# Exor 4.8.0

# Product Installation and Upgrade Guide

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# 1 Introduction

## 1.1 Purpose

This guide covers steps involved in installing/upgrading the Exor Products Listed in Section 1.21.3, below.

Each product upgrade is split into two distinct stages,

- Stage 1 – Implementation of the Software files
- Stage 2 – Installation/Upgrade of the Server

## 1.2 Products Covered by this Guide

The table below lists the relevant products that are covered by this guide, along with the order in which the products should be installed/upgraded.

| Product | ***Sequence*** |
|---|---|
| Network Manager | 1 |
| Street Gazetteer Manager | 2 |
| Maintenance Manager | 3 |
| Enquiry Manager | 4 |
| TMA Manager | 5 |
| Accidents Manager | 6 |
| Schemes Manager | 7 |
| Traffic Interface Manager | 8 |
| MapCapture Interface | 9 |
| Information Manager Foundation Layer | 10 |
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## 1.3 Reference documents

| | |
|---|---|
| Oracle Support | server-side SQLJ is no longer supported in Oracle 12.2.<br>https://community.oracle.com/thread/4036216 |

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| | |
|---|---|
| | https://docs.oracle.com/en/database/oracle/oracle-database/12.2/upgrd/desupported-features-oracle-database-12c-r2.html#GUID-685A0333-1051-4306-B84A-574DAFE799B2 |
| Oracle Support | 12c: USE_SID_AS_SERVICE Setting in Listener Causes ORA-12514 Failures for Clients and Enterprise Manager (Doc ID 2099053.1)<br>https://oracle-base.com/articles/12c/multitenant-connecting-to-cdb-and-pdb-12cr1 |

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# 2 Prerequisites

Important:

For the 4.8.0.x release, Exor products will be installed on an Oracle 12c database. As a result, additional steps are required to accommodate differences to previous Database versions. When upgrading from a previous Exor version it is imperative that scripts detailed under Section 3.2.6 are executed as the appropriate user.

## 2.1 Pre-Requisites to Installation/Upgrade

It is assumed that the audience of this document understand the configuration of the servers being installed/upgraded and are sufficiently proficient with SQL*Plus. It is also assumed that the terminology used in this document is understood by the reader.

NB. The instructions for installation of the software describe the installation of all the software into a single area (usually referred to as the 'Client'). The instructions for installing/upgrading the Server (your Highways schema) assume you have access to the database from the 'Client'.

Your configuration and server access may differ from this; the supplied file can still be used for installation. For example, you may have to install the Client software on the Application Server and the Server software on the Database Server for reasons of database access availability from the Application Server.

If in any doubt, please raise a ticket at http://selectservices.bentley.com.

Before attempting to install/upgrade, you should ensure that;

- The database version is 12c r2 in accordance with the release configuration. Please ensure that the database can be upgraded with the assistance of services or Oracle documentation.
- The appropriate software components are installed and are compatible with the Bentley-exor release configuration. The release configuration can be downloaded from the Bentley Communities web site (Release Configuration Guide for Exor Products).
- all users are disconnected from the system
- The process framework is shutdown
- the highways listener processes and scheduler are not running on the application server
- A database backup of the owner of Highways owner has been taken.
- When naming the **<exor_base>** directory and sub-directory structure (as discussed below) please ensure that the directory/folder string DOES NOT contain spaces.
- You MUST rename the current **<exor_base>** directory and sub-directory structure and contents to a new area (e.g. <exor_base4800>). This ensures that a copy is available for backup or reference purposes should any issues arise during the installation.
- The installation can then continue into the area that the **<exor_base>** normally resides (which should now be empty).

For Example:

….rename the current **<exor_base>** directory and sub-directory structure and contents to a new area (e.g. <exor_base4700>)

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… The installation can then continue into a clean area (e.g. c:\exor) by unzipping the release zip file. This will create a folder/directory structure with the release files which will be used to install or upgrade your system.

## 2.2 Software Component Versions

| ***Bentley Components*** | ***Third-Party Components*** |
|---|---|
| **Exor 4.8 Classic UI** | Windows Server 2012 R2<br>Oracle Java SE Development Kit 1.7.0<br>Oracle WebLogic Server 10.3.6.0<br>Oracle Fusion Middleware:<br>Forms and Reports 11.1.2.2.0<br>Mapviewer 11.1.1.9.0<br>Internet Explorer 11 |
| **Exor 4.8 Database** | Windows Server 2016<br>Oracle Database 12.2.0.1<br>Oracle Application Express 5.1.4.00.08 |

For further details about the components and their versions and patches please refer to the Assetwise LRS Certification Matrix.

Please note that the implementation of the Oracle Fusion Middleware and WebLogic server will include the 1.7 version of Java.

## 2.3 Oracle Weblogic Server Configuration (Install and Upgrade)

Please note that this section is applicable when performing an install or upgrade for 4.8.0.x (as opposed to previous releases).

Further configuration is required when installing the map server software and configuring the MapViewer product.

Please ensure that the Weblogic Application Server is installed and Fusion Middleware Forms and Reports are installed and configured before proceeding.

Bentley-exor release 4.8.0.x makes use of WebUtil functionality within the Oracle Weblogic Server Technology stack for Maintenance Manager (Inspection Loader), Document Manager (uploading documents and Document Bundle Loader) and the Process Framework. This requires additional configuration within the Weblogic Server Fusion Middleware Forms deployment.

### 2.3.1 Deployment of forms and webutil Jar files

This section describes the deployment of the Jar files on the WebLogic server. Deployment of MapViewer Jar files is covered in the chapter specifically relating to the MapViewer installation.

NOTE: In order to edit this file the Forms Service must be down, stop the Form Service using Fusion Middleware control.

Locate the following files in **<exor_base>**\admin\lib directory –

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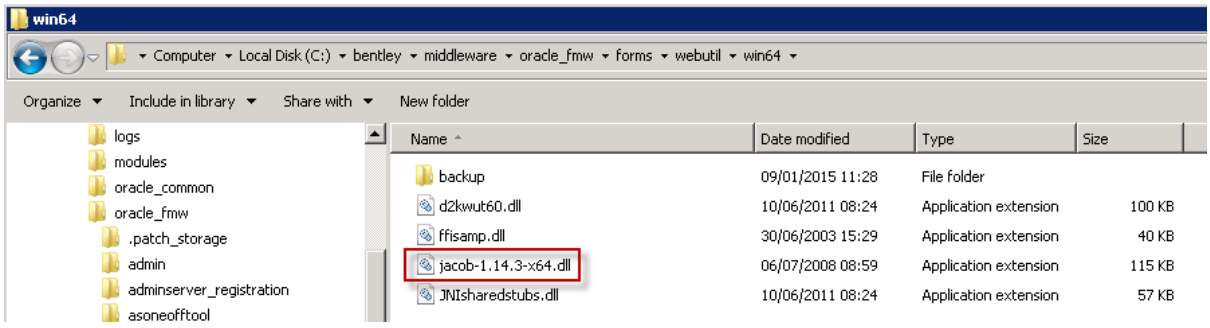
- bouncy-castle-provider.jar
- commons-codec.jar
- DJNativeSwing.jar
- DJNativeSwing-SWT.jar
- esapi.jar
- exor_jpg.jar
- exor_login_util.jar
- exor-ims.war
- frmall.jar
- frmwebutil.jar
- jacob.jar
- jacob-1.14.3-x64.dll
- jacob-1.14.3-x86.dll
- log4j.jar
- log4j.properties
- swt.jar
- UploadClient.jar
- UploadServer.jar
- exor-mapviewer.jar
- mvclient.jar

Copy

jacob-1.14.3-x64.dll into <ORACLE_HOME>\forms\webutil\win64\ and

jacob-1.14.3-x86.dll into <ORACLE_HOME>\forms\webutil\win32\

directories of the WebLogic Server –

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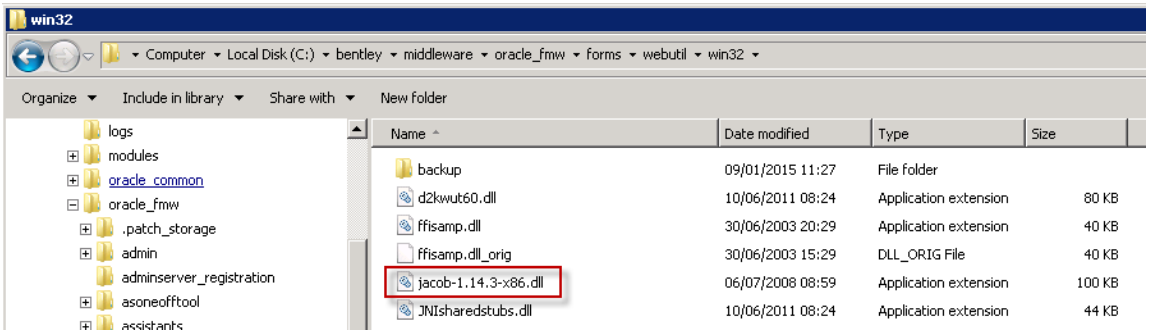


Copy the following files into <ORACLE_HOME>\forms\java\ directory of the WebLogic Server, replacing any existing files:

- bouncy-castle-provider.jar
- commons-codec.jar
- DJNativeSwing.jar
- DJNativeSwing-SWT.jar
- esapi.jar
- exor_jpg.jar
- exor_login_util.jar
- exor-ims.war
- frmall.jar
- frmwebutil.jar
- jacob.jar
- log4j.jar
- log4j.properties
- swt.jar
- UploadClient.jar
- UploadServer.jar
- exor-mapviewer.jar
- mvclient.jar

### 2.3.2 Edit webutiljpi.htm

It is not possible to edit the webutiljpi.htm file via enterprise manager; navigate to <ORACLE_INSTANCE>\config\FormsComponent\forms\server and open the webutiljpi.htm file using a suitable text editor.

The new PARAMETER_NAME and EMBEDDED SRC to allow a specific java version to be used should be added to the file in two sections, first the ‘Registration applet definition (start)’ section, then the ‘Forms applet definition (start)’ section – NOTE: in this section you will have to scroll down to the EMBED SRC section to add java_version. The screen shots below indicate this.

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NOTE in order to edit this file the Forms Service must be down, stop the Form Service using Fusion Middleware control.

Add the new PARAMETER_NAME and EMBEDDED SRC as per below and save the file.

