





IAM IS
Highways England
NEM to NTIS Interface Deployment Guide
Version <1.7>

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Document Version History

Version	Update Source	Date	Description
1.0	Mike Huitson	22-Sep-2016	First draft.
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1 Introduction



As part of the IAMIS Managed Service an interface from the Network Occupancy Management System (NOMS) providing an extract of Network Event data for supply to the National Traffic Information Service (NTIS) systems is required.

For details of the solution agreed with Highways England please refer to the document entitled “Initial Asset & NOMS National Stage - NEM to NTIS Interface Specification (NEM Format)”

The purpose of this document is to provide instructions on how to deploy the Interface and some guidance on how to configure it.

1.1 Prerequisites

This version of the NTIS Interface has been developed to run against the 4.7.3.1 (or higher) release of Network Event Manager which should be installed and configured before following the instructions given in this document.



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2 Database Install

This section gives details of how to create the required objects on the exor database.

NB. If the previous build (exNEM_NTIS_Interface04070208en) has been applied and therefore this deployment is an upgrade steps 3 and 4 below can be skipped however running them will not cause any problems.

1. Unzip the exNEM_NTIS_Interface04070209en.zip file to a staging folder on the Database Server.
2. Start a SQL*Plus session logged in as the Highways Table Owner with the working directory set to the staging folder created in step 1.
3. Type "start install.sql" and press enter.
4. Type "start nem_ntis_interface.pkh" and press enter.
5. Type "start nem_ntis_interface.pkw" and press enter.
6. Log out of SQL*Plus.
7. Delete the staging folder created in step 1 as it is no longer needed.

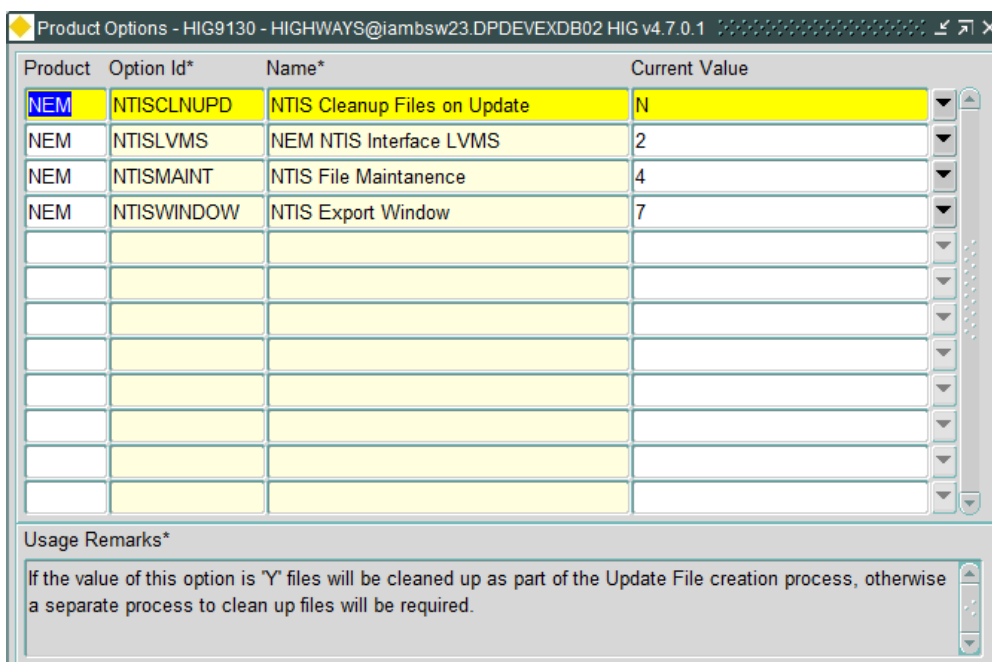
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3 Configuration

3.1 Product Options

A number of product options are created during the deployment of the interface and can be used to modify its behavior.

The values set during deployment are those agreed with Highways England at the time of publication, however they can be modified as required using the exor Product Options form (HIG9130):





Product	Option Id*	Name*	Current Value
NEM	NTISCLNUPD	NTIS Cleanup Files on Update	N
NEM	NTISLVMS	NEM NTIS Interface LVMS	2
NEM	NTISMAINT	NTIS File Maintenance	4
NEM	NTISWINDOW	NTIS Export Window	7

Usage Remarks*

If the value of this option is 'Y' files will be cleaned up as part of the Update File creation process, otherwise a separate process to clean up files will be required.

