records	
DFCT0075301	Paging area 'No-Change' field inconsistent click behaviour	
DFCT0076032	Listing issue of 'Show Associates' in PROIV Developer's File Definition Selection window.	
DFCT0059940	Intermittent failure to export Lexicon from System DB	
DFCT0061906	Licence Server sometimes fails to start after a system reboot	
DFCT0060101	Border is not working when merging columns in ExcelSSO	
DFCT0066559	Fatal Error in PHP Client Code for RESTful Web Service Returning Number	
DFCT0069428	Open Client xxxstderrout.log is missing error entries	
DFCT0080671	Unknown Publisher message appears when we initiate installation	
DFCT0062563	Horizontal scrollbar or screen dimensions lost on navigation when the screen is resized in Open Client	
DFCT0081365	Portion of image disappearing while navigating between menu tabs in aurora	
DFCT0072389	Tooltip position incorrect in IE11 after horizontal/vertical-scroll	
DFCT0080051	Paging area - Smooth mode, no clear on add are broken	
DFCT0075949	The 'Up' arrow key doesn't work in the Paging screen in Lookup mode	
DFCT0076803	Scratch Variable defined as # inappropriately allows changing length to 15 without any warnings.	
DFCT0078502	Standard PDF SSO does not output PDF content correctly when compared to a bespoke PDF SSO when it is expected too	

## 6.3 RESOLVED ISSUES FOR V8.3R1-SR2 BUILD 8.3.8.33

Issue No	Description	Linked Issues
DFCT0078586	V8 needs to allow Oracle to use operating system authentication which previously worked in V6.	
DFCT0080381	Virtual Machine pauses when Performance Monitor not working	
DFCT0080948	Paging area - Smooth mode, no clear on add are broken	

## 6.4 RESOLVED ISSUES FOR V8.3R1-SR1 BUILD 8.3.8.29

Issue No	Description	Linked Issues
DFCT0078218	System call is returning wrong result code upon accessing Oracle file	

## 6.5 RESOLVED ISSUES FOR V8.3R1 BUILD 8.3.8.28

Issue No	Description	Linked Issues
DFCT0061331	Reserved Words List in PROIV Documentation is not up to date	
DFCT0061739	Long integers incorrectly converted in Restful Request SSO	
DFCT0063129	Large reports not transferred	
DFCT0063396	Inline SQL not working - no errors shown but return value always zero	
DFCT0063573	Excessive trace lines produced	
DFCT0063800	SQL script export path converted to lowercase	
DFCT0063812	PROIV Control Panel creation of logical databases is missing 'PROISAM' option for logical PROISAM files	
DFCT0063818	Dragging the scroll bar of paging screen causes the OC session spins	
DFCT0063938	Control panel randomly selects items when moving vertical divider	
DFCT0064062	PROIV Installer doesn't remove obsolete jars in upgrade case	
DFCT0066381	Lexicon database configuration issue in control panel host & port number disappear	
DFCT0067164	Security check has identified an arbitrary path traversal vulnerability	
DFCT0068238	Client.SetBusy () method is missing	
DFCT0070040	@DemoHTTP SSO A space in town name causes a HTTP error 400.	
DFCT0070136	Unable to get output Parameter return to PROIV from PLSQL	
DFCT0071570	boolean in web services is not correct when retrieved as a string	
DFCT0071747	Display mask not removing in File variable Definition	
DFCT0071964	ExcelSSO.writeExcelCellAs Custom Number(Write Number) Not Setting Format On Blank Cell	
DFCT0071982	PPM general settings page is unable to save data.	
DFCT0072217	Clicking on column (System Load chart) should set display width of the Transaction Details chart to correct sample period	
DFCT0072966	If a report function has an XML prologue or epilogue defined then this	

