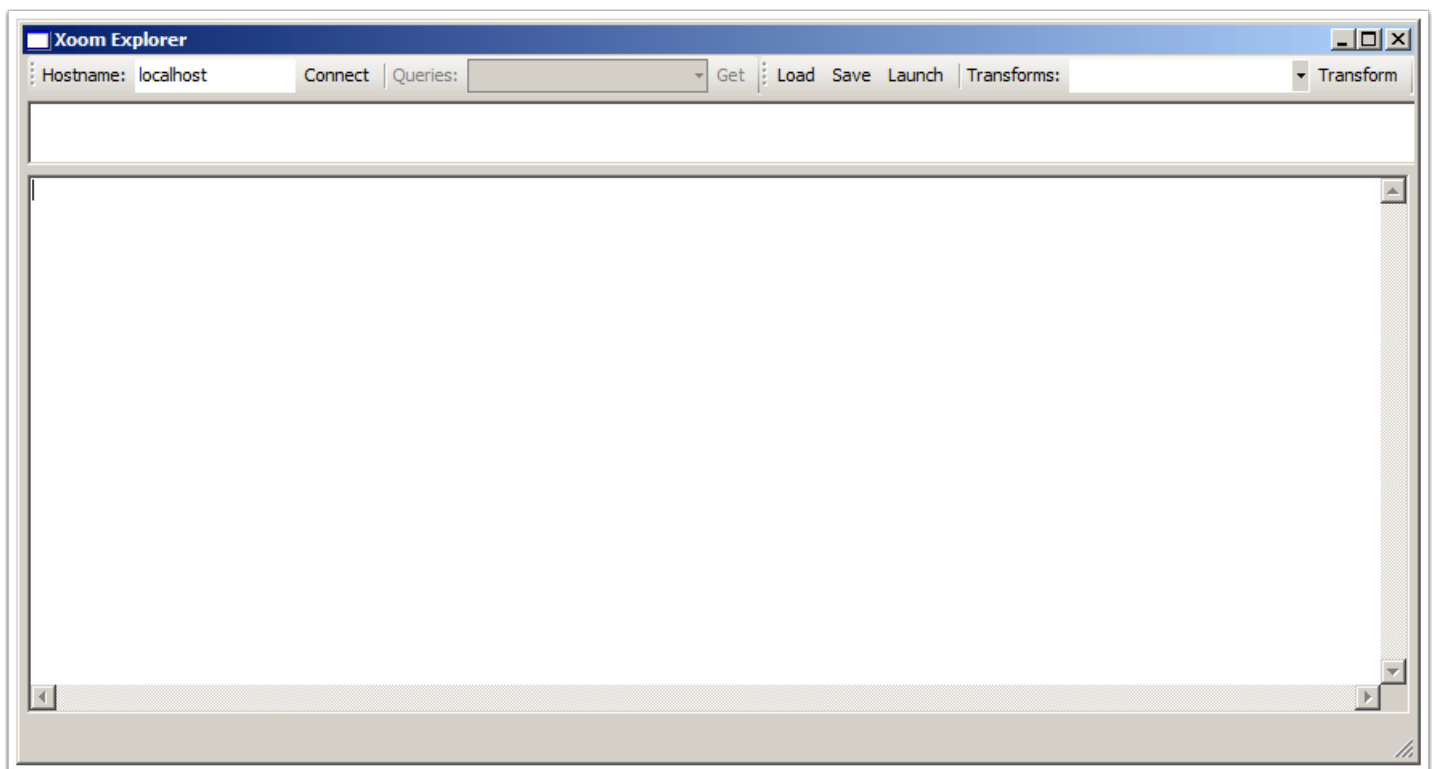## Xoom configuration reporting overview

Xoom Explorer is a powerful tool for general-purpose XML exploration and transformation. The data it operates on can either be retrieved from a Xoom server to which the tool connect interactively, or loaded from previously saved Xoom files. Its results can be saved or opened in a registered application depending on the type of the result.