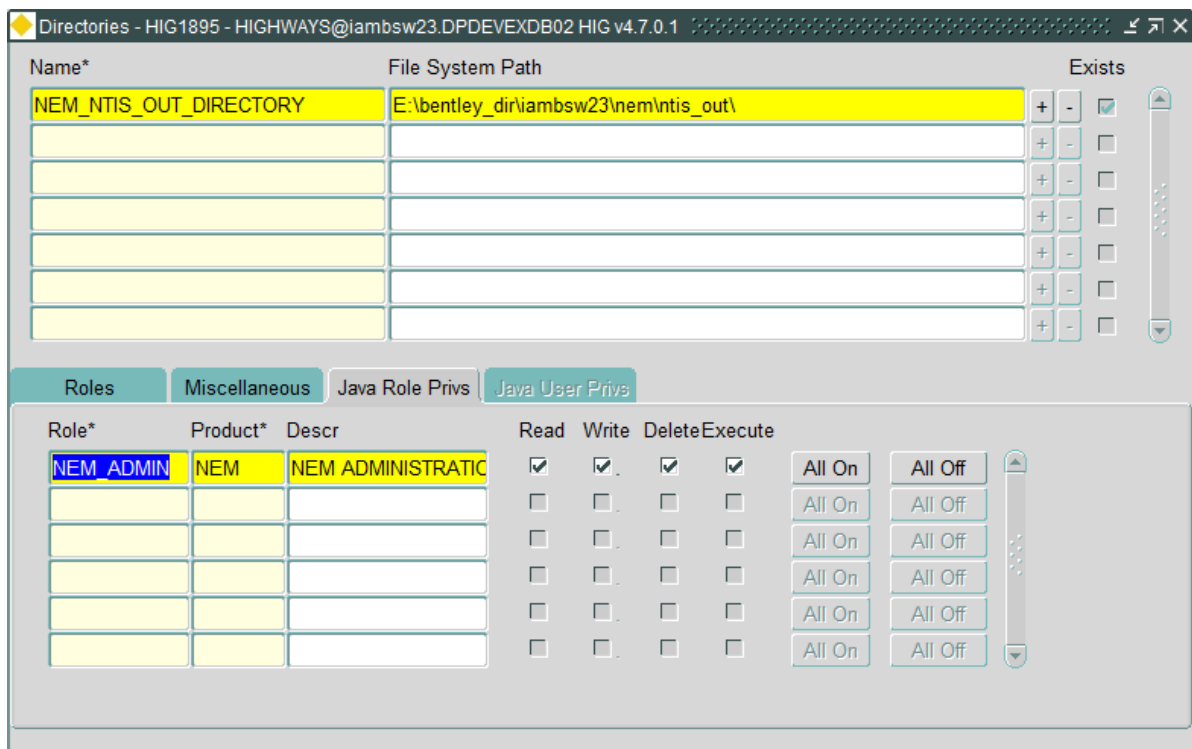
Option Id	Description	Default Value
NTISCLNUPD	If the value of this option is 'Y' files will be cleaned up as part of the Update File creation process, otherwise a separate process to clean up files will be required.	N
NTISLVMS	The Location Viewing Methods (LVMS) to be used when exporting Event Impacted Network locations. This can be a comma separated list of one or more LVM IDs. See the Network Event Manager Admin guide for more detail on LVMS	2 (Maintenance Sections)

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Option Id	Description	Default Value
NTISMAINT	The number of hours to retain exported files in the Oracle Directory and FTP site (if configured).	72
NTISWINDOW	The number of days in the future to look for Events to include in the NTIS Interface i.e. Events will be included if they have already started or are planned to start within the specified number of days.	7

3.2 Directory

An Oracle Directory needs to be setup for the Interface files to be written to, to do this create a directory on the Database server then update the path for “NEM_NTIS_OUT_DIRECTORY”, created during the install, in the Directories form (HIG1895) in the exor application.



