

NEOpoint

INSTALLATION GUIDE

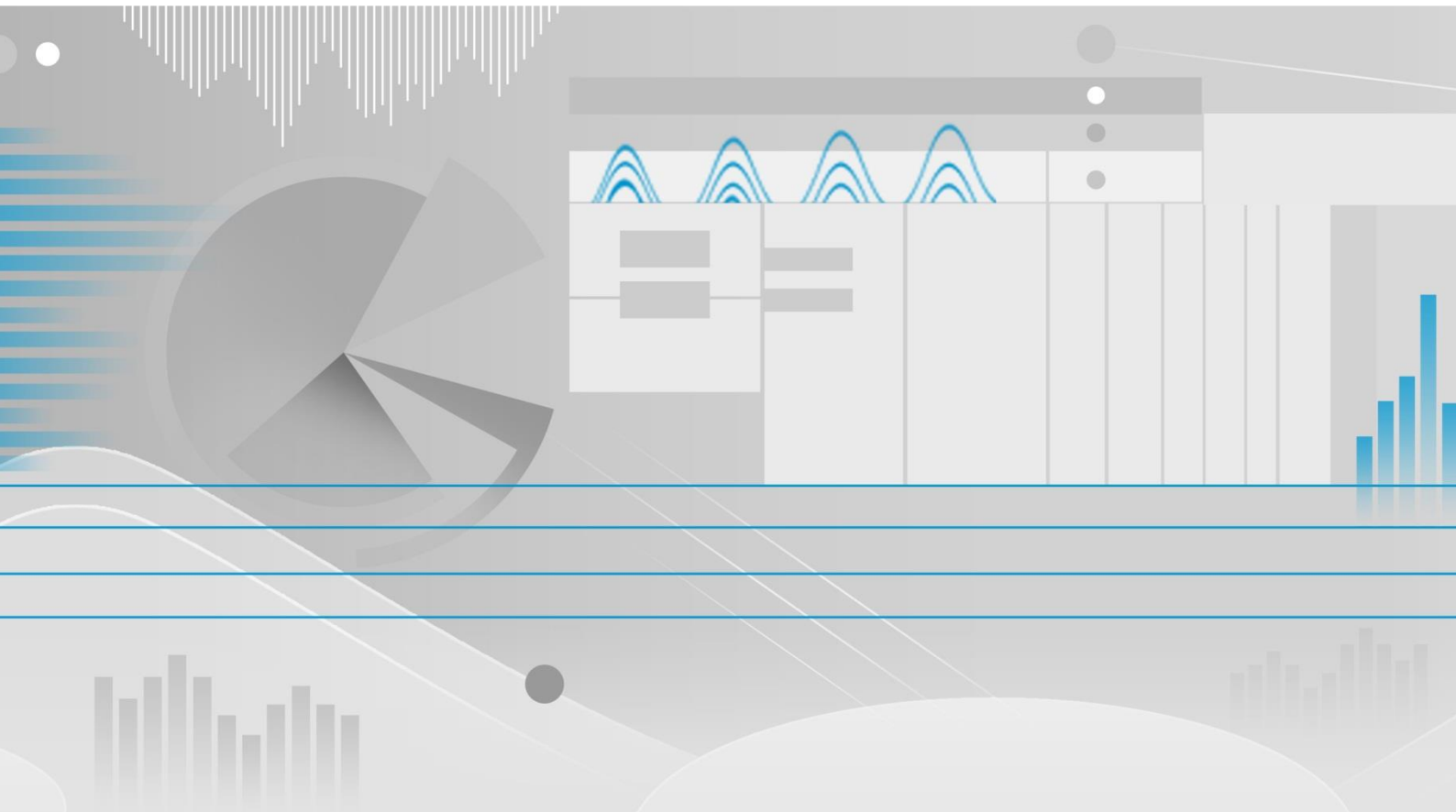


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1 Introduction

NEOpoint is a web application that runs under IIS on a Windows server. It essentially is “**Neo on the web**”.

The advantages of using NEOpoint are:

- Unlike Neo or NeoExpress, there is nothing to install for each user hence there are no issues with installing drivers or updating passwords etc. on individual machines.
- Classic Neo style interface with Favourites on the left, the toolbar at the top to select a report, start date, period, instances etc. Handles multi-step reports.
- Alert functionality with on-screen and email notifications with fully customizable alert variables.
- Ability to create dashboards with tables and charts using various layout options.
- Data service to export data into third party tools like Excel, Matlab, R, Python, etc.
- No coding required. Anyone with a copy of NEO can modify the Favourites, adding, modifying or deleting reports, changing styles, etc.
- Has optional Windows or Forms authentication login.
- Unlimited users.
- Works from all standard browsers including Chrome, IE9+ and mobile devices such as Android, iPhone, iPad etc.
- Chart and Table views.
- All reports and tables are auto-updated when new data is detected.
- Export data into a CSV file.
- Every report run is saved on the server. This is used in the History view which provides each user with a history of reports they have run. Clicking on any past result immediately brings up that result.
- Has extensive administrator reports such as a number of reports and logins per day, who logged in that day and how many reports they ran. Clicking on a user then brings up a complete history of all reports run and the results.

2 Installation

2.1 Pre-Requisite

Before you are installing NEOpoint, you will need the following components on the server:

- Internet Information Service (IIS) Manager v7.0 and above
- Microsoft .NET version 4.5
- The latest Windows Updates

2.1.1 INSTALLING IIS MANAGER

IIS is not enabled by default when you install a Windows operating system. To use the IIS Manager, you must install or enable IIS on your computer. For information about installing IIS, see Microsoft instruction on IIS 7 installation and Deployment: [https://technet.microsoft.com/en-au/library/ee692294\(v=ws.10\).aspx](https://technet.microsoft.com/en-au/library/ee692294(v=ws.10).aspx).

2.1.2 OPEN IIS MANAGER (IIS 7)

You can open IIS Manager if you want to configure IIS 7 settings by using the user interface (UI). This procedure assumes that you are viewing the Control Panel in the default Category view.

To open IIS Manager from the Start Menu

1. Click **Start**, and then click **Control Panel**.
2. Do one of the following:
 - a. If you are using Windows Vista® or Windows Server® 2008, click **System and Maintenance**, and then click **Administrative Tools**.
 - b. If you are using Windows® 7 or Windows Server® 2008 R2, click **System and Security**, and then click **Administrative Tools**.
3. In the **Administrative Tools** window, double-click **Internet Information Services (IIS) Manager**.

Applies to: Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows Vista

2.1.3 INSTALLING .NET FRAMEWORK 4.5

Download and install the .NET Framework 4.5 from the Microsoft website:

<http://www.microsoft.com/en-us/download/default.aspx>

NOTE: You will need to install IIS first before installing this. Otherwise, IIS won't recognise this and you will have to re-register .NET (e.g. run command `aspnet_regiis -iru` from command prompt)

2.2 Install NEO and configure NeoLocalWeb.xml file for NEOpoint

This step is to use NEO application to configure the Workspace and also to create the *NeoLocal.xml* file that needs to be copied to the web application, to be used by NEOpoint.

You can use the Custom configuration values sheet at the end of the document to record the following names of files, folder, configuration, etc. for future reference in this installation process.

NOTE: This steps assumes that NEO application and database components has been setup correctly before.

1. First, install Neo on the web server. This is temporary and can be removed once installation is complete.
2. Create a new **Object Workspace** call *MyObjectWorkspace* and a new **Data Workspace** call *MyDataWorkspace* under **Workspace object** in the **Config Tab**. Set up the database connection for each workspace.
3. Create a new **Settings** object call *MySettings* and select above created workspace objects under *MySettings* – **Workspace Tab**, similar to the setup on the other NEO application.
4. Double click on the *MySettings* to activate and reload the NEO.
5. Setup *MySettings* similar to the other NEO application setup on your company, this includes selecting the correct Object Importer, setup Favourites, Monitors and Themes.
6. Create a new **Favourites** folder call *MyFavouritesFolder* under **Favourites Object**. Create a new Favourites object call *MyFavourites* or copy existing Favourites objects into the Favourites folder.
7. Select the *MyFavouritesFolder* in the *MySettings* – **Favourites field** as a default Favourites object. If you don't have default Favourites setup in the **Settings**, below error message will be displayed after NEOpoint web service was set up. Basically, this Favourites object is used by the NEOpoint to identify the main workspace.

NOTE: Favourites seen in the NEOpoint are setup on individual account objects.

“The main workspace does not exist. This may be because you do not have an active Settings object or the Settings object does not have either an object workspace or the General. Favourites parameter does not refer to a Favourite folder that exists or is permitted. “

8. Import default Themes for NEOpoint. This will be provided by IES. (Please follow instructions in NEO user guide on how to import objects from XML file.). The NEOpoint theme is of **Report Style** object.

Once imported, you can then select the report style folder from the **Themes** parameter of *MySettings*.

NOTE: You will specify this folder in web.config at a later stage.

9. Create a new **Monitor** folder call *MyMonitorsFolder* and add new **Monitor** object or import IES provided Monitor object. Select the **Monitor** object in the *MySettings* – **Monitors Tab**. (see Section 2.9)
10. Create a new **Account** folder call *MyAccountFolder* under the **Account Object**. Create a new *AdministratorAccount*. (see Section 2.8)
11. Create a new **Dashboard** folder call *MyDashboardFolder* under the **Dashboard Object** in the **Reports Tab**.

NOTE: You will specify this folder in web.config at a later stage.

12. The **NeoLocal.xml** file is now ready to be copied to the NEOpoint web application.

NOTE: When Neo starts, the Event view will show the location of the *NeoLocal.xml* file as this can vary depending on the LocalLocation parameter in the *Neo.exe.config* file located in C:\Program Files\IES\Neo4.4.4 (note that by default the location is under folder: '[Your user folder]\AppData\Roaming\NEO 4.x.x\').

2.3 NEOpoint Activity/Event log component

You will need to create a table for storing the entire activity/event log for NEOpoint.

Here is the create table script for Oracle database:

```
CREATE TABLE "NP_ACTIVITYLOG"
(
  "RUNDATETIME" DATE,
  "ACCOUNT"       VARCHAR2(64),
  "ACTION"        VARCHAR2(64),
  "DETAIL"        VARCHAR2(2048),
  "FILENAME"      VARCHAR2(255),
  "PERIOD"        VARCHAR2(255),
  "IPADDRESS"     VARCHAR2(32),
  "MACHINE"       VARCHAR2(128),
  "SOURCE"        VARCHAR2(128),
);

CREATE INDEX " NP_ACTIVITYLOG_IND" ON " NP_ACTIVITYLOG "
(
  "RUNDATETIME", "ACCOUNT"
);
```

NOTE: we will need to configure the **Activity Log** section in the web.config file. Please see Section 2.5 for more information.

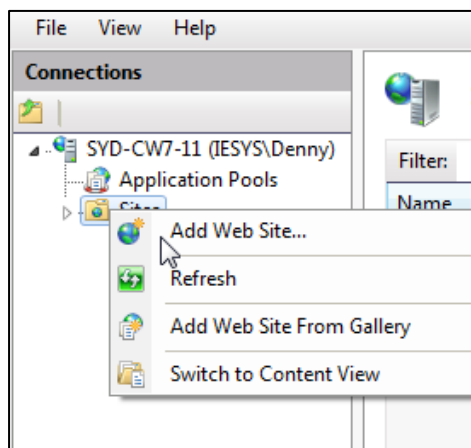
2.4 Setup the Web Site in IIS Server

Here are the steps to install the web application.

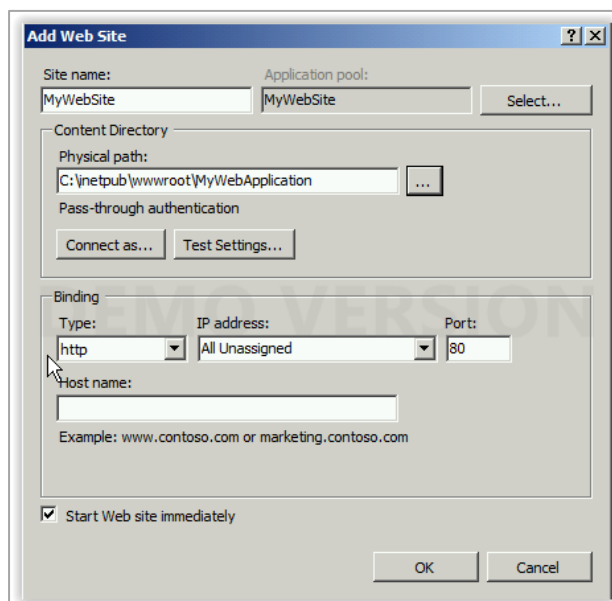
1. Create a new **MyWebApplication** folder under C:\inetpub\wwwroot\.
2. Unzip the downloaded installation package into the **MyWebApplication** folder.
3. Copy the **NeoLocal4.4.xml** file into the **MyWebApplication – App_Data** folder and rename it as **NeoLocalWeb.xml**. If **App_Data** folder is not there, then you need to create it.

NOTE: the name of the XML file can be configured differently as per the **NeoLocalFile** key in the Web.Config file. Please refer to Section 2.5 for more details.

4. Look in the **App_Data** folder for **Results** folder. If Results folder is not inside the **App_Data** folder you need to create a Results folder. **Results** folder must have write permission. You can also create Results folder outside of the application folder and in that case you have to specify the **ResultsFolder** path in the web.config.
5. Open your IIS Manager, and right click on **Sites** in the left tree of IIS Manager and choose **Add Website** option.

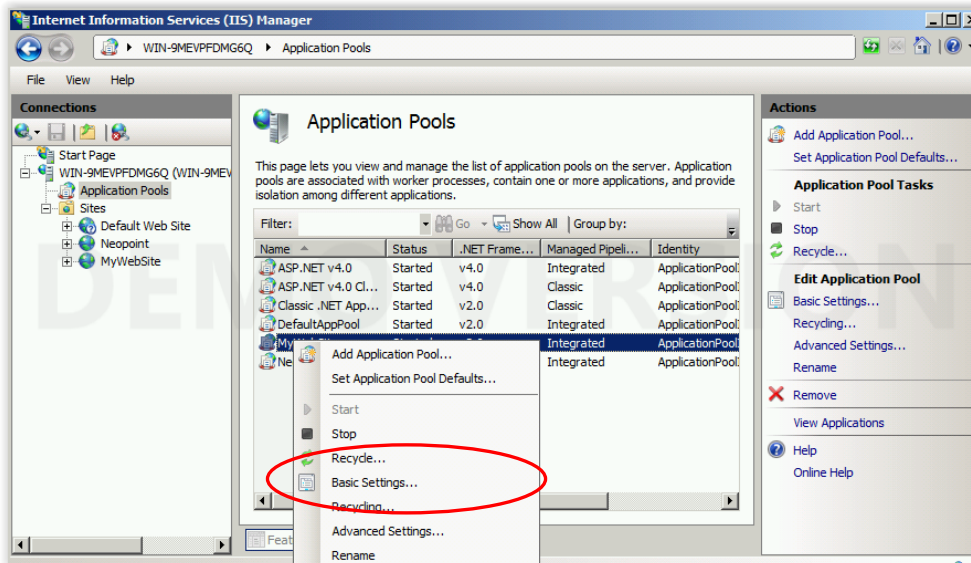


6. Enter the site name as **MyWebSite** and fill the configurations.

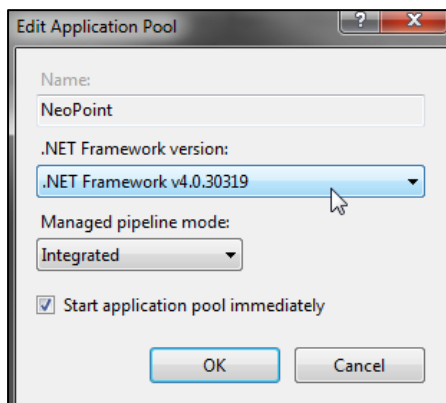


7. Set the Application Pool created above to use .Net Framework version 4 by:

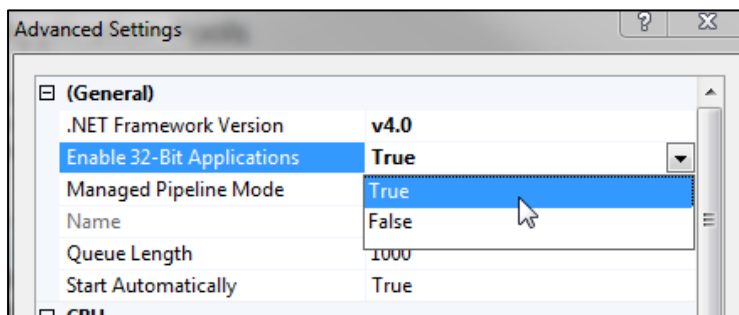
- click "Application Pool" from the left tree to open the list of Application Pools on the right window
- Right click on the **MyWebSite** Application Pool and select **Basic Settings**.



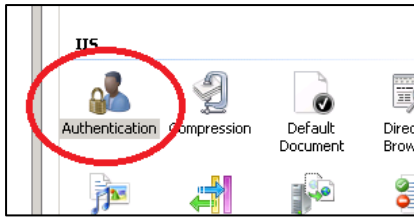
- On the **Basic Settings**, make sure it use .NET Framework V4:



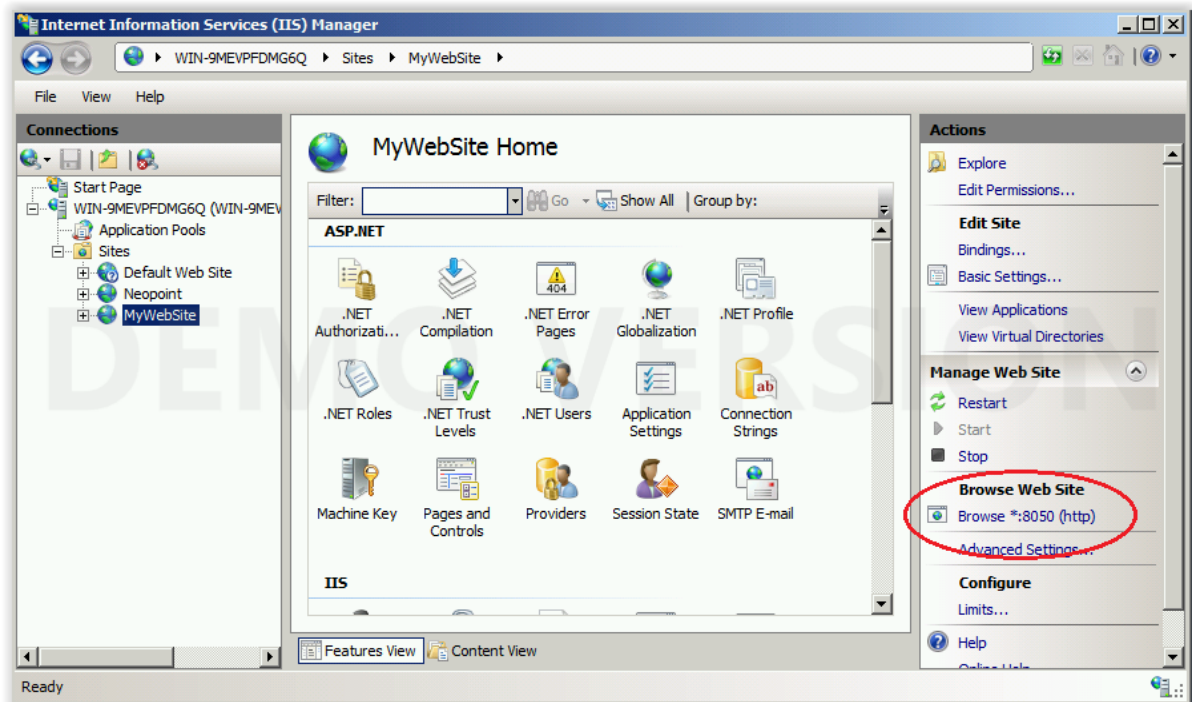
- Also, if you are using a 64bit Windows but the Oracle client is 32bit, you need to configure the Application Pool to allow 32bit application from its **Advanced Settings**.



8. On the left tree, click on **MyWebSite** again.
9. Double click on the **Authentication** icon from the **MyWebSite** IIS Home screen. Set up the relevant authentication mode. See more about **Authentication modes** in section 2.6.



10. You should now be able to run the application using the URL for the web application or from the link on the right panel of *MyWebSite* website.



This should open the login window of the *MyWebSite*. If necessary, you can activate the NEO Events log without the need to login to *MyWebSite* first. To do this, see section 2.7.

2.5 Update the web application Web.config file

The **web.config** file, included in the **NEOpoint** installation package, needs to be modified for each installation.

Key	Detail
IESHosted	Set to false if not hosted at IES site.
NeoLocalFile	The full or relative path name of the NEO configuration file (location is the same as mentioned on step 3 of Section 2.4 above). If relative then it is assumed to be in the App-Data folder. If left blank then the file name is assumed to be <i>NeoLocalWeb.xml</i> .
ResultsFolder	Path to folder where you want to save results from running reports.
ServerUrl	This is the server URL to access NEOpoint. For example: http://www.neopoint.com.au .
SiteAdministrators	Semicolon separated list of accounts to be designated as Site administrators. This allows them to view the System Events, System Activity, Report Usage and Alert Management tabs and reports.
AccountFolder	Set to <i>MyAccountFolder</i> . All the NEOpoint accounts should be located under this folder. If an account in a subfolder, inside the main folder or an account in an Account - Members Tab, doesn't account as a valid NEOpoint account. Account Folder name is case sensitive.
DashboardFolder	Set to <i>MyDashboardFolder</i> . Name of the folder where all dashboard will be saved.
StylesFolder	Set to <i>MyStylesFolder</i> . The Neo folder where default Report Styles for NEOpoint are stored. The folder name is case sensitive.
The followings is under MISCELLANEOUS section.	
DefaultPeriod	The initial period set on the Reports view toolbar.
ReportYearsBefore	The number of years before present to offer in Report view.
ReportYearsAfter	The number of years after present to offer in Report view.
EventLogPassword	To check the main Event Log without login to the website. Used with "[Your site name]/Administrator/SystemLog?password=" See section 2.7 for more details on this.
RecordAllEvents	Set this true temporarily to see ALL events in the SystemLog. This can be useful when initially configuring NeoPoint.
ShowErrorsWarningsInAbout Page	Set this true temporarily to see errors and warnings in the About page.
DevelopmentFeatures	Set this to false to turn off Development features.

The followings are only applicable if you **enable Alerts** function.

NOTE: If you enable Alerts function, you will need to create the Alerts object and its Variables in NEO.

AlertsEnable	Set true to enable alerts processing. Usually, this will only be true on a production server as it will cause actual emails to be sent when alerts are triggered. If this is FALSE then AlertsLog table no need to create and Alerts and Alerts Notification pages will not display.
LogAllAlertEvents	Set to true to record all alerts for all users. Might want to turn off when NEOpoint is already in production.
AlertsFolder	Set to MyAlertFolder . The folder that contains all Alert objects. An Alert object is automatically created in that folder for each account when the Alert page is accessed. In Forms authentication the Alert object is the same name as the UserName, e.g. "Administrator". In Windows authentication mode the Alert object is the Windows domain account name e.g. "IES\User1".
AlertsTable	Set to MyAlertTable . This is the database schema and table that alerts history will be written to.
AlertVariablesFolder	Set to MyAlertVariablesFolder . Contains objects of type "Alert Variable". Only these objects will be offered to users as an alert. (e.g. "Price 5min", "Predispatch Price") The folder name is case sensitive.

The following need to setup under **Activity Log** section. If you do not set this correctly the History and System Activity view will not work.

LogConnectionString	The connection string used to connect to the Activity Log table. To create this table, please refer to Section 2.3.
ActivityLogTable	The name of the Activity & Result Log table above (Note: might need to include schema name in Oracle).
ActivityLogRetainDays	Number of days the Activity will be kept.
ResultsRetainDays	Number of days the Results will be kept.

The following need to setup under **Windows Authentication** section.

ADAccount	This must be a valid Windows account that can query the AD. In some cases, this can be left blank.
ADPassword	Password for the above account.
ADDomain	Domain where the accounts live. Can be left but we suggest you set it to your domain.
UseSecurityGroups	If set to true uses Windows security groups, else it uses Distribution lists.

The followings can only be modified if you use send Alert using email.

SMTPServer	Enter your SMTP server name.
-------------------	------------------------------

EmailCredentials	NeoDashboard provides an email sending service for alerts etc. To use this service you need to set the Windows domain account credentials as account name semi-colon password, e.g. "YourAccount;yourPassword"
EmailFromAddress	The from email address used for emails. Some mail servers will reject an email if the from email address domain part is not a specific domain
The followings can miscellaneous options.	

NOTE: there is some other configuration can be changed under the **web.config** file. These will be covered on their related sections below.

2.6 Setup Authentication Modes

NEOpoint web application support for three different authentication modes.

- Windows Authentication
- Forms Authentication
- Anonymous Authentication

2.6.1 FORMS AUTHENTICATION

1. Open the IIS Server.
2. Select the *MyWebSite* and double click on **Authentication** icon.
3. Then set:
 - **Forms Authentication = Enabled**
 - **Anonymous Authentication = Enabled**
 - Windows Authentication = Disabled
4. Enter the “**authentication mode**” as “Forms” in the web.config file.

```
<authentication mode="Forms">
    < forms loginurl="~/Home/Login" timeout="2800" name="IES_NEOPOINT"/>
</authentication>
```

5. Enter the “**AccountFolder**” value as the folder in NEO where your account will be configured.


```
<add key="AccountFolder" value="[Enter NEO Account Folder Name here]" />
```

2.6.2 WINDOWS AUTHENTICATION

1. Open the IIS Server.
2. Select the *MyWebSite* and double click on *Authentication* icon.
 - Authentication = Disabled
 - Anonymous Authentication = Disabled
 - **Windows Authentication = Enabled**

Name	Status	Response Type
Anonymous Authentication	Disabled	
ASP.NET Impersonation	Disabled	
Basic Authentication	Disabled	HTTP 401 Challenge
Forms Authentication	Disabled	HTTP 302 Login/Redire
Windows Authentication	Enabled	HTTP 401 Challenge

6. Enter the “**authentication mode**” as “Windows” in the web.config file.


```
e.g.:- <authentication mode="Windows"/>
```

2.6.3 USING WINDOWS DISTRIBUTION LIST

By default, when Windows Authentication is enabled in a website, it is allowing Windows Security Groups to connect. You can overwrite this and set a website to look into Windows Distribution List instead.

To do this, you will need to modify the web.config file and change the “Use Security Groups” key:

```
<add key="UseSecurityGroups" value="false" />
```

When the value of **Use Security Groups** key is “TRUE”, then the website will use Windows Security Groups. If set to “FALSE” then the website will use Windows Distribution List.

NOTE: The format of the group names is different in each.

For Security groups they look like: "SYS\\Admin", "SYS\\Trading", etc.

For Distribution Lists, they look like: "Support Team", "Admin", etc.

2.6.4 NO AUTHENTICATION

1. Open the IIS Server.
2. Select the **MyWebSite** and double click on *Authentication* icon.
 - Forms Authentication = Disabled
 - **Anonymous Authentication = Enabled**
 - Windows Authentication = Disabled
3. Enter **authentication mode** as “None” in web.config file.

```
<authentication mode="None" />
```

2.7 Using System Event Log

In **NEOpoint**, you can access Event Log before login into the website. You can see if the 'NEO' settings running in the **NEOpoint** server has been setup correctly.

To do this, here are the instructions:

1. Open **MyWebApplication** web.config file.
2. Find and modify the following key:

```
<add key="EventLogPassword" value="password1" />
```
3. Change the value to any word you want to use as a password to view the Event Log.
4. Setup **MyWebSite** as shown above on Section 2.3.
5. Setup **MyWebSite** authentication mode as shown on Section 2.5
6. When you access **MyWebSite**, type this at the end:

```
/Administration/SystemLog?password=password1
```
7. **MyWebSite** Event Log page will be opened, as shown here:

Index	DateTime	Category	Message	Module	EventType
0	2015-06-16 14:58:54		Starting NeoPoint web application.	Global	Initialisation
1	2015-06-16 14:58:54		Web application running with Windows account 'IIS APPPOOL\123123'.	Global	ExtendedEvent
2	2015-06-16 14:58:54		Loading model='C:\inetpub\wwwroot\Windows_NeoPoint\App_data\NeoModel.xml'.	Mercury	Initialisation
3	2015-06-16 14:58:55		Unrecognised attribute name 'onbackgroundcolour'.	LoadModel	Warning

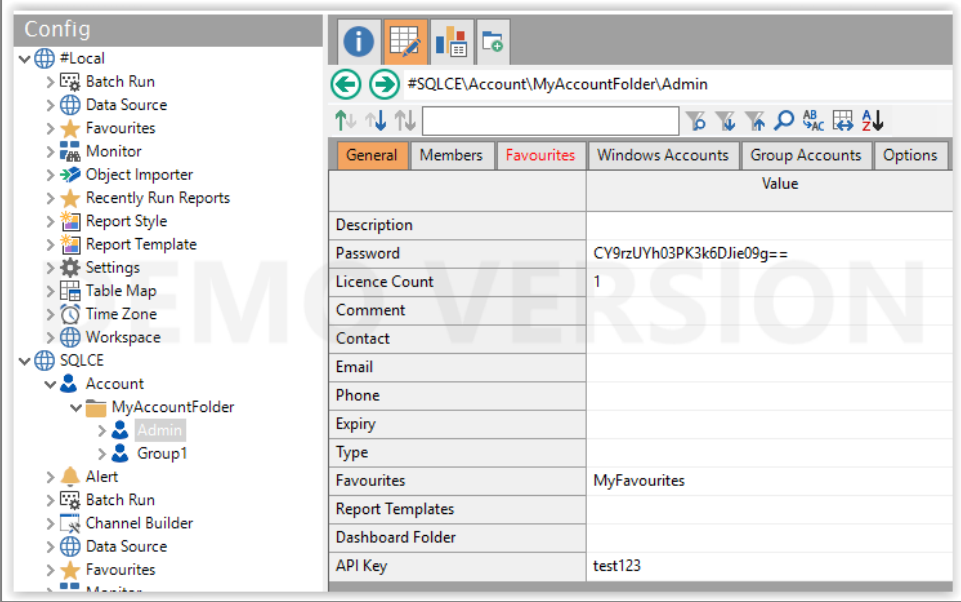
2.8 Setup NEOpoint account in NEO

2.8.1 SETUP WINDOWS AUTHENTICATION ACCOUNTS IN NEO

You will need to setup the Windows Authentication accounts in NEO that can be used in NEOpoint. Below describe how to create Windows Authentication accounts in NEO.

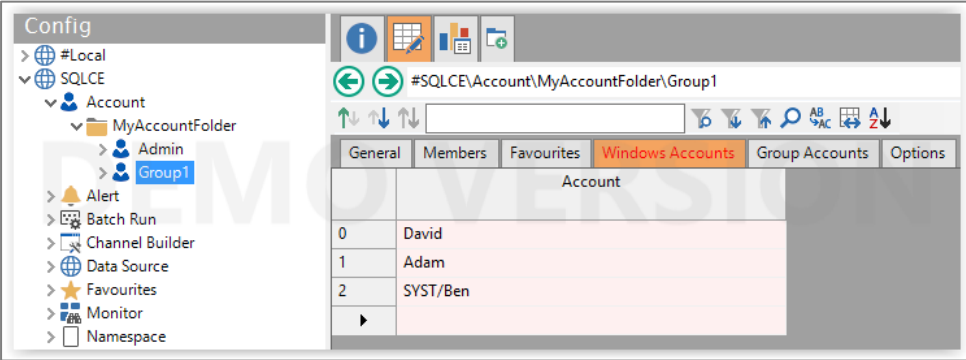
1. Create a **MyAccountFolder** inside the NEO Account object. This is the **AccountFolder** name you are going to add in **MyWebApplication** web.config file. See Section 2.5.
2. Create an Administrator account and group accounts (e.g. Admin, Group1, etc.) under above created **MyAccountFolder**.
3. Select a Favourites object under General tab Favourites field. You can select either Favourite object or a Favourites folder.

If this account can view more than one Favourites objects, then you can enter a list of Favourites objects under the Favourites tab.



General	Members	Favourites	Windows Accounts	Group Accounts	Options
Value					
Description					
Password	CY9rzUVh03PK3k6DJie09g==				
Licence Count	1				
Comment					
Contact					
Email					
Phone					
Expiry					
Type					
Favourites	MyFavourites				
Report Templates					
Dashboard Folder					
API Key	test123				

4. Add Windows Security Accounts or Distribution List into the Windows Accounts tab.



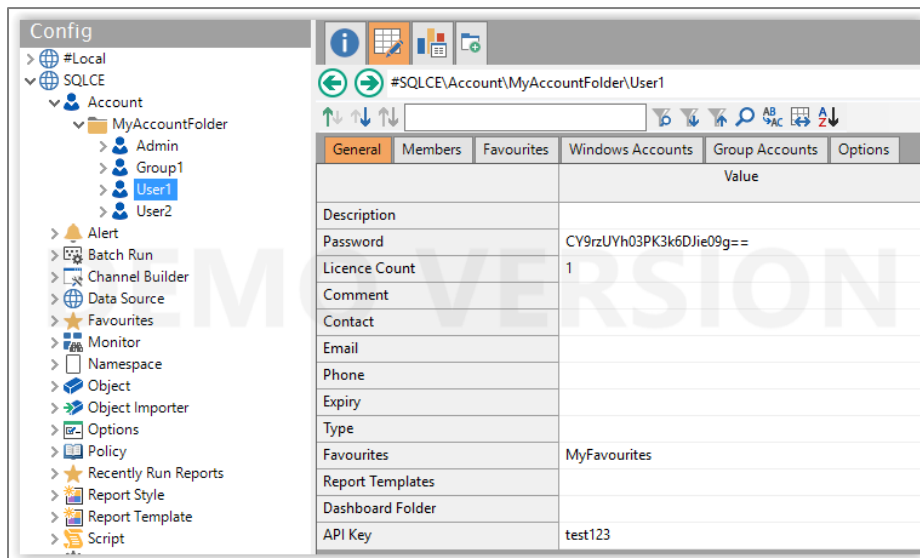
General	Members	Favourites	Windows Accounts	Group Accounts	Options
Account					
0	David				
1	Adam				
2	SYST/Ben				
▶					

5. Recycle the **MyWebSite** to affect these changes.

2.8.2 SETUP FORM AUTHENTICATION ACCOUNT GROUPS IN NEO

Same as Windows authentication, you will need to set up the Forms authentication accounts in NEO that can be used in NEOpoint.

1. Create a **MyAccountFolder** inside the NEO Account object. This is the **AccountFolder** name you are going to add in **MyWebApplication** web.config file. See Section 2.5.
2. Create a Forms authentication user accounts (e.g. User1, User2, etc.) under above created **MyAccountFolder**. Account names are case insensitive.



3. Select a Favourites object under General tab Favourites field. You can select either Favourite object or a Favourites folder. If this account can view more than one Favourites objects, then you can enter a list of Favourites objects under the Favourites tab.
4. Recycle the **MyWebSite** to affect these changes.
5. Login to **MyWebSite** using a new user account. (e.g. User1, User2, etc.)

2.8.3 SETUP API KEY FOR NEOPOINT ACCOUNTS

The followings are for set up **NEOpoint** Data service. This enables the user to load result from **NEOpoint** to third party products (e.g. Excel).

In NEO, each account object has an “API Key” parameter in the **Account - General tab** section. This associates an account with a given key. Hence, we can create any number of Account objects each with their own unique API key and allowed reports.

General	Members	Favourites	Windows Accounts	Group Accounts	Options
		Value			
Description					
Password		7iBVcBx0ImL5PQg/hUNQuQ==			
Licence Count		1			
Comment		test			
Contact					
Email					
Phone					
Expiry					
Type					
Favourites					
Report Templates					
Dashboard Folder					
API Key		test1234			

2.9 Setup Monitor Object

Monitor object in NEO is an object that check if there is any new data for a particular report, and if there is it will re-run the report in NEOpoint so it will always auto-update.

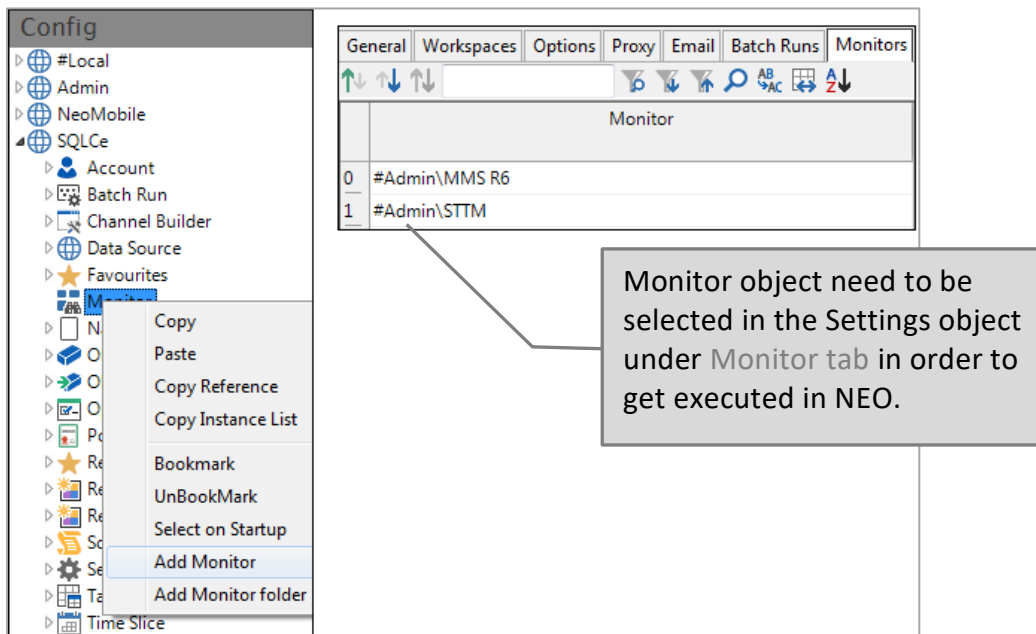
Below we list a quick guide on how to setup Monitor object, but for more information on this object, please refer to NEO User Guide.

How to create a new Monitor object

1. Under the **Config** tab, expand the *MyObjectWorkspace*.
2. Right click the **Monitor** root object and add *MyMonitor* object.

How to use a Monitor object

3. Go to the **Config Tab - Settings Object – Monitor** tab.
4. Select the *MyMonitor* object from the combo box.
5. Reload (CTRL+F5) the system.



Monitor object need to be selected in the Settings object under Monitor tab in order to get executed in NEO.

Monitor Object Design View

General		Channels
Description	Check if the data has been updated.	
Workspace	Value	
Query String	SELECT DESTINATION_TABLE REPORT_TYPE,max (PDR_REPORT_ID) FROM MMS.PDR_REPORT_AUDIT_SUMMARY group by DESTINATION_TABLE REPORT_TYPE	
Update Cycle	5 secs	
Delay	0	

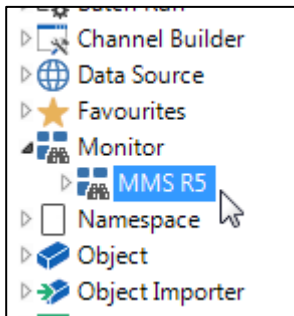
General		Channels		
	Channel	Table	Period	
0	DISPATCHPRICE	DISPATCHPRICEDISPATCHIS		10 secs
1	DISPATCHINTERCONNECTORRES	DISPATCHINTERCONNECTORRESDISPATCHIS		5 minutes
2	TRADINGINTERCONNECT	TRADINGINTERCONNECTTRADINGIS		10 secs
3	TRADINGREGIONSUM	TRADINGREGIONSUMDISPATCHIS		10 secs
4	TRADINGPRICE	TRADINGPRICETRADINGIS		10 secs

2.9.1 HOW TO USE IES PROVIDED MONITOR OBJECT

IES provide a monitor object designed to run against AEMO's MMS database. This is normally distributed as an XML file sent to our NEO customer.

Steps to import IES provided Monitor object:

1. Open NEO System.
2. Connect to the **MyObjectWorkspace** by activating **MySettings**.
3. Select the "Import from file" menu from the Main menu. Import objects dialog box will display.
4. Select the workspace name and the import option.
5. Select or enter the path and filename for the XML file to be imported (e.g. MonitorMMS_R5.xml).
6. Click on the IMPORT button.
7. There should be an object called MMS R5 under Monitor folder.



Once this done, please follow the instructions below.

2.9.2 HOW TO USE CHANNELS OF MONITOR OBJECT

Monitor objects run a simple query that returns two columns:

1. The first is an identifier for a database table, and
2. The second is text that indicates when the table was last updated.
 - Each channel on the **Channels tab** of a **Monitor** object has a table name and an update period associated with it.
 - When the **Monitor** runs (according to its update cycle), it checks whether the values in the tables listed on the Channels tab have changed, also according to the table's update period. If a table's data has changed, its channel is triggered.
 - Note that if the **Monitor** query is blank, all channels are triggered.
 - When a channel is triggered, the table data associated with the channel will be updated accordingly.
 - If a variable is identified with one of the triggered channels (using the **Channels** field in the General tab of the Variable object), then the reports associated with the variable will be automatically updated.

Need to select a Monitor object in the active Settings object monitor

Channel	Table	Period
0 DISPATCHPRICE	DISPATCHPRICEDISPATCHIS	10 secs
1 DISPATCHINTERCONNECTRES	DISPATCHINTERCONNECTORRESDISPATCHIS	5 minutes
2 TRADINGINTERCONNECT	TRADINGINTERCONNECTTRADINGIS	10 secs
3 TRADINGREGIONSUM	TRADINGREGIONSUMDISPATCHIS	10 secs

Same channel name need to enter in the variable channels field

Object Name	Region
0 #Admin\Support\5sec Dummy Monitor	
1 #Admin\Support\MMS Monitor	

```

select
REGIONID,
SETTLEMENTDATE,
RRP "Price 5min"
from
%o.DISPATCHPRICE
where
SETTLEMENTDATE between %f and %t
and REGIONID = %i
    
```

Monitor object is used for auto updating reports

Region Price 5min (NSW1)

\$/MWh

Price 5min

Fri, 13 Jun 14 Sat, 14

2.10 Configuring Alerts

You need to configure below listed items to activate **Alert** function in the **NEOpoint**. See more information in section 2.5

1. Enable Alert option in the *MyWebApplication*, Web.config file should be true.
 - **AlertEnable** = True
2. Create a *MyAlertVariableFolder* under Alert Variable section in NEO Variable Tab.
3. Alert Variable folder name need to enter in the *MyWebApplication*, Web.config file.
 - **AlertsVariableFolder** = *MyAlertVariableFolder*
4. Create a *MyAlertFolder* under *MyObjectWorkspace* - Alert object.
5. Alert folder name need to enter in *MyWebApplication*, Web.config file.
 - **AlertsFolder** = *MyAlertFolder*

2.10.1 CREATE THE ALERT TABLE

This is the database schema and table that alerts history will be written to.

Oracle query:

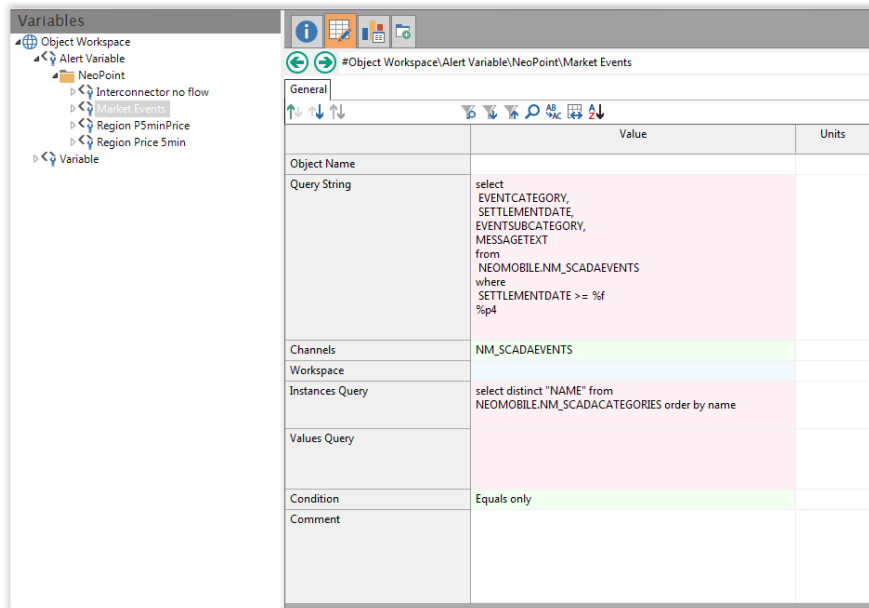
```
CREATE "NP_ALERTLOG"
(
  "ALERTID" VARCHAR2(64),
  "ACCOUNT" VARCHAR2(256),
  "EMAIL" VARCHAR2(256),
  "DEVICEID" VARCHAR2(256),
  "MESSAGE" VARCHAR2(1024),
  "REPORT" VARCHAR2(256),
  "ALERTDT" DATE,
  "MACHINEID" VARCHAR2(256),
  "ALERTNAME" VARCHAR2(64),
  "PID" NUMBER(12, 2),
  "SOUND" VARCHAR2(64),
  CONSTRAINT "PK_NP_ALERTLOG" PRIMARY KEY ("ALERTID")
  VALIDATE)
```

SQL server query:

```
CREATE TABLE [NP_ALERTLOG](
  [ALERTID] [varchar](64) NOT NULL,
  [ACCOUNT] [varchar](256) NULL,
  [EMAIL] [varchar](256) NULL,
  [DEVICEID] [varchar](256) NULL,
  [MESSAGE] [varchar](1024) NULL,
  [REPORT] [varchar](256) NULL,
  [ALERTDT] [datetime] NULL,
  [MACHINEID] [varchar](256) NULL,
  [ALERTNAME] [varchar](64) NULL,
  [PID] [numeric](12, 2) NULL,
  [SOUND] [varchar](64) NULL,
  CONSTRAINT [PK_NP_ALERTLOG] PRIMARY KEY ([ALERTID]))
```

2.10.2 SETUP ALERT VARIABLES

There is an Alert Variable section in the NEO Variable Tab. You create a *MyAlertVariableFolder* and all alert variables need to be under this section.



The fields on the General tab are:

- | | |
|----------------|--|
| Object Name | Specify the type of object to which this variable applies. Select the desired object from the drop-down list of available options. This field is mandatory. |
| Query String | Enter an SQL query string. Use 'escape codes' to allow the query to be defined for some specific object instance and period of time. This field is mandatory. |
| Channels | Optionally enter the channel, or a list of channels (separated by a comma delimiter character ','), associated with the variable. Where a Monitor object, with one of the channels entered here, is included on the active Settings object, the variable's data will be updated automatically. |
| Workspace | This determines the workspace on which to execute the query string. If this field is left blank, NEO will execute the query string on the default Data workspace. It is this capability that allows NEO to display, in one report, data from multiple databases or files. |
| Instance Query | This is the query that is run and whose results will populate the Instance combo for the step. The query should only return one column. |
| Values Query | This is the query that is run and whose results will populate the Values combo for the step. The query should only return one column. |
| Condition | Specify the type of condition apply in the Alert. If you select; <ul style="list-style-type: none"> All – Display all conditions (Grater Than, Less Than and Equals) Equals Only – Equals None – No condition apply for the Alert. |
| Comment | Enter a description of your variable. |

2.10.3 CREATE ALERTS IN NEOPOINT

For create a new Alert click on INSERT NEW ALERT button. DUPLICATE ALERT button duplicates the selected Alert. REMOVE ALERT button deletes the selected Alert.

You need to select a variable, an instance and a condition for created Alert. After set value, write the email address that you want to receive alerts.

Variable	Select relevant variable to create an alert.
Instance	Select an instance related to the variable.
Condition	User can select a condition to apply with entered value. Conditions are: Equals, Grater Than and Less Than.
Value	Enter Value that go with selected condition.
Email	Enter email address that alerts need to send automatically.
Delay before retrigger	Enter a delay time before trigger the next alert.
Sound	Select the sound, play when alert received on the Alert Notification page. Alert Notification page needs to be opened to hear the Sound.
Enable email alert	Tick the check box to enable email alert.
Enable mobile alert	Tick the checkbox to enable mobile alert.

If you click on SEND TEST ALERT button, it will immediately send the test Alert to the selected email account. Test alerts are marked with TEST prepended to the email subject.

Below image is displayed the Alert Notification page. When an alert received, add a new row to the list and it highlighted in orange colour. Alert sound is played and linked report is displayed when this page is leave opened.

2.10.4 AUTOMATICALLY CREATE ALERT OBJECT IN NEO

You need to create a **MyAlertFolder** under Alert object in **MyObjectWorkspace**. This folder name needs to enter in Web.config file **AlertsFolder** field. An **Alert** object is automatically created in above folder for each account when Alert is accessed.

In Forms authentication, the **Alert** object is the same name as the Username (e.g. "Administrator"). In Windows authentication mode, the **Alert** object is the Windows domain account name (e.g. "IES\Fred").

The screenshot shows the configuration interface for the Alerts tab. The breadcrumb path is #Object Workspace\Alert\NeoPoint\user_group. The table below lists the alert rules:

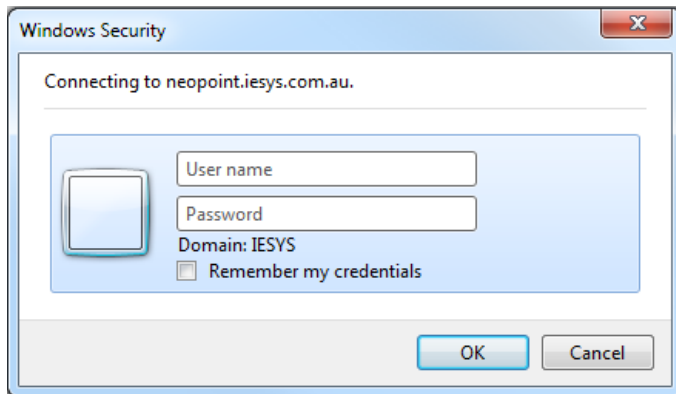
	Variable	Instance	Condition	Value	Email	Delay before retrigger	Disable
0	NeoPoint\Market Events	Price	Greater than	0		30	<input type="checkbox"/>
1	NeoPoint\Region Price Smin	QLD1	Less than	100		30	<input type="checkbox"/>

1 Appendix

1.1 Appendix: How to avoid Windows security dialog box in IE

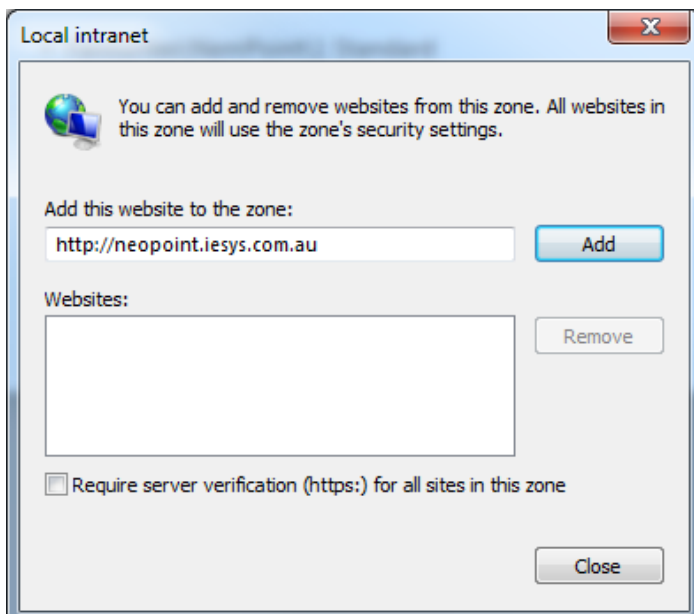
The two following image summarise how **NEOpoint** works with Windows authentication.

When you login to **NEOpoint** using Windows authentication the browser will ideally automatically supply your Windows credentials to the **NEOpoint** server. Due to security settings it may display the dialog box shown below.



If you don't want the dialog to appear, i.e. you want to automatically login then follow these steps:

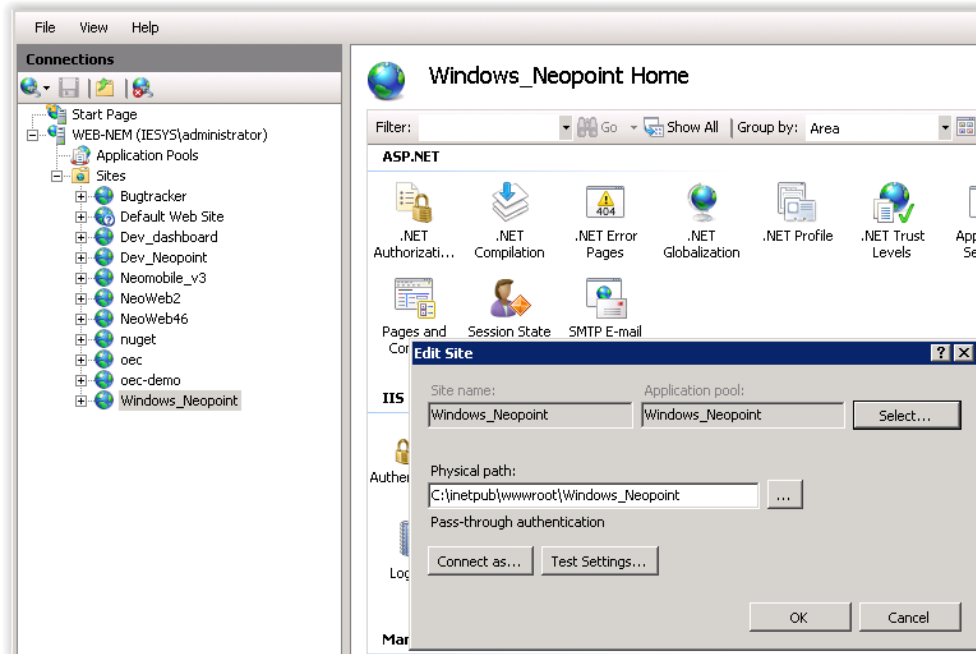
1. Open IE Tools – Internet option dialog.
2. In the Security Tab – select Local intranet.
3. Click on the “Sites” button and then Local Intranet dialog box will be displayed.
4. Click on the “Advanced” button.
5. Add NEOpoint URL into Websites box.



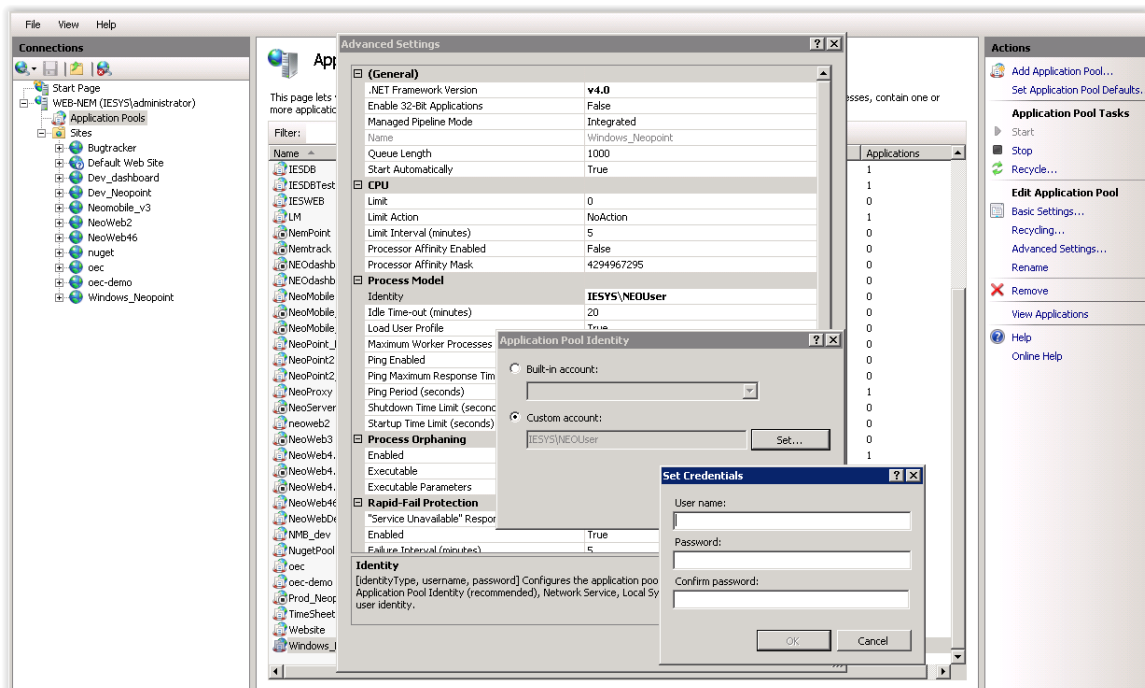
6. Click “Close” button and close all windows.
7. This setting will also affect Google Chrome but not Mozilla Firefox.

1.2 Appendix: How to run an application pool as a user identity

Below image displays how to find the application pool that your application setup. If the application pool is selected as a **DefaultAppPool** then you need to create a new application pool for your application.

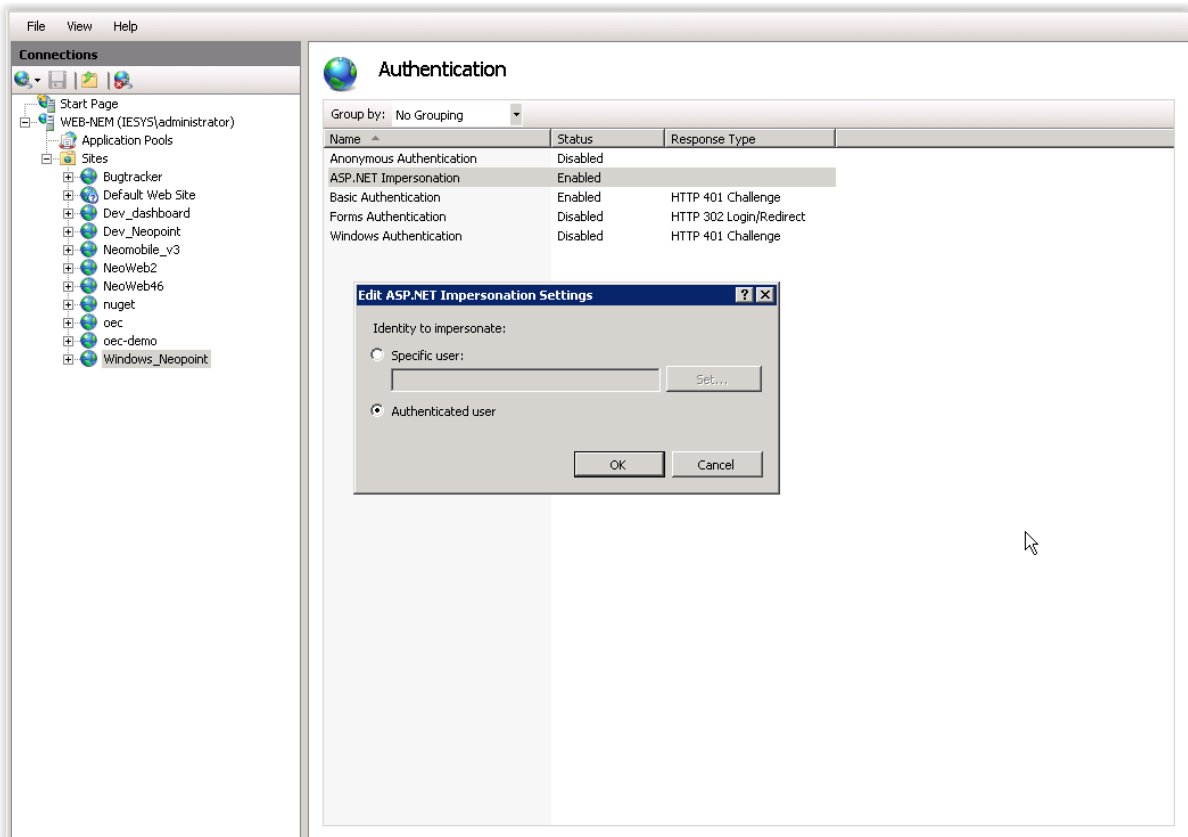


Open advanced settings for your application pool. Then select Process Model – Identity. Set up the User Name and Password under Custom Account section and click OK button.



1.3 Appendix: How to configure IIS for Windows integrated authentication

1. Right-click your application under IIS and then click Authentication.
2. Disable Anonymous, Forms and Windows authentications.
3. Enable ASP.NET Impersonation and select Authentication user option.
4. Enable Basic authentication.



1.4 Appendix: How to avoid error “Attempted to access an unloaded appdomain (Exception from HRESULT: 0x80131014)”

It appears to be a bug in ADSI that was resolved with a hotfix. Windows 7 SP1 and Windows Server 2008 R2 SP1 don't include the fix, so it will need to be manually deployed on your development machines and server environments.

<http://support.microsoft.com/kb/2683913>

<http://stackoverflow.com/questions/6605666/querying-active-directory-from-mvc-result-in-attempted-to-access-an-unloaded-ap>

1.5 Appendix: If you receive error “HTTP Error 500.19 - Internal Server Error. The requested page cannot be accessed because the related configuration data for the page is invalid.”

This is because **NEOpoint** uses module *runAllManagedModulesForAllRequests* which need to be allowed by IIS to override its default mode.

To fix this, simply:

1. On the left tree of your IIS, click on the IIS server (the one with your server name).
2. Under Management section on the right-hand side, double-click on “**Feature Delegation**” icon.
3. Set **Delegation** permission to “Read/Write” for ‘Modules.

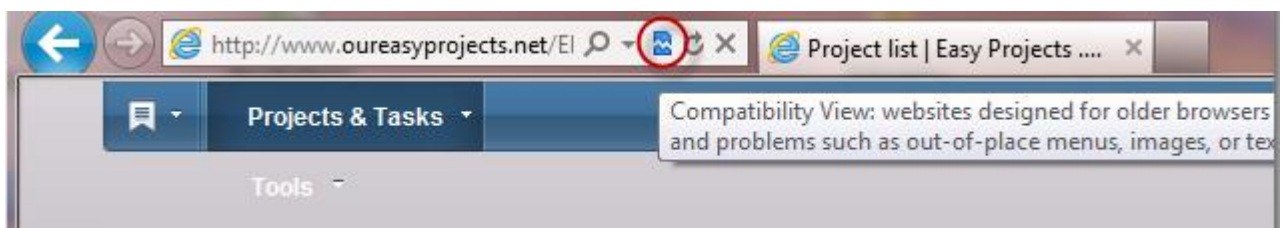
1.6 Appendix: How to turn off the 'Compatibility View' mode in IE 8 / IE 9

Websites that were designed for earlier versions of Internet Explorer might not display correctly in the IE 8 (and above) version included in Windows 7. When you turn on **Compatibility View**, the web page you're viewing, as well as any other webpages within the website's domain, will be displayed as if you were using an earlier version of Internet Explorer.

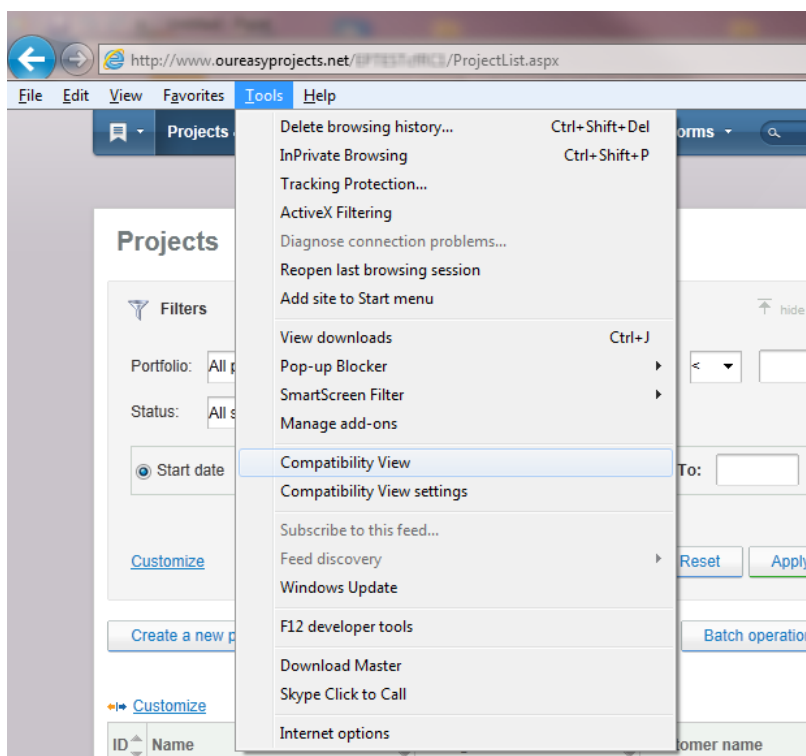
There are two ways how **Compatibility View** mode can be turned off:

- * from Internet Explorer address bar
- * from Internet Explorer 'Tools' menu

The quickest way is to click on the **Compatibility View** icon on the address bar:



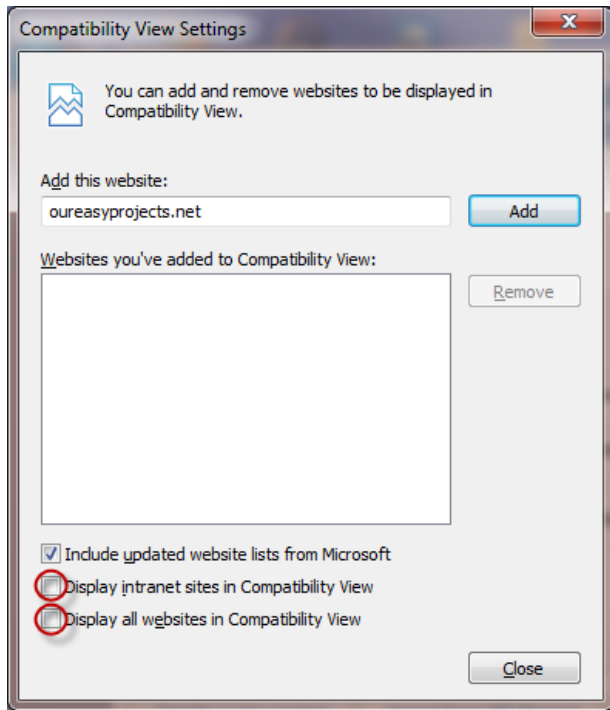
The same result can be achieved through the 'Tools' menu (accessible by the Alt-T key combination):



Please be aware that **Compatibility View** option should be unchecked (no tick should be present next to this option).

In case if both **Compatibility View** icon is not present on the address bar and **Compatibility View** option is grayed out in 'Tools' menu, then it means that currently your Internet Explorer is set up to display all and/or intranet websites in **Compatibility View** mode.

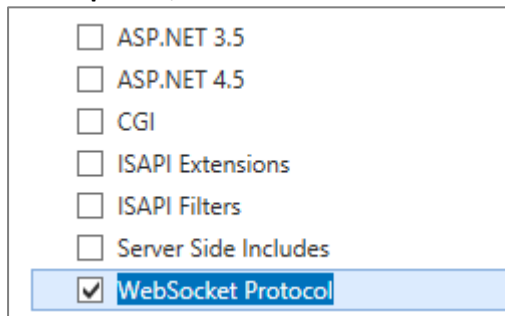
In order to disable websites to be displayed in this mode, go to **Tools -> Compatibility View** settings and uncheck both the 'Display intranet sites in Compatibility View' and 'Display all websites in Compatibility View' boxes:



1.7 Appendix: How to setup Web Socket

1.7.1 WINDOWS SERVER 2012 OR WINDOWS SERVER 2012 R2

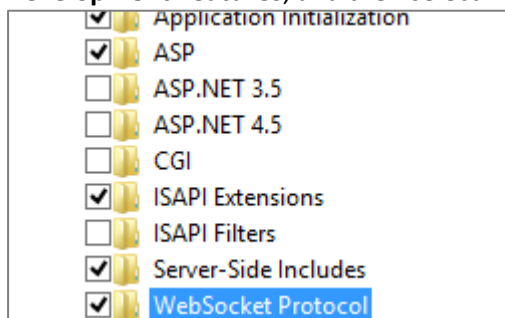
1. On the taskbar, click **Server Manager**.
2. In **Server Manager**, click the **Manage** menu, and then click **Add Roles and Features**.
3. In the **Add Roles and Features** wizard, click **Next**. Select the installation type and click **Next**. Select the destination server and click **Next**.
4. On the **Server Roles** page, expand **Web Server (IIS)**, expand **Web Server**, expand **Application Development**, and then select **WebSocket Protocol**. Click **Next**.



5. On the **Select Features** page, click **Next**.
6. On the **Confirm installation selections** page, click **Install**.
7. On the **Results** page, click **Close**.

1.7.2 WINDOWS 8 OR WINDOWS 8.1

1. On the **Start** screen, move the pointer all the way to the lower left corner, right-click the **Start** button, and then click **Control Panel**.
2. In **Control Panel**, click **Programs and Features**, and then click **Turn Windows features on or off**.
3. Expand **Internet Information Services**, expand **World Wide Web Services**, expand **Application Development Features**, and then select **WebSocket Protocol**.



4. Click **OK**.
5. Click **Close**.

Reset IIS after changes.

Taken from: <http://www.iis.net/configreference/system.webserver/websocket>

1.8 Appendix: How to fix Oracle provider issues

With versions of NEOpoint released after 15/03/2016, you may face Oracle provider issues. To fix this issue you have to add the following to the end of web.config before </configuration> tag. You have to replace the relevant parts in dataSource tag with your Oracle configurations. These configurations are same to what is specified inside tnsnames.ora file.

```
<oracle.manageddataaccess.client>
  <version number="*">
    <dataSources>
      <dataSource alias="SampleDataSource"
descriptor="(DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=localhost)(PORT=1521))(CONNECT_D
ATA=(SERVICE_NAME=ORCL))) " />
    </dataSources>
  </version>
</oracle.manageddataaccess.client>
```

If you still get error related to Workspace not configured or unable to resolve tns identifier, then please contact NEO Support for further help.

1.9 Appendix: Custom configuration values

Use the sheet below to record the values of objects, folder, etc. to help you remember them when you are using those values. Keep it safe after you have finished the installation for future reference.

Key	Values	Comment
<i>MyObjectWorkspace</i>		NEO object workspace
<i>MyDataWorkspace</i>		NEO data workspace
<i>MySettings</i>		NEO settings object
<i>MyAccountFolder</i> (AccountFolder)		Account folder created in NEO
<i>AdministratorAccount</i> (SiteAdministrators)		Administrator account created in NEO
<i>MyFavouritesFolder</i>		Favourites folder created in NEO
<i>MyFavourites</i>		Favourites object created in NEO
<i>MyStylesFolder</i> (StylesFolder)		Styles folder created in NEO
<i>MyMonitorsFolder</i>		Monitors folder created in NEO
<i>MyDashboardFolder</i> (DashboardDesignFolder)		Dashboard folder create in NEO
<i>MyWebApplication</i>		Web application folder in inetpub.
<i>MyWebSite</i>		Name of the website.
<i>MyEventLogPassword</i> (EventLogPassword)		Event log password in the web.config file.
<i>MyActivityConnection</i> (ActivityLogConnectionString)		Database connection string to connect to Activity Log table
<i>MyActivityLogTable</i> (ActivityLogTable)		Activity Log table name
<i>MyActivityRetainDays</i> (ActivityLogRetainDays)		Number of days the Activity will be kept
<i>MyActivityResultsDays</i> (ResultsRetainDays)		Number of days the Results will be kept
<i>MyAlertFolder</i> (AlertsFolder)		Alerts folder name
<i>MyAlertTable</i> (AlertsTable)		Alerts table names in the database
<i>MyAlertVariablesFolder</i> (AlertVariablesFolder)		Alert variables folder

NEO Support Contact

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