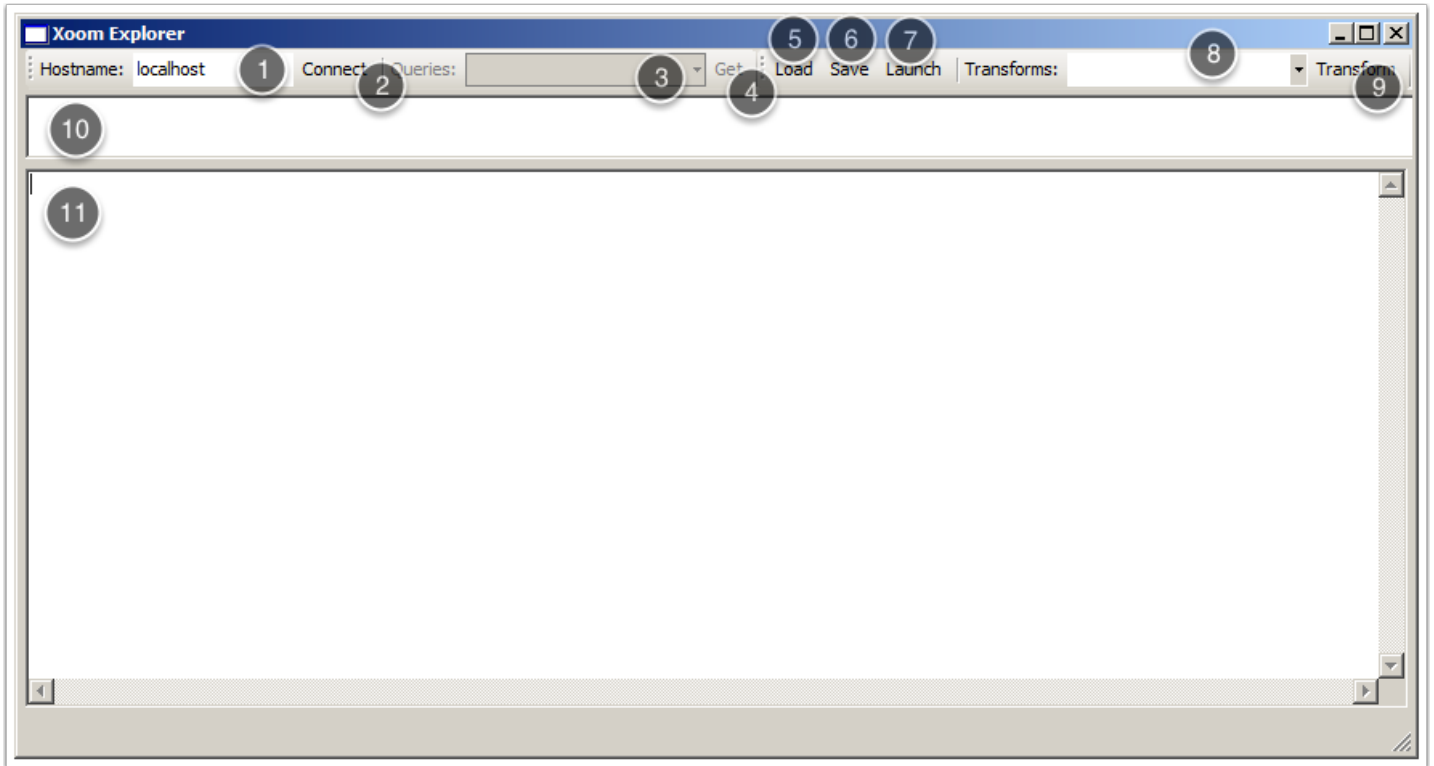
Xoom reporting works in this context. Reports are implemented as XSL transformations, a standard way of transforming XML files, in this case Xoom configuration, into other XML files, in this case an XML dialect called XHTML that can be opened in a web browser or, when in tabular form, in spreadsheet applications such as Microsoft Excel.
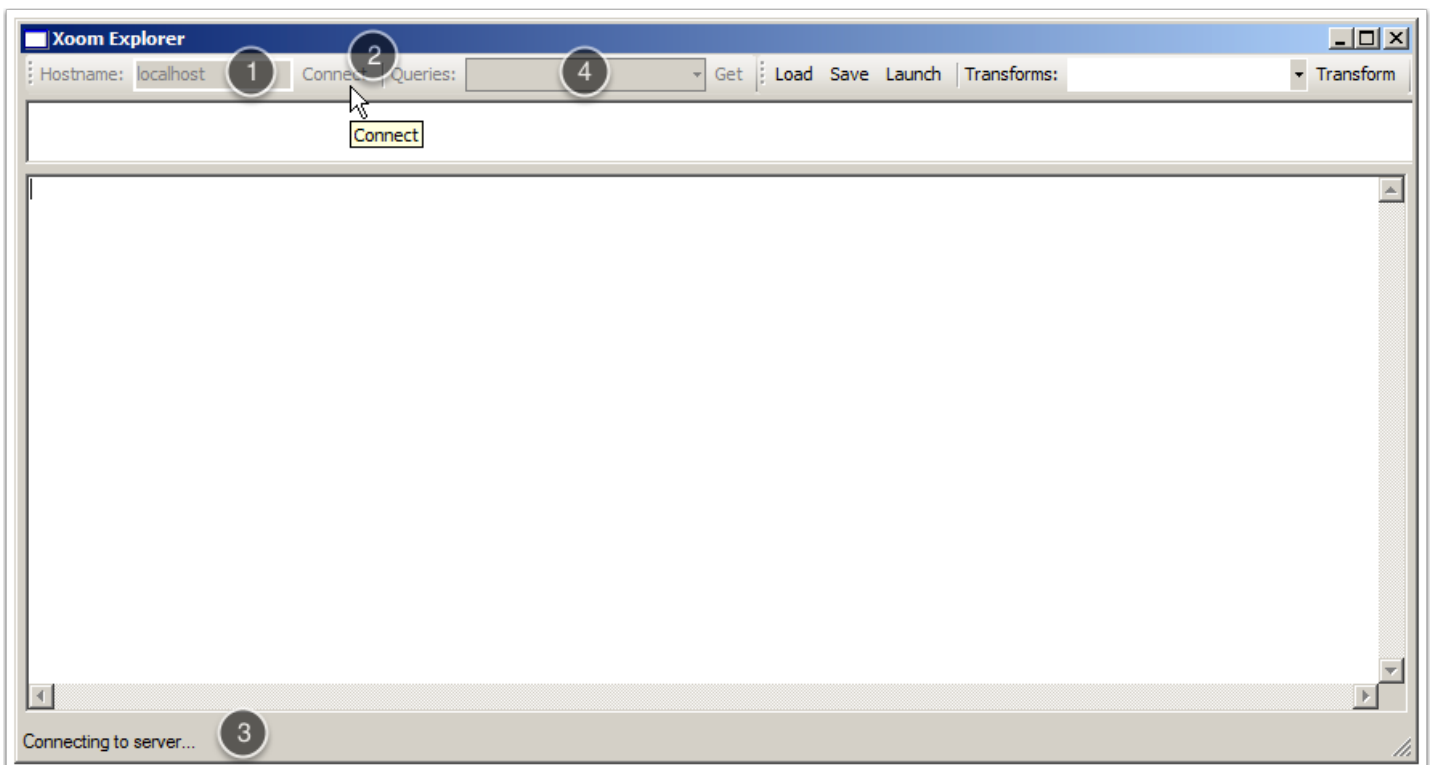
Xoom Explorer UI overview