	is not included in the JSON export	
DFCT0073003	Wrong status code seen on update of non-existent PPM Apdex settings	
DFCT0073145	PPM RWS call is giving wrong return code when attempting to delete non-existent configuration data	
DFCT0073146	PPM RWS call is able to create same alert multiple times	
DFCT0073148	Updating a non-existing Apdex alert is giving return status 200	
DFCT0073191	PPM rest call is able to update an existing email alert with invalid data	
DFCT0073197	PPM RWS call is giving wrong response code while attempting to delete a non-existing Apdex alert	
DFCT0073257	PPM RWS call is able to add events with invalid event type and component type	
DFCT0073354	PPM Apdex config - Able to add Apdex config will invalid data using rest call	
DFCT0073358	PPM Apdex Calculation is showing more number of Transactions	
DFCT0073439	Meter Charts and multiple scales display is not correct	
DFCT0073474	Details of PPM database SQL error not output to log file	
DFCT0073520	Change Management functions use the wrong nickname for the Tree Control used.	
DFCT0073738	List Maintenance is not selecting all the PRO-ISAM files and adding objects to list when the File Type PRO-ISAM is used.	
DFCT0073959	Control Panel fails to extract large lexicon DB.	
DFCT0073964	Lexicon import export documentation is referring to obsolete jar files	
DFCT0074980	Critical error details are not reported in default @RFUNCT or recorded in PROISAM bootstrap files	
DFCT0075507	Open Client input validation of leap years in date field is incorrect	
DFCT0075702	PROIV Documentation for TOKEN logic command is not clear	
DFCT0075858	Searching for While in PROIV Help gives a script error on the page which loops when dismissed.	
DFCT0076238	Clicking on Move Expand button in child window closes the Session in Open client.	
DFCT0076654	Chart type property missing when Chart widget property sheet opened	
DFCT0076766	@DemoAbout and @DemoHTTP SSO failed to build	
DFCT0076979	JSON exported source is not consistent with previous source	
DFCT0077270	The FullSelect property is not included in the JSON export for screen editbox and combobox objects	
DFCT0077775	@DemoLineChartOC missing values in fields on entry	
DFCT0077959	Provide instructions on how to manually update 'boots' when upgrading versions	
DFCT0078022	A JSON or PAR import of a control bar can lose the properties for associated action controls	
DFCT0078066	Column sort is not working in Directory Listing of Import/Export Window	
DFCT0078684	New "Exp Header" and "Req Header" fields in the RWS Control Panel are not explained in the documentation	
DFCT0078804	Error message for invalid menu option missing	

## 6.6 RESOLVED ISSUES FOR V8.3R0-SR3 BUILD 8.3.6.43

Issue No	Description	Linked Issues
DFCT0077091	Control key display the maps screen from any view screen and from within the logic editor	
DFCT0076208	Open Client Session is getting closed upon pressing Function Key F3	
DFCT0076368	Missing Tooltip meaning code in JSON export due to typo in ActionControl name map	
DFCT0077201	Remove the requirement that authentication be present in a CORS OPTIONS request	

## 6.7 RESOLVED ISSUES FOR V8.3R0-SR2 BUILD 8.3.6.39

Issue No	Description	Linked Issues
DFCT0073188	The shortcut control keys in the PROIV logic editor windows are not functional	
DFCT0075637	The prettyWriteToFile method is missing from RestfulRequestSSO	
DFCT0057194	PROIV Virtual Machine Service Administration tool (proadmin.exe) hangs on startup	

## 6.8 RESOLVED ISSUES FOR V8.3R0-SR1 BUILD 8.3.6.31

Issue No	Description	Linked Issues
DFCT0070639	Running a PROIV function that selects around 2 million records from a MySQL DB crashes the session	
DFCT0074718	Export of Listbox object to JSON incorrectly exports SortOnColumnClick as false	
DFCT0074186	JSON import/export fails to import screen paging/update cycles sort data	
DFCT0074053	SOAP web service execution results in "String index out of range" when web service name is shorter than the server context name	
DFCT0073188	Corrupted hot keys on definition of logic editor	
DFCT0074927	Project history list in Developer no longer allows column sorting	
DFCT0074103	History grid in Developer no longer sorts in order of change	
DFCT0073878	Documentation for drag and drop with array as drop target incorrect	

## 6.9 RESOLVED ISSUES FOR V8.3R0 BUILD 8.3.6.18

Issue No	Description	Linked Issues
DFCT0070889	Numeric scratch variables are being truncated, leading missed read and corrupted data	



