



Network Manager Fix Release Notes

4.7.0.0 Fix 43



	Network Manager Fix Release Notes		
	4.7.0.0 Fix 43	Date:19 th July 2016 exnm04070005en_updt43	Page 1 of 6

Table of Contents

2.	Introduction	2
3.	Fix Details	2
4.	List of Amended Files	2
5.	Log No. Summary.....	4

	Network Manager Fix Release Notes		
	4.7.0.0 Fix 43	Date: 19 th July 2016 exnm04070005en_updt43	Page 2 of 6

2. Introduction

This document defines the changes made to the Network Manager product for 4.7.0.0 Fix 43 and is specifically targeted at end users.

After reading through this document, should you have any further training or consultancy requirements then please contact your Bentley account manager.

Please ensure that all listeners, map servers, scheduler processes and dbms_jobs are disconnected prior to the installation of this fix.

3. Fix Details


Fix Details Baseline Release	4.7.0.0
Fix Description	This fix provides code to generate aggregated spatial layers for asset data.
Prerequisites	NM3 fixes up to and including fix 37 but also including fix 21. These fixes are particularly important for UK customers who also have NSG installed. Fix 37 is one that ensures new data structures in the NSG version 8.1 enhancements are kept in sync through network edits. Hence, if this fix is applied on a system with NSG in place, it must be at a version which is compatible with NSG 8.1.
Implementation Instructions	<p>Ensure that the system is not in use before upgrading with this fix release. See note earlier on how important this is.</p> <p>The staging folder is the location of the folder that exnm04070005en_updt43.zip was extracted to (the folder containing this readme).</p> <p>Log onto SQL*PLUS as the Highways Owner with the staging folder as the working directory.</p> <p>At the prompt type START exnm04070005en_updt43.sql and press return.</p> <p>Exit SQL*Plus</p>
Limitations	None known
Configuration Information	None
How To Test	See the notes below
Rollback Strategy	Initially implement on a test environment

4. List of New and Amended Files

Filename	Version
exnm04070005en_updt43.sql	1.0
log_nm_4700_fix43.sql	1.4
aggregated_geometry_ddl.sql	1.5
nm_inv_geometry.vw	1..1
nm_inv_aggr_sdo.pkh	1.4
nm_inv_aggr_sdo.pkw	1.7
nm3close.pkw	2.17

CONFIDENTIALITY STATEMENT


The contents of this document, including system ideas and concepts, are confidential and proprietary in nature and are not to be distributed in any form without the prior written consent of Bentley Systems inc.

	Network Manager Fix Release Notes		
	4.7.0.0 Fix 43	Date:19 th July 2016 exnm04070005en_updt43	Page 3 of 6

nm3homo.pkw	2.23.1.2
nm3sdm.pkw	2.78
register_aggr_theme.prc	1.0
register_aggr_theme.sql	1.0

CONFIDENTIALITY STATEMENT

The contents of this document, including system ideas and concepts, are confidential and proprietary in nature and are not to be distributed in any form without the prior written consent of Bentley Systems inc.

	Network Manager Fix Release Notes		
	4.7.0.0 Fix 43	Date:19 th July 2016 exnm04070005en_updt43	Page 4 of 6

5. Log No. Summary

This chapter summarises all software issues that have been addressed by this fix.

For issues raised by users, Bentley Technical Support Group (TSG) Service Request Numbers are cross referenced where applicable.

<i>Details</i>	<i>Internal Reference</i>	<i>TSG Service Request</i>
Enhancement 428902 – Aggregated asset geometry		

6. Enhancement

The new and changed code in this fix release is intended to provide the Exor system with a means of generating aggregated geometry for each linearly located asset. Previously, all asset geometry records of this type were held as fragments of dyn-segged assets relative to the datum on which they were placed. Assets that spanned multiple datums would be represented by multiple geometry records. The new package procedures can be executed to provide a layer whereby a singular geometry row is generated for the asset at each specific date interval over which the asset and its location has changed.