Xoom Explorer user inteface has the following components:

1. A text box that specifies a hostname of the Xoom server to which the tool connects.
2. Connect button connects to the Xoom server, and loads the named queries available on the server.
3. A drop-down of queries allows the user to specify which query to use to retrieve the data from the Xoom server.
4. Get button triggers the retrival of the data from the Xoom server to which the tool is connected using the selected query.
5. Load button opens the standard Open dialog box and allows the user to select an XML file to load into the tool.
6. Save button opens the standard Save dialog box and allows the user to specify where to save the contents of the result pane (11).
7. Launch button saves the contents of the result pane (11) into a Temp folder in Xoom folder, and opens the resulting file using the default application. Before saving, the tool automatically detects whether the file is a generic XML file or an XHTML file, which in term determines whether the file will be opened using an XML viewer or a web browser.
8. Transforms drop-down lists all XSL transformations defined in the Reports folder inside the Xoom folder.
9. Transform button triggers the selected XSL transformation on the original XML data loaded either from Xoom or from a file. If the result pane (11) contains transformed contents, those contents will be ignored.
10. XPath box allows the user to interactively enter XPath queries of any complexity to explore the original Xoom file. The background indicates whether the XPath query is invalid (red), or whether there are any (green) or no (white) valid results of the query. If there are results, then their number is reported in the status bar.
11. Result pane displays the retrieved or loaded Xoom data, the result of the transformation after clicking on (9), or the result of the XPath query after entering the query into XPath box (10).
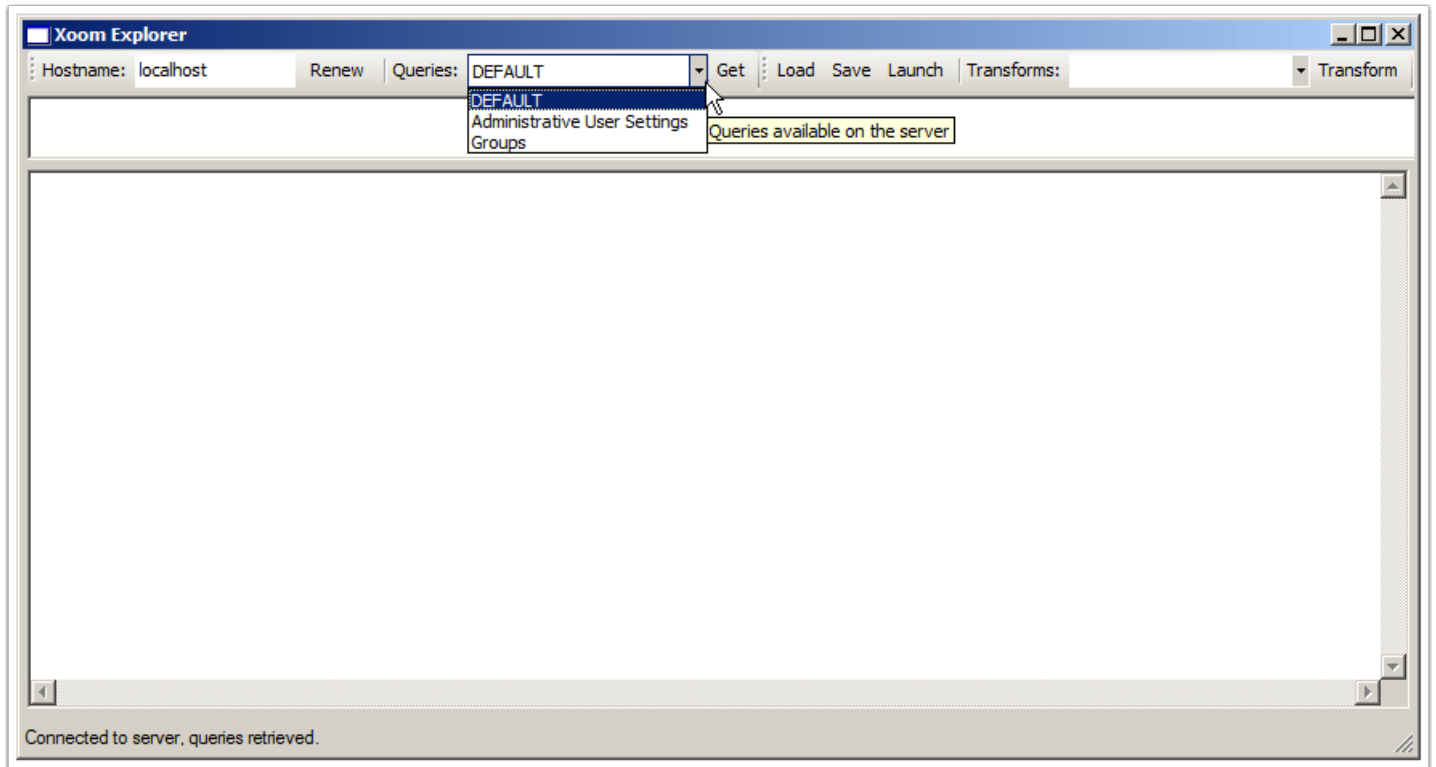
Connection to Xoom server

In order to connect to a Xoom server, we enter the server name in Hostname text box (1), and click Connect (2). This will start the connection process, as reported in the status bar (3). If the connection is successful, the list of named queries (4) will be populated.
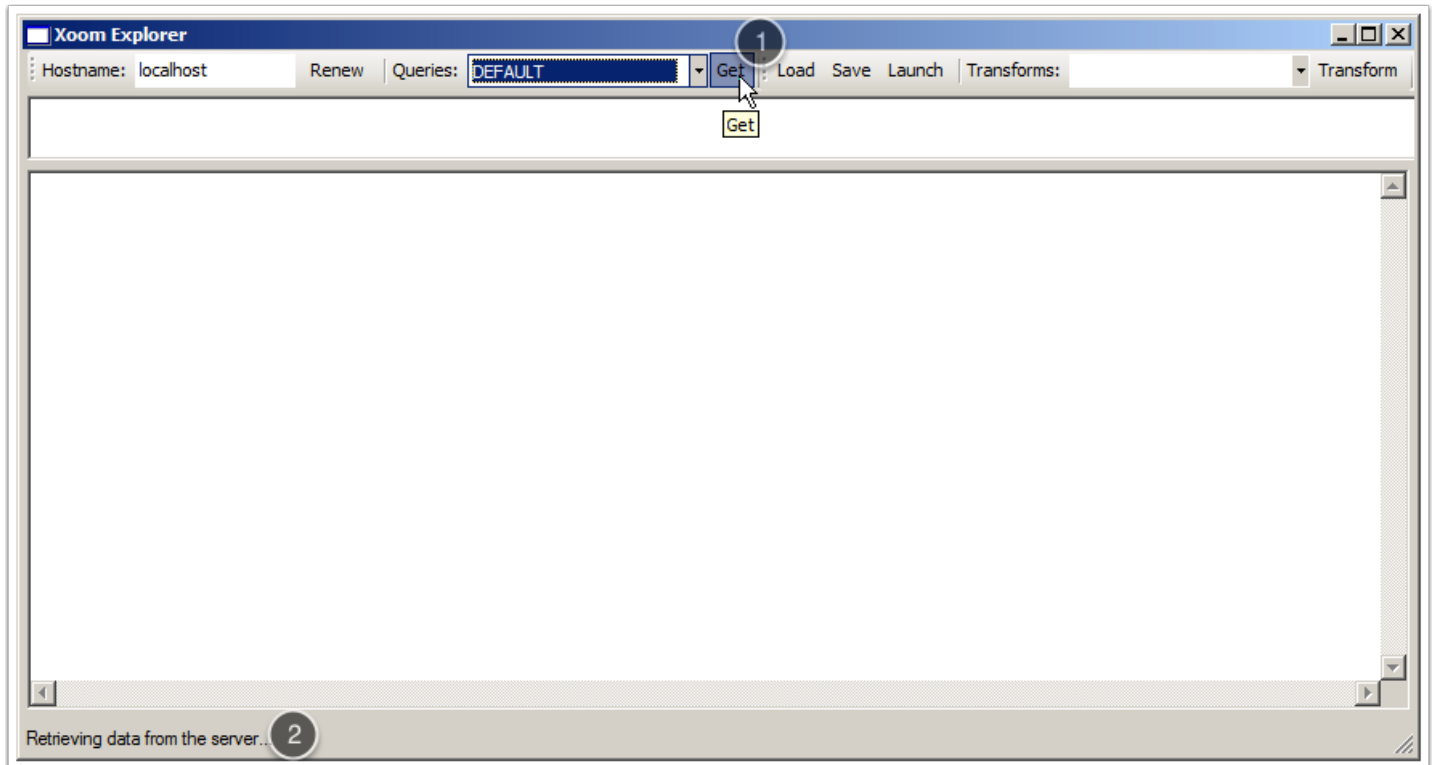
Selecting a query for data retrieval