DFCT0067892	Paging area expand mode fields without editbox are losing style in Openclient	
DFCT0064282	LABS PROIV installer fails on additional disc partitions	
DFCT0059117	Licence Server 'View Usage' page fails to load	
DFCT0057890, DFCT0071592	Unable to copy multiple rows of data from a paging area in Open Client	
DFCT0057130	SSO fails during Restful webservice task	
DFCT0058864	Restful request error should set 'Last Error' message	
DFCT0067842	Screen content jumps on mouse over in Chrome	
DFCT0060968	ExcelSSO throws java.lang.OutOfMemoryError with 17,000 rows, it will process 10,000 rows and will take about 140 seconds to run	
DFCT0061836	Errors 356 through 359 are not documented in PROIV documentation	
DFCT0061684	Multi-Line edit box in paging screen does not display all data rather shows ellipsis in Open Client.	
DFCT0061395	Help topic 500142 doesn't match behaviour in Create File Browser screen	
DFCT0061229	Enable radio button does not work In Open Client	
DFCT0060729	PROIV Oracle, SQL doesn't UPDATE scratch variable properly and shows 250 only characters, despite loading 1000 characters	
DFCT0060280	Functions not showing in "Existing Object Calls and their Maps" window when have an un-needed interface ID	
DFCT0060105	Replacing data from an existing excel sheet misaligns the content in ExcelSSO	
DFCT0059893	Radio Group - unable to get a return Value of ""	
DFCT0058237	LDAP authentication fails to reject valid users when blank password is entered	
DFCT0055836	Documentation needs changing to make it clear that the Sequence Key in an Auto-Sequenced file cannot be greater than 5 characters for SQL tables.	
DFCT0071585	Error opening pdf - the file is damaged message with PROIV Developer "Document This Function" for some functions.	

## 6.10 RESOLVED ISSUES FOR V8.2R1-SR4 BUILD 8.2.12.27

Issue No	Description	Linked Issues
DFCT0069315	Gateway Service crashes when RWS tries to return an array containing 75 records when a lower number of records work without issue.	
DFCT0065161	RestfulRequestSSO.getHdrParameter and setHdrParameters do not return/set values	
DFCT0063121	Objects move down screen when Enter key pressed	
DFCT0063824	Scaled icons disappear on mouse over	
DFCT0065994	GET on Restfull webservice does not support nested elements	
DFCT0063867	Polar area chart crashes OC & Aurora	
DFCT0069638	The install of Windows proiv8.2.12.25_win_x86-64.exe onto a clean system does not load the RWS Tasks [TASK_RWS_..] & Standard Tasks starting with [TASK_Z_...]	

## 6.11 RESOLVED ISSUES FOR V8.2R1-SR3 BUILD 8.2.12.25

Issue No	Description	Linked Issues
DFCT0065447	Function Cleanup deletes valid Global Function Call Map linkage	
DFCT0063065	Import when object naming level set to Strict fails with "Invalid Object Name XBOX2 matched by XBOX2"	
DFCT0064221, DFCT0064224	PROIV Developer properties not saving / corrupting development by navigation.	

## 6.12 RESOLVED ISSUES FOR V8.2R1-SR2 BUILD 8.2.12.18

Issue No	Description	Linked Issues
DFCT0062872	Screen content jumps on "Mouse Over" in Chrome	
DFCT0063269	JSExcption Error during a mouse click from a field outside paging area <b>Note:</b> JSExcption doesn't appear while working on Firefox 47, however occurs on Firefox 44.	

## 6.13 RESOLVED ISSUES FOR V8.2R1-SR1 BUILD 8.2.12.17

Issue No	Description	Linked Issues
PX-2367	@LS_TITLE field does not display	

## 6.14 RESOLVED ISSUES FOR V8.2R1 BUILD 8.2.12.16

Issue No	Description	Linked Issues
PX-1065	Using the Session SetScreenSize method gives exception error message in Aurora	PX-1183
PX-1097	Open Client Paging Screen exits add mode when the screen enters next page	
PX-1117	PROIV Windows Service Manager displays wrong version	
PX-1137	Open Client - Issue with Column descriptions and Combo boxes	
DFCT0047380	Lexicon Configuration does not allow for SQL Server Instance Name field	
PX-1243	Reduce the number of INI file reads	
PX-1271	ML is not licensed in Run mode - in default or generated licences	
DFCT0047373	Label On Static text Not Working In Open Client but works fine in MFC	PV-1897
DFCT0045553	In Aurora, no horizontal scrollbar displayed when browser is re-sized.	PX-1533, PX-1657, PX-1920
DFCT0046056	Release notes - Documentation need to be clear on upgrading from 8.0 to 8.1	