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```
<!-- Forms applet definition (start) -->
<NOSCRIPT>
<OBJECT classid="%jpi_classid%"
        codebase="%jpi_codebase%"
        WIDTH="%Width%"
        HEIGHT="%Height%"
        HSPACE="0"
        VSPACE="0"
        ID="%applet_name%">
</NOSCRIPT>
<SCRIPT LANGUAGE="JavaScript" SRC="/forms/frmjscript/forms_ie.js"></SCRIPT>
<PARAM NAME="TYPE"        VALUE="%jpi_mimetype%">
<PARAM NAME="CODEBASE"    VALUE="%codebase%">
<PARAM NAME="CODE"        VALUE="oracle.forms.engine.Main" >
<PARAM NAME="ARCHIVE"     VALUE="%archive%,%webUtilArchive%" >
<PARAM NAME="java_version"     VALUE="%java_version%" >
<PARAM NAME="serverURL" VALUE="%appletServerURL%">
<PARAM NAME="networkRetries" VALUE="%networkRetries%">
<PARAM NAME="serverArgs"
       VALUE="%escapeParams% module=%form% userid=%userid% debug=%debug% host=%host% port=%
<PARAM NAME="separateFrame" VALUE="%separateFrame%">
<PARAM NAME="splashScreen"  VALUE="%splashScreen%">
<PARAM NAME="background"  VALUE="%background%">
<PARAM NAME="lookAndFeel"  VALUE="%lookAndFeel%">
<PARAM NAME="colorScheme"  VALUE="%colorScheme%">
<PARAM NAME="serverApp" VALUE="%serverApp%">
<PARAM NAME="logo" VALUE="%logo%">
<PARAM NAME="imageBase" VALUE="%imageBase%">
<PARAM NAME="formsMessageListener" VALUE="%formsMessageListener%">
<PARAM NAME="recordFileName" VALUE="%recordFileName%">
<PARAM NAME="EndUserMonitoringEnabled" VALUE="%EndUserMonitoringEnabled%">
<PARAM NAME="EndUserMonitoringURL" VALUE="%EndUserMonitoringURL%">
<PARAM NAME="heartBeat" VALUE="%heartBeat%">
<PARAM NAME="MaxEventWait" VALUE="%MaxEventWait%">
<PARAM NAME="allowAlertClipboard" VALUE="%allowAlertClipboard%">
<PARAM NAME="disableValidateClipboard" VALUE="%disableValidateClipboard%">
<PARAM NAME="enableJavascriptEvent" VALUE="%enableJavascriptEvent%">
<PARAM NAME="MAYSCRIPT" VALUE="%enableJavascriptEvent%">
<PARAM NAME="digitSubstitution" VALUE="%digitSubstitution%">
<PARAM NAME="legacy_lifecycle" VALUE="%legacy_lifecycle%">
<PARAM NAME="JavaScriptBlocksHeartBeat" VALUE="%JavaScriptBlocksHeartBeat%">
<PARAM NAME="highContrast" VALUE="%highContrast%">
<PARAM NAME="disableMDIScrollbars" VALUE="%disableMDIScrollbars%">
<PARAM NAME="clientDPI" VALUE="%clientDPI%">
<PARAM NAME="guiMode" VALUE="%guiMode%">
<!-- Params specific to webutil -->
<PARAM NAME="WebUtilLogging" VALUE="%WebUtilLogging%">
<PARAM NAME="WebUtilLoggingDetail" VALUE="%WebUtilLoggingDetail%">
<PARAM NAME="WebUtilErrorMode" VALUE="%WebUtilErrorMode%">
<PARAM NAME="WebUtilDispatchMonitorInterval" VALUE="%WebUtilDispatchMonitorInterval%">
<PARAM NAME="WebUtilTrustInternal" VALUE="%WebUtilTrustInternal%">
<PARAM NAME="WebUtilMaxTransferSize" VALUE="%WebUtilMaxTransferSize%">
<PARAM name="applet_stop_timeout" value="800">
<COMMENT>
<EMBED SRC="" PLUGINSPAGE="%jpi_download_page%"
        TYPE="%jpi_mimetype%"
        java_codebase="%codebase%"
        java_code="oracle.forms.engine.Main"
        java_archive="%archive%,%webUtilArchive%"
        java_version="%java_version%"
```

This additional new parameter allows the Application to force the use of a specific version of JRE specified in the formsweb.cfg file. Once the changes are completed the Forms services may be started.

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### 2.3.3 Configure the Forms Service to use WebUtil

Oracle Weblogic Server 10.3.60 - it is advisable to edit the configuration files using Fusion Middleware Control.

Add the additional parameters to the default section of formsweb.cfg using Fusion Middleware control:

| Parameter | Value |
|---|---|
| term | <ORACLE_HOME>\config\FormsComponent\forms\fmrpcweb.res |
| baseHTML | <ORACLE_HOME>\config\FormsComponent\forms\server\webutilbase.htm |
| baseHTMLjpi | <ORACLE_HOME>\config\FormsComponent\forms\server\webutiljpi.htm |
| highContrast | TRUE |
| height | 100% |
| form | hig1807.fmx |
| width | 100% |
| archive | frmall.jar,exor_jpg.jar,UploadClient.jar |
| separateFrame | true |
| lookandfeel | oracle |
| WorkingDirectory | <exor_base>\bin |
| WebUtilArchive | jacob.jar,frmwebutil.jar |
| WebUtilLogging | on |
| WebutilLoggingDetails | normal |
| WebUtilErrorMode | console |
| WebUtilDispatchMonitorInterval | 5 |
| WebUtilTrustInternal | true |
| WebUtilMaxTransferSize | 16384 |

Note: Maintain the sequence of jar files for archive and WebUtilArchive parameters as mentioned in the above table.

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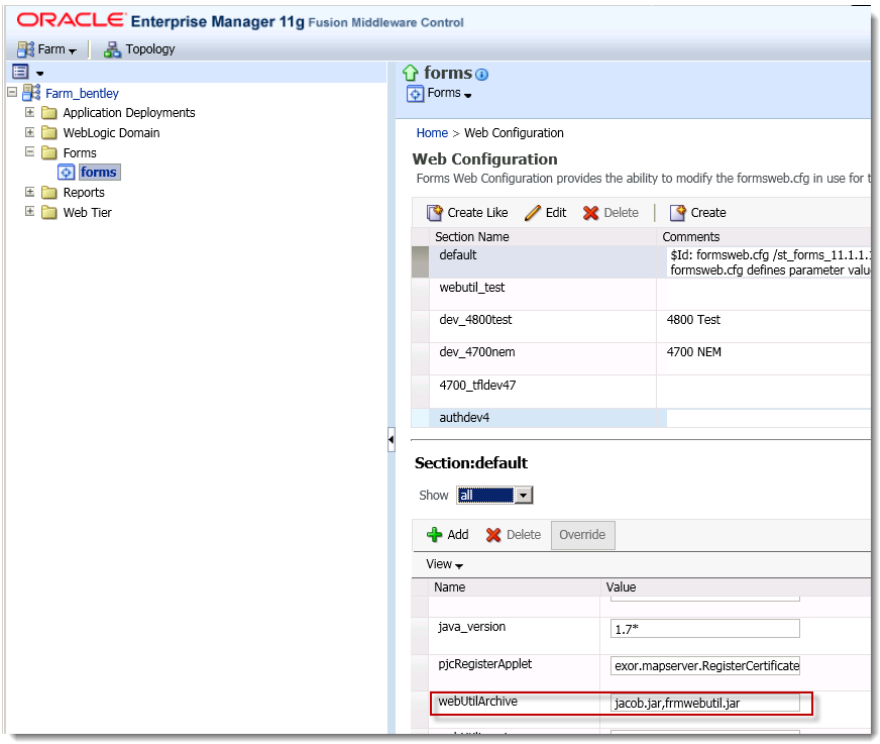


Ensure that frmwebutil.jar exists in the CLASSPATH variable and if it does not, add it now.

### 2.3.4 Configure the WebUtil

Edit the file, using a suitable text editor, located in the folder <ORACLE_INSTANCE>\config\FormsComponent\forms\server called webutil.cfg. There are numerous options that can be configured in webutil.cfg relating to Logging, OS specifics, Upload/Download, and work areas. Initially we only configure the File Transfer which requires the following change to webutil.cfg

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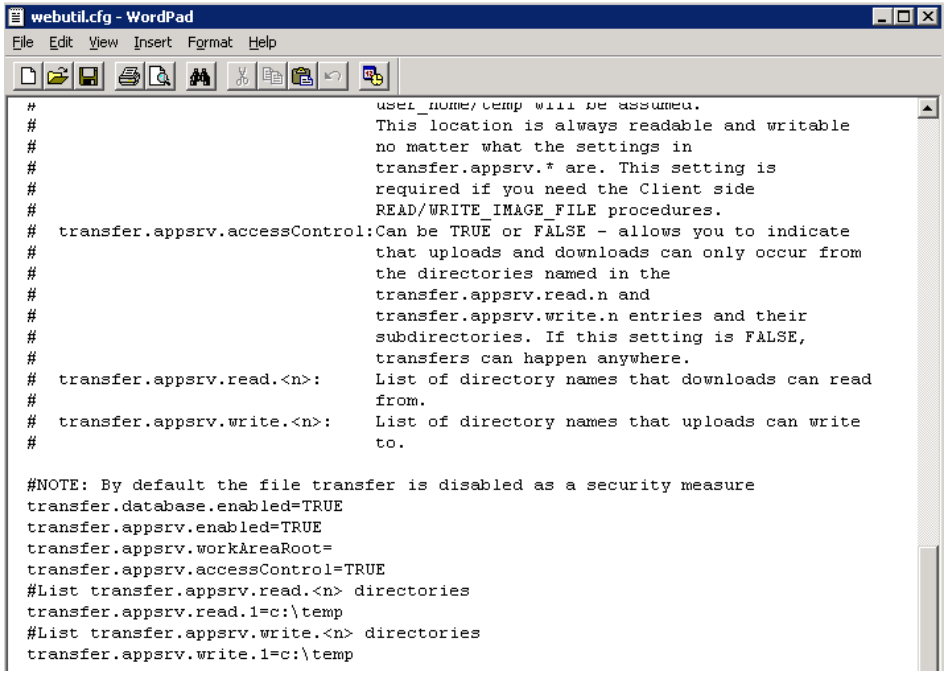
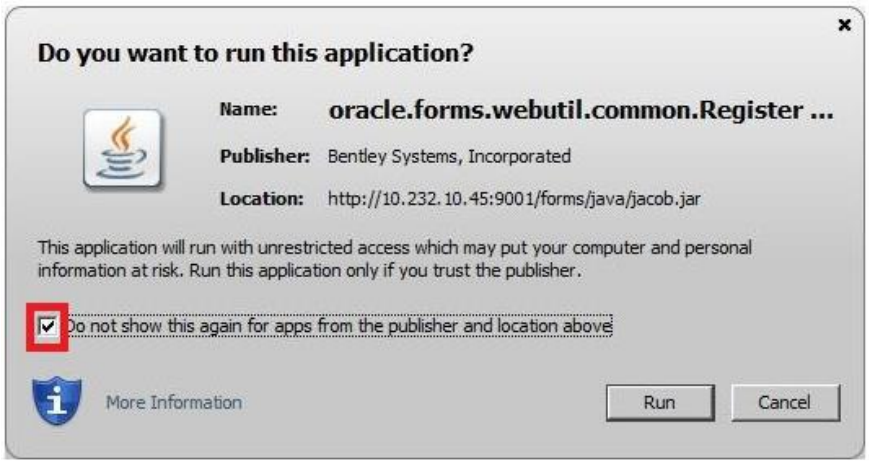



In the example above we have set the database and appsrv to be 'TRUE' with the default settings for transfer.appsrv.read and transfer.appsrv.write being at the default of c:\temp. We may need to add additional folders here to allow the upload on Maintenance Manager files etc to the specific Exor Directories.

### 2.3.5 Forms startup

Please note that after deploying the pre-signed Jar files, starting the forms application may show a screen as shown below. Accept the warning by using the tick-box as shown. This is further described after the completing the installation of MapViewer (see Mapserver install)

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# 3 Network Manager

## 3.1 Installation of the Network Manager Software files

To install the software components for Network Manager first check that the NM3 folder is present and correctly unzipped from the release zip file.

**Important:**

All exor applications that you install must go into the same destination – often referred to as **<exor_base>.**

### 3.1.1 Product Run-time Environment

In the case of installation or upgrade of many of the products, the system depends on a properly configured middle-tier with a suitably configured folder containing all the run-time modules. These will be held in the product release installation folder such as **<exor_base>**\<prod>\11g_bin where <prod> refers to the product code such as nm3.

**These files will need to be copied into the fusion-middleware folder dedicated for this purpose.**

Some products may also include executable files that run outside of the Oracle middle-tier and reference a database server only. These files such as listeners and C executable such as loaders will be contained inside the **<exor_base>**\<prod>\admin\C\11g_exe folder. It is important that these files are installed and executed in a suitable environment, but this need not be the same as the product execution folder for forms and reports.

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 3.2 Network Manager DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Network Manager to 4.8.0.x.

**Important:** This product will require upgrading **before** any other 4.8.0.x product upgrades.

### 3.2.1 Before you start

Before proceeding please ensure that the pre-requisites mentioned in Section 2.1 of this document are met.

Also, please be aware of the following;

- Where instructed to change to a directory before running a script, it is assumed that you are running SQL*PLUS from a DOS Command prompt.
- If you are running SQL*PLUS in windows you should set the 'start in' directory of the SQL*PLUS shortcut to simulate the change of directory.

**If you do not run SQL*PLUS from the directory stated in each step of the guide, the installation will fail.**

Also, whilst following the instructions in this section you will be required to know the location of **<exor_base>**. You may recall that whilst undertaking the tasks in Section 3.1 you will have implemented software into the location referred to as **<exor_base>**, for example, C:\EXOR.

### 3.2.2 Typical problems that you may encounter

It is possible that, when you are running some of the upgrade scripts, errors may be reported saying that objects already exist in the database or that columns already exist on tables. These errors can generally be ignored. If you are in any doubt, please contact the Exor support desk for guidance.

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The upgrade procedures will also attempt to install database roles in the highways owner account that are necessary for the system to operate correctly. You may find that errors are produced when running the upgrade scripts to the effect that the role names being created are already used by existing roles or users. These errors can be ignored as they simply mean that the roles being created already exist.

Also, during install/upgrade Warning messages may appear saying that compilation errors have occurred. These warnings can be ignored, since invalid objects will be recompiled later on in the install/upgrade. However, it will be of concern if compilation errors still occur following the re-compilation.

### 3.2.3 Highways Owner Account Creation (Install Only)

This section provides details of steps involved in creating an owner for all exor database objects.

It is important that you should only perform these steps if you do not already have a "Highways Owner" account. If you are upgrading Network Manager, then skip to the section which relates specifically to the upgrade.

The following paragraphs should be used to create a new schema for the implementation of Network Manager and any other subsequent exor application.

#### 3.2.3.1 Tablespace Requirements

The following tablespaces (or equivalents) should be made available on your server:

- **HIGHWAYS** - Default Table Space. Can be a different name if required.
- **TEMP** - Default Temporary Tablespace for users. Can be a different name.

#### 3.2.3.2 Data Dictionary Privileges

- Change directory to **<exor_base>**\nm3\install
- Login to SQL*PLUS as the **SYS** user on the client PC and run the following command:

```
start hig_sys_grants.sql
```

#### 3.2.3.3 The higowner script

- Change directory to **<exor_base>**\nm3\install
- Login to SQL*PLUS as the **SYSTEM** user on the client PC and run the following commands:

```
start system_objects.sql
```

followed by:

```
start higowner.sql
```

This script will prompt you for the following information:

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| *Prompt* | *Meaning* |
|---|---|
| Highways Owner Name | This should be the name to be given to your highways owner |
| Owner's Password | Password for highways owner |
| Default Tablespace | Default Tablespace for highways owner |
| Temporary Tablespace | Temporary Tablespace for highways owner |
| System Start Date | This is the earliest date at which data is valid in your database |
| Admin Type Code | Code for the default admin unit type |
| Admin Type Description | Description for the default admin unit type |
| Admin Unit Code | Code for the default Admin Unit |
| Admin Unit Description | Description for the default Admin Unit |

You will now have a new Oracle user set up with all relevant privileges to run the highways application. Also the system start date for your database will have been set and Top level Admin Unit created for your default Admin Unit Type.

### 3.2.4 Core User and Objects (Install Only)

The following should be used to create a new schema for the implementation of Context Setting. This step is only required for a new install of Network Manager (i.e. not required if upgrading from a previous version of Network Manager).

- Change directory to **<exor_base>\nm3\install**
- Login to SQL*PLUS as the **SYSTEM** user on the client PC andrun the following command:

  start exor_core_user_creation.sql

- Login to SQL*PLUS as the **EXOR_CORE** user (Password EXOR_CORE) on the client PC and run the following command:

  start exor_core_objects.sql

Then continue with the Install of Network Manager.

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### 3.2.5 Installation of Network Manager

To create the base data and objects for Network Manager modules;

- Change directory **to <exor_base>\nm3\install**
- Login to SQL*PLUS as the highways owner on the client PC and run the following command:

  start nm_inst.sql

  You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.

  For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

  C:\EXOR\

  When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

  If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.

When the script has completed, all the Network Manager objects and data will have been installed.

#### 3.2.5.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the installation, the files can be viewed to check for any errors that could have occurred during installation.

nm3_install_1_<date&time>.LOG

nm3_install_2_<date&time>.LOG

**Note**: It is perfectly normal for the NM3SDE package to not compile if an SDE schema does not exist or if the highways owner has no privilege to read SDE objects.

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

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### 3.2.5.2 Post Install Tasks

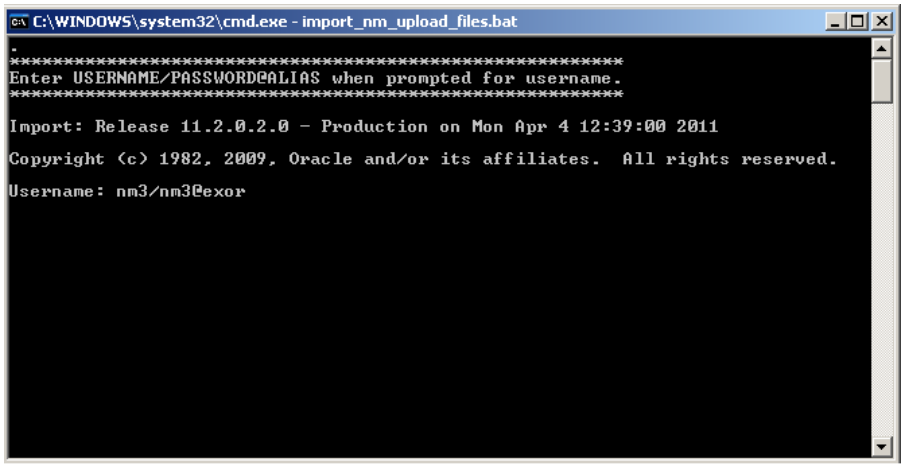
Creation of Additional Database Objects

Once an install has been completed the following batch files must be run;

import_nm_upload_files.bat

ldjava_11g.bat

These may be found in the **<exor_base>**\nm3\install\ directory and should be run from the command prompt.




You will be prompted for the Username of the Highways Owner. Enter the Username/Password@alias then press Enter, e.g. nm3/nm3@exor

### 3.2.5.3 Synonyms

Highways product option HIGPUBSYN is used to dictate whether or not Public database synonyms are used.

On first time installation of Network Manager synonyms are NOT created. So to create synonyms following installation, use the Highways application to set product option HIGPUBSYN and then within SQL*Plus run the following command;

EXECUTE nm3ddl.refresh_all_synonyms;

Note:

if you opt to not use Public Synonyms, then Private synonyms are created for all subordinate users when the above command is executed.

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### 3.2.5.4 Configuring NM3WEB

This section provides details of steps involved in configuring the Gateway Database Access Descriptor to allow access to the Web modules used within Highways by Exor.

These include modules such as the

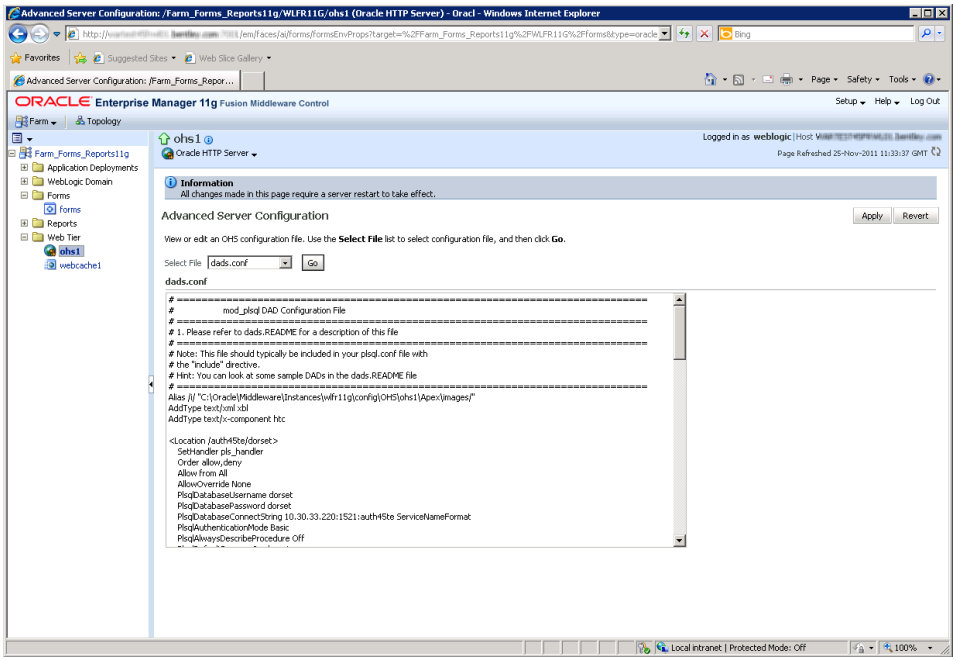
- CSV Loaders - HIGWEB2030
- Engineering Dynamic Segmentation - NMWEB0020.

It refers to the base directory for files accessed through the OHS Weblogic server. By default this is <ORACLE_INSTANCE>\config\OHS\ohs1\mod_plsql\dads.conf.

A Database Access Descriptor (DAD) must be created to handle the connection to the database by the web server.

From the Oracle HTTP Server Advanced Server Configuration using Fusion Middleware control page

- Select dad.conf from files to be edited:




Database Access Descriptor Name (<Location /NM3WEB>) should be NM3WEB

- Fill in user, password and database as required.

You can leave the password and/or username blank to force the user to enter them (recommended).

