

Autotag User-Defined Tag Guide

What Are User-Defined Tags?

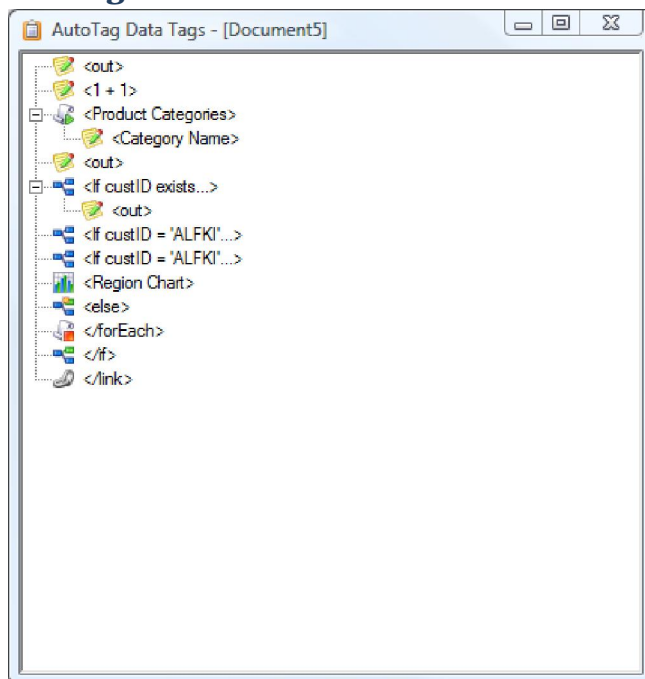
User-defined tags (UDTs) include individual tags, sets of tags, and entire tables that can be defined once, and reused in any number of templates, any number of times. The power of user-defined tags is that they provide a way for Windward template developers to *create templates without having to create tags or queries* at all. This improves report design time in two ways: 1) template developers spend less time constructing queries, and 2) template developers spend less time trying to remember how to create a particular report construct such as a table of financial data or a conditional agreement clause.

The user-defined tag data is provided to Autotag in the form of an XML file that defines all of the tags and the associated data-source connection information. A programmer or IT person can make the definition file from scratch, or any user can generate one from an existing Windward template by clicking **Create Tags** in the Autotag menu. Then the template developer simply clicks **Load Tags** in the Autotag menu, and selects the XML definition files.

Using User-Defined Tags

After user-defined tags are loaded into a template via Autotag, users may view the tags in the **User Tags** window (Autotag > Tags > User Tags). Users who are familiar with the **Data Bin** will notice that the **User Tags** window works very much like the **Data Bin** window does.

User Tags Window:



To insert a user-defined tag into the Windward template, the user simply drags the tag from the **User Tags** window into the desired location in the template. Then the Windward tags and tables will automatically be generated in the template and can be edited and formatted as usual.

Creating Definition Files for User-Defined Tags (UDTs)

Generating UDT Definition Files in Autotag

Generating **definition files** for UDTs from Autotag is easy. First, open the template that you want to generate tags from. Then, click **Create Tags** (Autotag > Data > Data setup > Create Tags), and save the UDT definition file. To make use of the UDT definition file in a Windward template, click **Load Tags** (Autotag > Data > Load Tags), and open the UDT definition file.

Creating & Editing UDT Definition Files Manually

The remainder of this guide is for programmers/IT personnel who need to edit or create new UDT definition files.

The root of the UDT XML definition file is the <windward-user-tags> tag. There are two major sections within the <windward-user-tags> tag – the *data-sources* section, and the *tags* section. The data-sources section is contained in the <datasources> tag. Each data-source is defined by the <xml /> tag for XML data-sources, and the <sql/> tag for SQL data-sources.

UDT Data-sources Section Example:

```
<datasources>
  <xml url="C:\Users\tomasr.WINDWARD\Documents\AutoTag\Northwind.xml" />
</datasources>
```

The tags section is contained in the <tags> tag. Each child of the <tags> tag defines either a Windward tag or a table.