DFCT0045555	Some combo-drop downs in Open Client appear outside the container window	PX-1452, PX-1302, PX-1841, PX-1600, PX-1436
DFCT0045557	Tree drag item disconnects and sticks to the control	PX-1299
PX-1434	Grid JS exception timer error on 'sendClickMessage' in Open Client	PV-2052
DFCT0046162	Open Client not rendering paging screen fields In same column positions	PX-1877
DFCT0046165	Open Client truncating the description fields with dots (...), instead of utilizing the full length specified in 'GUI Width'	
DFCT0047248	Open Client session hangs when running a paging screen and user types more characters than are defined in a combo box field.	PX-1462
PX-1470	When using an image with scaling enabled, there is a size issue when the image is used in a PROIV Window and viewed by the MFC Client.	
PX-1475	Clicking the scrollbar of an active paging area from parent cycle is ignored	
PX-1478	For HP UX servers documentation needs updating to emphasize the importance of setting TTY_MIXED_CASE=Y especially if the customer is using our Menu and Security system	
PX-1486	Paging area scrollbar incorrectly positioned	PX-1838
PX-1488	Message dialogue size or content layout incorrect causing truncation	
PX-1509	Adding a new row in a paging cycle can drop below the visible area	
PX-1512	CSS class is missing when a hidden field is made visible	
PX-1531	Combo box column header shows ellipses instead of text.	
DFCT0045553	No Aurora Horizontal Scroll Bar is displayed when Aurora is running on a terminal with a small screen size	PX-1348
PX-1552	Pressing ESC while uploading a file using CLIENT.RECEIVE in Aurora or Open Client hangs the entire PRO-IV Session	
DFCT0045555	Some combo-drop downs in Open Client appear outside the container window	PX-1452, PX-1427, PX-1841, PX-1436
PX-1603	Record with NCHAR datatype is not processed in update function	
PX-1639	CREATE_FILE() returns -1 even when the file is created	
DFCT0045553	In Aurora when calling a screen that extends over the bottom of the displayed Aurora screen, the scrollbar is not extending when it should.	PX-1348
PX-1685	Cannot run the uninstaller	
PX-1712	Cannot Enter a Row/Column Number > 125 for a Static Text	
PX-1716	In an Update cycle in a screen function, adding a new file at the top of the cycle does not automatically become the primary File	
PX-1717	Prefix spaces are stripped from combo box fields on input in Open Client	
PX-1755	Default Internet cache folder is set to Version 7 path in MFC Client	
PX-1774	Toolbar does not display if window opened when first enter screen	PV-1512, PV-1733, PX-1830
PX-1781	Mouse scroll wheel not working in some lists on Active Paging	PX-1791
PX-1788	Active paging scrollbar is inaccurate and is inactive before entry in paging area	
PX-1796	Function Key Mappings [backspace, delete] do not work	

PX-1804	Restful Web Services fail to import definitions from previous version	
PX-1805	Up/Down arrows in Properties tabs are not displayed	
PX-1806	Application Profiler is not generating logs when enabled	
PX-1811	SELECT statement on integer/Numeric key doesn't return the desired output	
PX-1812	Unable to run PROIV batch routines through Green Screen or Transparent Logon on *NIX operating system.	
DFCT0047371	In OpenClient the data in a field that has focus is actually "out of focus"	PX-1122
PX-1825	Issue copying Map Interfaces when "Copy from calls to the same Functions?" checkbox is unticked.	
PX-1835	File Definition SQL Script is created incorrectly for SQL Server table with an Alternate Index Mapping.	PX-1842
PX-1839	Blank value sent when Licence Serial number defined	
PX-1842	Issue when PROIV accesses a SQL Server table using an Alternate Index Mapped file definition.	PX-1835
PX-1843	Row gets deleted in paging area when "delete" mode is activated via button/icon	
PX-1846	Paging area expand mode fields without edit box are losing style in Open Client	
PX-1862	405 - HTTP method POST is not supported by this URL in Open Client log	PX-1869
PX-1869	Performance Issues Associated with 405 Errors	PX-1862
PX-1876	Floating point calculation failing in exponentiation operation	
PX-1881	Pre-start session closed message dumps exception stack in log file	PX-1867
PX-1882	Open Client session disconnects after clicking in an edit box	
PX-2095	Function Clean-Up removes SSO parameters	
PX-2122	ExcelSSO documentation around background colour codes is incomplete	
PX-2333	Open Client does not work in IE 7 emulation mode	PX-1441