```
PlsqlDatabaseUsername should be blank.
PlsqlDatabasePassword should be blank.
```

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Authentication method (PlsqlAuthenticationMode) should be Basic.

Default Home page (PlsqlDefaultPage) should be nm3web.main_menu.

Document Table name (PlsqlDocumentTablename) should be NM_UPLOAD_FILES.

Document Access Path (PlsqlDocumentPath) should be the value set for Product Option WEBDOCPATH. The standard metadata value is DOCS

Document Access Procedure (PlsqlDocumentProcedure) should be nm3web.process_download

- Click OK button at top of page.

**Note:**

In order to access the Web Modules the User must be granted the appropriate Roles for the Module. Refer to the General System Admin Guide for more information on User Roles

For example:

```
<Location /NM3WEB>
    SetHandler pls_handler
    Order allow,deny
    Allow from All
    AllowOverride None
    PlsqlDatabaseUsername <recommended to be blank>
    PlsqlDatabasePassword < recommended to be blank >
    PlsqlDatabaseConnectString <hostname>:<port>:<service_name> ServiceNameFormat
    PlsqlAuthenticationMode Basic
    PlsqlAlwaysDescribeProcedure Off
    PlsqlDefaultPage nm3web.main_menu
    PlsqlDocumentProcedure nm3web.process_download
    PlsqlErrorStyle <as required>
    PlsqlDocumentPath DOCS
    PlsqlDocumentTablename NM_UPLOAD_FILES
</Location>
```

#### 3.2.5.5 Forms 11g Specific Configuration

There are certain product options which must be set according to the Oracle forms version that is being used to run the exor application.

REPURL

The value of this product option should be set to the URL that identifies the 11g Fusion Middleware Reports Server.

e.g.

http://<weblogic server>:<port>/reports/rwservlet?server=<reports server>

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### 3.2.6 Upgrade of Network Manager

#### 3.2.6.1 SYS Synonyms and Grants

The following should be used to add Synonyms and Grants for SYS objects. These are required to allow for IMS/Single Sign-On configuration.

- Change directory to **<exor_base>\nm3\install**
- Login to SQL*PLUS as the **SYS** user on the client PC and run the following command:

```
start nm4800_sys.sql
```

The following log file will be produced in the working directory, and should be checked for any errors that may have been produced:

```
nm4800_sys_<date&time>.LOG
```

#### 3.2.6.2 SYSTEM Objects, Synonyms and Grants

The following should be used to add Objects, Synonyms and Grants for SYSTEM objects. These are required as a result of Oracle 12c changes to Job Scheduling

- Change directory to **<exor_base>\nm3\install**
- Login to SQL*PLUS as the **SYSTEM** user on the client PC and run the following command:

```
start nm4800_system.sql
```

The following log file will be produced in the working directory, and should be checked for any errors that may have been produced:

```
nm4800_system_<date&time>.LOG
```

#### 3.2.6.3 EXOR_CORE Objects

Modifications have been made to objects owned by EXOR_CORE. These will require re-application.

- Change directory to **<exor_base>\nm3\install**
- Login to SQL*PLUS as the **EXOR_CORE** user on the client PC and run the following command:

```
start nm4800_exor_core.sql
```

The following log file will be produced in the working directory, and should be checked for any errors that may have been produced:

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nm4800_exor_core_<date&time>.LOG

#### 3.2.6.4 Upgrade of Network Manager

This section describes the steps necessary to upgrade Network Manager to 4.8.0.x

To upgrade the base data and objects for the Network Manager modules;

- Change directory to **<exor_base>**\nm3\install
- Login to SQL*PLUS as **Highways Owner** user on the client PC and run the following command:

start nm4700_nm4800

You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.

For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

C:\EXOR\

When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

If the value specified is not correct or does not end with a slash('\') character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.

When the script has completed, all the Network Manager objects and data will have been upgraded.

#### 3.2.6.5 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

nm4700_nm4800_1_<date&time>.LOG

nm4700_nm4800_2_<date&time>.LOG

Please raise and attach these logs, and the log files from 3.2.6.1 and 3.2.6.1, to a ticket with http://selectservices.bentley.com to allow Bentley support staff to verify the upgrade has been successful.

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Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been upgraded.

### 3.2.7 Mandatory Configuration (Post Install and Upgrade)

#### 3.2.7.1 exor_version.txt

Before accessing Network Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the **<exor_base>**\11g_bin directory.

Ensure that the entry for Network Manager is set accordingly;

NET = 4.8.0.3

HIG = 4.8.0.3

AST = 4.8.0.3

DOC = 4.8.0.3

WMP = 4.8.0.3

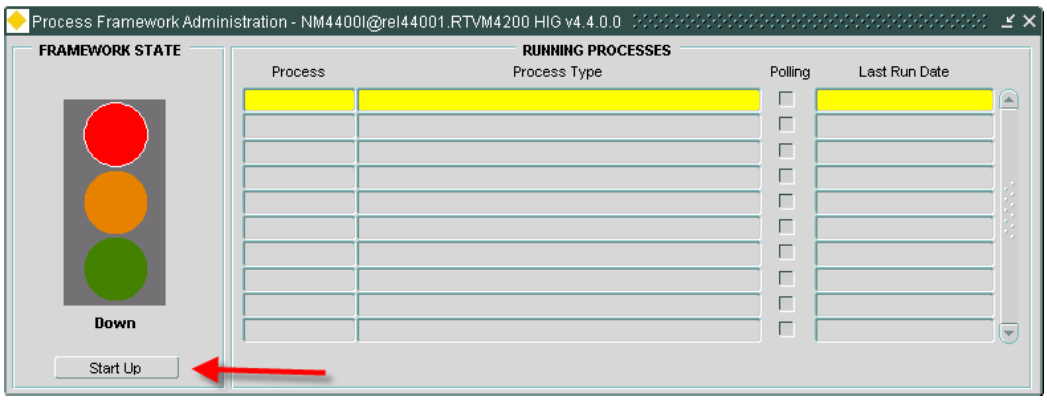
### 3.2.8 EXOR_JPG.JAR (Post Install and Upgrade)

Copy the new EXOR_JPG.JAR from the ***<exor_base>***/icons/java folder to the <forms_home>/java folder on the application server.

Users may need to clear their JRE caches to see the changes.

### 3.2.9 Process Framework (Post Install and Upgrade)

The Process Framework can be started (or stopped) via the Process Framework Administration form (hig2550). After successfully completing installs or upgrades to 4.8.0.x for all products required navigate to this form and use the Start Up button to start up the Process Framework.

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### 3.2.10 Jobs (Post Install and Upgrade)

After completing a successful install/upgrade of all products required to 4.8.0.x please execute the following script to start/restart Core jobs:

- Change directory to **<exor_base>**\nm3\install
- Login to SQL*PLUS as the highways owner on the client PC

Run the following command:

start nm3jobs.sql

### 3.2.11 Spatial Configuration (Post Install and Upgrade)

Specific information regarding the registration of spatial layers can be found in the “Locator and Web Mapping” document.

#### 3.2.11.1 Spatial Index creation

Once Network Configuration has been completed, spatial indexes included in 4.8.0.x can be created, as follows:

- Change directory to **<exor_base>**\nm3\install
- Login to SQL*PLUS as the highways owner on the client PC

Run the following command:

start 4800_spatial_indexes.sql

### 3.2.12 Doc Bundle Loader (Post Install and Upgrade)

#### 3.2.12.1 Oracle External Scheduler Jobs

- For databases that exist on a Windows Operating System – The OracleJobScheduler<instance> service MUST be running on the database server.
- For databases that exist on a Solaris/Linux Operating System – Relevant permissions to execute <db_home>/bin/extjob must be set in accordance with Oracle Documentation.
- External Jobs are not supported on any other platform.

#### 3.2.12.2 Server-side SQLJ is no longer supported in Oracle 12.2.

As detailed in the reference documents, SQLJ is no longer supported in Oracle 12c. As a result, the Java Util class needs to be re-loaded. To achieve this, run the following command from the command prompt:

ldjava_11g.bat

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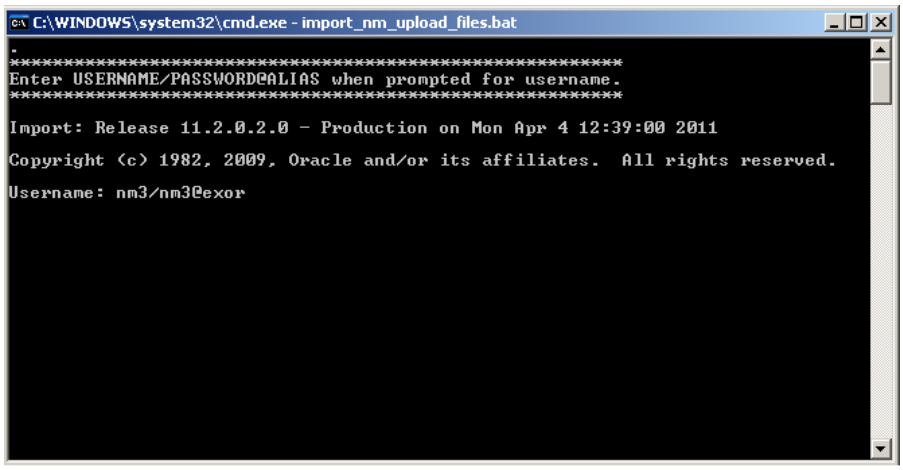
e.g.




You will be prompted for the Username of the Highways Owner. Enter the Username/Password@alias then press Enter, e.g. nm3/nm3@exor

### 3.2.13 Additional Configuration (Post Install and Upgrade)

Consult the documentation that accompanies this release for details of any additional configuration that may be required following an install/upgrade.

For example, to obtain details of product options, and for details of new product features/amendments.

**Important:** It is highly recommended that you do this before attempting to use the application.

### 3.2.14 ORACLE Listener JDBC Connections to PDBs (Post Install and Upgrade)

#### 3.2.14.1 Listener specification

As specified in the Referenced documents, when attempting to connect to a PDB using the SID format, you will receive the following error.

ORA-12505, TNS:listener does not currently know of SID given in connect descriptor

Edit the "$ORACLE_HOME/network/admin/listener.ora" file, adding the following entry, with the "listener" name matching that used by your listener.

USE_SID_AS_SERVICE_listener=on

Reload or restart the listener.

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```
$ lsnrctl reload
```

Now both of the following JDBC connection strings will be successful as any SIDs will be treated as services.

```
jdbc:oracle:thin:@ol6-121:1521:pdb1
jdbc:oracle:thin:@ol6-121:1521/pdb1
```

#### 3.2.14.2 Database connection via tnsnames

Tnsames entries will need to replace any SID details with SERVICE_NAME i.e.

```
TNSNet12c =
  (DESCRIPTION =
    (ADDRESS=(protocol = tcp)(HOST=test.oracle.com)(port = 1521))
    (CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME = TEST))
  )
```

**NOTE**: Any Database Access Descriptor (DADs) and Mapserver Datasource definitions will need to specify the servicename, rather than a sid. (see MapViewer Data Source Definition Example).

### 3.2.15 Mapserver Component Install (Post Install and Upgrade)

At version 4.8.0.x of the Exor Application set, locator mapping software using Oracle Weblogic Application Server Mapviewer version 11.1.1.9.0 should be installed and configured.

Go to the relevant <ORACLE_HOME>\forms\java directory on the **Oracle WebLogic Forms Server**

If upgrading, rename the following files –

| | |
|---|---|
| exorMapviewer_10_3_6.jar | to exorMapviewer_10_3_6_old.jar |
| exor_jpg.jar | to exor_jpg_old.jar |
| frmall.jar | to frmall_old.jar |
| frmwebutil.jar | to frmwebutil_old.jar |
| jacob.jar | to jacob_old.jar |
| mvclient_10_3_6.jar | to mvclient_10_3_6_old.jar |
| ojdbc6_10_3_6.jar | to ojdbc6_10_3_6_old.jar |
| UploadClient.jar | to UploadClient_old.jar |
| UploadServer.jar | to UploadServer_old.jar |

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Locate the **<exor_base>**\nm3\admin\lib folder, where you will find:

- exor-mapviewer.jar
- exor_jpg.jar
- jacob.jar
- ojdbc6.jar
- UploadClient.jar
- UploadServer.jar

Copy these files to <ORACLE_HOME>\forms\java directory:

3.2.15.1 Forms Web Configuration Changes (formsweb.cfg)

If upgrading,

- Remove exorMapviewer4700_10_3_6.jar and mvclient_10_3_6.jar and ojdbc6_10_3_6.jar, if present, from the **archive** setting
- Remove exorMapviewer4700_10_3_6.jar from the **pjcArchive setting**

For install and upgrade,

- Add exor-mapviewer.jar and mvclient.jar to the **archive** setting.
- Add exor-mapviewer.jar to the **pjcArchive** setting;
- The **archive** setting should look like:

frmall.jar,exor_jpg.jar,UploadClient.jar,exor-mapviewer.jar,mvclient.jar

3.2.15.2 JRE Java settings

On each client machine the Jar Cache will need to be cleared. This can be done by the following methods.

Oracle JRE users:

- Open Windows Control Panel and open Java Control Panel as below -

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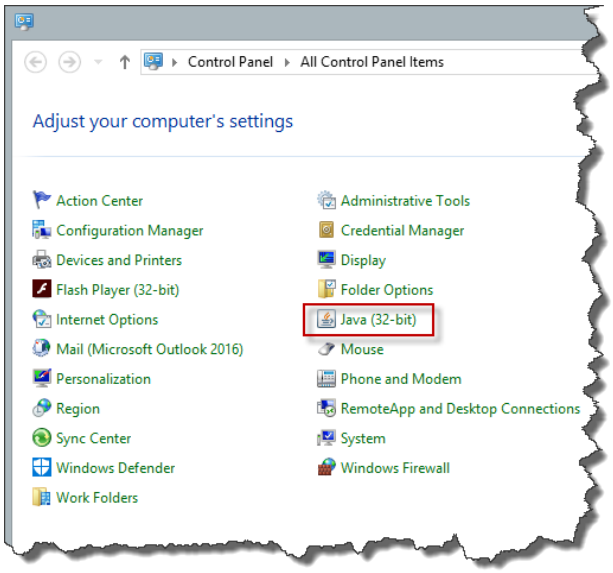
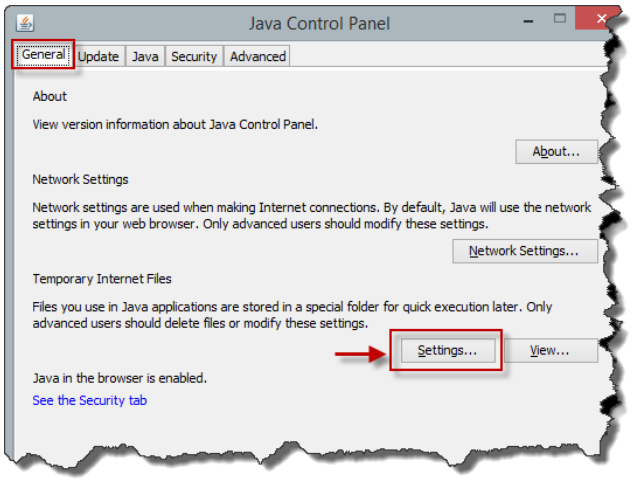



- Navigate to the "General" tab and click "Settings" button.




- In the Disk Space section click "Delete Files" button, select all options in the resulting screen and press OK

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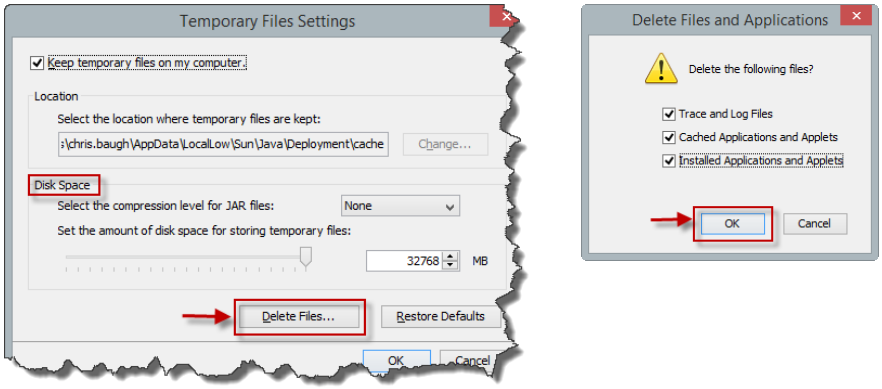
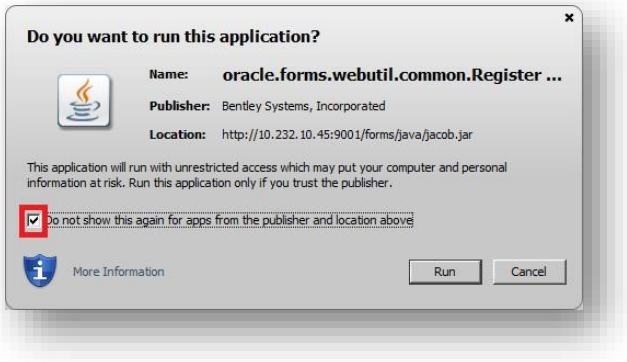



When you launch the Exor Application for the first time a java security warning will appear. Select the checkbox in front of 'Do not show this again for apps from the publisher and location above' as shown in the following screenshot and then click Run –




Again, open the Java Control Panel as described above. In the Java Control Panel go to –

Security -> Manage Certificates…

Now you will see the Bentley Systems, Incorporated Certificate installed and listed under Trusted Certificate.