Name*	File System Path	Exists
NEM_NTIS_OUT_DIRECTORY	E:\bentley_dir\iambsw23\nem\ntis_out\	<input checked="" type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

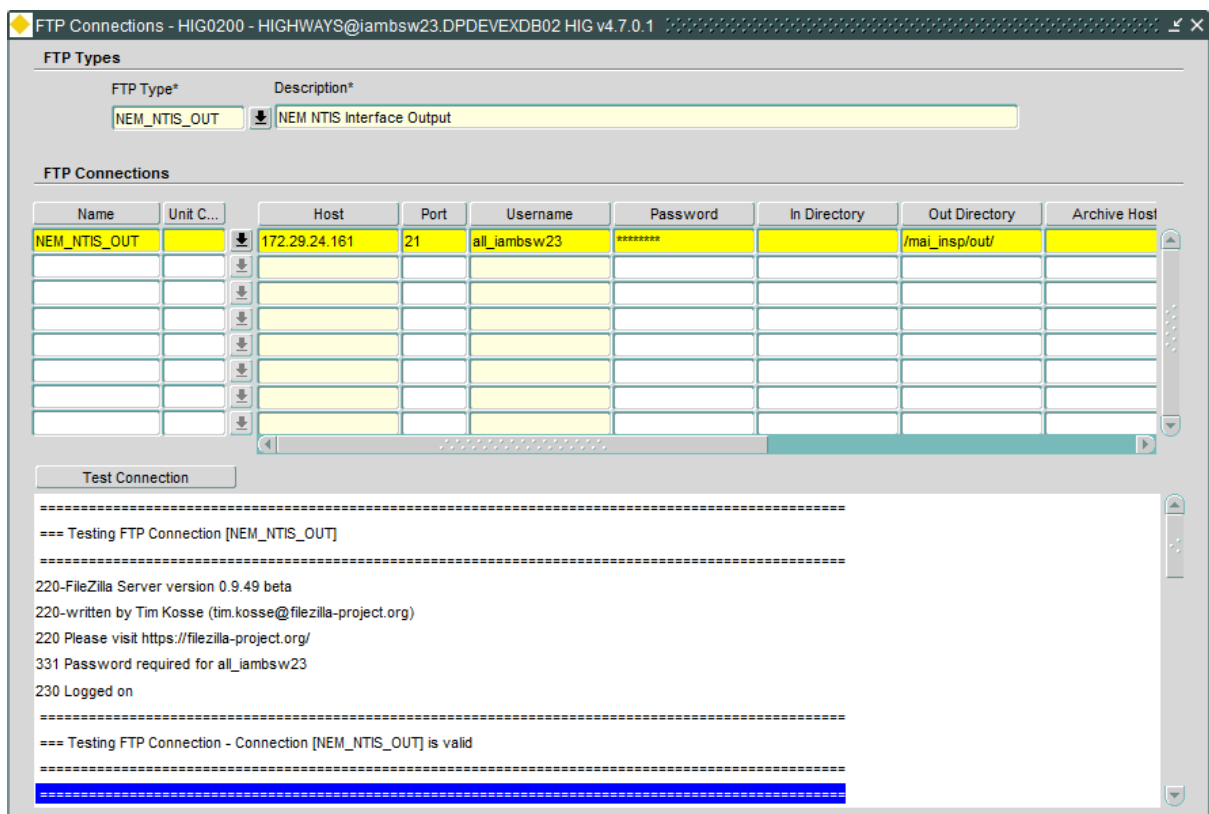
Role*	Product*	Descr	Read	Write	Delete	Execute	All On	All Off
NEM_ADMIN	NEM	NEM ADMINISTRATIC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	All On	All Off
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All On	All Off
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All On	All Off
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All On	All Off
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All On	All Off
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All On	All Off

3.3 FTP Connection

To configure the FTP connection that should be used by the interface enter the details of the FTP Site and the folder that the files should be written to (Out Directory) in the FTP Connections (HIG0200) form in the exor application.

These details should be entered under the “NEM_NTIS_OUT” FTP Type that is created as part of the install.

If it is required that the file clean up process (see 3.5) should archive files to a separate folder on the FTP server rather than delete them please enter the directory to which the files should be archived in the “Archive Out Dir” field.



