



# Core Highways Release Notes

## v4.0.5.4

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## Document Control

### 1.1 Author

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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 Exor installation.

### 1.3 Document History

| Document History |                            |         |               |
|------------------|----------------------------|---------|---------------|
| Revision         | Date                       | By      | Description   |
| 1.0              | 2 <sup>nd</sup> April 2009 | R Coupe | First Edition |
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### 1.4 Reference documents

None

### 1.5 Distribution

Exor Customers, Partners and Staff

### 1.6 Quality Assurance

| Document Details                |                       |
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## 2 Introduction

This document highlights the key changes to the exor Core Highways database following the release of **Core Highways v4.0.5.4**. 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 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 a patch and must be applied on top of release 4.0.5.3 of exor Core Highways. The changes that are included in this release are aimed at an improved reliability, building on other recent core reliability improvements during upgrades from 4.0.4.6 through to 4.0.5.3.

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

This patch is intended to be used in conjunction with current releases of Spatial Manager and supports recent extensions to the Exor Map Services inside each version of the exor mapviewer jar (this file comes in two versions for compatibility with versions 10.1.2 and 10.1.3 mapviewer server).

The contents of this release are aimed at providing better performance and more reliability within the **exor Core Highways** and other products. The changes have no client impact other than the modules that are included in the release and existing client tools are unaffected.

### 3 New and Changed Functionality

This release is predominantly a bug-fix release and a list of issues that were intended to be addressed was published prior to the start of the work. However, extended testing and some feedback from customers have led to other issues being defined and resolved in this patch. Also, due to the shared nature of the server code some fixes that are referenced in this document may have automatically cleared others, some of which are not included in this document.

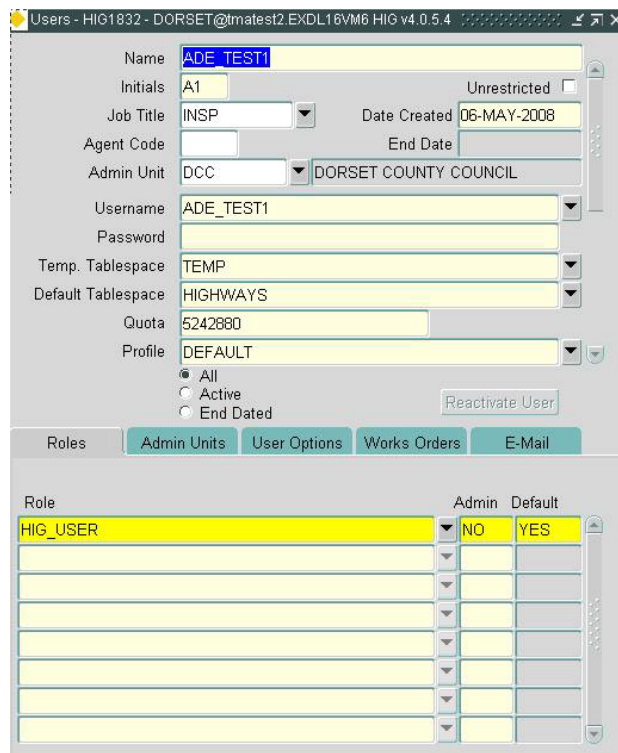
The main thrust of the work for release 4.0.5.4 of exor Core Highways is in general asset management and especially in the area of validation and the posting of warnings in relation to asset locations. In some cases, the system has moved back to its original design with repairs being made to the use of asset and location flags that may have been misinterpreted in past releases.

In particular, changes to the methods of locating assets have resulted in more improvements in respect of contiguous assets and in the area of mandatory/optional locations and the end-location flag. Also, the hierarchical asset changes in release 4.0.5.3 have been built on to better support traffic information manager.

Many issues arising out of the stand-alone engineering dynamic segmentation tools have been fixed especially those on the server which relate to asset locations spanning multiple datums and asset type attributes having multiple values over the datums in a route or merge section.

