Copyright

Copyright © 2002 BEA Systems, Inc. All Rights Reserved.

Restricted Rights Legend

This software and documentation is subject to and made available only pursuant to the terms of the BEA Systems License Agreement and may be used or copied only in accordance with the terms of that agreement. It is against the law to copy the software except as specifically allowed in the agreement. This document may not, in whole or in part, be copied photocopied, reproduced, translated, or reduced to any electronic medium or machine readable form without prior consent, in writing, from BEA Systems, Inc.

Use, duplication or disclosure by the U.S. Government is subject to restrictions set forth in the BEA Systems License Agreement and in subparagraph (c)(1) of the Commercial Computer Software-Restricted Rights Clause at FAR 52.227-19; subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013, subparagraph (d) of the Commercial Computer Software--Licensing clause at NASA FAR supplement 16-52.227-86; or their equivalent.

Information in this document is subject to change without notice and does not represent a commitment on the part of BEA Systems. THE SOFTWARE AND DOCUMENTATION ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FURTHER, BEA Systems DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE, OR THE RESULTS OF THE USE, OF THE SOFTWARE OR WRITTEN MATERIAL IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

Trademarks or Service Marks


All other trademarks are the property of their respective companies.

WebLogic Tuxedo Connector Quick Start Guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Date</th>
<th>Software Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>December 9, 2002</td>
<td>BEA WebLogic Server Version 8.1 beta</td>
</tr>
</tbody>
</table>
## Contents

1. **WebLogic Tuxedo Connector Quick Start Guide**
   
   Configuring the WebLogic Tuxedo Connector ................................................. 1-1
   
   Set the TraceLevel...................................................................................... 1-2
   
   Build the Simpapp Example....................................................................... 1-3
   
   Create a WTCServer MBean...................................................................... 1-3
   
   Create a Local Tuxedo Domain ................................................................. 1-4
   
   Create a Remote Tuxedo Domain .............................................................. 1-4
   
   Create Exported Services ........................................................................... 1-5
   
   Create Imported Services ......................................................................... 1-5
   
   Deploy the WTCServer MBean ................................................................. 1-6
   
   Register TDOM1 as a WebLogic Server User........................................... 1-6
   
   Configuring Tuxedo ........................................................................................ 1-7
   
   Run the Example ........................................................................................... 1-8
   
   WebLogic Server to Tuxedo Interoperability ............................................ 1-9
   
   Tuxedo to WebLogic Server Interoperability .......................................... 1-9
CHAPTER 1 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 [docroot]/wtc_admin/index.html.

The following sections describe how 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 TDomains. This allows clients of the TOUPPER service to run on either Tuxedo 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:

- **Set the TraceLevel**
- **Build the Simpapp Example**
- **Create a WTCServer MBean**
- **Create a Local Tuxedo Domain**
- **Create a Remote Tuxedo Domain**
- **Create Exported Services**
- **Create Imported Services**
- **Deploy the WTCServer MBean**
- **Register TDOM1 as a WebLogic Server User**

## Set the TraceLevel

**Note:** For more information on TraceLevel, see Monitoring the WebLogic Tuxedo Connector located at http://e-docs.bea.com/wls/docs70/wtc_admin/Install.html.

TraceLevel is a WebLogic Server Property. Update the JAVA_OPTIONS variable in the SAMPLES_HOME\server\config\examples\startExamplesServer.cmd file.

Example:

```
JAVA_OPTIONS=-Dweblogic.wtc.TraceLevel=100000
```
where 100,000 specifies the maximum level of WebLogic Tuxedo Connector tracing.

Build the Simpapp Example

Use the following steps to build the simpapp example:

1. Boot your WebLogic examplesServer.
2. Open a new shell window and change directories to your SAMPLES_HOME\server\src\examples\wtc\atmi\simpapp directory.
3. Set environment variables using the SAMPLES_HOME\server\config\examples\setExamplesEnv.cmd file.
4. Build the wtc_toupper.jar file using ant. Enter the following command: ant
5. Change directories to the SAMPLES_HOME\server\src\examples\wtc\atmi\simpserv directory.
6. Build the wtc_tolower.jar file. Enter the following command: ant
7. Click Deployment→EJB and check to see that the wtc_tolower.jar and wtc_toupper.jar are deployed.

Create a WTCServer MBean

Use the following steps to create and configure a WTCServer MBean using the WebLogic Server Console:

1. Click the Services Node.
2. Right-click the WebLogic Tuxedo Connector Node.
3. Select Configure a New WTCServer.
4. Enter the Name of your WTCServer in the Name field. Example: mySimpapp
5. Click Create.
Create a Local Tuxedo Domain

Use the following steps to configure a local Tuxedo domain:

1. Right-click Local WLS Domains.
2. Select Configure a New WTCLocalTuxDom.
3. Enter the following values for the following fields on the General tab:
   - Access Point: TDOM2
   - AccessPoint ID: TDOM2
   - Network Address: <the network address and port of your WebLogic Server>
     Example: //123.123.123.123:5678
4. Click Create.
5. 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 Domain

Use the following steps to configure a remote Tuxedo domain:

1. Right-click Remote Tuxedo Domains.
2. Select Configure a New WTCRemoteTuxDom.
3. Enter the following values for the following fields on the General tab:
   - Access Point: TDOM1
   - AccessPoint ID: TDOM1
   - Local Access Point: TDOM2
   - Listen Address: <the network address and port of Tuxedo>
     Example: //123.123.123.123:1234
4. Click Create.

Create Exported Services

Use the following steps to configure an exported service:
1. Right-click Exported Services.
2. Select Configure a New WTCExport.
3. Enter the following values for the following fields on the General tab:
   - Resource Name: TOLOWER
   - Local Access Point: TDOM2
   - EJB Name: tuxedo.services.TOLOWERHome
4. Click Create.

Create Imported Services

Use the following steps to configure an imported service:
1. Right-click Imported Services.
2. Select Configure a New WTCImport.
3. Enter the following values for the following fields on the General tab:
   - Resource Name: TOUPPER
   - Local Access Point: TDOM2
   - Remote Access Point List: TDOM1
4. Click Create.
**Deploy the WTCServer MBean**

Use the following steps to deploy the WTCServer Mbean to examplesServer:

1. Click mySimpapp.
2. Click Targets.
3. Select examplesServer.
4. Click the right-arrow button.
5. Click Apply.

**Register TDOM1 as a WebLogic Server User**

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

1. Click on the Security node.
2. Click on Realms.
3. Select your default security Realm.
4. Click on Users.
5. Click the Configure a new User text link.
6. Click DefaultAuthenticator
7. 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 domlconfig files from the
   SAMPLES_HOME\src\examples\wtc\atmi\simpapp directory to your Tuxedo simpapp directory.

7. Copy thetolower.c file from the
   SAMPLES_HOME\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"
DMTLOGNAME="DMTLOG_TDOM1"
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 -v -f tolower.c -o tolower
```

13. Boot the Tuxedo domain

```
tmboot -y
```

14. Verify all processes have started using the `tmadmin psc` command. The following domain processes should have booted:

- DMADM, GWADM, and GWTDOMAIN
- The `TOUPPER` service offered by the simpserver server
- The `TOLOWER` service is offered by the GWTDOMAIN server

## 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\src\examples\wtc\atmi\simpapp` directory to invoke the `TOUPPER EJB` and connect to the Tuxedo `TOUPPER` service. Use the following command:

```
run.cmd allcaps
```

The Tuxedo service replies to your WebLogic Server application with:

```
Returned string is: ALLCAPS
```

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
```