FTP Connections - HIG0200 - HIGHWAYS@iambsw23.DPDEVEXDB02 HIG v4.7.0.1

FTP Types

FTP Type*	Description*
NEM_NTIS_OUT	NEM NTIS Interface Output

FTP Connections

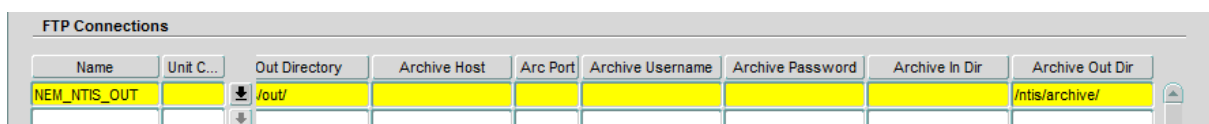
Name	Unit C...	Host	Port	Username	Password	In Directory	Out Directory	Archive Host
NEM_NTIS_OUT		172.29.24.161	21	all_iambsw23	*****		/mai_insp/out/	

Test Connection

```



=====
=== Testing FTP Connection [NEM_NTIS_OUT]
=====
220-FileZilla Server version 0.9.49 beta
220-written by Tim Kosse (tim.kosse@filezilla-project.org)
220 Please visit https://filezilla-project.org/
331 Password required for all_iambsw23
230 Logged on
=====
=== Testing FTP Connection - Connection [NEM_NTIS_OUT] is valid
=====
=====

```



FTP Connections

Name	Unit C...	Out Directory	Archive Host	Arc Port	Archive Username	Archive Password	Archive In Dir	Archive Out Dir
NEM_NTIS_OUT		/out/						/ntis/archive/

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3.4 Process Framework

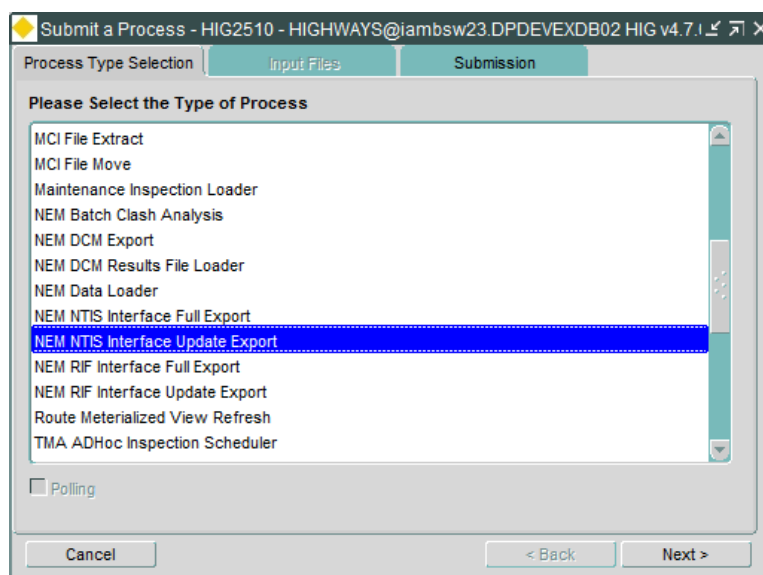
This interface has been written to run under the exor Process Framework, two Process Types are created as part of the Install:



- NEM NTIS Interface Full Export
- NEM NTIS Interface Update Export

The “NEM NTIS Interface Full Export” Process Type is intended to be manually executed by an Administrator as and when required by the NTIS system, by default it is restricted to users with the NEM_ADMIN role so unless Highways England require a different role to be allowed to execute it no further configuration should be required for this Process Type.

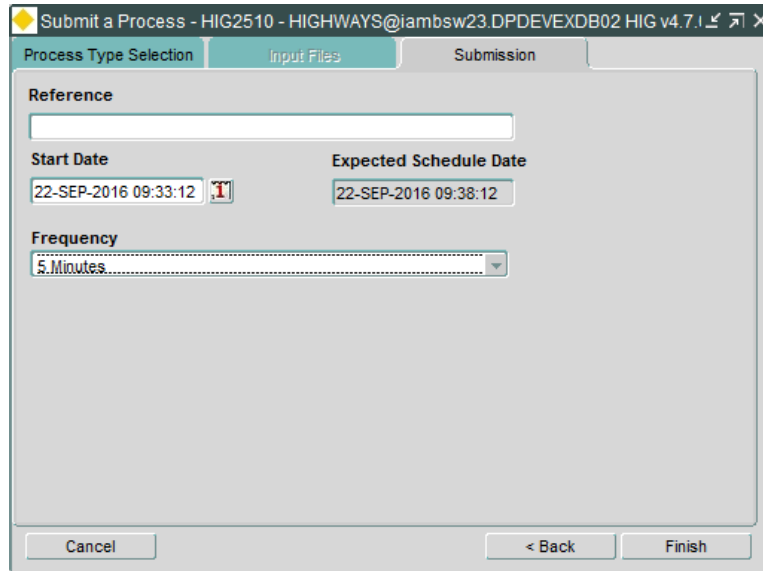
The “NEM NTIS Interface Update Export” is intended to be run on a scheduled basis under the Process Framework so as part of the deployment a job should be submitted as the Highways Owner using the Submit a Process form (HIG2510) in the exor application:

