Downloads for TPF Family Products

Sample SOAP Message Handler on z/TPF Enterprise Edition V1.1

Note: Before using this information and the product it supports, read the general information under "NOTICES" in this document.

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1.0 ABOUT THIS README

This readme file will guide you through the process of downloading, installing, and using a sample SOAP message handler on your z/TPF system. This sample demonstrates how to create and deploy SOAP message handlers using the Web Services Deployment Table (WSDT) based deployment mechanism (APAR PJ32215).

The sample SOAP message handler package provides you with a complete SOAP message handler that can be run on your z/TPF system. It performs basic logging functionality for your Web services traffic using the syslog support on z/TPF. This sample can be used with either z/TPF's provider Web service or consumer Web service support. You can use it as a starting point for your own SOAP message handlers, use it for training purposes, or use it as-is. Go to the IBM TPF Product Information Center for more details about z/TPF's SOAP and syslog support.

Note: The TPF development lab does not maintain this application and will not accept APARs on this code.

2.0 SYSTEM REQUIREMENTS

Before proceeding with these instructions, do the following:

1. Ensure that PJ32215 has been applied to your z/TPF system.
2. If using this sample with z/TPF's provider Web service support, ensure that at least one SOAP communications binding has been installed on your z/TPF system. Sample SOAP communications bindings are available for download at www.ibm.com/tpf/download/ztpfsoap.htm.
3. If using this sample with z/TPF's consumer Web service support, ensure that PJ35511 has been applied to your z/TPF system.

3.0 DOWNLOADING

To download this module, do the following:

1. Click the **Download now** button to download the compressed sample SOAP message handler package (the "tarball") to your PC. The name of this package is **soap_msghandler_sample_zTPF.tar.Z**.
2. FTP the tarball to your home directory on your Linux system using binary mode:
   - Open an MS-DOS window and activate FTP by using the following command:
     ftp *your.linux.build.machine.com*
   - Sign in using your user name and password.
   - Set the mode to binary by entering the following command:
     binary
   - Send the file to your Linux system by using the following command:
     send c:*your_path*\soap_msghandler_sample_zTPF.tar.Z
     soap_msghandler_sample_zTPF.tar.Z
   - Exit FTP by entering the following command:
     bye

3. On your Linux system, create a working directory in your root directory by entering the following command:

   mkdir ~/your_workdir

4. Change to the working directory and extract the program files from the sample SOAP message handler application package by entering the following command:

   cd ~/your_workdir
   tar -xzkf ../soap_msghandler_sample_zTPF.tar.Z

   After you have completed this step, you will have the following files on your Linux system:

   1. In the directory: ~/your_workdir/soap
      - Sample z/TPF SOAP message handler code (csol.c)
      - MakeTPF sample makefile (csol.mak)
   2. In the directory: ~/your_workdir
      - Sample SOAP message handler deployment descriptor for the Sample message handler (logging.xml).
      - Sample syslog configuration file that can be used with syslogd (syslog.conf).
      - Sample provider Web service deployment descriptor that shows how to include the logging SOAP message handler in the processing for a provider Web service. This deployment descriptor can be used with the Sample Web Service Wrapper application available for download (CalculatorService_logging.xml).
      - Sample consumer Web service deployment descriptor that shows how to include the logging SOAP message handler in the processing for a consumer Web service. This deployment descriptor can be used with the Sample SOAP Consumer application available for download (CalculatorService_consumer_logging.xml).
      - This readme (samplemessagehandler_readme.htm).

4.0 COMPILING, LINKING, AND LOADING

1. Change to the 'soap' directory:

   cd ~/your_workdir/soap

2. Create a `maketpf` configuration file named `maketpf.cfg`.
   - Ensure that the first assignment of `TPF_ROOT` in `maketpf.cfg` is the absolute path to your "*`/your_workdir`*" directory.
   - Ensure that the first assignment of `APPL_ROOT` in `maketpf.cfg` is the absolute path to your "*`~/your_workdir`*" directory.
   - Update other fields (`TPF_BSS_NAME, TPF_SS_NAME, USER_VERSION_CODE`) if necessary.

3. Edit the sample `maketpf.mak` file for the sample SOAP message handler (csol.mak). Verify that the `maketpf_env` assignments in `csol.mak` are correct for your build environment.

4. Compile and link the SOAP message handler sample program.

   maketpf csol.mak -f

5. Use the standard load procedure to transfer and load the SOAP message handler sample program (CSOL) to your test system.

5.0 DEPLOYING

To deploy the sample SOAP message handler, making it accessible to the z/TPF SOAP support, and your Web services, you will need to FTP the SOAP message handler deployment descriptor to your z/TPF system and use the ZWSAT DEPLOY command.

1. FTP the SOAP message handler deployment descriptor to the `/etc/tpf-ws/` directory on your z/TPF system using binary mode:
   - Change to the 'your_workdir' directory:
     cd ~/your_workdir
   - FTP by using the following command:
     ftp *`your.zTPF.system`*
   - Sign in using your user name and password.
   - Set the mode to binary by entering the following command:
     binary
   - Send the file to your z/TPF system by using the following command:
     send logging.xml /etc/tpf-ws/logging.xml
   - Exit FTP by entering the following command:
     bye

2. On your z/TPF system, deploy the SOAP message handler by entering the following command:

   ZWSAT DEPLOY DD-logging.xml

3. Once the logging SOAP message handler has been deployed, you can now deploy any provider or consumer Web services that will make use of this SOAP message handler. For example:

   ZWSAT DEPLOY DD-CalculatorService_logging.xml

6.0 RUNNING

To run the SOAP message handler sample you will need to have a deployed provider and/or consumer Web service including "logging" in the `SOAPMessagHandlerChain` element of the service's deployment descriptor. Included in the package for this sample SOAP message handler are two deployment descriptors (CalculatorService_logging.xml and

CalculatorService_consumer_logging.xml) that can be used with the Web service Wrapper sample application and the SOAP consumer sample, respectively, that are available for download. Both of these alternative deployment descriptors include the "logging" SOAP message handler.

Once you have a Web service deployed on z/TPF that includes this logging SOAP message handler, you will need to ensure that the syslog daemon is running. Assuming the `syslogd` daemon has been previously defined to the Internet daemon (INETD) support, this can be done by entering the following command:

ZINET START SERVER-syslogd

A sample `syslog.conf` file is included and can be placed in `/etc/` to configure syslogd to write out the messages logged by this SOAP message handler sample to the `/etc/syslogd/ws-logging.log` log file. Note: you may need to create the `ws-logging.log` file before log entries can be written to it.

For example, enter the following command:

ZFILE touch /etc/syslogd/ws-logging.log

After you have deployed the SOAP message handler and one or more Web services that uses the logging SOAP message handler, then once you start sending SOAP Consumer requests to/from that service, you will see messages logged from the logging SOAP message handler to the syslog daemon.

To see the log you can enter the following command:

ZFILE cat /etc/syslogd/ws-logging.log

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