



BEA WebLogic Server®

WebLogic Tuxedo Connector Quick Start Guide

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WebLogic Tuxedo Connector Quick Start Guide

Note: For more detailed information on how to configure the WebLogic Tuxedo Connector for this WebLogic Server Release, see the *WebLogic Tuxedo Connector Administration Guide* at http://e-docs.bea.com/wls/docs91/wtc_admin/index.html.

The following sections describe how to use the WebLogic Server console to configure WebLogic Tuxedo Connector to allow WebLogic Server to interoperate with Tuxedo Releases 6.5 and higher:

- [Where to Find WebLogic Tuxedo Connector Samples](#)
- [Configuring the WebLogic Tuxedo Connector](#)
- [Configuring Tuxedo](#)
- [Run the Example](#)

Where to Find WebLogic Tuxedo Connector Samples

For this release of WebLogic Tuxedo Connector (WTC), samples are available on the BEA dev2dev website under Code Share. Create a `wtc` directory within the samples directory of your WebLogic Server installation. Download the WTC samples to this directory. To run the samples referenced in this document, you must download the `simpapp` and `simpserv` samples from the WebLogic Server 9.0 Code Share postings.

<http://tuxedo-connector.projects.dev2dev.bea.com/>

Configuring the WebLogic Tuxedo Connector

Note: This section summarizes how to configure the WebLogic Tuxedo Connector on a Windows platform. UNIX users can adapt the instructions by making appropriate substitutions such as replacing the “\” with “/” and “.cmd” with “.sh”.

This example extends the Tuxedo `simpapp` application to run over Tuxedo Domains (TDomains). This allows clients of the `TOUPPER` service to run on either the Tuxedo server or the WebLogic Server `examplesServer`. The example provides the following services:

- `TOUPPER`: A Tuxedo service that converts a string to upper case. A WebLogic Server client invokes the `TOUPPER EJB` and connects to the Tuxedo `TOUPPER` service.
- `Tolower`: A service implemented by an EJB in WebLogic Server. The client for the `Tolower` service runs on Tuxedo.

The following sections describe how to configure WebLogic Tuxedo Connector using the Administration Console:

- [Build the Simpapp Example](#)
- [Create a WTC Service](#)
- [Create a Local Tuxedo Access Point](#)
- [Create a Remote Tuxedo Access Point](#)
- [Create Exported Services](#)
- [Create Imported Services](#)
- [Target mySimpapp to the examplesServer](#)
- [Register TDOM1 as a WebLogic Server User](#)

Build the Simpapp Example

Note: You may want to enable tracing to monitor WebLogic Tuxedo Connector. See [Monitoring the WebLogic Tuxedo Connector located at http://e-docs.bea.com/wls/docs91/wtc_admin/troubleshooting.html](http://e-docs.bea.com/wls/docs91/wtc_admin/troubleshooting.html).

Use the following steps to build the `simpapp` example:

1. Boot your WebLogic `examplesServer`.

2. Open a new shell window and set environment variables using the `SAMPLES_HOME\domains\examples\setExamplesEnv.cmd` file.
3. Change directories to the location where you have downloaded the simpapp sample. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory.
4. Build the `wtc_toupper.jar` file using ant. This will deploy the EJB on WebLogic Server. Enter the following command: `ant`
5. Change directories to the location where you have downloaded the simpserv sample. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpserv` directory.
6. Build the `wtc_tolower.jar` file. This will deploy the EJB on WebLogic Server. Enter the following command: `ant`
7. Launch the Administration Console in your browser. Use the following URL:
`http://your_machine:7001/console`. Replace *your_machine* with the IP address for your machine or your machine name.
8. In the navigation tree, Click Deployments and confirm that the `wtc_tolower.jar` and `wtc_toupper.jar` are deployed.

Create a WTC Service

Use the following steps to create and configure a WTC service using the WebLogic Server Console:

1. Expand Interoperability and select WTC Servers in the navigation tree.
2. On the WTC Servers page, click New.
3. On the Create a New WTC Server page, enter the name of your WTC Service in the Name field. Example: `mySimpapp`
4. Click OK.
5. Your new WTC Service appears in the WTC Servers list.

Create a Local Tuxedo Access Point

Note: When configuring the Network Address for a local access point, the port number used should be different from any port numbers assigned to other processes. Example: Setting the Network Address to `//mymachine:7001` is not valid if the WebLogic Server listening port is assigned to `//mymachine:7001`.

Use the following steps to configure a local Tuxedo access point:

1. In the Administration Console, expand Interoperability and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as `mySimpapp`, to access the settings page.
3. Click the Local APs tab.
4. Enter the following values for the following fields on the WTC Local Access Points page:
Access Point: `myLocalAp`
AccessPoint ID: `TDOM2`
Network Address: *the network address and port of your local access point*
Example: `//123.123.123.123:5678`
5. Click OK.
6. If you are connecting to a Tuxedo 6.5 domain, do the following:
 - a. Click the Connections tab.
 - b. Set the Interoperate field to `Yes`.
 - c. Click Save.