Any number of queries can be defined on a Xoom server. The queries will retrieve different parts of the configuration. Typically, the installation will be customised in such a way that a query called DEFAULT will be suitable for most reporting purposes, in particular with built-in reports. The use of other queries may be required by custom reports.
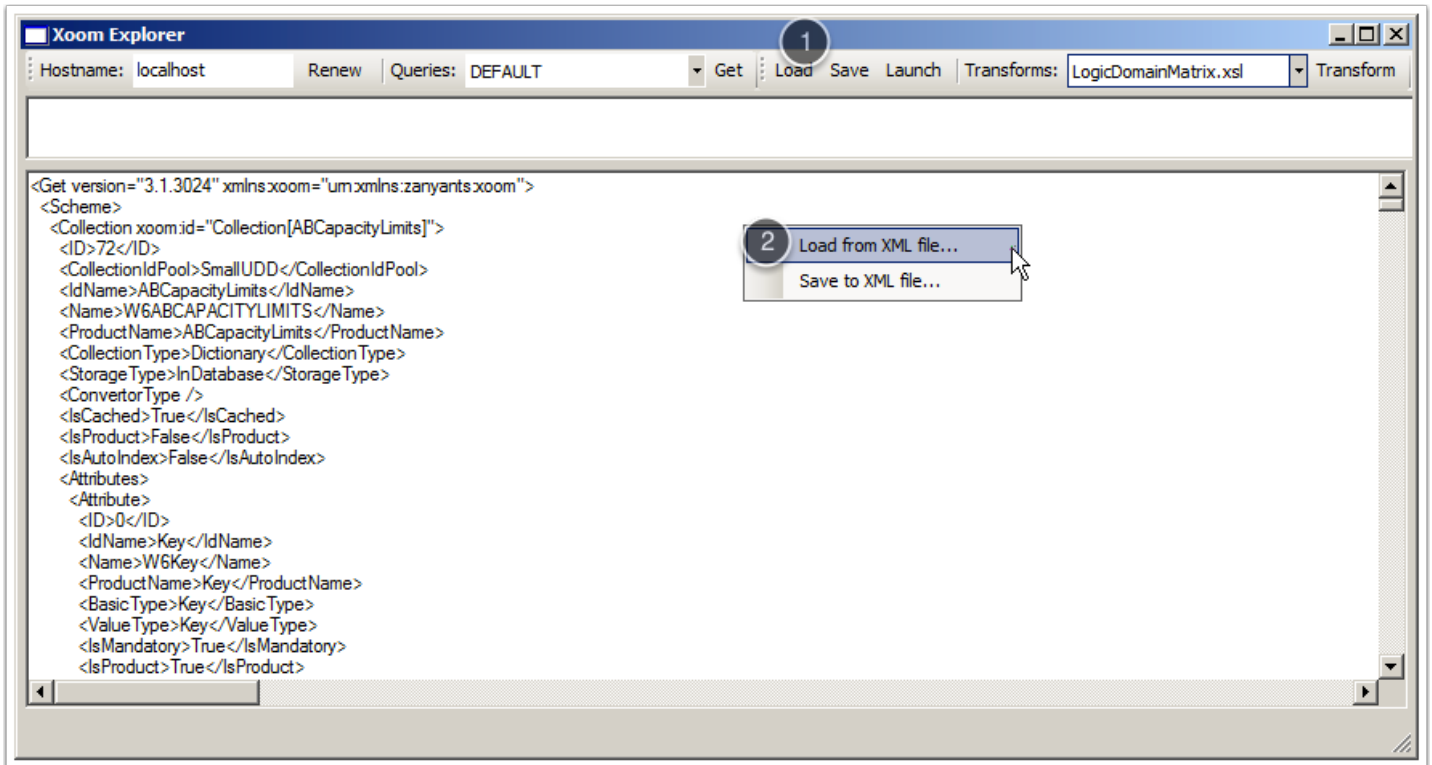
Retrieving the data from a Xoom server