1. Select the “NEM NTIS Interface Update Export” from the list of Process Types and click on Next.

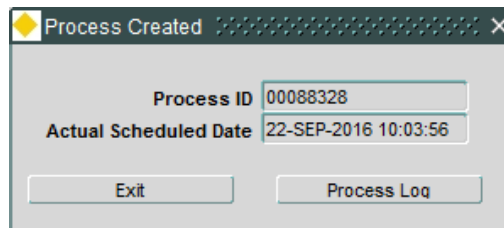


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2. Select the required frequency (to be agreed with Highways England) and click on Finish.



3. The process will be created, click on Exit in the confirmation dialog to complete this part of the configuration, the submitted process can be monitored in the Process Monitor form (HIG2520) in the exor application.



Process Monitor - HIG2520 - HIGHWAYS@iambsw23.DPDEVEXDB02 HIG v4.7.0.1

☒ **Restrict** From* 22-SEP-2016 To* 22-SEP-2016 Process Type NEM NTIS Interface Update

Processes

Process	Process Type	Poling	Area	Last Run Date	Outcome	Next Run Date	Job State	NB.
00068328	NEM NTIS Interface Update	<input type="checkbox"/>		22-SEP-2016 10:13:56	Success	22-SEP-2016 10:23:56	Scheduled	
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						
		<input type="checkbox"/>						

Execution Details | **Polled Locations** | **Files** | **Parameters** | **Miscellaneous**

Executions

Run Seq	Start	End	Outcome
2	22-SEP-2016 10:13:56	22-SEP-2016 10:14:14	Success
1	22-SEP-2016 10:03:56	22-SEP-2016 10:04:14	Success

Additional Information

Execution Log

Log Seq	Message	Type
1	Process Started	Information
2	Starting creation and upload of update files using NTIS Interface \$Revision:	Information
3	Writing Event file NTISUpdate_20160922_101356+0100.xml	Information
4	Writing Cancellations file NTISCancellations_20160922_101356+0100.xml	Information
5	Uploading files to FTP Server.	Information
13	File upload complete.	Information
14	Starting File cleanup.	Information
23	File cleanup complete.	Information