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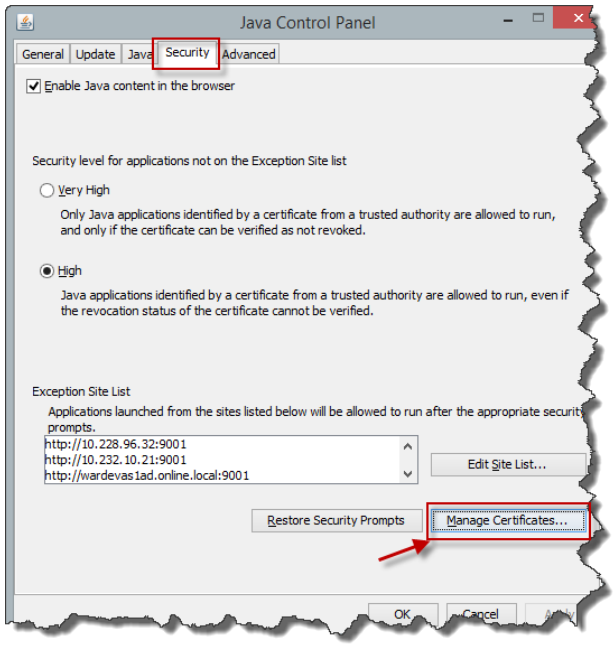


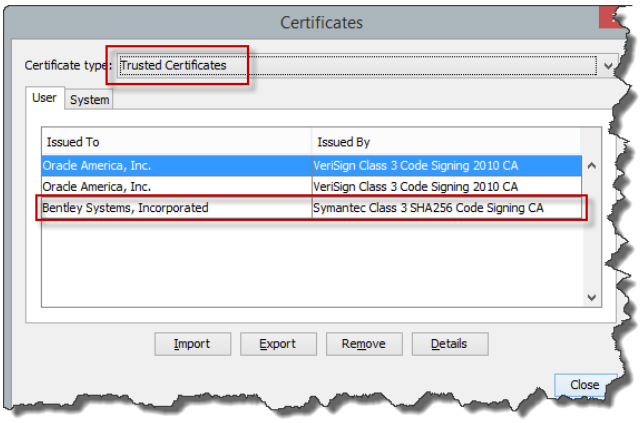


Close the Java Control Panel.

After this, you should not see any warnings in future, unless the certificate gets removed.

You should now load the Exor Application in the usual way. On the first load, it will take longer than usual whilst the JAR files are cached again.

### 3.2.15.3 MV_SECURITY Option

Please ensure that the MV_SECURITY option in the Mapviewer config file is set to FALSE. This has to be set to FALSE so that the Java code can create a data source on the fly when the preferred data source is not set.

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### 3.2.15.4 Undeploying old mapviewer application

- Log on to the **Oracle WebLogic MapViewer Server Admin Console** page.
- Go to **Domain Structure** > **Deployments**.
- On the **Summary of Deployments** page, select the existing mapviewer application and click on **Stop** > **Force Stop Now** (above/below the Deployments list), follow the next screen and confirm the stopping by clicking on **Yes** button.
- If WebLogic Server was configured in **Production** mode, lock the server: click on **Lock & Edit** button.
- Again, select the existing mapviewer application from the list and click on **Delete** button (above/below the Deployments list), follow the next screen and confirm the deleting by clicking on **Yes** button.
- If WebLogic Server was configured in **Production** mode, click **Activate Changes** to remove the old deployment completely.

### 3.2.15.5 Deploying new mapviewer application

- Shut down the **Oracle WebLogic MapViewer Server** – e.g. **WLS_MAPVR.**
- Go to the relevant <ORACLE_INSTANCE> directory on the **Oracle WebLogic MapViewer Server** –

  e.g. E:\Oracle\Product\Middleware\instance

  and **rename** the following directory,if present –

  mapviewer to mapviewer_old,

- Create a new directory with name **mapviewer**.
- Change directory to the newly created **mapviewer** directory and copy **mapviewier.ear** from **<exor_base>**nm3\admin\lib

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- Rename mapviewer.ear to mapviewer1.ear.
- Create a subdirectory named mapviewer.ear.
- Unpack **mapviewer1.ear** into **mapviewer.ear** (that is, into \mapviewer\mapviewer.ear).
- Change directory to the mapviewer.ear directory.
- Rename **web.war** to web1.war.
- Create a subdirectory named web.war.
- Unzip **web1.war** into web.war (that is, into \mapviewer\mapviewer.ear\web.war).
- Modify the MapViewer configuration file (\mapviewer\mapviewer.ear\web.war\WEB-INF\conf**mapViewerConfig.xml**) as needed, such as to change the logging level or to add permanent data source definitions. You can also modify this configuration file at any time later.

  **Note** – Any settings from old mapviewer deployment configuration will not work – e.g. Data Sources, Log Level, MV Security Options etc.

  **Note** – A permanent data source definition must be in accordance with the example given in Section 3.2.15.6
- Log on to **Oracle WebLogic MapViewer Server Admin Console** page.
- Start the **Oracle WebLogic MapViewer Server** – e.g**. WLS_MAPVR.**
- If **Oracle WebLogic MapViewer Server** was configured in **Production** mode, lock the server: click on **Lock & Edit** button.
- Go to **Domain Structure > Deployments**.
- On the **Deployments** page, click on **Install** button (above/below the list of deployments).
- In the **Install Application Assistant**, under **Locate deployment to install and prepare for deployment**, for **Path** `<ORACLE_INSTANCE>\mapviewer`, for **Current Location** select **mapviewer.ear** (the exploded EAR folder), and click **Next**.
- Under **Choose targeting style**, accept the default (**Install this deployment as an application**), and click **Next**.
- In the **Select deployment targets**, under **Servers** select the MapViewer WebLogic Server (e.g. **WLS_MAPVR**).
- Under **Optional Settings**, accept the defaults except under **Source Accessibility**, **select I will make this deployment accessible from the following location.**
- Click the **Finish** button to go to the **Summary of deployment** page.
- If WebLogic Server was configured in **Production** mode, click **Activate Changes** to activate the deployment.
- **Start** MapViewer as follows:
  a. On the **Summary of deployment** page select the just installed **mapviewer** from the list.
  b. Click **Start** > **Servicing all requests** (above/below the Deployments list) and confirm the starting by clicking on the **Yes** button.
  c. MapViewer is now started (with **State**: Active and **Health**: OK).

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### 3.2.15.6 MapViewer Data Source Definition Example

```
<map_data_source name="mvdemo"
        jdbc_host="db1.sample.com"
        jdbc_sid="orcl.online.local"
        jdbc_port="1521"
        jdbc_user="myuser"
        jdbc_password="!mypassword"
        jdbc_mode="thin"
        number_of_mappers="21"
        max_connections="100"
        allow_jdbc_theme_based_foi="false"
        editable="false"
        plsql_package="web_user_info"
        web_user_type="SUBUSERNAME"
/>
```

**Note –** `<map_data_source>` Element Attributes –

The values for attributes – `plsql_package` and `web_user_type` – must be the **same** as mentioned in above example (in **bold**).

The Data Source connection must always be as **HIG_OWNER** only, hence the values for attributes – `jdbc_user` and `jdbc_password`.

The Data Source `jdbc_sid` value needs to be secified as a servicename, rather than a sid

For other attributes, values can be set according to the environment requirements.

**Note –** Restart WebLogic Forms and MapViewer Servers – e.g. **WLS_FORMS** and **WLS_MAPVR** – to take the above changes effect.

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# 4 Street Gazetteer Manager

## 4.1 Installation of the Street Gazetteer Manager Software files

To install the software components for Street Gazetteer Manager, extract the NSG files from the zip file into a working directory e.g. C:\EXOR to be referred to as **<exor_base>**.

### 4.1.1 Product Run-time Environment

All Street Gazetteer Manager run-time modules, held in the product release installation folder **<exor_base>**\nsg\11g_bin, must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 4.2 Street Gazetteer Manager DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Street Gazetteer Manager to 4.8.0.x.

### 4.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading Street Gazetteer Manager.

### 4.2.2 Install of Street Gazetteer Manager

To create the base data and objects for the Street Gazetteer Manager modules:

- Change directory to **<exor_base>**\nsg\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

  start nsg_inst.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

  C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.

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- When the script has completed, all the Street Gazetteer Manager objects and data will have been installed.

#### 4.2.2.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

nsg_install_1_<date&time>.LOG

nsg_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed.

### 4.2.3 Upgrade of Street Gazetteer Manager

This section describes the steps necessary to upgrade Street Gazetteer Manager to 4.8.0.x

To upgrade the base data and objects for the Street Gazetteer Manager modules;

- Change directory to **<exor_base>**\nsg\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

start nsg4700_nsg4800.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Street Gazetteer Manager objects and data will have been upgraded.

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#### 4.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

nsg4700_nsg4800_1_<date&time>.LOG

nsg4700_nsg4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation task have been completed.

### 4.2.4 Post Install/Upgrade Tasks

Before accessing Street Gazetteer Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the runtime environment bin folder.

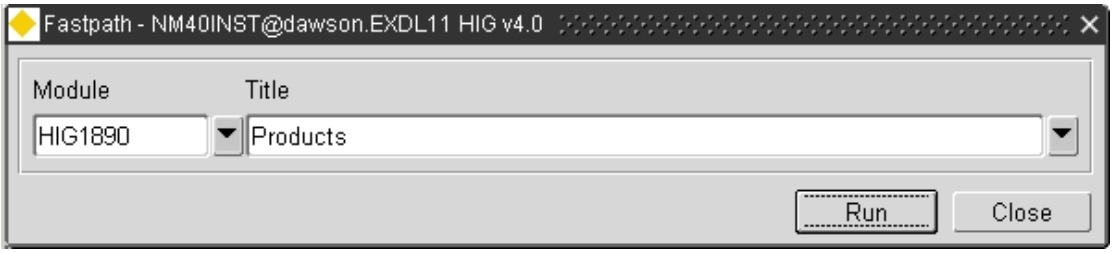
Ensure that the entry for Street Gazetteer Manager is set accordingly;

**NSG=4.8.0.1**

### 4.2.5 Product Licencing (Post Install only)

Following **first time installation** you must licence the product for use.

To do this start highways by exor and invoke module HIG1890 from the Fastpath menu.




For further details please refer to the "**Network Manager General System Admin Guide**"

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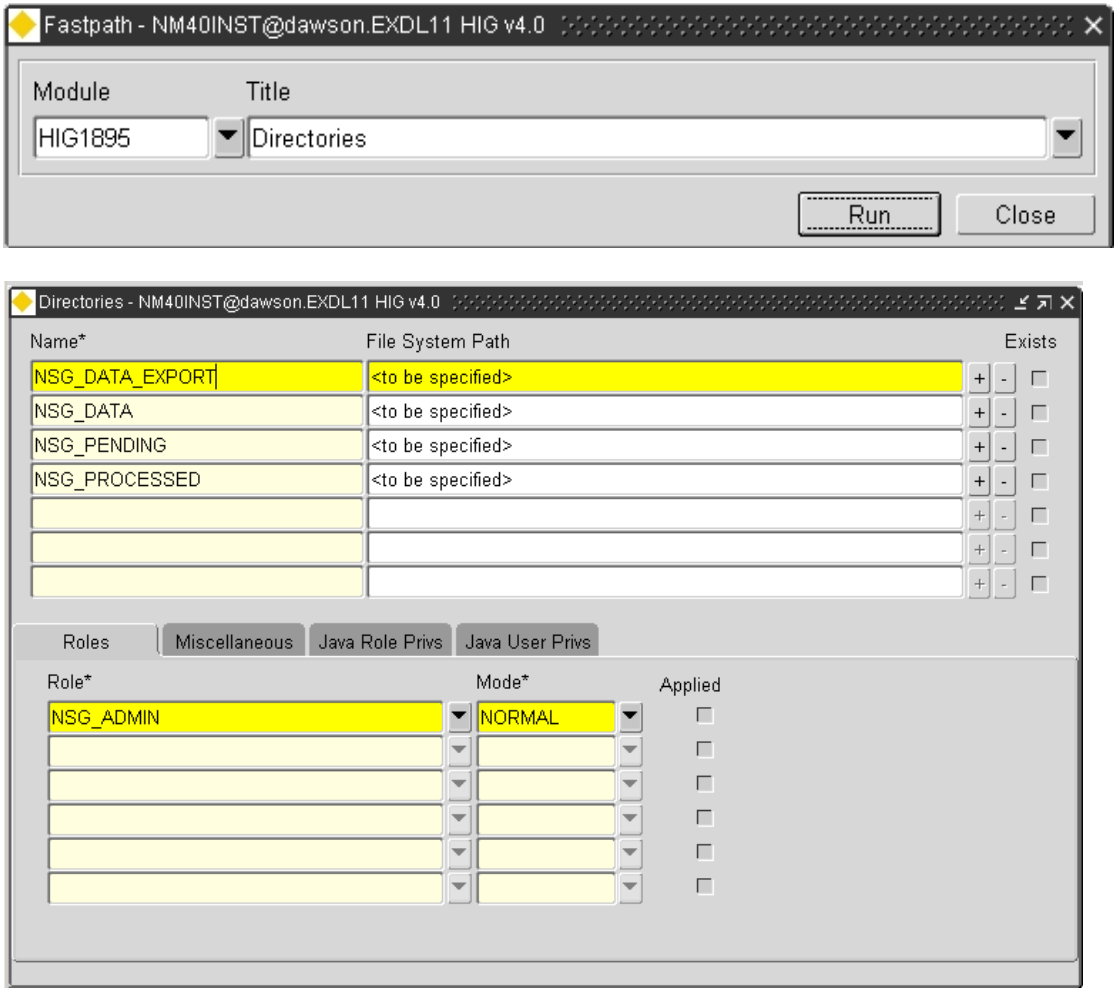
### 4.2.6 Setting Directory Paths (Post Install only)

This step is only necessary following a first time Installation of Street Gazetteer Manager. The Setting of Directory Paths will have been implemented previously for an Upgrade.

Street Gazetteer Manager uses the Oracle directories mechanism to denote the locations of files that are read/written.

The following Oracle directories are utilised by Street Gazetteer Manager, and they must have their "File System Paths" set using module HIG1895.




For more information regarding managing directories, please consult the ***"Network Manager General System Admin Guide"***

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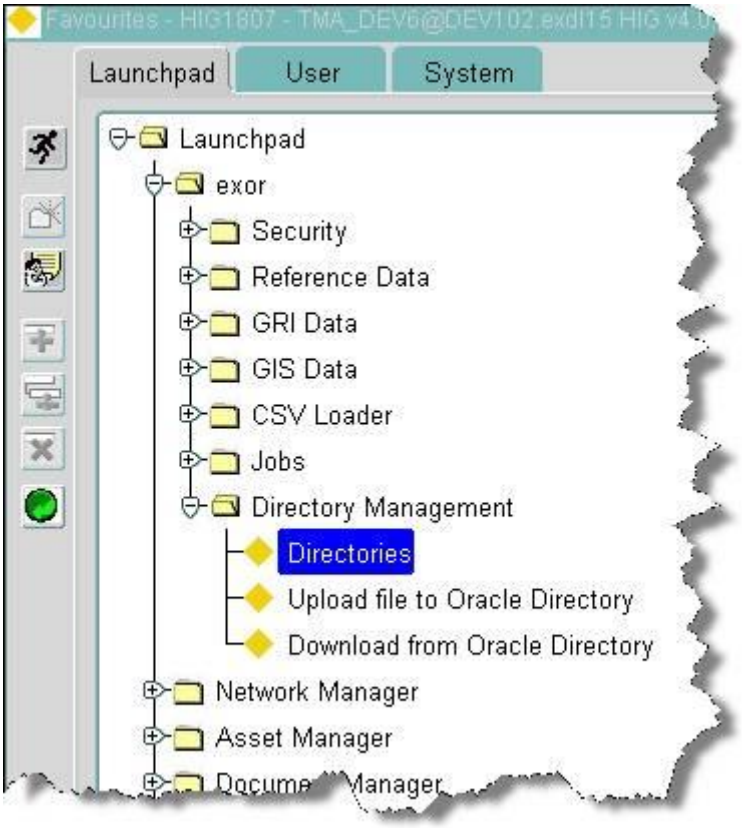
### 4.2.7 XSD Files (Post Install only)

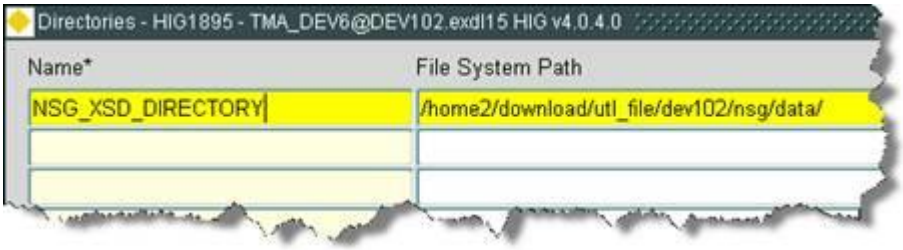
This step is only necessary following a first time Installation of Street Gazetteer Manager. The XSD files will have been registered previously for an Upgrade.

Copy the .xsd files from <*exor_base*>\nsg\admin\xsd into a directory on the database server.

Log into the Highways By Exor application and open the 'Directories' module




Ensure that the directory with the name 'NSG_XSD_DIRECTORY' has a path set that points to the location that you have just copied .xsd files into e.g.




The XSD files must then be registered with Oracle XMLDB by running the script <exor_base>\nsg\admin\xsd\register_eton_schemas.sql

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### 4.2.8 Creation of Loader Database Job (Post Install only)

Following first time installation, should it be necessary to load Gazetteer files a database job needs to be created. To do this open the Highways application and run the 'Monitor NSG Loader' module (NSG0040).

Press the 'Options' button.