Once a suitable query has been selected, we click Get (1) to trigger the retrieval of data from the Xoom server to which the tool is connected. Status bar (2) reports that the retrieval is taking place.
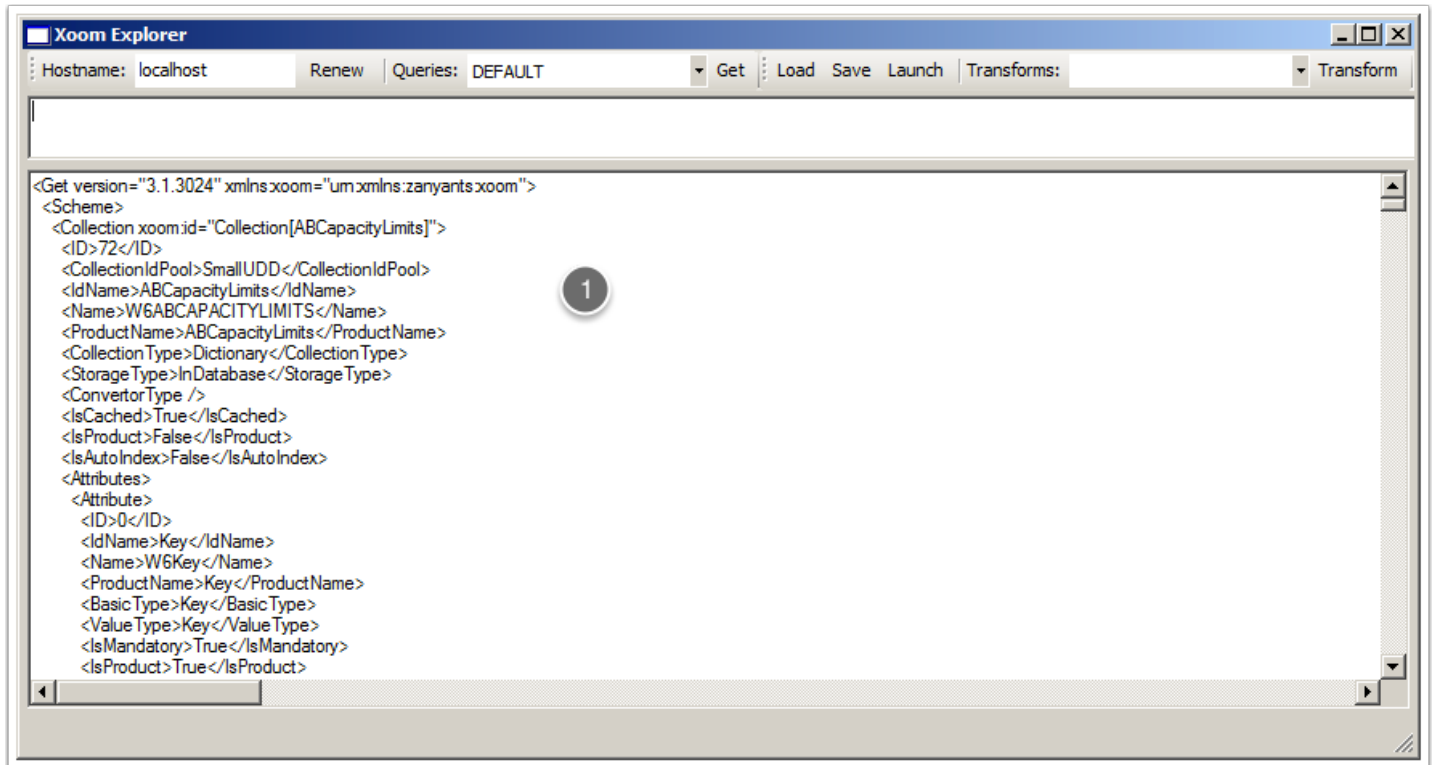
Loading the data from a file