Create a Remote Tuxedo Access Point

Use the following steps to configure a remote Tuxedo access point:

1. In the Administration Console, expand Interoperability and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as `mySimpapp`.
3. Click the Remote APs tab.
4. Enter the following values for the following fields on the WTC Remote Access Points page:

Access Point: myRemoteAP

AccessPoint ID: TDOM1

Local Access Point: myLocalAp

Network Address: *the network address and port of your remote access point*

Example: //123.123.123.123:1234

5. Click OK.

Create Exported Services

Use the following steps to configure an exported service:

1. In the Administration Console, expand Interoperability and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as mySimpapp.
3. Click the Exported tab.
4. Enter the following values for the following fields on the WTC Exported Services page:

Resource Name: TOLOWER

Local Access Point: myLocalAp

EJB Name: tuxedo.services.TOLOWERHome

Remote Name: TOLOWER

5. Click OK.

Create Imported Services

Use the following steps to configure an imported service:

1. In the Administration Console, expand Interoperability and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as mySimpapp.
3. Click the Imported tab.
4. Enter the following values for the following fields on the WTC Imported Services page:

Resource Name: TOUPPER

Local Access Point: myLocalAp

Remote Access Point List: myRemoteAP

Remote Name: TOUPPER

5. Click OK.

Target mySimpapp to the examplesServer

1. In the Administration Console, expand Interoperability and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as mySimpapp.
3. Click the Targets tab.
4. Click the checkbox for the examplesServer.
5. Click Save.

Register TDOM1 as a WebLogic Server User

Use the following steps to register TDOM1 as a WebLogic Server user:

1. Click Security Realms in the navigation tree.
2. Click myRealm.
3. Click on Users and Groups tab.
4. Click Users.
5. Click Lock & Edit.
6. Click New.
7. In the Create a New User page, do the following:
 - a. Add TDOM1 in the Name field.
 - b. Enter and confirm a password.
 - c. Click OK.
8. Click Release Configuration.

Configuring Tuxedo

Use the following steps to configure your Tuxedo domain:

1. Your PATH environment variable needs to include the path of your C compiler. Use set PATH to check the status and add the path if necessary.
2. Copy the `simpapp` example from your Tuxedo installation and create a working Tuxedo `simpapp` directory.
3. Change directories to your working Tuxedo `simpapp` directory.
4. Set environment variables using the `setEnv.cmd` located at TUXDIR. Update the following parameters:

TUXDIR - base directory of the TUXEDO Software

APPDIR - base directory of the sample program

5. Build the clients:

```
buildclient -o simpcl -f simpcl.c
```

```
buildserver -o simpserv -f simpserv.c -s TOUPPER
```

6. Copy the `ubbdomain` and `domlconfig` files from the `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory to your Tuxedo `simpapp` directory.
7. Copy the `tolower.c` file from the `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpserv` directory to your Tuxedo `simpapp` directory.
8. Modify the `ubbdomain` for your Tuxedo environment. This includes setting the pathnames for APPDIR, TUXCONFIG, and TUXDIR and setting the machine name. Replace all <braced> items with information for your environment.

Example:

```
APPDIR=" \home\me\simpapp"
```

```
TUXCONFIG=" \home\me\simpapp\tuxconfig" "
```

```
TUXDIR=" \usr\tuxedo"
```

9. Load the `ubbdomain` file: `tmloadcf -y ubbdomain`
10. Modify the `domlconfig` for your Tuxedo environment. This includes creating log devices and updating the network addresses.

Example:

```
DMTLOGDEV="d:\my_apps\tlog"  
AUDITLOG="d:\my_apps\aud"  
TDOM1 NWADDR="//TuxedoMachine:1234"  
TDOM2 NWADDR="//WTCMachine:5678"
```

11. Load the dom1config file.

```
set BDMCONFIG=d:\mydomain\simpapp\bdmconfig  
dmloadcf -y dom1config
```

12. Build the tolower client

```
buildclient -f tolower.c -o tolower
```

13. Boot the Tuxedo domain

```
tmboot -y
```

Run the Example

Run each client to demonstrate interoperability between Tuxedo and WebLogic Server.

WebLogic Server to Tuxedo Interoperability

Start a WebLogic Server client from the directory location to which you downloaded the samples. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory to invoke the `TOUPPER EJB` and connect to the Tuxedo `TOUPPER` service. Use the following command:

```
ant simpapp
```

The Tuxedo service replies to your WebLogic Server application with:

```
Buildfile: build.xml  
simpapp:  
run_client:  
[java] Beginning statefulSession.Client...  
  
[java] Creating Toupper  
  
[java] converting HelloWorld  
[java] converted to: HELLOWORLD
```

```
[java] End statefulSession.Client...
```

```
BUILD SUCCESSFUL
```

Tuxedo to WebLogic Server Interoperability

Run the `tolower` client from the Tuxedo `simpapp` directory to invoke the Tolower EJB and return the results to the client. Use the following command:

```
tolower ALLSMALL
```

The WebLogic Server service replies to your Tuxedo client with:

```
Returned string is: allsmall
```