## 6.15 RESOLVED ISSUES FOR V8.2R0-SR3 BUILD 8.2.9.66

Issue No	Description	Linked Issues
PX-1860	<p>Data Dictionary is not displaying saved values after amending file definition variable properties</p> <p>To effect this fix please perform the following</p> <ul style="list-style-type: none"> <li>• Locate px1860fix.out in your "boots" directory</li> <li>• "isin" this file to create px1860fix.vpx (this contains one function called @VIPW520 (runtime only)</li> <li>• From within Developer, import from file px-1860fix.vpx using "select all" and importing the run time only specs</li> </ul> <p>The fix will now be operational</p>	
PX-1876	Floating point calculation when using exponentiation	

## 6.16 RESOLVED ISSUES FOR V8.2R0-SR2 BUILD 8.2.9.63

Issue No	Description	Linked Issues
PX-1552	Pressing ESC while uploading a file using CLIENT.RECEIVE in Aurora or Open Client hangs the entire PRO-IV Session	
PX-1812	Unable to run ProIV batch routines through Green Screen or Transparent Logon on *NIX operating system.	
PX-1862	05 - HTTP method POST is not supported by this URL in Open Client log	
PX-1866	v8 Open Client sends up time display mask formatted value which includes colon ":" characters that fails validation	

## 6.17 RESOLVED ISSUES FOR V8.2R0-SR1 BUILD 8.2.9.58

Issue No	Description	Linked Issues
PX-1811	SELECT statement on integer/Numeric key does not return the desired output	
PX-1848	SQL with Numeric variables is not parsed correctly for Postgres	

## 6.18 RESOLVED ISSUES FOR V8.2R0 BUILD 8.2.9.54

Issue No	Description	Linked Issues
PX-1079	Editing a runtime function in PROIV Client throws error	
PX-1117	PROIV Windows Service Manager displays wrong version	
PX-1122	In OpenClient the data in a field that has focus is actually out of focus	
PX-1160	Documentation issue when searching for "exponent"	
PX-1225	Mandatory Input Error when not expected in OpenClient	
PX-1296, PX-1424	Clicking empty row one in OpenClient Paging Screen gives 'Data Not Numeric error', instead of Add mode.	
PX-1298, PX-1425	Some paging areas exceed screen height on load or refresh	
PX-1299	Tree drag item disconnects and sticks to the control	
PX-1301	OpenClient and MFC Client Paging Screen Error 023 - INVALID - DATA NOT NUMERIC	
PX-1302, PX-1427, PX-1600	Some combo-drop downs in OpenClient appear outside the container window	
PX-1325	FNKEYSTACK is not working in OpenClient	
PX-1328	One time window called from ActiveX or JavaScript logic returns data into current field	
PX-1342	Enabling tracing in the kernel causes some functions running in OpenClient to appear to hang	
PX-1355	Cannot reset a file variable's Fill Code to "None" through File Definition default properties screen.	
PX-1362	PROIV displays an undocumented error message 805	