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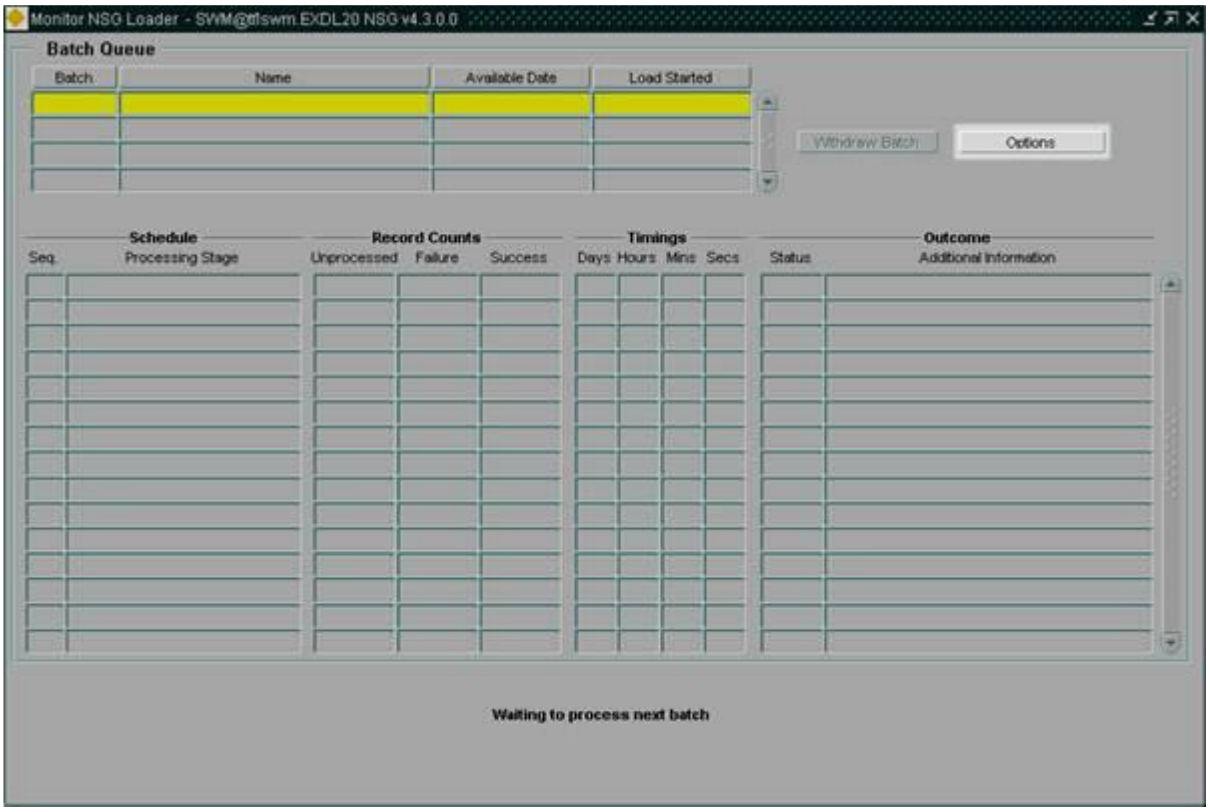
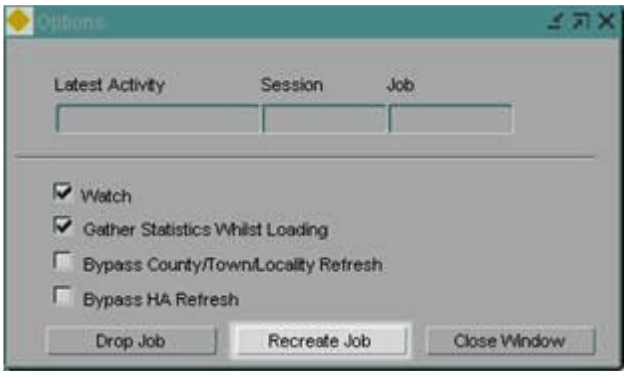



Press the 'Recreate Job' button.




### 4.2.9 Rebuild the NSG Views (post Upgrade only)

- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command:

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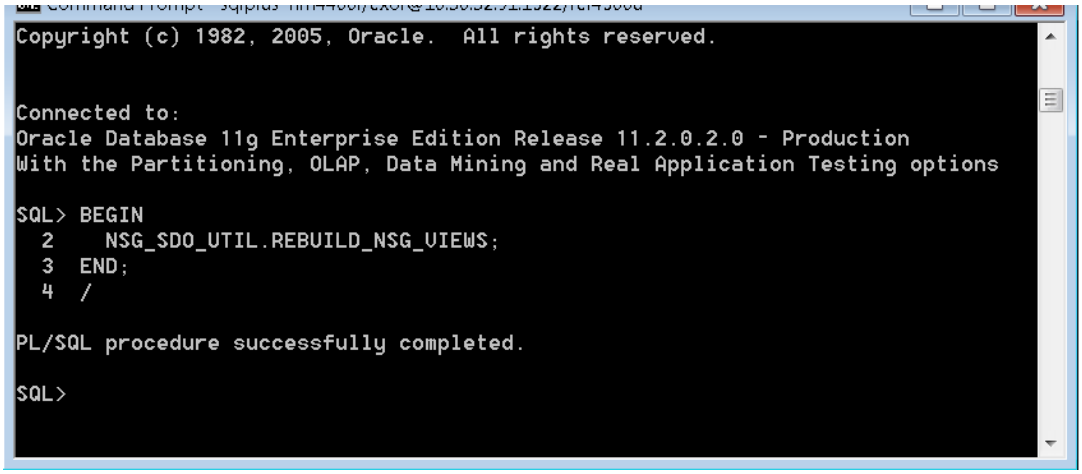
```
BEGIN
  NSG_SDO_UTIL.REBUILD_NSG_VIEWS;
END;
/
```

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# 5 TMA Manager

## 5.1 Installation of the TMA Manager Software files

To install the software components for TMA Manager, extract the TMA files from the zip file into a working directory e.g. C:\EXOR to be referred to as <exor_base>.

### 5.1.1 Product Run-time Environment

All TMA Manager run-time modules, held in the product release installation folders **<exor_base>**\tma\11g_bin must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at** http://selectservices.bentley.com**.**

## 5.2 TMA Manager Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for TMA Manager to 4.8.0.x.

**Important**:

This product will require installing/upgrading after Network Manager and Street Gazetteer Manager.

### 5.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading TMA Manager.

Also, please be aware of the following;

**Extremely Important (When Upgrading):**

Before upgrading TMA Manager shutdown the TMA .Net Web Service and restart it after successfully upgrading TMA Manager.

### 5.2.2 Import the tma_apex_rpts Workspace (Install Only)

*Check the DAD Configuration*

To be able to connect to the database server it is required that a DAD Configuration file (dads.conf) entry is created/configured to create a link between the Application Server and the Highways Owner.

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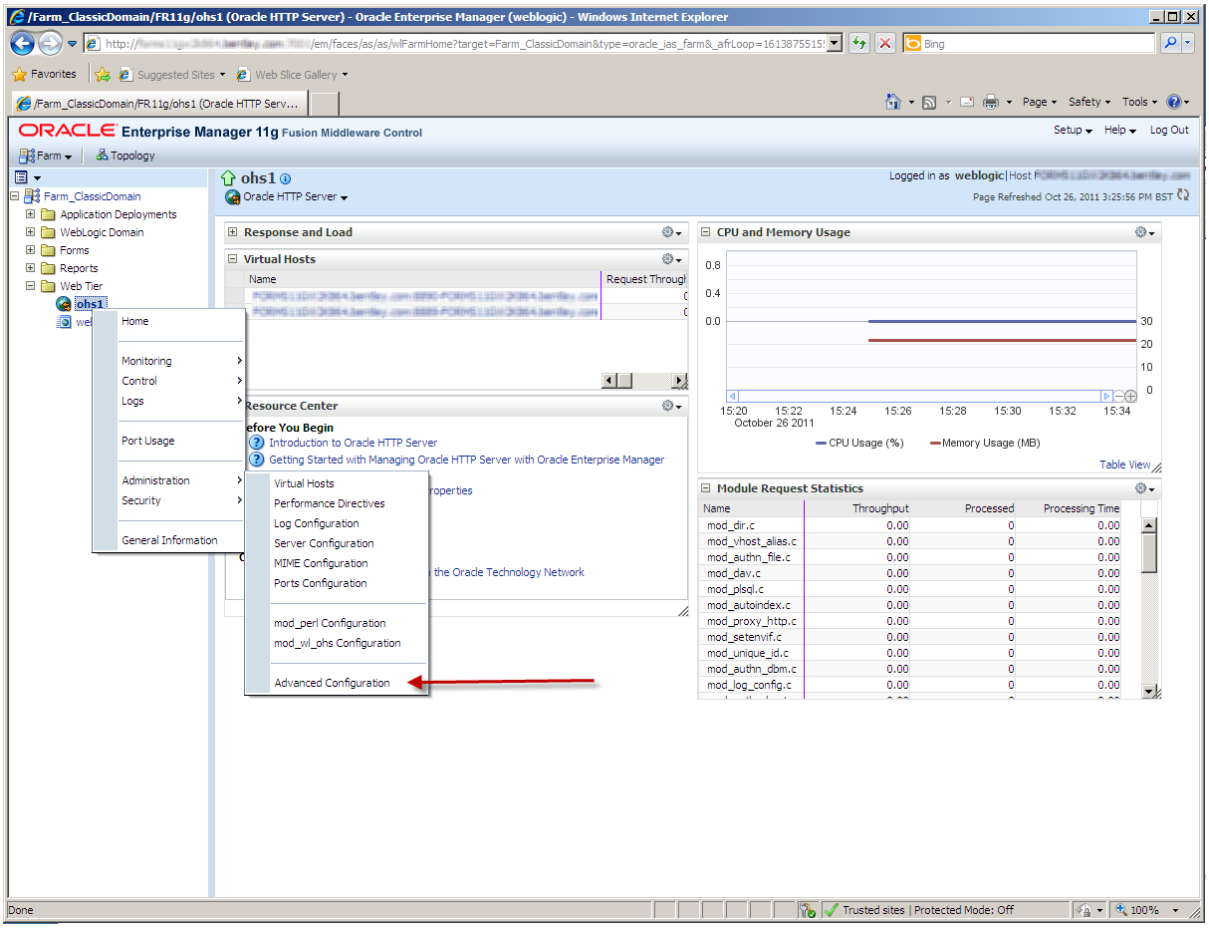
Connect to the Application Server and log onto the Enterprise Manager. Right click the 'ohs1' element of the 'Web Tier' folder and select 'Advanced Configuration':

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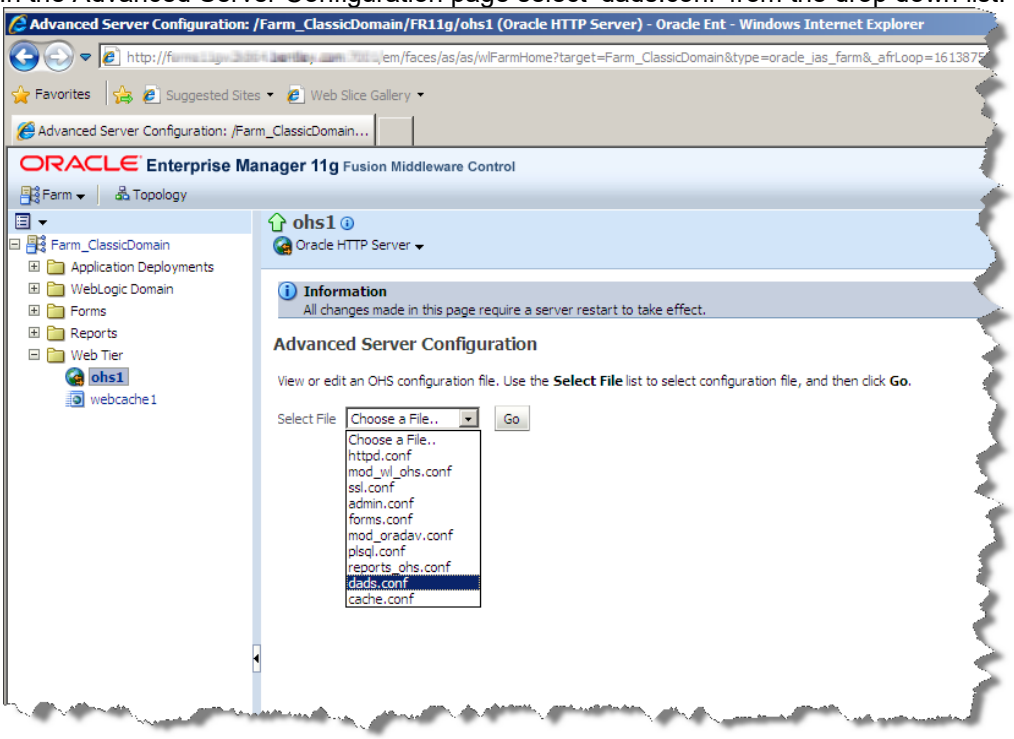
In the Advanced Server Configuration page select ‘dads.conf’ from the drop down list:




Add an entry entering the {database_name}, {PlsqlDatabaseConnectString}, {PlsqlDatabaseUsername} and {DatabasePassword}:

<Location /{database_name}/apex>

Order deny,allow

PlsqlDocumentPath docs

AllowOverride None

PlsqlDocumentProcedure wwv_flow_file_mgr.process_download

PlsqlDatabaseConnectString {PlsqlDatabaseConnectString} ServiceNameFormat

PlsqlNLSLanguage AMERICAN_AMERICA.AL32UTF8

PlsqlAuthenticationMode Basic

SetHandler pls_handler

PlsqlDocumentTablename wwv_flow_file_objects$

PlsqlDatabaseUsername {PlsqlDatabaseUsername}

PlsqlDefaultPage apex

PlsqlDatabasePassword {DatabasePassword}

PlsqlRequestValidationFunction wwv_flow_epg_include_modules.authorize

Allow from all

</Location>

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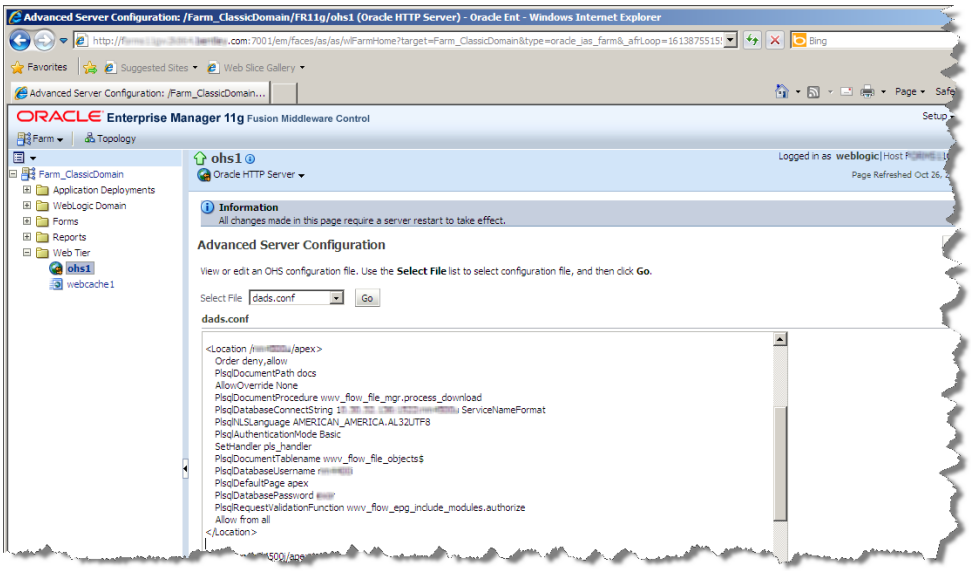


For example, if the

database name was DB4800

connect string was 192.192.192.192:1522/DB4800

database username (highways owner) was HIGHWAYS

database password was HIGHWAYS

The DAD entry would look something like this:

<Location /DB4800/apex>

Order deny,allow

PlsqlDocumentPath docs

AllowOverride None

PlsqlDocumentProcedure wwv_flow_file_mgr.process_download

PlsqlDatabaseConnectString 192.192.192.192:1522/DB4800 ServiceNameFormat

PlsqlNLSLanguage AMERICAN_AMERICA.AL32UTF8

PlsqlAuthenticationMode Basic

SetHandler pls_handler

PlsqlDocumentTablename wwv_flow_file_objects$

PlsqlDatabaseUsername HIGHWAYS

PlsqlDefaultPage apex

PlsqlDatabasePassword HIGHWAYS

PlsqlRequestValidationFunction wwv_flow_epg_include_modules.authorize

Allow from all

</Location>

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Ensure, also, that the Alias images string is set correctly to the location of the ApEx image files. The location should be something like this:

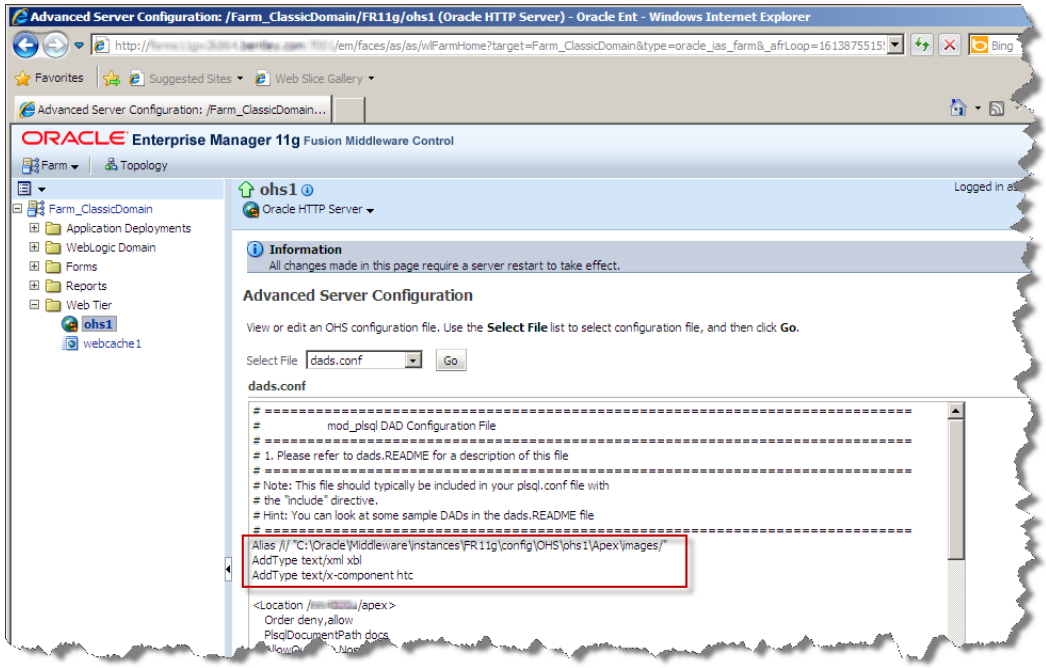
C:\Oracle\Middleware\instances\FR11g\config\OHS\ohs1\Apex\images

Using the example location above setting the location of the images requires that the following entries are added to the dads.conf file and apply the changes.

