



EXOR

Core Release Notes

v4.9.0.0

Document Version History

Version	Owner	Source	Date	Description
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For review:				For approval:


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1. About this Document

1.1 Authors

- Chris Baugh
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1.2 Document Summary

This document provides a description of the changes in this release and information about how these changes may impact on an installation.

1.3 Reference documents

Author	Referenced Document
Oracle Support	<p>All .jar files are signed with a new certificate to use a stronger encryption to support the latest security changes by Oracle. Visit following link for more details –</p> <p>http://www.oracle.com/technetwork/java/javase/8u131-relnotes-3565278.html</p>

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1.3.1 4.8.0.0 Fix Documentation

As Release 4.9.0.0 of Exor Core is a roll-up of all 4.8.0.0 fixes, up to and including fix 3, all associated fix documentation is included in this release for reference.

Fix No.	Associated Documents	Fix Details	Description
1	readme_exnm04080002en_updt1.pdf	Fix 01 (Build 2) – Security Enhancements	See section 4.1 for Enhancements included in this fix
2	readme_exnm04080002en_updt2.pdf	Fix 02 (Build 2) – Single Sign-On Security Enhancement	See section 4.2 for Enhancements included in this fix
3	readme_exnm04080001en_updt3.pdf	Fix 03 (Build 1) – Spatial Data Loader	See section 0 for Enhancements included in this fix

1.4 Distribution

Bentley/Customers, Partners and Colleagues

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2. Introduction

This document highlights the key changes to the EXOR Core Highways product following the release of Core Highways v4.9.0.0. It is specifically targeted at users and system administrators of the EXOR systems. Changes in the core database functionality have the potential to have wide impact across all EXOR applications and it is important that these changes are understood. However, many of the functions of EXOR Core Highways are extremely technical in nature and this document is aimed at those with some degree of technical knowledge and not necessarily at end users.


It is not intended to be a full system description but a guide to indicate what changes have been made, why they have been made and the potential failings if this upgrade is not applied.

This release is available as an upgrade from releases 4.7.0.0 or 4.8.0.0 of EXOR Core Highways.

After reading through this document, should you have any need for training or consultancy then please contact your EXOR/Bentley account manager. If these changes are considered important for your current release and this is incompatible with this patch release, then please contact support.

This release is, in the main a roll-up of all fixes applied to the 4.8.0.0 Exor Core release, up to and including Fix 3.


If upgrading from Exor release 4.7.0.0, please refer to the 4.8.0.0 release documentation for details of all 4.7.0.0 Enhancements and changes included in the 4.8.0.0 base release.

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3. Oracle 19c

Exor 4.9 is certified to be deployed on an Oracle 19c Database architecture. The following is a copy of the Assetwise LRS Certification Matrix Addendum which highlights the 19c architecture changes along with the supported Oracle Editions.

Components	Notes
Oracle Database Architecture	<p>Oracle has deprecated non-container databases and recommends use of the Container Database (CDB) architecture.</p> <p>AWLRS and Exor are only validated in Single-Tenant configuration.</p>
Oracle Enterprise Edition	<p>AWLRS and Exor are supported on Oracle Enterprise Edition (EE).</p> <p>EE supports the Oracle Spatial and Graph option (aka Oracle Spatial).</p> <p>EE also supports Oracle VPD (Virtual Private Database).</p>
Oracle Standard Edition 2	<p>AWLRS and Exor are also supported on Oracle Standard Edition 2 (SE2).</p> <p>SE2 supports Oracle Spatial from Dec 2019 onwards. SE2 does not support Oracle VPD.</p>
Oracle Spatial Option	<p>Up to Dec 2019, Oracle Spatial was licensed as a separate option for EE.</p> <p>From Dec 2019, Oracle Spatial is free for both EE and SE2.</p>
Oracle VPD	<p>Oracle VPD is not required for running AWLRS and Exor.</p> <p>However Oracle VPD is required when making use of row level security, which is dependent on Fine Grained Access Control (FGAC). This allows user access to network and asset data based on admin units and roles.</p>

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Oracle Database Characterset	The Oracle Database characterset must always be WE8MSWIN1252 for AWLRS and Exor. No other database characterset is supported.
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4. Enhancements and Changes at 4.9.0.0

The following is an overview of Enhancements & Changes included in the specified 4.9.0.0 Fix. For more detail on any of the changes please refer to the associated fix documentation.

4.1 Fix 1 Enhancements

4.1.1 Security Enhancements

This fix introduces three new roles that are related to specific Java functions and these roles will need to be granted to any user that intends to use the following operations:

EXTRACT_SHAPE_FILE	This role is required for anyone who wishes to extract a Shapefile from the system.
UPLOAD_SHAPE_FILE	This role is required for anyone who wishes to upload a Shapefile into the system.
CHECK_XSS	This role is required for all TIG users to use the identify XSS vulnerable URLs and prevent such attacks.

4.2 Fix 2 Enhancements

4.2.1 Changes to Proxy Owner Definition.

The definition of the Proxy Owner, used for Single Sign-On, has been modified to give minimal privileges to improve security.

4.3 Fix 3 Enhancements

4.3.1 Spatial Data Loader

This enhancement adds modules to support AWLRS Spatial Loader

5. Known Problems at 4.9.0.0

Internal Task ID	Issue	Support Log(s)
660786	On uploading assets which are not attached to any section (only have x,y coordinates specified) using CSV loader, some of assets appear in an Admin Unit other than that specified in the CSV Loader definition	7000598225
1028066	Cannot locate asset when it crosses a PoE	
1037455	MCI - Error creating defect on asset. After extracting a shapefile, modifying details and reloading using the MCI upload tool, the asset details contain an invalid geometry type.	7000923026
974088	Route Offset (LRM Measure Tool) Does not work on v4700. When a user selects 'Route Offset (LRM Measure Tool)' from Locator menu error/warning 'No networks found within buffer limits' is shown	7000848727 7000867279
787734	Exor NM: Rescale/Reshape is unusably slow on large route with a large amount of history	
674624	The error message "NET-0107: Invalid type of node for network type" appears when splitting a section in conflated network model	7000600029
425572	Find assets: "read-only mode" message is shown at least twice on each mouse click when setting read-only role mode.	7000688835
1055200	Document Bundle loader fails to execute successfully due to a problem with the Oracle Job Scheduler. When executing a scheduled job Auditing username values are nullified causing failures in table updates	