6.1 Generation of Aggregated Data

It is proposed that the generation of the aggregated data would eventually be configured by an administrator using the layer tool form. This is unavailable in this first phase. The data must be configured through access to the database server whereby execution of code such as:

```
begin
NM_INV_SDO_AGGR.GEN_AGGR_SDO (<INV_TYPE>) ;
end;
```

where <INV_TYPE> is the four character code for a linearly located inventory type.

The data is generated into a table NM_INV_GEOMETRY_ALL. This contains each version of the aggregated geometry over time. A date-tracked view NM_INV_GEOMETRY is also generated. The asset types extend to foreign table asset types.


Each inventory type which is aggregated gives rise to two view definitions:

V_<INV_TYPE>_AGGR_SDO which is a view of the date-tracked aggregated geometry for the specific inventory type, again where <INV_TYPE> represents the four character inventory type code.

V_NM_INV_AGGR_<INV_TYPE>_SDO is a view which joins the specific asset view with its date-tracked aggregated geometry.

CONFIDENTIALITY STATEMENT

The contents of this document, including system ideas and concepts, are confidential and proprietary in nature and are not to be distributed in any form without the prior written consent of Bentley Systems inc.

	Network Manager Fix Release Notes		
	4.7.0.0 Fix 43	Date:19 th July 2016 exnm04070005en_updt43	Page 5 of 6

These views are expected to be used in new map-based clients and so the layers are not registered as themes nor are they linked back to the asset type for inclusion in the SM table of contents. The themes can be generated if required – see the note below.

Also note that the process will generate the aggregated asset layers in a single table for all asset data. This can perform better than the approach taken in the dyn-seg layers but it means that all the layers would effectively be off-line during the data generation process. This is because the index is deferred and is re-synchronized after the data generation is complete.

6.2 Network Edits

Operations such as a network split, merge or replace operate at the datum fragment level and have no bearing on the aggregated geometry. However, datum reshapes and closures along with asset placements will have an impact on the aggregated geometry. These operations have been modified to keep the aggregated geometry shape and history in-synch. Only asset types that are registered as having been aggregated are affected – these asset types are logged in the table NM_INV_AGGR_SDO_TYPES.)

7. Optional Theme Configuration

To view the aggregated spatial layers within Exor SM and Locator maps, the layers must be registered as Exor themes and also be registered in the SDE Geodatabase and/or the Oracle SDO_THEMES. The Exor themes and optionally the SDE layers can be registered using the script register_aggr_theme.sql which is included in the fix zip file. Executing this script as the highways owner will create a stand-alone procedure and synonym which will take the asset type and an optional role as the only parameters. The procedure will assume that the default view definition for the asset type will be used. The procedure will create the base table theme if it is not present and then generate a theme for the default aggregate view. The theme is linked to the asset type and the theme information posted to the SDE layers tables.

```
begin
  register_aggr_theme('KERB', 'NET_USER' );
end;
/
```

Make sure this is committed or that the session is ended prior to using the registration data in the map clients.


8. Known Issues

During unit testing a number of issues have been noted. One relates to the inability to register SDE layers which have no obvious key. This is due to the join view having two or more primary keys and the code should navigate to a unique key of the underlying geometry table. Current code merely looks for a NUMBER(38) which may not be available if the key is a pure integer.

Details	Internal Reference	TSG Service Request
SDE registration can fail if the geometry key on a join view is less than obvious.	Defect 486617	

CONFIDENTIALITY STATEMENT

The contents of this document, including system ideas and concepts, are confidential and proprietary in nature and are not to be distributed in any form without the prior written consent of Bentley Systems inc.

	Network Manager Fix Release Notes		
	4.7.0.0 Fix 43	Date:19 th July 2016 exnm04070005en_updt43	Page 6 of 6

CONFIDENTIALITY STATEMENT

The contents of this document, including system ideas and concepts, are confidential and proprietary in nature and are not to be distributed in any form without the prior written consent of Bentley Systems inc.