#### 3.1 HIG1832 Enhancement

An enhancement has been added to the module hig1832 – Maintain Users. The module can now be used to re-activate end-dated accounts. The data in the hig1832 was being date-tracked and date-based restrictions were applied. Thus, if a user account was end-dated, the hig1832 module would not display the record unless an appropriate effective date was set. This made it difficult to review end-dated and locked accounts. In the new version, the module can be used to query active and inactive accounts. When used to query inactive accounts, the module may then be used to re-activate the Oracle account that relates to the highways user.



| Role     | Admin | Default |
|----------|-------|---------|
| HIG_USER | NO    | YES     |
|          |       |         |
|          |       |         |
|          |       |         |
|          |       |         |
|          |       |         |
|          |       |         |

The radio-group at the base of the user details and above the roles tab is used to modify the basic query on the data by allowing the query to have no restriction (All), only those users that are current and active or those that are end-dated.

When an end-dated user record is displayed, the Reactivate User button is enabled to allow the Oracle account to be unlocked.

### 3.2 Contiguous Assets

The system has changed to more accurately advise of gaps within a contiguous asset during the location or end-dating process. Changes include the provision of warnings if, after location of the asset, there are remaining gaps relative to the network object that is used as the target reference. The original software produced a warning if there were gaps on any datum used in the location of the asset – hence warnings were suppressed when an asset was located over the whole of a singular datum, yet a warning would be given if an asset location did not result in complete coverage of a datum, even when the process was merely replacing an existing coverage. End-dating of an asset location will also result in warnings if the asset type is flagged as contiguous.

### 3.3 Asset Locations

The system has many flags to indicate the behaviour of the asset location. The location may be flagged as mandatory and warnings will be posted if an asset is committed with no location. However, the asset type may be flagged as “end-location-only” and this was being misinterpreted within the system. This setting of this flag indicates that the asset should remain when network operations result in the removal (end-date) of its location. This flag was being misinterpreted to result in an end-dated asset when the asset location was end-dated.

### 3.4 Engineering Dynamic Segmentation

The stand-alone engineering dynamic segmentation software and API has been improved to produce correct results. There were issues in the original software whereby the datum order with a route was made incorrect when datums had a reversed direction relative to the cardinal direction of the route or merge section. There were some other issues which related to the order with which events were processed and these had impact mainly in the resultant median and first/last value functions.

These are just a few of the major areas of improvement within this path release. Here is a summary of all the issues addressed in this release.

## 4 Log No. Summary

This chapter summarises all Software Bugs and Changes that have been made in this release. These changes are derived from the following sources:

- Customer raised issues
- Internal testing
- Minor enhancements.

Please note that this is not a full list of the issues that may be cleared as a result of this release. The list of numbers relate to the ECDM log number.

| ECDM#  | Issue Description                                                                                                                                          |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 696419 | The run button was unavailable on merge query setup form. This was due to a dependency on metadata relating to an old module.                              |
| 698292 | Extract of merge query results with attribute domain code meanings forced an invalid number error.                                                         |
| 699245 | Groups of groups module allowed duplicate member groups.                                                                                                   |
| 702388 | Validation of asset attributes in number format.                                                                                                           |
| 703436 | Using fastpath or run button to call a form that is started in Enter Query mode resulted in error FRM-41361: Cannot navigate out of current form in Enter- |