PX-1369	PROIV Assure Icon clashes with the existing icon	
PX-1372	File mode is not displayed correctly even after it has been changed in PROIV Developer	
PX-1376, PX-1431	Active paging with maximum height and expand enters invalid state in OpenClient	
PX-1378, PX-1430	Checkboxes with null values cannot be clicked using mouse	
PX-1391	Radio buttons appear in different sequence in OpenClient and MFC Client	
PX-1396	Put(Client.Send) works only once in an OpenClient session	
PX-1403	The OpenClient session hangs; unable to obtain OpenClient recording or kernel tracing	
PX-1405	JS Exception error appears in OpenClient when exiting a function in Internet Explorer and Google Chrome	
PX-1412	Function created from template loses control bars	
PX-1413	Scratch Variable defined as # inappropriately allows changing length to 20 without any warnings.	
PX-1415	JS Exception error in OpenClient appears when Listbox.multiColumnResize is set to 'dataWidth' or 'allColumns' in Messages.properties	
PX-1420	OpenClient listbox rendition issues in Google Chrome	
PX-1423	When viewing OpenClient in Internet Explorer 11, a disabled combobox in a window is not displayed.	
PX-1426	One time window called from AX/JS logic returns data into current field	
PX-1430	Checkboxes with null values cannot be ticked using mouse	
PX-1432	Oversized paging areas lose expanded content	
PX-1438	PROIV site id executable for AIX POWER7 does not generate a SITE-ID	
PX-1439	Message "SYSTEM E771 SETSCREENSIZE SESSION 002 TAGNAME - SESSION" when building list of functions	
PX-1445	OpenClient Paging area rendering issues in Google Chrome	
PX-1447	Radio Group graphic is non-responsive in Internet Explorer	
PX-1448	PROIV 8.1 installer overwrites the existing ISAMDEF file	
PX-1449	Kernel crash when PG_UP in paging screen	
PX-1451	The Site ID executable on Solaris is corrupted and is not executed	
PX-1453	OpenClient in Internet Explorer 7 prevents any keyboard entry where the dynamic field is full	
PX-1457	Change Management cannot be enabled due to invalid licence checks	
PX-1458	Bar Charts_format properties are converting to text	
PX-1462	OpenClient Session hangs during copy/paste of a data string. This works with no issues in MFC Client	
PX-1463	OpenClient Session hangs when running a Paging Screen and with more characters than defined in a combobox field.	
PX-1468	OpenClient Paging area sort on column click; hides all content	
PX-1478	No mention of setting TTY_MIXED_CASE=Y in the Release Notes for HP-UX	
PX-1484	Error message while running Kernel Version 8.1R0 (8.1.7.56) PR on AIX	
PX-1485	Edit boxes using disabled property in Internet Explorer cannot be styled	
PX-1486	Paging area scrollbar is incorrectly positioned	
PX-1488	Message dialogue size or content layout incorrect causing truncation	
PX-1366, PX-1585,	Tasks defined as EXCLUSIVE do not run successfully in Aurora	

PX-1586		
PX-1632	Headers missing in RESTful web service	

## 6.19 RESOLVED ISSUES FOR V8.1-SR1 BUILD 8.1.7.13

Issue No	Description	Linked Issues
PX-1374	Message appears "This function cannot be used with RUNTIME ONLY version of PROIV"	

## 6.20 RESOLVED ISSUES FOR V8.1 BUILD 8.1.7.12

Issue No	Description	Linked Issues
PX-19	PROIV batchque process displays error indicating process name already exists on VMS	
PX-56	Functions exported from 7.1.41.0 corrupted when imported to v8	
PX-167	Unexplained Map Errors appears On Gen	
PX-324	PROIV Kernel hangs under extreme load	
PX-325	In Open Client Insert [Ctrl + F5] into paging screen is allowed only once	
PX-326	Open Client Paging Screen Maximum Height causes navigation issues	
PX-327	INS key is not working in Open Client	
PX-329	SET_CURR is not working as expected	
PX-330	Pressing ESC or TAB while loading Open Client causes application hang	
PX-332	Date Field with Date Picker shows as two separate object after being hidden and made visible in Open Client	
PX-333	Allow popup windows to have specific CSS in the Open Client	
PX-334	Allow popup windows on Open Client to open at their maximum size	
PX-338	Printing from Task loses spooler command	
PX-339	Telnet does not display what has been typed	
PX-351	Open Client radio button does not send the value selected if losing focus using F3	
PX-355	Paging Screen sorting second column has problem if Iscall is done in after read logic	
PX-356	Response String does not get populated into DATA for associated tag in Open Client	
PX-364	Cannot add/remove a space to/from the start of a field in Open Client	
PX-365	Paging area in window in MFC unexpectedly enters into add mode	
PX-367	Javascript error when visiting a combobox after drawing an active paging cycle	
PX-368	Behaviour of PROIV automatic roll back on errors needs documentation	
PX-371	Unable to save reports in Open Client using Google Chrome	
PX-373	In consistent behaviour of iscollect	
PX-401	Unable to install PROIV v8 on Windows 2012 R2	
PX-402	Installation billboard messages displayed incorrectly	