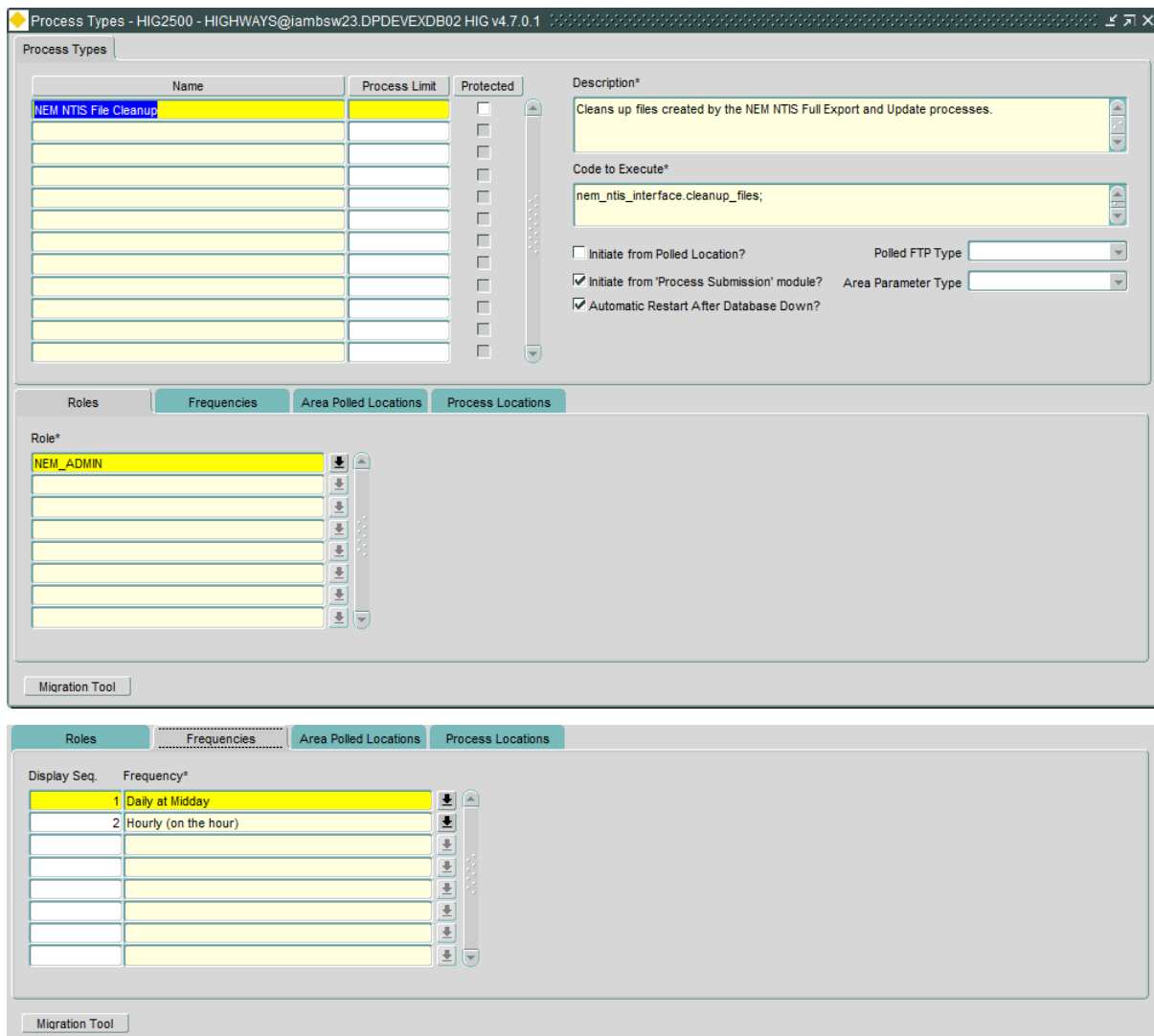
More Details... | Stop Execution | Disable Process | Edit Process | Run Now

3.5 File Cleanup

If the Product Option “NTISCLNUPD” has been set to “N” then a separate process can be configured to periodically clean up the files produced by the Full Export and Update processes.

The process should call `nem_ntis_interface.cleanup_files` and can be run at whatever interval is appropriate for the environment upon which it is running.

“Polled FTP Type” / “Area Polled Locations” / “Process Locations” details will be inherited from the Full Export and Update process types so do not need to be entered:



The screenshot shows the 'Process Types' configuration window for 'NEM NTIS File Cleanup'. The window is titled 'Process Types - HIG2500 - HIGHWAYS@iambsw23.DPDEVEXDB02 HIG v4.7.0.1'. It has a 'Process Types' tab selected, showing a table of process types. The 'NEM NTIS File Cleanup' process is highlighted. The table has columns for Name, Process Limit, Protected, and Description. The description for 'NEM NTIS File Cleanup' is 'Cleans up files created by the NEM NTIS Full Export and Update processes.' Below the table, there are checkboxes for 'Initiate from Polled Location?', 'Initiate from Process Submission module?', and 'Automatic Restart After Database Down?'. The 'Initiate from Process Submission module?' checkbox is checked. Below the checkboxes, there are dropdown menus for 'Polled FTP Type' and 'Area Parameter Type'. The 'Area Parameter Type' dropdown is set to 'Area Polled Locations'. Below the 'Process Types' tab, there are tabs for 'Roles', 'Frequencies', 'Area Polled Locations', and 'Process Locations'. The 'Roles' tab is selected, showing a table of roles. The 'NEM_ADMIN' role is highlighted. Below the roles table, there is a 'Migration Tool' button. The 'Frequencies' tab is also visible, showing a table of frequencies. The 'Daily at Midday' frequency is highlighted. Below the frequencies table, there is a 'Migration Tool' button.