|        |                                                                                                                                                                                                                                                                                                                                                  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | Query mode. This is now fixed.                                                                                                                                                                                                                                                                                                                   |
| 706627 | Traffic Manager dbms_job frequency improvements.                                                                                                                                                                                                                                                                                                 |
| 709394 | Oracle 10g Connect-by changes forces a FRM-40735 error in Asset Items form. Likely fixed in 4053.                                                                                                                                                                                                                                                |
| 709697 | Merge now works with linear groups where the start and end nodes are not populated against the group                                                                                                                                                                                                                                             |
| 710317 | Traffic Manager statistics publishing process resulted in "Virtual column not allowed"                                                                                                                                                                                                                                                           |
| 711399 | When using NM0410 to enter details of asset attributes with a number format, the length field was automatically populated with the maximum field length for that column. However you could overtype with a greater value and the record could be saved. The issue has been corrected such that the data can be validated correctly during entry. |
| 711775 | Objects assigned to the 10g recycle bin are now excluded from the compile_schema script and from the grant of objects via role definitions.                                                                                                                                                                                                      |
| 712662 | Use of bind variables to force a complex additional query (&A or :A) has been removed from Oracle Forms 10. It be re-enabled through using the forms option FORMS_RESTRICT_ENTER_QUERY – to enable it either comment out the explicit setting of the value to TRUE or recode to explicitly set this value to FALSE.                              |
| 713423 | Asset display in AOR was showing incorrect location data when used on routes with datums running in a reversed direction relative to the route cardinal direction.                                                                                                                                                                               |
| 713745 | Ordering of the roles within the users form has been added.                                                                                                                                                                                                                                                                                      |
| 714298 | Same as 703436 – execution of forms that open in enter-query mode.                                                                                                                                                                                                                                                                               |
| 714541 | Stand-alone engineering dynamic segmentation now excludes null from the calculation process subject to setting of a system option EDSNULLEXC                                                                                                                                                                                                     |
| 715177 | Use of an XY driven asset foreign table view would fail to relocate when the view was a non-key-preserved join view.                                                                                                                                                                                                                             |
| 715378 | NET-0389: Invalid defined for attribute resulted from querying asset data with end-dated domain values in NM0510.                                                                                                                                                                                                                                |
| 715704 | NM3Layer tool failed due to failure of view creation when multiple "AND" clauses.                                                                                                                                                                                                                                                                |
| 716120 | Contiguous asset data.                                                                                                                                                                                                                                                                                                                           |
| 716221 | Engineering Dynamic segmentation failures.                                                                                                                                                                                                                                                                                                       |
| 716317 | Engineering Dynamic segmentation failure to round data when the attribute definition has no decimal places.                                                                                                                                                                                                                                      |
| 716318 | This log states that the Engineering Dynamic segmentation shows incorrect results compared to version 3.0.8.2. However, the fault was traced to an element of randomness in an order-by clause. This is now fixed.                                                                                                                               |
| 716375 | Contiguous asset warnings.                                                                                                                                                                                                                                                                                                                       |
| 716385 | Customer expected results in NM0510 form to be displayed and thought that assets were not located. In fact the module needed an explicit execute query to see the results. An automatic query has now been coded.                                                                                                                                |
| 716574 | NM1100 Gazetteer gave error messages advising that too many values exist                                                                                                                                                                                                                                                                         |
| 717051 | Failure to merge two network elements with associated data on the same date.                                                                                                                                                                                                                                                                     |
| 717266 | Exclusive contiguous asset types resulted in erroneous warnings of a gap when none present.                                                                                                                                                                                                                                                      |
| 717750 | GIS0011 has been improved with more fields that can be used as a basis for a query.                                                                                                                                                                                                                                                              |
| 718285 | SM shared reshape failed to select the node and cross hairs did not appear.                                                                                                                                                                                                                                                                      |
| 718920 | Length of numeric field validation and rounding. Asset data is now validated in a consistent format to Oracle internal validation. Rounding may occur if the                                                                                                                                                                                     |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | number of decimal places entered are greater than the number format allows. Numbers that are too large are invalidated.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 719045 | In previous releases, the Oracle spatial projection WKTEXT was erroneously used inside the registration of an ESRI Spatial Reference. All new layers will attempt to inherit and match an existing ESRI projection and if none are available, the system will register the sde spatial reference as UNKNOWN when used in conjunction with ArcGIS 9.1. If used with SDE 9.2, an attempt is made to match the Oracle SRID to a set of pre-populated Esri spatial references. Again, if none exist, then the spatial reference will be registered as UNKNOWN. |
| 719219 | GIS0010 has been cleaned-up in relation to the editable properties of NTH_SEQUENCE_NAME and in the registration of themes that relate to tables and dependent views.                                                                                                                                                                                                                                                                                                                                                                                       |
| 719329 | Contiguous asset improvements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 719375 | The system has been improved to allow a password to contain special characters such as ~                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 719379 | Correction to prevent an invalid FRM-40657 error in NM0510 when end dating the location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 719384 | Correction to the use of the end-location-only flag. The system would end-date a location and if the flag was set, the asset would be end-dated too. Now, the asset is not end-dated. Warnings may be given if the asset location is mandatory and/or the asset type is flagged as contiguous.                                                                                                                                                                                                                                                             |
| 719404 | NM0510 has been tidied up in relation to warnings about whether a commit should be performed on enter-query and exiting the form.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 719446 | General improvement to Group of Sections module when used for creating groups with associated data.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 719472 | GIS0020 and MAI_SDO_UTIL has been changed to correctly structure the defects themes metadata.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 719614 | NM7051 – merge sections are displayed relative to the routes used in the connectivity of each homogeneous chunk.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 719781 | GIS0020 allows access to error logs created when a theme is dynamically segmented.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |