

## Semantics.SDK Tools 1.0

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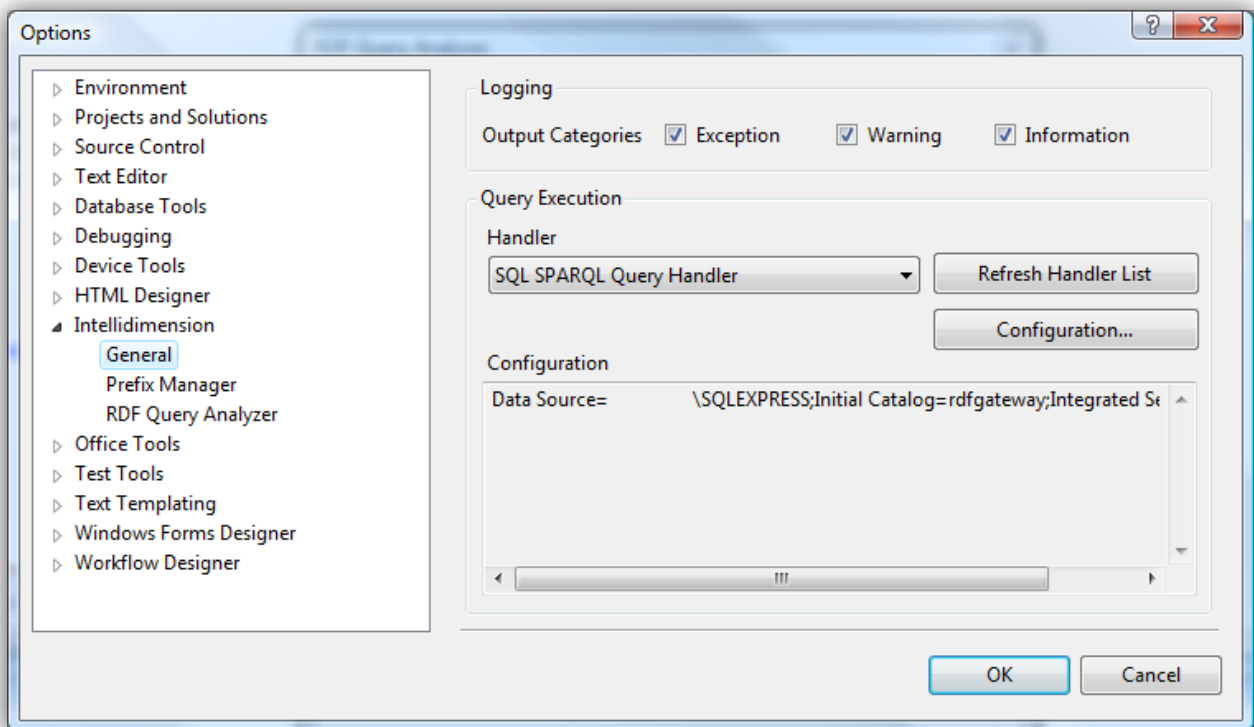
## 1. Options

The **Options** dialog allows you to customize and configure various aspects of the Tools, such as: Logging, Query Execution, Prefix Manager, and the RDF Query Analyzer.

### Steps to Access Options:

1. In **Visual Studio** with **Semantics.SDK Tools** installed, click **Tools** on the menu bar.
2. Click **Options**.
3. Click the **Intellidimension** category in the left pane.

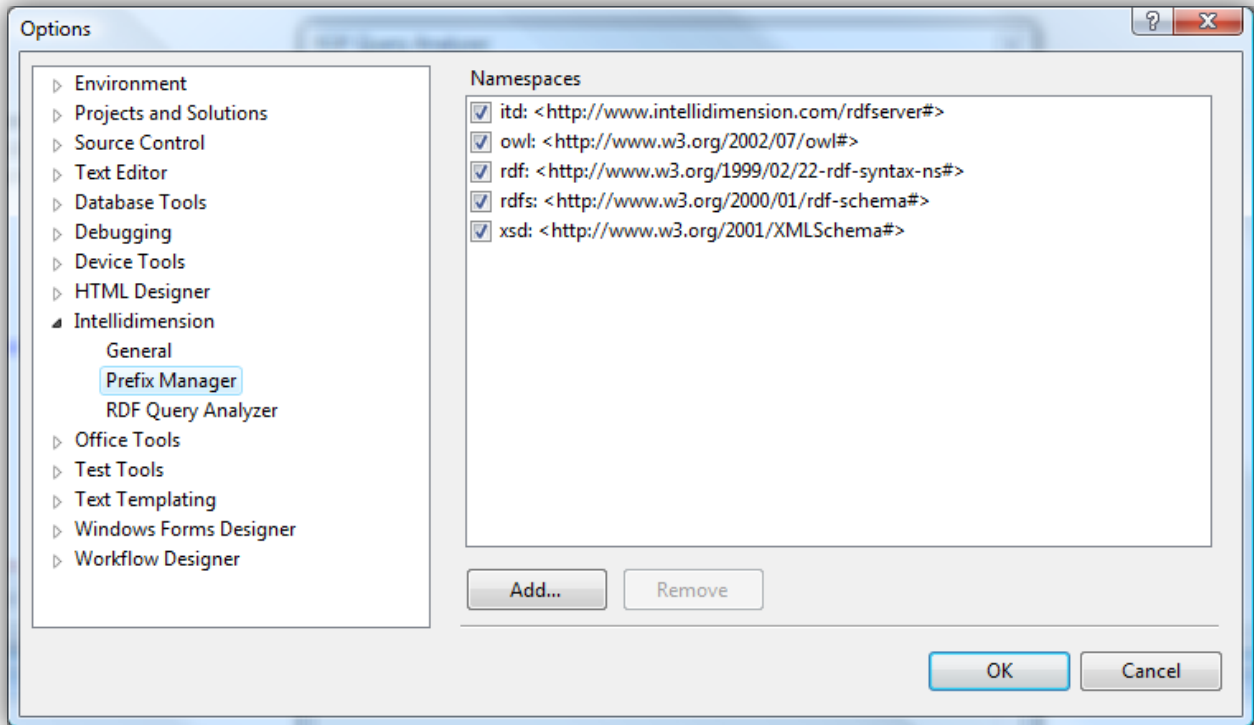
### 1.a. Options: General



This option pane contains configuration settings for logging and query execution. For each logging category, relevant messages will be printed to the Visual Studio **Output** window.

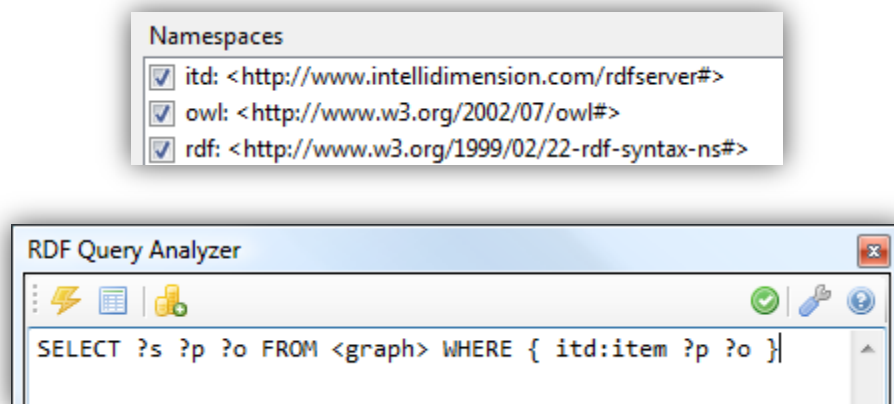
The **RDF Query Analyzer** and **Graph Debugging Visualizer** require a **Query Handler** in order to execute queries. To configure one, simply select a handler from the drop-down list and click the **Configuration** button.