Alias /i/ "C:\Oracle\Middleware\instances\FR11g\config\OHS\ohs1\Apex\images/"

AddType text/xml xbl

AddType text/x-component htc

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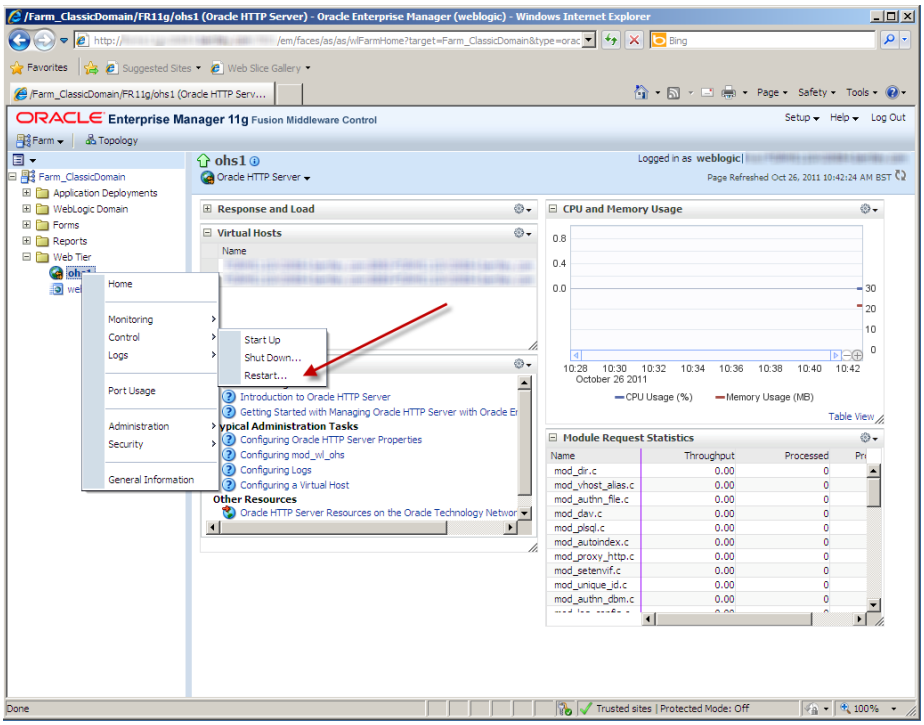
Restart the HTTP server

Once the DAD file has been saved the HTTP server should be restarted to pick up the changes:




*ApEx Admin Account*

You should be able to connect to the ApEx admin account using the DAD entry created above.

*ApEx Admin Connection string:*

http://{Application Server Name}:{port number}/{location string of the DAD}/apex_admin

Using the examples above the connection string required to connect to ApEx should be (and hypothetical Application Server name and port being myAppServer:8888):

http://myAppServer:8888/DB4800/apex/apex_admin

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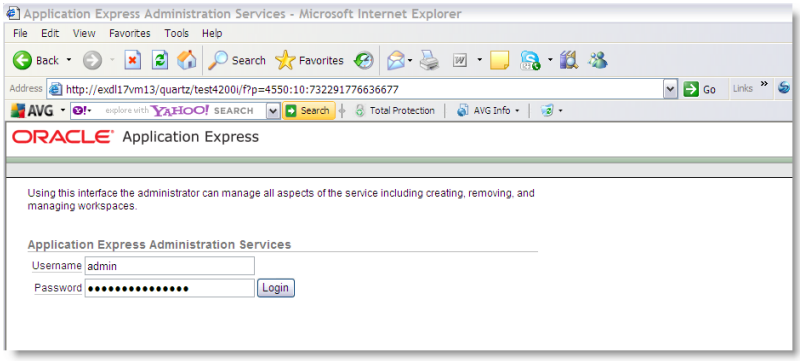
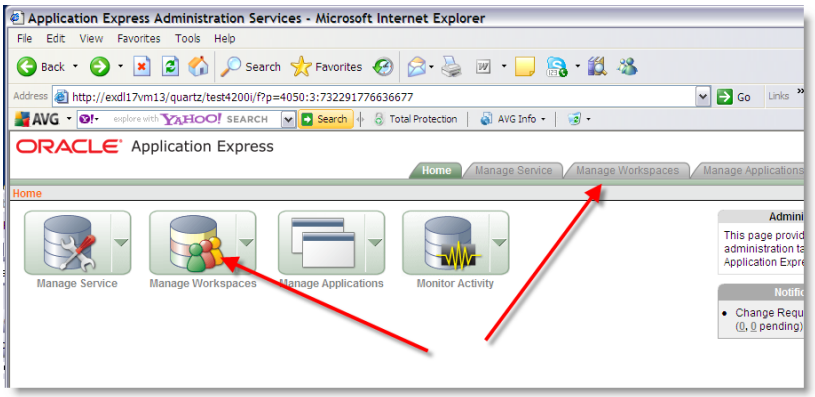
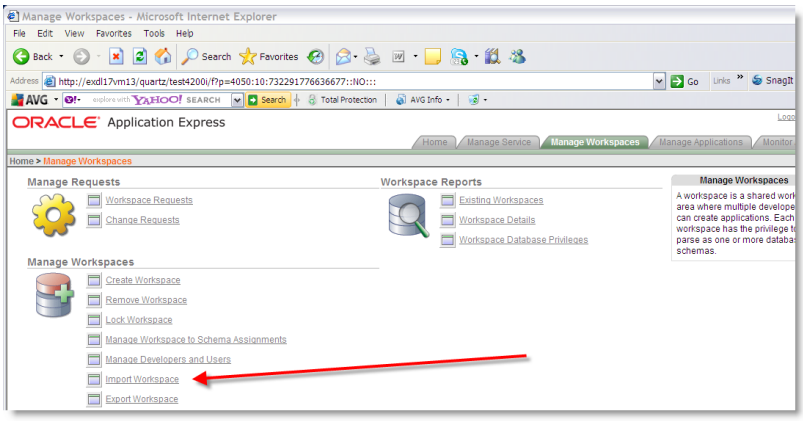
Log onto the ApEx administration account:




Choose ‘Manage Workspaces’ using the button or tab:




Choose the ‘Import Workspace’ hyperlink:

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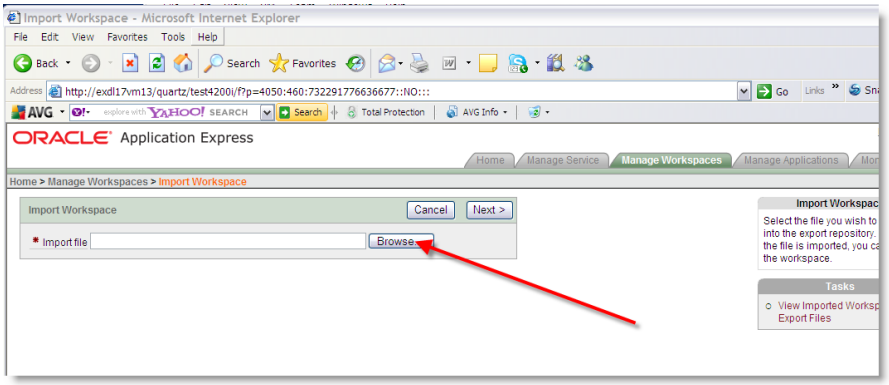
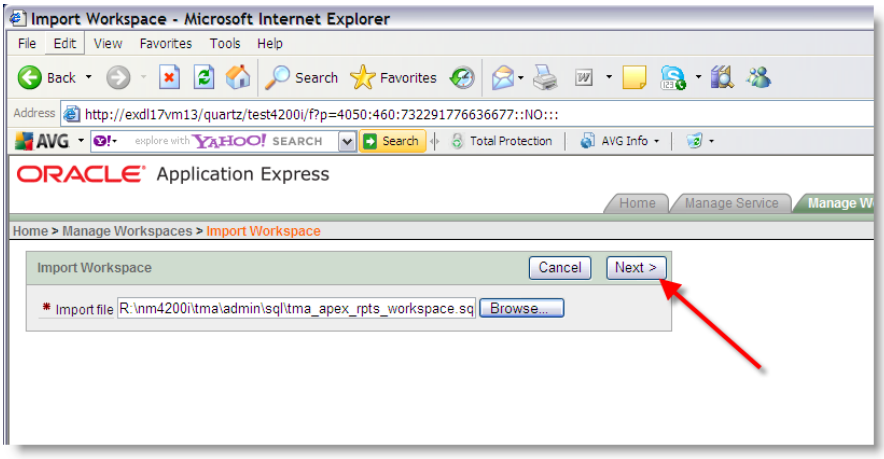
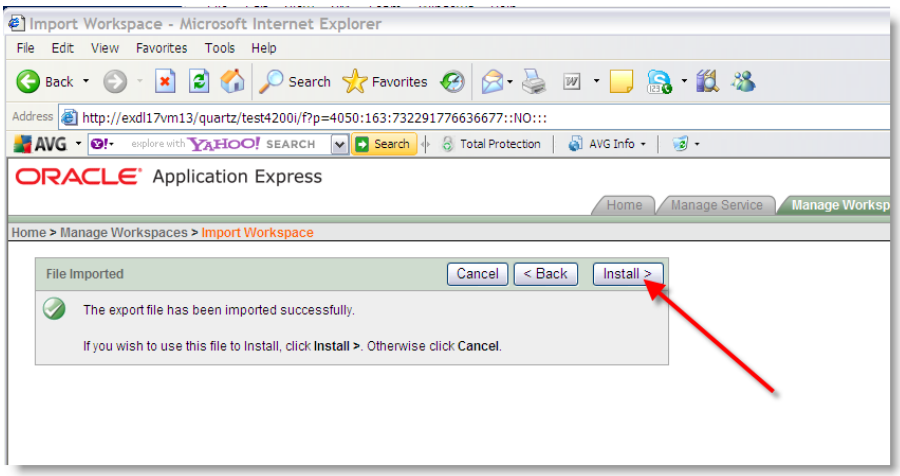
Browse for the workspace to be imported which will exist in the **<exor_base>**/tma/admin/sql/ directory as extracted from the zip file. The workspace is called tma_apex_rpts_workspace.sql:




Once selected click the 'Next' button:




When imported successfully, as highlighted in the screenshot below, click the 'Install' button:

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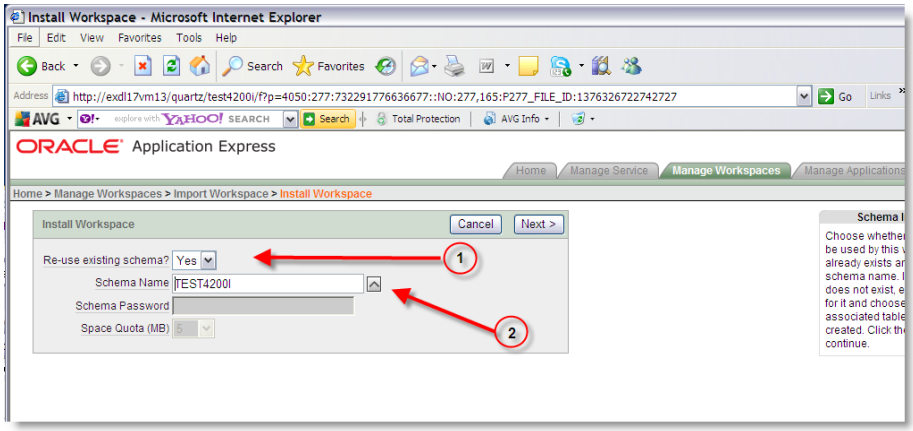
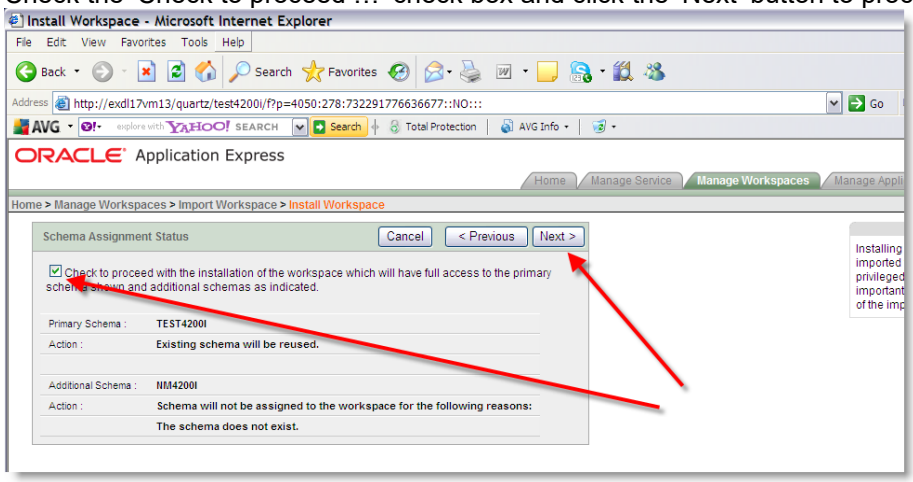
Choose to 'Re-use existing schema?', as highlighted by option 1 in the screenshot and then enter or select the highways schema name from the LoV as highlighted by option 2 in the screenshot.

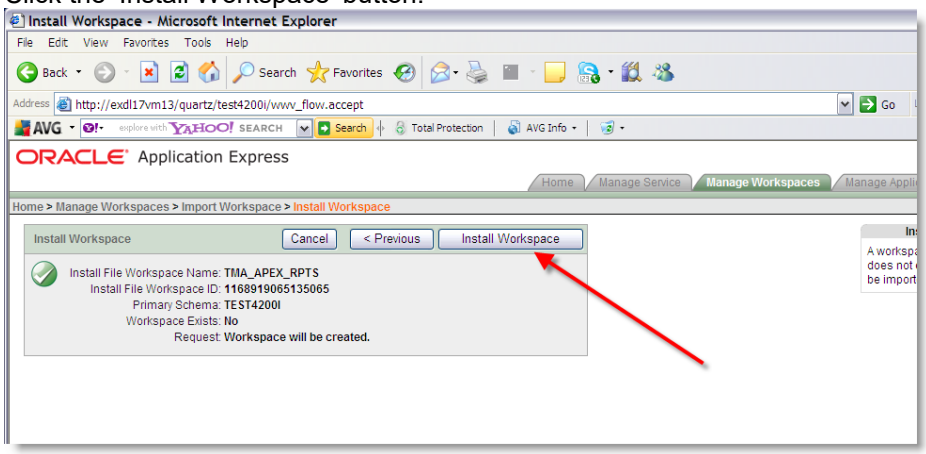
Click the 'Next' button when the above is completed:




Check the 'Check to proceed …' check box and click the 'Next' button to proceed:




Click the 'Install Workspace' button:

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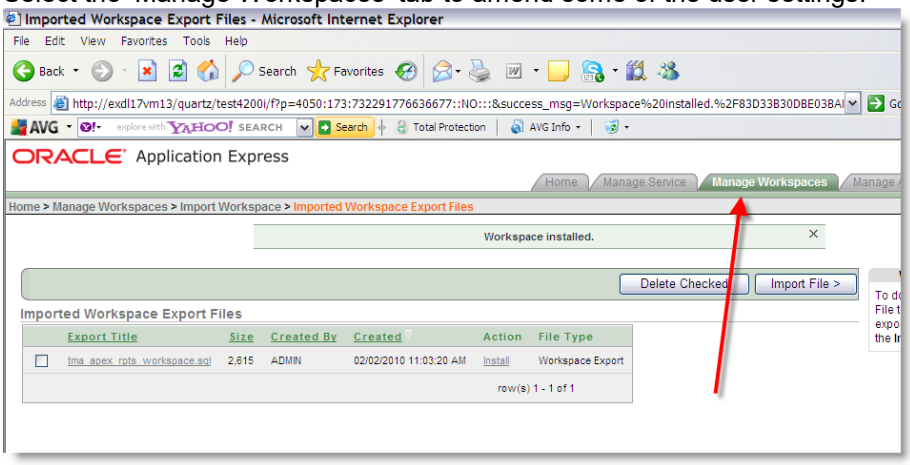
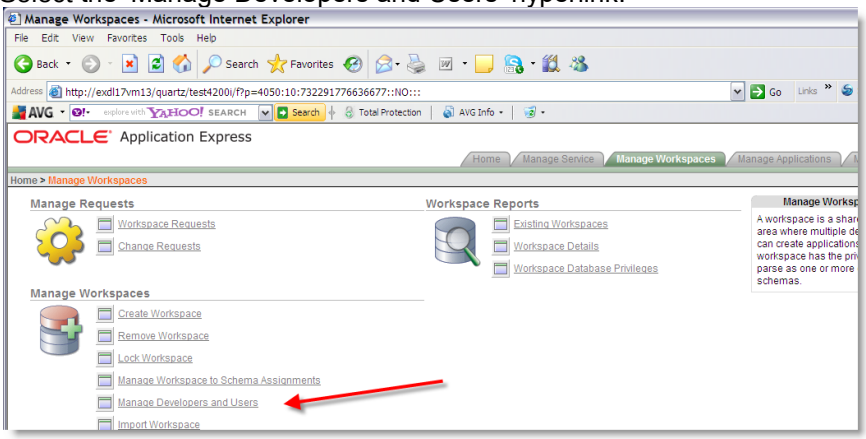
The tma_apex_rpts workspace is now installed.

