

[Documentation Home](#) > [The Java EE 5 Tutorial](#) > [Part III Web Services](#) > [Chapter 19 SOAP with Attachments API for Java](#) > [Code Examples](#) > [Header Example](#)

The Java EE 5 Tutorial

Previous: Request Example

Next: DOM and DOMSource Examples

Header Example

The example `HeaderExample.java`, based on the code fragments in the section [Adding Attributes](#), creates a message that has several headers. It then retrieves the contents of the headers and prints them. The example generates either a SOAP 1.1 message or a SOAP 1.2 message, depending on arguments you specify. You will find the code for `HeaderExample` in the following directory:

```
tut-install/javaeetutorial5/examples/saaj/headers/src/
```

Building and Running the Header Example

To build the program using NetBeans IDE, follow these steps:

1. In NetBeans IDE, choose Open Project from the File menu.
2. In the Open Project dialog, navigate to `tut-install/javaeetutorial5/examples/saaj/`.
3. Select the `headers` folder.
4. Select the Open as Main Project check box.
5. Click Open Project.

A Reference Problems dialog appears. Click Close.

6. Right-click the `headers` project and choose Resolve Reference Problems.
7. In the Resolve Reference Problems dialog, select the first of the missing JAR files and click Resolve.

The missing files are `activation.jar`, `javaee.jar`, and `appserv-ws.jar`.

8. Navigate to the `as-install/lib/` directory.
9. Select the missing JAR file (`activation.jar`, for example) and click Open.

In the Resolve Reference Problems dialog, all the files have green check marks to the left of their names.

10. Click Close.
11. Right-click the project and choose Build.

To run the program using NetBeans IDE, follow these steps:

1. Right-click the `headers` project and choose Properties.
2. Select Run from the Categories tree.
3. In the Arguments field, type the following:

1.1

This argument specifies the version of SOAP to be used in generating the message.

4. Click OK.
5. Right-click the project and choose Run.
6. Right-click the project and choose Properties.
7. Select Run from the Categories tree.

8. In the Arguments field, type the following:

```
1.2
```

9. Click OK.

10. Right-click the project and choose Run.

To build and run HeaderExample using Ant, go to the directory `tut-install/javaeetutorial5/examples/saaj/headers/`. Use one of the following commands:

```
ant run-headers -Dsoap=1.1
```

```
ant run-headers -Dsoap=1.2
```

When you run HeaderExample to generate a SOAP 1.1 message, you will see output similar to the following:

```
----- Request Message -----

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header>
  <ns:orderDesk xmlns:ns="http://gizmos.com/NSURI"
    SOAP-ENV:actor="http://gizmos.com/orders"/>
  <ns:shippingDesk xmlns:ns="http://gizmos.com/NSURI"
    SOAP-ENV:actor="http://gizmos.com/shipping"/>
  <ns:confirmationDesk xmlns:ns="http://gizmos.com/NSURI"
    SOAP-ENV:actor="http://gizmos.com/confirmations" SOAP-ENV:mustUnderstand="1"/>
  <ns:billingDesk xmlns:ns="http://gizmos.com/NSURI"
    SOAP-ENV:actor="http://gizmos.com/billing"/>
</SOAP-ENV:Header><SOAP-ENV:Body/></SOAP-ENV:Envelope>

Header name is {http://gizmos.com/NSURI}orderDesk
Actor is http://gizmos.com/orders
mustUnderstand is false

Header name is {http://gizmos.com/NSURI}shippingDesk
Actor is http://gizmos.com/shipping
mustUnderstand is false

Header name is {http://gizmos.com/NSURI}confirmationDesk
Actor is http://gizmos.com/confirmations
mustUnderstand is true

Header name is {http://gizmos.com/NSURI}billingDesk
Actor is http://gizmos.com/billing
mustUnderstand is false
```

When you run HeaderExample to generate a SOAP 1.2 message, you will see output similar to the following:

```
----- Request Message -----

<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope">
<env:Header>
  <ns:orderDesk xmlns:ns="http://gizmos.com/NSURI"
    env:role="http://gizmos.com/orders"/>
  <ns:shippingDesk xmlns:ns="http://gizmos.com/NSURI"
    env:role="http://gizmos.com/shipping"/>
  <ns:confirmationDesk xmlns:ns="http://gizmos.com/NSURI"
    env:mustUnderstand="true" env:role="http://gizmos.com/confirmations"/>
  <ns:billingDesk xmlns:ns="http://gizmos.com/NSURI"
    env:relay="true" env:role="http://gizmos.com/billing"/>
</env:Header><env:Body/></env:Envelope>

Header name is {http://gizmos.com/NSURI}orderDesk
Role is http://gizmos.com/orders
mustUnderstand is false
relay is false

Header name is {http://gizmos.com/NSURI}shippingDesk
Role is http://gizmos.com/shipping
mustUnderstand is false
```

```
relay is false

Header name is {http://gizmos.com/NSURI}confirmationDesk
Role is http://gizmos.com/confirmations
mustUnderstand is true
relay is false

Header name is {http://gizmos.com/NSURI}billingDesk
Role is http://gizmos.com/billing
mustUnderstand is false
relay is true
```

[Previous: Request Example](#)[Next: DOM and DOMSource Examples](#)

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