## 1.b. Options: Prefix Manager

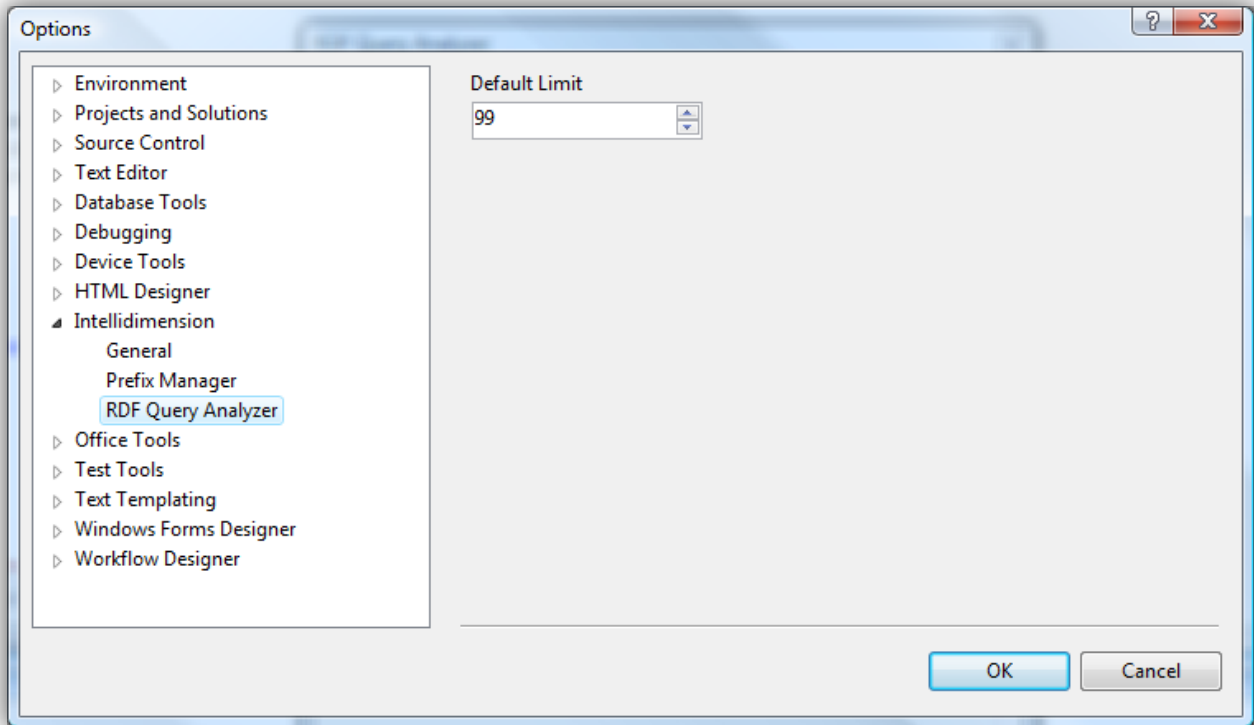


When working with SPARQL queries, it is often easier to simplify Uri references by using a prefix. The **Prefix Manager** is a collection of configurable prefixes that may be used in conjunction with the **RDF Query Analyzer** or **Graph Debugging Visualizer**.

After configuring a prefix, it may be used in a SPARQL query as shown below:



### 1.c. Options: RDF Query Analyzer



The **Default Limit** specifies the maximum number of results to display when executing a SPARQL query via the **RDF Query Analyzer** or **Graph Debugging Visualizer**. This value can be overridden on a per-query basis by using the **LIMIT** clause. For example, the following query will override the **Default Limit** value:

```
SELECT ?s ?p ?o
FROM <http://www.intellidimension.com/data>
WHERE {?s ?p ?o}
LIMIT 23
```



## 2. RDF Objects

An **RDF Object** is a databindable .NET object that can be used to store and manipulate semantic data. **RDF Objects** are created by consuming an ontology and using it to auto-generate .NET classes.

### Steps to Create RDF Objects

1. In **Visual Studio** with **Semantics.SDK Tools** installed, right-click your **VB.NET** or **C#** project.
2. Click the **Add** sub-menu.
3. Click **New Item**.
4. In the **Add New Item** dialog, select **RDF Objects**.
5. Enter an appropriate **Name** for the generated code file.
6. Click **Add**.
7. In the **Add RDF Objects** dialog, click **Add**.
8. Enter the **Uri** of an ontology.
  - a. *To load the ontology directly from the specified **Uri**, skip to [Step 11](#).*
  - b. *To load the ontology from an alternate location, go to [Step 9](#).*
9. Click the **Retrieve from alternative location** checkbox.
10. Specify the **Location** of the ontology by either clicking the browse (...) button or by manually entering a path in the textbox.
11. Click **OK**.
  - a. *If the ontology imports other ontologies, they will appear in the list under the loaded ontology (colored in **grey**); but will not be automatically loaded (to load, see [Step 12](#)).*
  - b. *To add additional ontologies, go to [Step 7](#); otherwise, proceed to [Step 12](#).*
12. To load an ontology, select the **Ontology Uri** and click **Load**.
13. To unload an ontology, select the **Ontology Uri** and click **Unload**.
14. To edit an ontology, select the **Ontology Uri** and click **Edit**.
15. To remove an ontology from the list, select the **Ontology Uri** and click **Remove**.
16. Configure the **Always capitalize property names** option.
17. Configure the **Ignore default properties and classes** option.
18. Click **Review**.
19. In the **Review Ontology Objects** dialog, correct all naming conflicts (highlighted in **red**).
  - a. *To edit a name, either click the name and click **Edit**, or simply double-click the name.*
20. In the **Review Ontology Objects** dialog, click **OK**.
21. In the **Add RDF Objects** dialog, click **OK** to generate the objects.

### 3. RDF Query Analyzer

The **RDF Query Analyzer** allows you to execute SPARQL queries against a **Semantics.Server** database using the configured **Query Handler** (see [1.a. Options: General](#)). Before executing a query, an icon will appear in the top-right corner of the window indicating the validity of the query (  or  ).


#### Steps to Access the RDF Query Analyzer:

1. In **Visual Studio** with **Semantics.SDK Tools** installed, click **View** in the menu bar.
2. Click the **Other Windows** sub-menu.
3. Click **Intellidimension RDF Query Analyzer**.

### 4. Graph Debugging Visualizer

While debugging, you can query a **DataSource** object in-memory by using the **Graph Debugging Visualizer**. The visualizer can be used while stepping through code, allowing you to interact with a **DataSource** as it changes over the life of the application.

#### Steps to Access the Graph Debugging Visualizer

1. In **Visual Studio** with **Semantics.SDK Tools** installed, execute your code in **Debug** mode.
2. **Pause** code execution with a **Breakpoint** or other debugging mechanism.
3. **Hover** your cursor over the **DataSource** object you wish to query.
4. Click the **Magnifying Glass** (  ) that appears in the **DataSource's** overlay box.