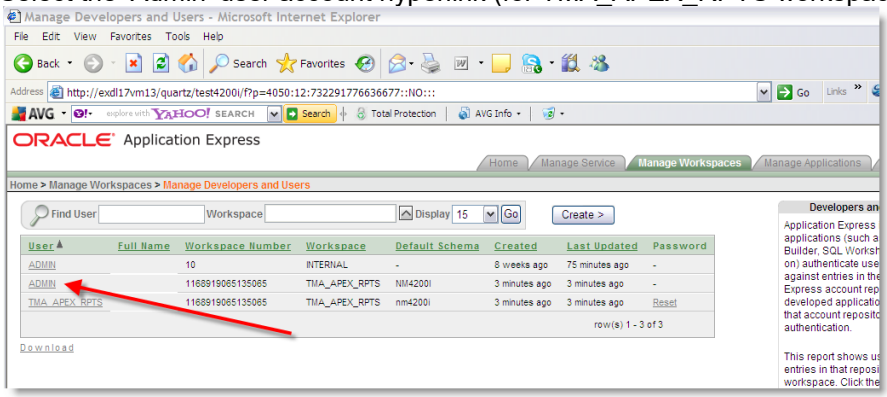
Select the 'Manage Workspaces' tab to amend some of the user settings:




Select the 'Manage Developers and Users' hyperlink:




Select the 'Admin' user account hyperlink (for TMA_APEX_RPTS workspace):

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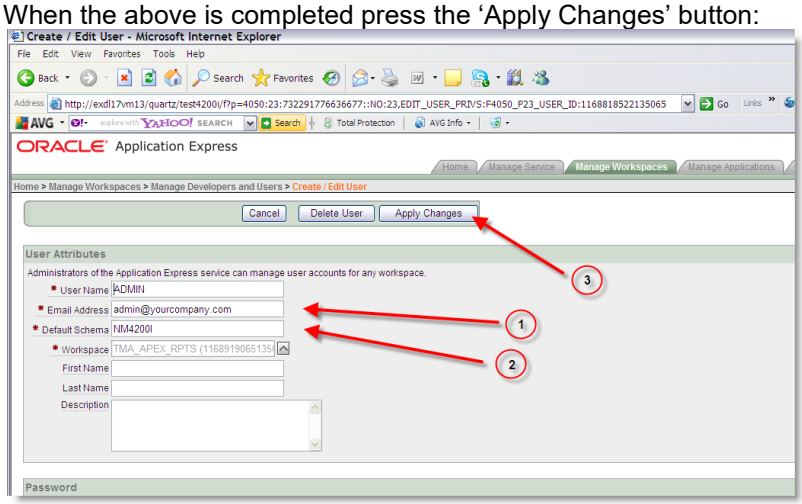
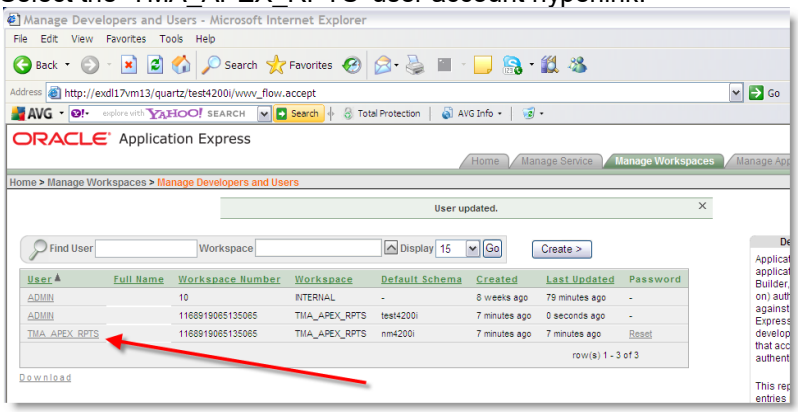
Set the ‘Email Address’ to the email address of the ApEx administrator, as highlighted in option 1 of the screenshot.

Enter the ‘Default Schema’ as the highways schema, as highlighted in option 2 of the screenshot.

When the above is completed press the ‘Apply Changes’ button:




Select the ‘TMA_APEX_RPTS’ user account hyperlink:

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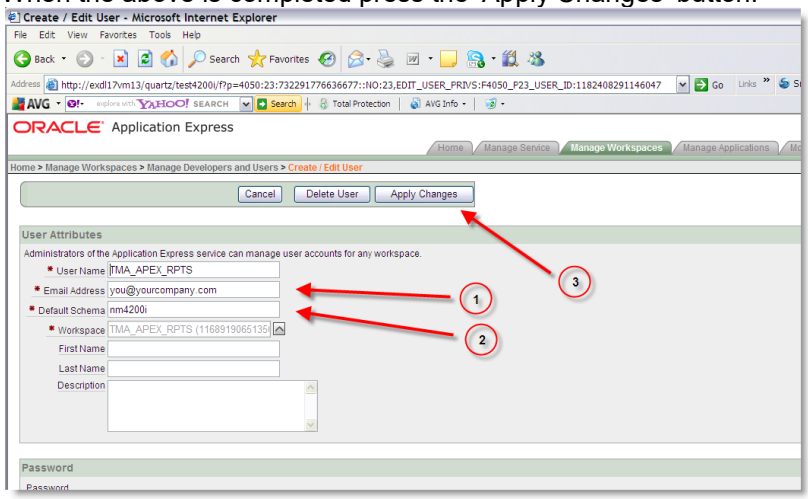
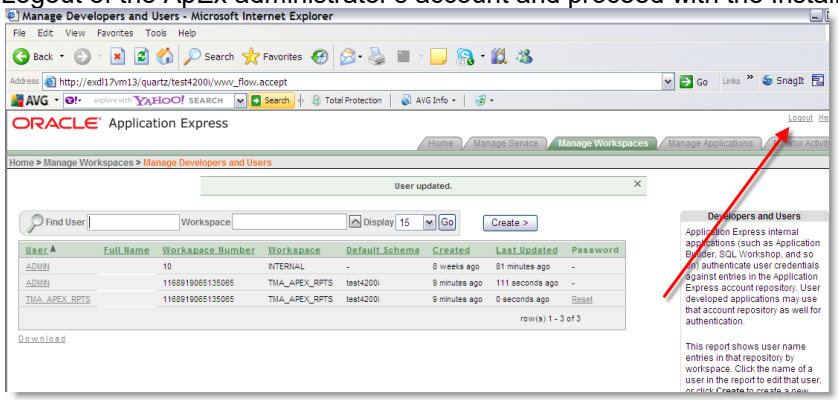
Set the 'Email Address' to the email address of the ApEx administrator, as highlighted in option 1 of the screenshot.

Enter the 'Default Schema' as the highways schema, as highlighted in option 2 of the screenshot.

When the above is completed press the 'Apply Changes' button:




Logout of the ApEx administrator's account and proceed with the Install of TMA Manager:




### 5.2.3 Install of TMA Manager

To create the base data and objects for the TMA Manager modules:

- Change directory to **<exor_base>**\tma\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

  start tma_inst.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.

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- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

  C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Street Gazetteer Manager objects and data will have been installed.

#### 5.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

tma_install_1_<date&time>.LOG

tma_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all your products have been installed.

### 5.2.4 Upgrade of TMA Manager

This section describes the steps necessary to upgrade TMA Manager to 4.8.0.x

To upgrade the base data and objects for the TMA Manager modules;

- Change directory to **<exor_base>**\tma\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

  start tma4700_tma4800.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.

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- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

  C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the TMA Manager objects and data will have been upgraded.

#### 5.2.4.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

tma4700_tma4800_1_<date&time>.LOG

tma4700_tma4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation tasks have been completed.

### 5.2.5 Post Install/Upgrade Tasks

Before accessing TMA Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the **<exor_base>**\11g_bin directory.

Ensure that the entry for TMA Manager is set accordingly;

**TMA=4.8.0.1**

### 5.2.6 Product Licencing (Post Install only)

Following **first time installation** you must licence the product for use.

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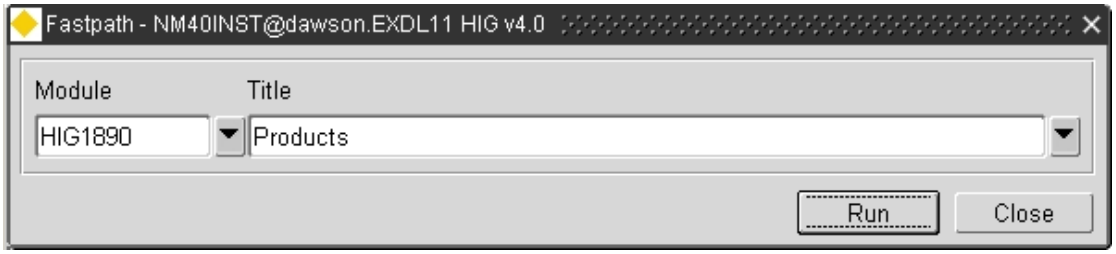
To do this start highways by exor and invoke module HIG1890 from the Fastpath menu.




For further details please refer to the "**Network Manager General System Admin Guide**"

### 5.2.7 Web Service Install/Upgrade (Post Install and Upgrade)

After a successful install/upgrade of TMA Manager to version 4.8.0.x the TMA Web Service will require installation/upgrade.

Specific information regarding the installation or upgrade of the TMA Web Service can be found in the "TMA .NET Web Services Installation Guide" located in the **<exor_base>**\TMA\TMAWebService folder. For customers who have upgraded we refer you to Sections 2.8 and 3.0. For all new installations please follow the instructions in their entirety.

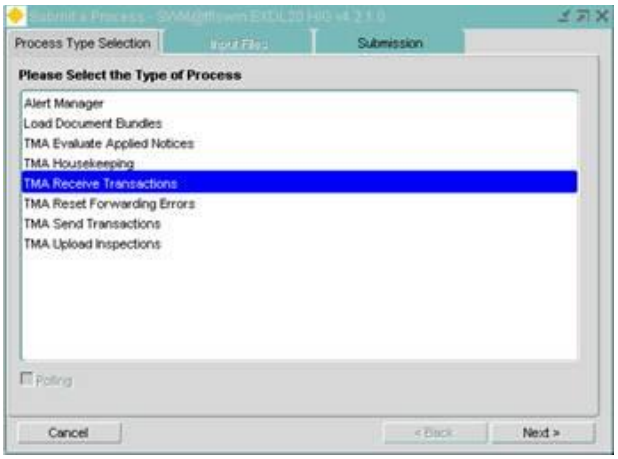
### 5.2.8 TMA Process Types (Install only)

For customers that have upgraded, there are no new TMA process types being introduced in this release so the following instructions are for new installations of TMA Manager only.

#### 5.2.8.1 Following the Install of TMA v4.8.0.

An Administrator must submit a Process of each relevant type to the desired frequency.

For example:

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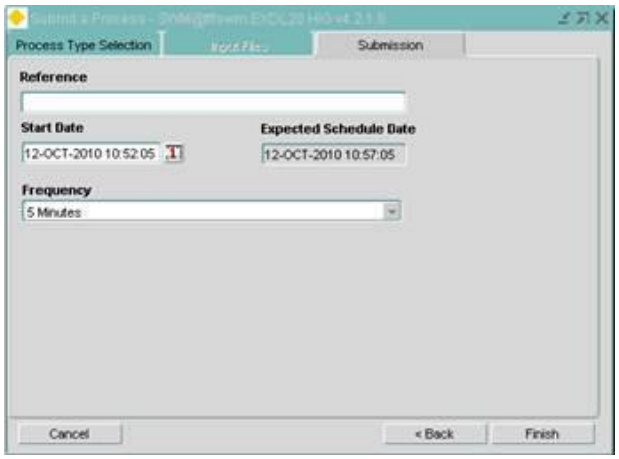


When the TMA1000-Works form (and other key forms are opened) a check is undertaken to see if TMA is correctly configured.

This check will look for the existence of a process of each given type. Details as follows:

| Process Type | Checking Rule |
|---|---|
| TMA Receive Transactions | Mandatory - always checked for |
| TMA Send Transactions | Mandatory - always checked for |
| TMA Housekeeping | Mandatory - always checked for |
| TMA Reset Forwarding Errors | Only checked for if product option 'FWD_NOTICE' = 'Y' |
| TMA Upload Inspections | Only checked for if product option 'INSPAUTIMP ' = 'Y' |
| TMA Evaluate Applied Notices | Mandatory - always checked for |

If the process is expected to exist and it's either missing or is neither 'Running' nor 'Scheduled', an error will be raised.

For example:

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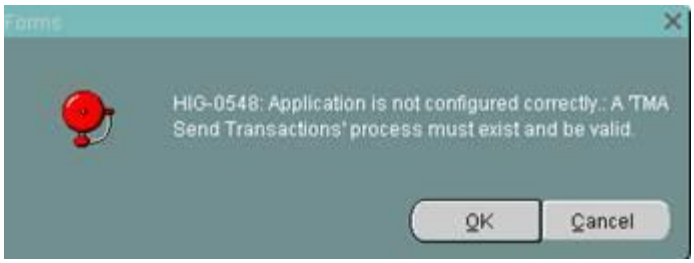
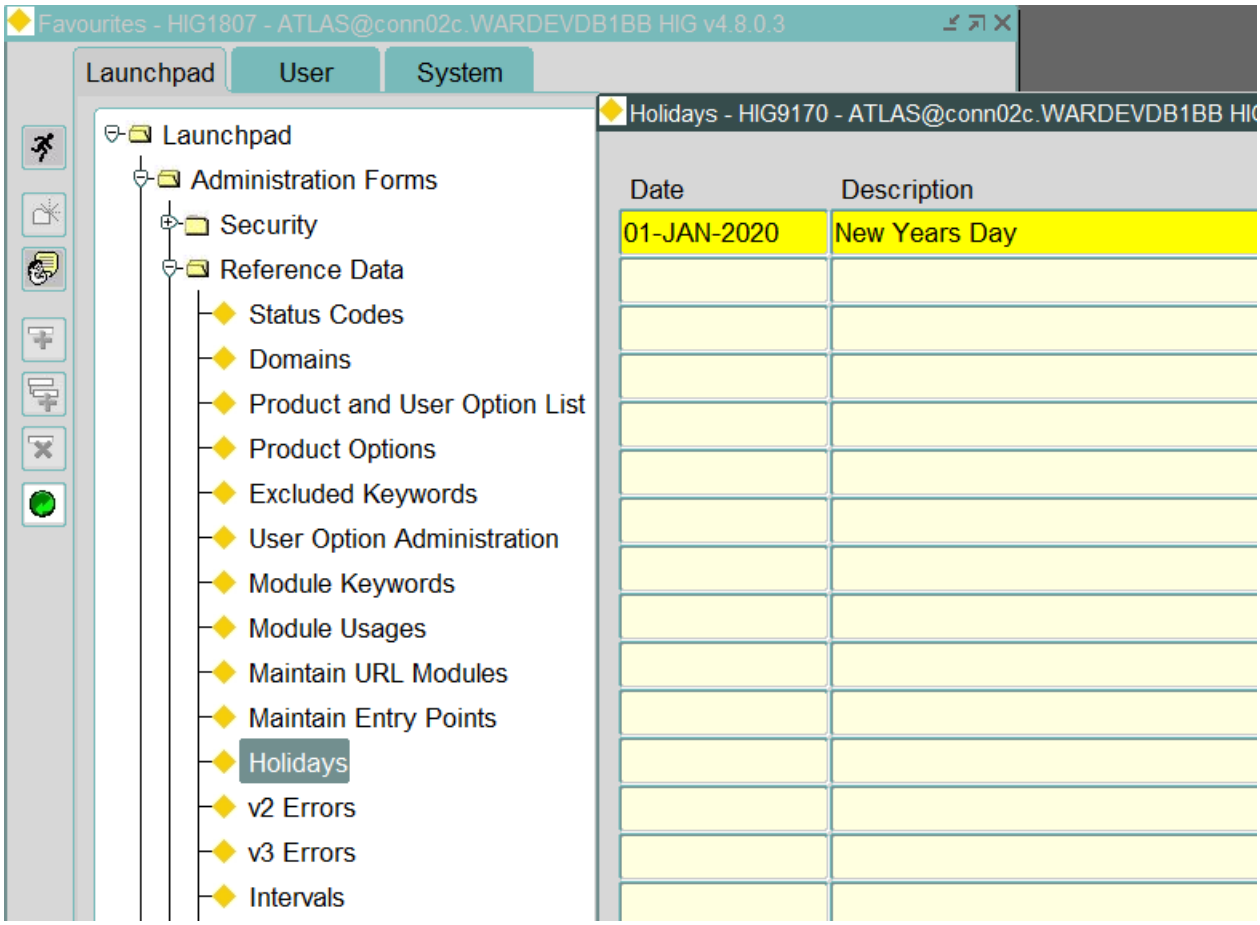



### 5.2.9 System Holidays (Post Install and Upgrade)

After install/upgrade to 4.8.0.x has been completed, please ensure that the system Holidays have been set before using TMA Manager.

