

# Natural for Tamino

This document describes how to prepare Natural in order to use it with Tamino.

The following topics are covered:

- Preparing Tamino
  - Configuring Natural for Tamino Access
  - Authorization Aspects
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## Preparing Tamino

Natural accesses Tamino through HTTP requests. Therefore, Tamino must be set up with an HTTP server component as a connection to the X-Machine. This can be configured during the Tamino installation. See the Tamino *Installation* documentation for more details.

### Prerequisites:

See also *Database Access with Natural for Tamino* (in the *Natural Programming Guide*).

## Configuring Natural for Tamino Access

Configuring Natural in order to be able to access a Tamino database involves three important steps:

- Defining a new DBID.
- Defining the DBMS type "XML" for this DBID.
- Introducing a new parameter string for this DBID.

To be able to work with Natural for Tamino, you must modify the global configuration file.

### To modify the global configuration file

1. Invoke the Natural Configuration Utility.
2. Edit by selecting the path `Global Configuration File/DMBS Assignments` in the tree view. A dialog appears in which you must specify the DBID parameter.
3. Enter a new DBID under which you want to access the Tamino database in the **DBID** column. Valid DBIDs for Tamino access are from 1 to 65535.
4. Select the type `XML` in the **Type** column.
5. Enter a valid parameter string in the **Parameter** column. See the section *Parameter Strings for Tamino Access* for more information.

6. Save the global configuration file.

## Parameter Strings for Tamino Access

The parameter string for a Tamino database consists of the URL of the database server, the name of the database itself and the name of the collection which is to be accessed within this database.

The following is an example of a generic parameter string:

```
http://<hostaddress>/tamino/<dbname>/<collectionname>
```

Parameter Description:

Parameter	Description
<i>hostaddress</i>	The <i>hostaddress</i> is the address of the machine running the web server which communicates with Tamino.
tamino	The keyword <code>tamino</code> is used by the web server as an identifier to open a connection with Tamino.
<i>dbname</i>	The <i>dbname</i> is the name of your existing database on the Tamino database server.
<i>collectionname</i>	<p>The <i>collectionname</i> is the name of the collection within this database to be accessed from your Natural application.</p> <p>All database accesses are based on collection granularity and not on complete databases. If you want to access a different collection within the same database, you will have to add a separate DBID entry for this in the <code>NATCONF.CFG</code>, as described above.</p> <p>For more information on collections, see the <i>DDM Editor</i>.</p>

### Sample Parameter String

The following is an example of a valid XML database parameter string:

```
http://taminohost.xyz.com/tamino/employeedb/NATDemoData
```

## Authorization Aspects

Natural for Tamino supports the following methods of authorization as provided by Tamino:

- Non-authenticated authorization.
- Authorization using web server authentication.
- Authorization using the internal Tamino authentication.

For a detailed description of the authorization methods refer to the Tamino documentation.

If authorization is necessary, Natural for Tamino will ask for the required user and password combination. Alternatively, the user and password data can be provided in environment variables:

- The variables `XML_HTTP_USER` and `XML_HTTP_PASSWORD` are used for web server authentication.
- The variables `XML_DB_USER` and `XML_DB_PASSWORD` are used for the internal Tamino authentication.

Alternatively, the user and password data can be provided in the table **XML Authorization** in the global configuration file. Here a DBID specific setting is possible. Please refer to the *Configuration Utility* documentation.

When using the environment variables for authorization, each connection to a Tamino database will be established with the same pair of user and password. If different users and passwords should be provided for different DBIDs then the usage of the **XML Authorization** table in the global configuration file or the interactive prompting are recommended.