Connecting to a Xoom server is not the only means of data retrieval for exploration or reporting. The data can also be loaded from a previously saved Xoom file, either by clicking the Load button (1), or by right-clicking in the result pane and selecting "Load from XML file..." from the context menu (2). In both cases, the standard Open dialog box will open, allowing the user to select the file to load.
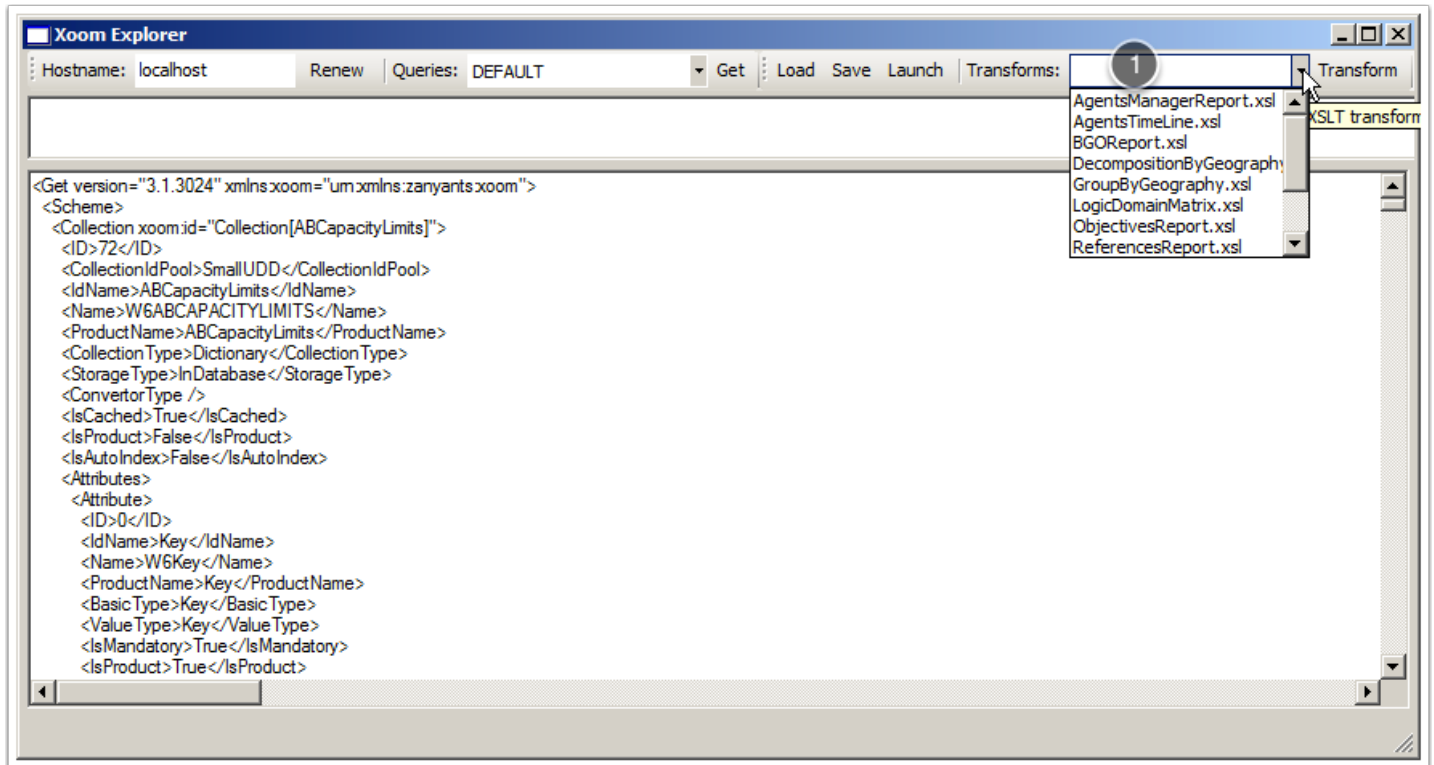
The information has been loaded...