PX-403	Invalid Global Function Called / Access Violation when setting up PROIV Developer	
PX-414	AutoSizePagingHeight occasionally miscalculates screen height	
PX-415	Allow the administrator to disable the Open Client popup window moving and resizing	
PX-423	The 'Fahrenheit' field in the Meter Chart Demo should be display-only	
PX-441	Meter Chart Demo does not link back to menu	
PX-442	Slider Bar initial value invalid	
PX-565	Pressing ESC or TAB while Open Client loading causes application hang	
PX-566	Licence file loops when default licence is unchecked	
PX-568	Uninstalling V8 removes isamdef without prompt (this broke pre-existing version 7)	
PX-570	PROIV Developer hangs for Import	
PX-572	Client.Send transfers partial content of medium to Large files in Open Client.	
PX-574	Running Line Chart Demo in MFC on Windows 2012 R2 causes PROIV Document Server Exception	
PX-575	Have to Relaunch Management Services to view the new added Open Client service	
PX-584	Thread Exception when changing the text in a piece of Static Text using logic	
PX-591	ActiveX Description faults MFC client on Windows 8	
PX-593	Linux / Unix Installer fails to create service entries	
PX-617	PROIV Control Panel displays empty page	
PX-621	Error appears while attempting to install version 8 on Win 2012 R2	
PX-624	Auto Complete not working correctly in OpenClient Comboboxes	
PX-657	Host Closed Connection on Client Virtual Machine	
PX-678	PROIV FOP facility to generate PDF's needs easier config customisation	
PX-681	Running Line Chart Demo in MFC on Windows 8.1 causes PROIV Document Server Exception	
PX-702	Uninstall removes files which have been added since installation	
PX-707	Uninstall - deletes all folders and files	
PX-708	Uninstall - deletes Open Client Services	
PX-710	Uninstall/Install-deleted pro4v8.ini File Settings	
PX-713	Reboot option is not honored after completing the installation	
PX-714	Logging for the Lexicon is enabled only for info by default	
PX-715	Installation path not added to windows PATH on installation	
PX-755	Launching functions in Aurora – hangs the application	
PX-756	Combo box icons don't display properly	
PX-812	Data not alpha in file SOFTPROP (Error 035)	
PX-813	@DemoPieChart - "Change Data" button does not exist	
PX-850	User supplied jar files are lost on upgrade	
PX-861	Aurora is inaccessible with both internal and external ip addresses	
PX-875	User click is delayed until next click	
PX-898	V8 installer deletes files which are previously installed	
PX-929	Access Violation during Bulk Regen	
PX-930	SQL error 366 on accessing SQL Server2014 Table	
PX-996	Certain paging fields non-functional / navigable in Open Client	
PX-997	Auto sequence corrupted after escape and re-add in Open Client	
PX-998	Window content jumps on mouse-over in Chrome	
PX-999	Icon text sometimes displays as an ellipse rather than the full text	
PX-1000	Clipped Icon in window is resized instead of being clipped	



