



# 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 Programmer's Guide* at [http://e-docs.bea.com/wls/docs81/wtc\\_admin/index.html](http://e-docs.bea.com/wls/docs81/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:

- [Configuring the WebLogic Tuxedo Connector](#)
- [Configuring Tuxedo](#)
- [Run the Example](#)

## 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/docs81/wtc\\_admin/troubleshooting.html](http://e-docs.bea.com/wls/docs81/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 your `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 `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→ EJB Modules 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. Click Services in the navigation tree.
2. Right-click WTC.
3. Click Configure a New WTC Service.
4. Enter the Name of your WTC service in the Name field. Example: `mySimpapp`
5. Click Create.
6. Your new WTC Service appears in the navigation tree.

## 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. Click `mySimpapp` in the navigation tree.
2. Click the Contents tab.
3. Select Local APs and click Configure a new Local Tuxedo Access Point.
4. Enter the following values for the following fields on the General tab:

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 Create.
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 Apply.

## Create a Remote Tuxedo Access Point

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

1. Click mySimpapp in the navigation tree.
2. Click the Contents tab.
3. Select Remote APs and click Configure a new Remote Tuxedo Access Point.
4. Enter the following values for the following fields on the General tab:

Access Point: myRemoteAP

AccessPoint ID: TDOM1

Local Access Point: myLocalAp

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

Example: //123.123.123.123:1234

5. Click Create.

## Create Exported Services

Use the following steps to configure an exported service:

1. Click mySimpapp in the navigation tree.
2. Click the Contents tab.
3. Select Exported and click Configure a new Exported Service
4. Enter the following values for the following fields on the General tab:



Resource Name: `TOLOWER`

Local Access Point: `myLocalAp`

EJB Name: `tuxedo.services.TOLOWERHome`

Remote Name: `TOLOWER`

5. Click Create.

## Create Imported Services

Use the following steps to configure an imported service:

1. Click `mySimpapp` in the navigation tree.
2. Click the Contents tab.
3. Select Imported and click Configure a new Imported Service
4. Enter the following values for the following fields on the General tab:

Resource Name: `TOUPPER`

Local Access Point: `myLocalAp`

Remote Access Point List: `myRemoteAP`

Remote Name: `TOUPPER`

5. Click Create.

## Target `mySimpapp` to the `examplesServer`

1. Click `mySimpapp` in the navigation tree.
2. Click the Target and Deploy tab.
3. Click the checkbox for the `examplesServer`.
4. Click Apply

## Register `TDOM1` as a WebLogic Server User

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

1. Click Security in the navigation tree.

2. Click Realms.
3. Click myRealm.
4. Click on Users.
5. Click the Configure a new User.
6. In the General tab, do the following:
  - a. Add TDOM1 in the Name field.
  - b. Enter and validate a password.
  - c. Click apply.

## 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 `dom1config` 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 `dom1config` 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

`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 run
```

The Tuxedo service replies to your WebLogic Server application with:

```
Buildfile: build.xml
run:
[java]
[java] Beginning statefulSession.Client...
[java]
[java] Creating Toupper
[java]
[java] converting allcaps
[java] converted to: ALLCAPS
[java]
[java] End statefulSession.Client...
[java]
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
```