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# 6 Maintenance Manager

## 6.1 Installation of the Maintenance Manager Software files

To install the software components for Maintenance Manager, extract the MAI files from the zip file into a working directory e.g. C:\EXOR to be referred to as **<exor_base>**.

### 6.1.1 Product Run-time Environment

All Maintenance Manager run-time modules, held in the product release installation folders **<exor_base>**\mai\11g_bin and **<exor_base>**\mai\admin\c\11g_exe,must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 6.2 Maintenance Manager DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Maintenance Manager to 4.8.0.x.

### 6.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading Maintenance Manager.

### 6.2.2 Install of Maintenance Manager

To create the base data and objects for the Maintenance Manager modules:

- Change directory to **<exor_base>**\mai\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

```
start mai_inst.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Maintenance Manager objects and data will have been installed.

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#### 6.2.2.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

mai_install_1_<date&time>.LOG

mai_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed.

### 6.2.3 Upgrade of Maintenance Manager

This section describes the steps necessary to upgrade Maintenance Manager to 4.8.0.x

To upgrade the base data and objects for the Maintenance Manager modules;

- Change directory to **<exor_base>**\mai\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

```
start mai4700_mai4800.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Maintenance Manager objects and data will have been upgraded.

#### 6.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

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mai4700_mai4800_1_<date&time>.LOG

mai4700_mai4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation task have been completed.

### 6.2.4 Post Install/Upgrade Tasks

Before accessing Maintenance Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the runtime environment bin folder.

Ensure that the entry for Maintenance Manager is set accordingly;

**MAI=4.8.0.1**

### 6.2.5 Conflated Networks (Post Install only)

Customers using a Conflated Network must run an additional script to implement an appropriate view for Cyclic Maintenance.

**NB** This step is not required if the Maintenance Sections used by Maintenance Manager are Datum Elements.

To implement the view;

- Change directory to **<exor_base>**\mai\admin\views
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

```
start inv_items_all_section.sql
```

- You will be prompted to enter the Group Type of the Maintenance Sections used by Maintenance Manager.
- When you have supplied this value press enter and the script will create the appropriate view.

### 6.2.6 Additional Configuration (Post Install and Upgrade)

Consult the documentation that accompanies this release for details of any additional configuration that may be required following an install/upgrade.

For example, to obtain details of product options, and for details of new product features/amendments.

**Important**: It is highly recommended that you do this before attempting to use the application.

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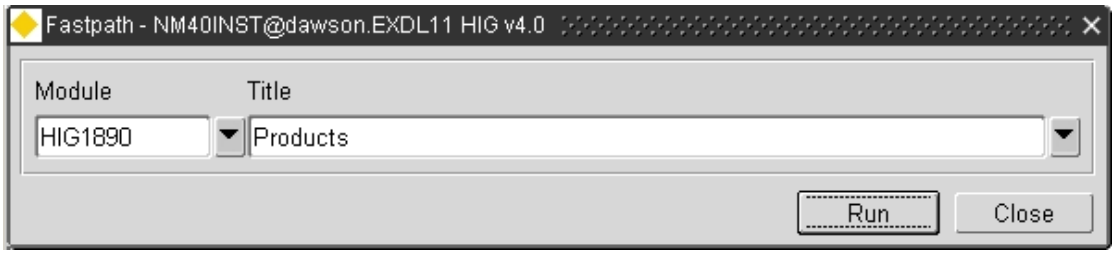
### 6.2.7 Product Licencing (Post Install only)

Following first time installation you must licence the product for use.

To do this start highways by exor and invoke module HIG1890 from the Fastpath menu.




For further details please refer to the "**Network Manager General System Admin Guide**"

### 6.2.8 Spatial Configuration (Post Install and Upgrade)

Specific information regarding the registration of spatial layers can be found in the "**Locator and Web Mapping**" document.

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# 7 Enquiry Manager

## 7.1 Installation of the Enquiry Manager Software files

To install the software components for Enquiry Manager, extract the PEM files from the zip file into a working directory e.g. C:\EXOR to be referred to as **<exor_base>**.

### 7.1.1 Product Run-time Environment

All Enquiry Manager run-time modules, held in the product release installation folder **<exor_base>**\pem\11g_bin, must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 7.2 Enquiry Manager DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Enquiry Manager to 4.8.0.x.

### 7.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading Enquiry Manager.

### 7.2.2 Install of Enquiry Manager

To create the base data and objects for the Enquiry Manager modules:

- Change directory to **<exor_base>**\pem\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

```
start pem_inst.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Enquiry Manager objects and data will have been installed.

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#### 7.2.2.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

pem_install_1_<date&time>.LOG

pem_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed.

### 7.2.3 Upgrade of Enquiry Manager

This section describes the steps necessary to upgrade Enquiry Manager to 4.8.0.x

To upgrade the base data and objects for the Enquiry Manager modules;

- Change directory to **<exor_base>**\pem\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

start pem4700_pem4800.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Enquiry Manager objects and data will have been upgraded.

#### 7.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

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pem4700_pem4800_1_<date&time>.LOG

pem4700_pem4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation task have been completed.

### 7.2.4 Post Install/Upgrade Tasks

Before accessing Enquiry Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the runtime environment bin folder.

Ensure that the entry for Enquiry Manager is set accordingly;

**PEM=4.8.0.1**

### 7.2.5 Additional Configuration (Post Install and Upgrade)

Consult the documentation that accompanies this release for details of any additional configuration that may be required following an install/upgrade.

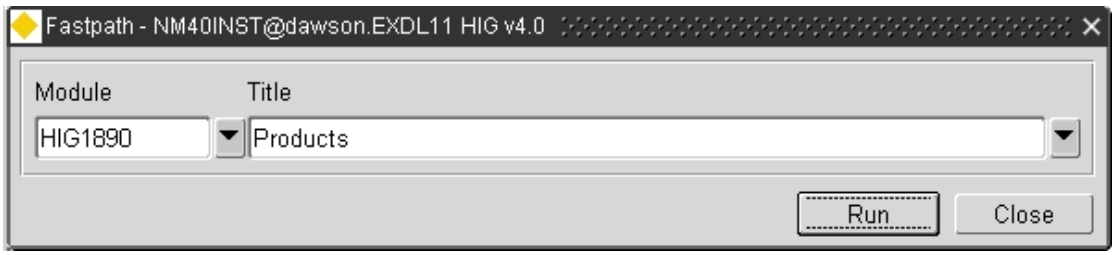
For example, to obtain details of product options, and for details of new product features/amendments.

**Important**: It is highly recommended that you do this before attempting to use the application.

### 7.2.6 Product Licencing (Post Install only)

Following first time installation you must licence the product for use.

To do this start highways by exor and invoke module HIG1890 from the Fastpath menu.




For further details please refer to the "**Network Manager General System Admin Guide**"

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### 7.2.7 Spatial Configuration (Post Install and Upgrade)

Specific information regarding the registration of spatial layers can be found in the "**Locator and Web Mapping**" document.

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# 8 Accidents Manager

## 8.1 Installation of the Accidents Manager Software files

To install the software components for Accidents Manager, extract the ACC files from the zip file into a working directory e.g. C:\EXOR to be referred to as **<exor_base>**.

### 8.1.1 Product Run-time Environment

All Accidents Manager run-time modules, held in the product release installation folders **<exor_base>**\acc\11g_bin and **<exor_base>**\acc\admin\c\11g_exe, must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 8.2 Accidents Manager DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Accidents Manager to 4.8.0.x.

### 8.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading Accidents Manager.

### 8.2.2 Install of Accidents Manager

To create the base data and objects for the Accidents Manager modules:

- Change directory to **<exor_base>**\acc\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

```
start acc_inst.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Accidents Manager objects and data will have been installed.

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#### 8.2.2.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

acc_install_1_<date&time>.LOG

acc_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed.

### 8.2.3 Upgrade of Accidents Manager

This section describes the steps necessary to upgrade Accidents Manager to 4.8.0.x

To upgrade the base data and objects for the Accidents Manager modules;

- Change directory to **<exor_base>**\acc\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

```
start acc4700_acc4800.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the Accidents Manager objects and data will have been upgraded.

#### 8.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

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acc4700_acc4800_1_<date&time>.LOG

acc4700_acc4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation task have been completed.

### 8.2.4 Post Install/Upgrade Tasks

Before accessing Accidents Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the runtime environment bin folder.

Ensure that the entry for Accidents Manager is set accordingly;

**ACC=4.8.0.1**

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# 9 Schemes Manager

## 9.1 Installation of the Schemes Manager Software files

To install the software components for Schemes Manager, extract the STP files from the zip file into a working directory e.g. C:\EXOR to be referred to as **<exor_base>**.

### 9.1.1 Product Run-time Environment

All Schemes Manager run-time modules, held in the product release installation folder **<exor_base>**\stpi\11g_bin, must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 9.2 Schemes Manager DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Schemes Manager to 4.8.0.x.

### 9.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading Schemes Manager.

### 9.2.2 Install of Schemes Manager

To create the base data and objects for the Schemes Manager modules:

- Change directory to **<exor_base>**\stp\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

```
start stp_inst.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.

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- After confirming the **<exor base>** definition you will be prompted to enter the Admin Type Code and Datum Network Type code associated with the Road Construction Inventory Type and associated Network Type Code.
- When the script has completed, all the Schemes Manager objects and data will have been installed.

#### 9.2.2.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

stp_install_1_<date&time>.LOG

stp_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed.

### 9.2.3 Upgrade of Schemes Manager

This section describes the steps necessary to upgrade Schemes Manager to 4.8.0.x

To upgrade the base data and objects for the Schemes Manager modules;

- Change directory to **<exor_base>**\stp\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

```
start stp4700_stp4800.sql
```

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

```
C:\EXOR\
```

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.

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- After confirming the **<exor base>** definition you will be prompted to enter the Admin Type Code and Datum Network Type code associated with the Road Construction Inventory Type and associated Network Type Code.
- When the script has completed, all the Schemes Manager objects and data will have been upgraded.

#### 9.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

stp4700_stp4800_1_<date&time>.LOG

stp4700_stp4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation task have been completed.

### 9.2.4 Post Install/Upgrade Tasks

Before accessing Schemes Manager you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the runtime environment bin folder.

Ensure that the entry for Schemes Manager is set accordingly;

**STP=4.8.0.1**

### 9.2.5 Additional Configuration (Post Install and Upgrade)

Consult the documentation that accompanies this release for details of any additional configuration that may be required following an install/upgrade.

For example, to obtain details of product options, and for details of new product features/amendments.

**Important**: It is highly recommended that you do this before attempting to use the application.

### 9.2.6 Product Licencing (Post Install only)

Following first time installation you must licence the product for use.

To do this start highways by exor and invoke module HIG1890 from the Fastpath menu.

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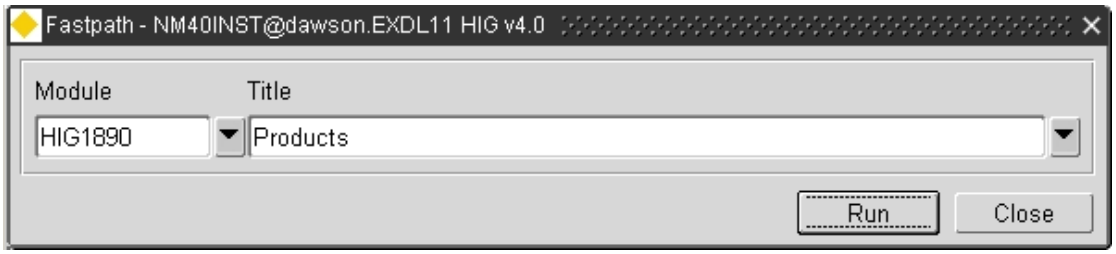


For further details please refer to the "**Network Manager General System Admin Guide**"

### 9.2.7 Spatial Configuration (Post Install and Upgrade)

Specific information regarding the registration of spatial layers can be found in the "**Locator and Web Mapping**" document.

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# 10 MapCapture Interface

## 10.1 Installation of the Mapcapture Interface Software files

To install the software components for Mapcapture Interface, extract the MCP files from the zip file into a working directory e.g. C:\EXOR to be referred to as **<exor_base>**.

### 10.1.1 Product Run-time Environment

All Mapcapture Interface run-time modules, held in the product release installation folder **<exor_base>**\mcp\11g_bin, must be copied into the fusion-middleware folder dedicated for this purpose, as specified in 3.1.1

**If in any doubt, please raise a ticket at http://selectservices.bentley.com.**

## 10.2 Mapcapture Interface DB Server Install/Upgrade

This section provides details of steps involved in installing/upgrading the server components for Mapcapture Interface to 4.8.0.x.

### 10.2.1 Pre-Install and Upgrade

Please refer to sections 3.2.1 and 3.2.2 prior to Installing or Upgrading Mapcapture Interface

### 10.2.2 Install of MapCapture Interface

To create the base data and objects for the MapCapture Interface modules:

- Change directory to **<exor_base>**\mcp\install
- Login to SQL*PLUS as the highways owner on the client PC and run the following command

  start mcp_inst.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

  C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.

- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the MapCapture Interface objects and data will have been installed.

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10.2.2.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the install, they can be viewed to check for any errors that could have occurred during the install process.

mcp_install_1_<date&time>.LOG

mcp_install_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the install has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed.

### 10.2.3 Upgrade of MapCapture Interface

This section describes the steps necessary to upgrade MapCapture Interface to 4.8.0.x

To upgrade the base data and objects for the MapCapture Interface modules;

- Change directory to **<exor_base>**\mcp\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

start mcp4700_mcp4800.sql

- You will be prompted to enter the path of the location of your highways software. This should be name of the directory, including disk identifier and a trailing slash character, referred to as **<exor_base>**.
- For example, if you installed your highways software in a directory called EXOR on your C drive, you would enter the following when prompted.

C:\EXOR\

- When you have supplied this value, you will be prompted to confirm that it is correct and asked whether you wish to continue.
- If the value specified is not correct or does not end with a slash character, you will be given an error message and the installation script will abort. You will then need to login to SQL*PLUS again and rerun the script.
- When the script has completed, all the MapCapture Interface objects and data will have been upgraded.

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#### 10.2.3.1 Checking Log File(s)

The following log files are produced in the working directory. At the end of the upgrade, they can be viewed to check for any errors that could have occurred during the upgrade process.

mcp4700_mcp4800_1_<date&time>.LOG

mcp4700_mcp4800_2_<date&time>.LOG

Please raise and attach the logs to a ticket with http://selectservices.bentley.com to allow Bentley (formerly exor) support staff to verify the upgrade has been successful.

Due to interdependencies between some Exor products, please ignore all compilation errors until all of your products have been installed. Also, objects may be invalid for certain products due to post configuration tasks not being completed. In this case reassess invalid objects when post installation task have been completed.

### 10.2.4 Post Upgrade Tasks

After the upgrade of MapCapture Interface has completed it is necessary to create the metadata for the loader.

- Change directory to **<exor_base>**\mcp\install
- Login to SQL*PLUS as the highways owner on the client PC
- Run the following command

```
start mcp_nlf_data.sql
```

### 10.2.5 Mandatory Configuration

Before accessing MapCapture Interface you must check the file exor_version.txt.

This file is referenced in Windows Registry setting 'EXOR_VERSION' and by default can be located in the runtime environment bin folder.

Ensure that the entry for MapCapture Interface is set accordingly;

**MCP=4.8.0.1**

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