PX-1001	Internet Explorer throws an Exception if there is an icon off screen	
PX-1002	Filling a field with data in a local window causes spin	
PX-1014	Blank Date/Numeric fields in Drop Down List Erasing Unrelated Field In Calling Function in both MFC and Open Client	
PX-1022	Native File Defs are missing from PROIV Version 8	
PX-1023	Unable to define more than 13 task functions for a single web service	
PX-1026	Linux on not generating Site IDs on certain hardware	
PX-1038	Logging for the Lexicon is enabled only for info by default	
PX-1050	8.0.39.4 installed successfully on AIX but site-id was wrong and it is looking for non-existent libraries	
PX-1052	SetScreenSize is no longer a valid method or property for Session	
PX-1065	Using the Session SetScreenSize method displays exception error message in Aurora	
PX-1068	No error message is produced when "Clear File" flagged but file is currently being accessed	
PX-1069	WINLOCATE window bigger than screensize causes kernel crash	
PX-1076	Error initialising JVM when accessing SSO gallery	
PX-1079	Editing a runtime function in VIP throws error	
PX-1089	8.0.39.11 installation on Win server 2012 R2 hangs	
PX-1099	Importing run-time Control bar/action control into Administrator fails	
PX-1103	Windows installation displays "Error 831 - Unable to initialize or call jvm" when using SSO gallery	
PX-1105	A Version 8 Install into Windows non-default drive creates an empty boots directory	
PX-1107	Wrapper @VIPWP10 gives error 106 - THIS FUNCTION CAN NOT BE USED WITH A RUN-ONLY...	
PX-1122	In OpenClient the data in a field that has focus is out of focus	
PX-1139	P4TASK and associated files missing from the ProIV Version 8 AIX Distribution	
PX-1142	Hypercaching bad statistics display and missing function from administration	
PX-1143	The file mail.jar is referenced in pro4v8.ini instead of mail-1.3.jar	
PX-1149	The Web browser (url) address bar included the Open Client v8 session parameters (linux)[Username; Password]	
PX-1160	Issue with documentation when searching with keyword "exponent"	
PX-1225	Open Client-Mandatory Input Error	
PX-1268	Oracle interface does not detect failed record update - results in loop to update same record	
PX-1269	Oracle error ORA-01406: fetched column value was truncated	
PX-1293	V8 services don't restart automatically after rebooting the Linux machine	
PX-1307	Oracle interface translates warning [ORA-24347: Warning of a NULL column in an aggregate function] to error [Generic fatal sql error -366]	
PX-1313	Focus issue when attempting contract of ExpandingArea with focus.	
PX-1319	Hypercaching is not always functional for genfile.pro	
PX-1324	Release notes should document position with Java 8	
PX-1336	OpenClient Paging screen renders incorrectly in Chrome 43	
PX-1341	OpenClient hangs a function and increases Java CPU utilization	
PX-1356	Text for kernel error 780 is truncated on display	
PX-1363	User thread exception when performing a VIP bulk build using the Open	

## 6.21 RESOLVED ISSUES FOR V8.0-SR1 BUILD 8.0.39.17

Issue No	Description	Linked Issues
PX-1081	Correct JAVA library path in runproiv LD_LIBRARY_PATH on linux x86-32	
PX-1074	Genning a specific function causes an abnormal VM termination (Windows 32 bit only)	
PX-1092	Installer does not add required files to the bus directory on AIX	
PX-1103	Installer needs to include c2010 re-distributable packages to ensure jvm loads.	
PX-1012	"R" Mode not working correctly on Reality tables	
PX-1093	Abnormal VM termination when logging into PROIV for first time on Linux 32-bit	

## 6.22 RESOLVED ISSUES FOR V8.0 BUILD 8.0.39.11

Issue No	Description	Linked Issues
PX-912	Genning a large number of functions gradually slows to a stop then speeds up again.	
PX-929	Access Violation During Bulk Regen	
PX-992	Native V8 file definitions are missing from distribution	
PX-1006	Invalid Task Names when created cannot be deleted	
PX-1012	Enter Values for Town1 and Population in DEMO then Click on Send Data, throw a write content failed message	
PX-1015	ActiveX Gallery always shows the same details regardless of the control selected	
PX-1029	"runproiv " reports required java libraries cannot be found	
PX-1030	Import failures on Unix if caching parameters not set.	
PX-1034	Management services are not installed on Windows 32 bit - also corrects services not starting and some not removed on Uninstall	
PX-1043	Linux x86-32 installer creates "runproiv" script with incorrect LD_LIBRARY_PATH	
PX-1045	Prevent removal of pro4v8.ini file on uninstallation - applies to both Unix and Windows	
PX-1046	Missing Linux x86-32 oracle instant client	
PX-1054	Shared memory corruption when using read only bootstraps and caching	
PX-1055	Installer missing entries from pro4v8.ini	
PX-1064	PROIV VM crashes when user with no write permissions attempts login	
PX-1067	Installer needs to create jvm log files world-writable and adjust permissions on logs directories	
PX-1071	Missing JRE_HOME entry in the pro4v8.ini file causes JVM startup failure	
PX-1081	Correct JAVA library path in runproiv LD_LIBRARY_PATH on linux x86-32	

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