

Java Sample Applications readme

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1.0 Introduction

The Java™ sample applications demonstrate how to build and load Java applications for the z/TPF system.

2.0 Change history

2017Jan27 Initial version
2018Oct19 Added repo_demo application

3.0 Prerequisites

APAR PJ43892 provides the required z/TPF support for Java.
APAR PJ44690 provides additional MakeTPF updates for Java.
APAR PJ45031 provides support for a new load indicator column in loadfiles.
APAR PJ45533 provides support for a local, layered Maven repository within z/TPF builds.

For more information about APAR PJ43892, see the APEDIT (<http://www.ibm.com/support/docview.wss?uid=swg1PJ43892>).

For more information about APAR PJ44690, see the APEDIT (<http://www.ibm.com/support/docview.wss?uid=swg1PJ44690>).

For more information about APAR PJ45031, see the APEDIT (<http://www.ibm.com/support/docview.wss?uid=swg1PJ45031>).

For more information about APAR PJ45533, see the APEDIT (<http://www.ibm.com/support/docview.wss?uid=swg1PJ45533>).

For more information about the software requirements for the Linux on z Systems environment, see the z/TPF product documentation in IBM Knowledge Center (<http://www.ibm.com/support/knowledgecenter/SSB23S>).

4.0 Installation

- 1) Use FTP to transfer the tar file (java_sample_apps.tar.gz) to your Linux on z system. This file can be placed in any directory as a holding location.
For example: /tmp
- 2) Create a root directory that will hold the unpacked files.
For example: /ztpfdrvs
- 3) Extract the source code from the tar file by entering the following commands:

```
cd /tmp
tar xzf java_sample_apps.tar.gz -C /ztpfdrvs
```

The sample application source files will be extracted in the following directory structure:

```
hello/hello.cntl
hello/hello.loadfile
hello/hello.mak
hello/pom.xml
hello/src/com/ibm/demo/HelloWorld.java
hello/src/com/ibm/demo/MyTime.java
javasrv/client.mak
javasrv/javasrv.cntl
javasrv/javasrv.loadfile
javasrv/PNRClient.java
javasrv/PNRServer.java
javasrv/server.mak
repo_demo/helloworld/helloworld.mak
repo_demo/helloworld/pom.xml
repo_demo/helloworld/src/com/ibm/tpf/demo/HelloWorld.java
repo_demo/repo_demo.cntl
repo_demo/repo_demo.loadfile
repo_demo/tpf-time/1.0/src/com/ibm/tpf/time/OutputTime.java
repo_demo/tpf-time/1.0/tpf-time-1.0.mak
repo_demo/tpf-time/1.0/tpf-time-1.0.pom
```

- 4) Create a maketpf.cfg with the following contents:

```
APPL_ROOT := /ztpfdrvs
TPF_ROOT := /ztpf
TPF_BSS_NAME := BSS
#TPF_SS_NAME := WP
#USER_VERSION_CODE :=
```

- a) Set APPL_ROOT to the directory that contains the sample application source code that was extracted.
- b) Set TPF_ROOT to the directory that contains the z/TPF source code.
- c) Set TPF_BSS_NAME to the basic subsystem name of your TPF system. By default, this is set to BSS.
- d) Optional: Set the TPF_SS_NAME to the subsystem name.
- e) Optional: Set USER_VERSION_CODE to any desired two-character string for user version code for the shared objects built. By default, this value is set to null.

For more information about these variables, enter man maketpf on your Linux on z build system.

- 5) Run the maketpf tool with the accompanied control files (hello.cntl, javasrv.cntl, and repo_demo.cntl) to compile and package the sample programs:

```
bldtpf /ztpfdrvs/hello/hello.cntl
bldtpf /ztpfdrvs/javasrv/javasrv.cntl
bldtpf /ztpfdrvs/repo_demo/repo_demo.cntl
```

- 6) Use loadtpf to transfer the loadable files to the z/TPF system:

```
loadtpf /ztpfdrvs/hello/hello.loadfile
loadtpf /ztpfdrvs/javasrv/javasrv.loadfile
loadtpf /ztpfdrvs/repo_demo/repo_demo.loadfile
```

7) Use the standard E-type loader procedure to load the sample application files.

5.0 Running Hello World

To run the Hello world application, enter the following ZFILE java command:

```
zfile java -jar /sys/tpf_pbf_files/apps/hello/helloworld.jar
```

5.1 Running Simple Client/Server

1) Start the server on the z/TPF system:

```
zfile java -jar /sys/tpf_pbf_files/apps/javasrv/simpleserver.jar [<port>]
```

where <port> is an optional port number to bind to.

Default value: 25000

2) Start a client on your Linux on z build system:

```
java -jar /ztpfdrvs/javasrv/lib/simpleclient.jar -i <ip> [<options>]
```

where <ip> is the IP address of the z/TPF system running the server and <options> are any additional parameters you wish to modify from their default value. For additional options, enter the following to view the help display for the sample application:

```
java -jar /ztpfdrvs/javasrv/lib/simpleclient.jar -h
```

5.2 Running Repository Demo

To run the Repository Demo application, enter the following ZFILE java command:

```
zfile java -jar /sys/tpf_pbf_files/apps/repo_demo/helloworld.jar
```

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