Regardless of the source of data (a Xoom server or a file), the Xoom data will be shown in the result pane (1) after the load. This is the data that will be subject to all transformation (reporting) or XPath queries.
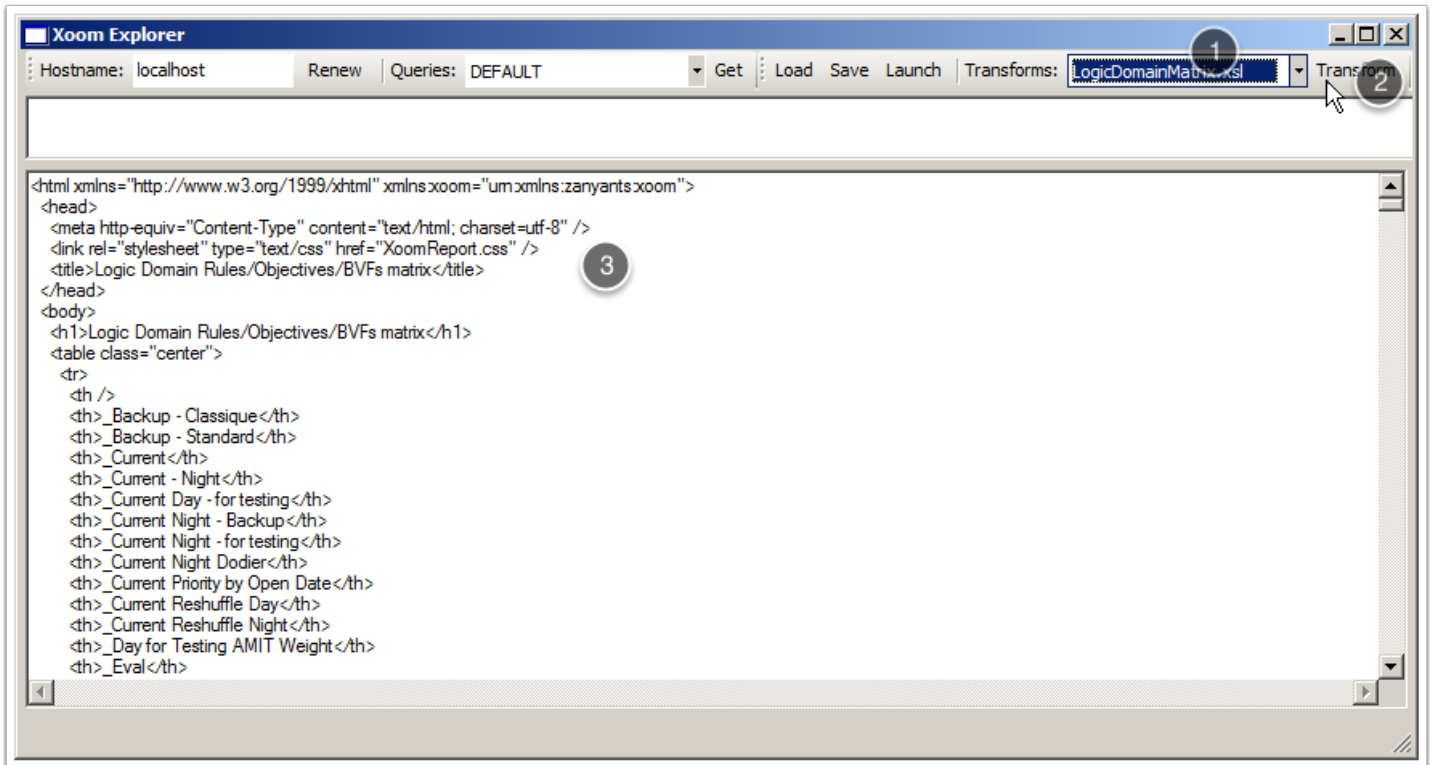
Selecting the report

The reports are listed in the Transform drop-down box (1). The box contains all XSL files located in the Reports folder inside the Xoom folder, which makes it very easy to add custom reports by simply copying the relevant XSL file there.

Producing the report by transforming the Xoom data

Once the right report has been selected (1), the user clicks on Transform (2) in order to produce the report data, which will be displayed in the result pane (3). In this case, a logic domain matrix was selected, and an expert user can see that the result is an XHTML file that can be displayed in a web browser.

Displaying or saving the report

Once the report has been produced, we have the following options:

- We can click Launch (1), which will save the report in a temporary file and open it, typically in a web browser when XHTML reports are in question. This is a suitable option for interactive exploration, but is not as suitable for saving the reports as it requires the user to manually look for the file in order to rename it.
- We can click Save (2), which will open the standard Save dialog and allow the user to save the file under a suitable name in a suitable location. The resulting file can then be opened in a web browser, XML editor or, quite often with Xoom reports, in Excel.

Once the report has been launched or saved, another report can be selected and transformed without the need to reload the Xoom data. All transformations will work on the data that was loaded, not on the transformed results. The result pane will be updated to reflect the result of the latest transformation.