UDT Tags Section Example:

```
<tags>
  <out select="/ROOT/Orders/OrderID">
    <table name="table 1" description="table 1 description">
      ...
    </table>
    <forEach var="categories" select="/ROOT/Categories">
      ...
    </forEach>
</tags>
```

Entire UDT Definition File Example:

```
<?xml version="1.0" encoding="utf-8"?>
<windward-user-tags>
  <datasources>
    <xml url="C:\Users\tomasr.WINDWARD\Documents\AutoTag\Northwind.xml" />
  </datasources>
  <tags>
    <out select="/ROOT/Orders/OrderID">
      <table name="table 1" description="table 1 description">
        ...
      </table>
    <forEach var="categories" select="/ROOT/Categories">
      ...
    </forEach>
  </tags>
</windward-user-tags>
```

For more details on the UDT definition file, see *UDT Definition File Reference*.

UDT Definition File Reference

Data-sources Section

Data-source Specification: <datasources> Tag

The data sources section is specified in the <datasources> tag, and it contains one or more XML and/or SQL connection information declarations. These declarations are specified in the <xml/> or <sql/> tags.

<datasource> Tag Example:

```
<datasources>
  <xml .../>
  <sql .../>
</datasources>
```

XML Connection Information: <xml/> Tag

XML connection information is specified in an <xml/> tag. One <xml/> tag may be included in the <datasources/> tag for each XML data-source.

<xml/> Tag Example:

```
<xml url="C:\Users\tomasr.WINDWARD\Documents\AutoTag\Northwind.xml" />
```

SQL Connection Information: <sql/> Tag

SQL connection information is specified in an <sql/> tag. One <sql/> tag may be included in the <datasources/> tag for each SQL data-source.

<sql/> Tag Example:

```
<sql datasource="Northwind" provider-class="System.Data.SqlClient"
vendor="Sql Server" server="DBServer" database="NorthwindDB"
credentials="identity" />
```

Tags Section

Tag Specification: <tags> Tag

User-defined tags are specified in the tags section, within the <tags> tag. Each tag is specified in the appropriate XML tag: <out/> for the out tag, <forEach> for the forEach tag, <table> for table specifications.

<tags> Tag Example:

```
<tags>
  <out .../>
  <forEach>
    ...
  </forEach>
  <table>
    ...
  </table>
</tags>
```

Out Tag Specification: <out/> Tag

Pre-defined out tags can be specified using the <out/> tag. The query, data-source, and tag nickname can all be specified in this tag. Autotag users will see the nickname of the tag when viewing it in the **User Tags** window. If no nickname is specified, users will see "<out>".

<out/> Tag Example:

```
<out select="select CategoryName from Categories" datasource="Northwind"
nickname="&lt;Category Name&gt;" />
```

ForEach Tag Specification: <forEach> Tag

Pre-defined forEach tags can be specified using the <forEach> tag. The query, data-source, variable name, and tag nickname can all be specified in this tag. Autotag users will see the nickname of the tag when viewing it in the **User Tags** window. If no nickname is specified, users will see "<forEach>".

<forEach> Tag Example:

```
<forEach var="Categories" datasource="Northwind" select="select * from
Categories" nickname="&lt;Product Categories&gt;">
  <content>
    <text>optionally add text and/or tags under the content node</text>
  </content>
  <out value="{Categories.CategoryName}" datasource="Northwind"
nickname="&lt;Category Name&gt;" />
</forEach>
```

Table Specification: <table> Tag

Pre-defined tables can be specified using the <table> tag. The table is given a name and description. Autotag users will see the name of the table when viewing it in the **User Tags** window. They will also see the description of the table in the tool-tip for the table.

<table> Tag Example:

```
<table name="table 4" description="table 4 description">
  <row>
    <cell>
      <text>Customer</text>
    </cell>
    <cell>
      <text>Address</text>
    </cell>
    <cell>
      <text>Phone</text>
    </cell>
  </row>
  <row>
    <cell>
      <forEach var="customer" select="/ROOT/Customers">
        <content>
          <text>optionally add text and/or tags under the content
node</text>
          </content>
          <out select="\${customer.CompanyName}" />
        </forEach>
      </cell>
      <cell>
        <out select="\${customer.Address}" />
      </cell>
      <cell>
        <out select="\${customer.Phone}" />
      </cell>
    </row>
  </table>
```