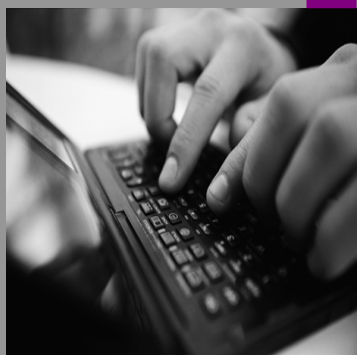

How-to Guide
SAP NetWeaver '04

How To... Use the Mail Adapter of the XI 3.0 J2EE Adapter Engine

Version 1.00 – September 2005

Applicable Releases:
SAP NetWeaver '04
SAP Exchange Infrastructure 3.0 SP12

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1 Scenario

You want to create e-mails from XI messages or create XI messages from incoming e-mails.

2 Introduction

The mail adapter enables you to send XI messages to a mail receiver or create XI messages from incoming mails.
This guide provides some tips and tricks for using the mail adapter. It does not replace the online documentation or explain each configuration parameter in detail.

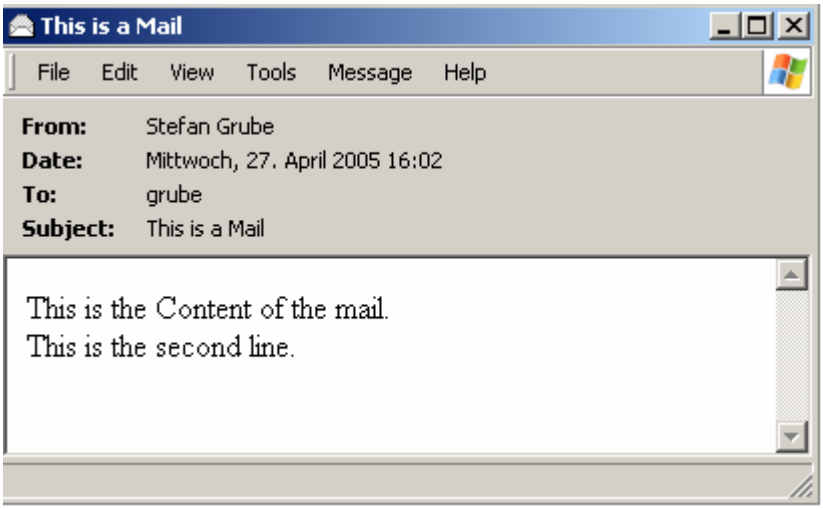
3 The Step-By-Step Solution

3.1 Configuring the Sender Mail Adapter

The mail adapter can handle incoming mails, consisting of a mail body with XML or plain text, and several attachments. To read the mail from your mail server, the mail server needs access to the IMAP4 or POP3 protocol.
To access the mail server, enter the following URL:

imap://YourServer/YourInbox or pop://YourServer

By selecting the *Use Mail Package* checkbox, you receive a message structure, which provides additional information in the XI message payload, that is, the mail sender.
If the mail has a plain-text format, you can use the mail package to transform the mail message to XML. You receive the following mail:

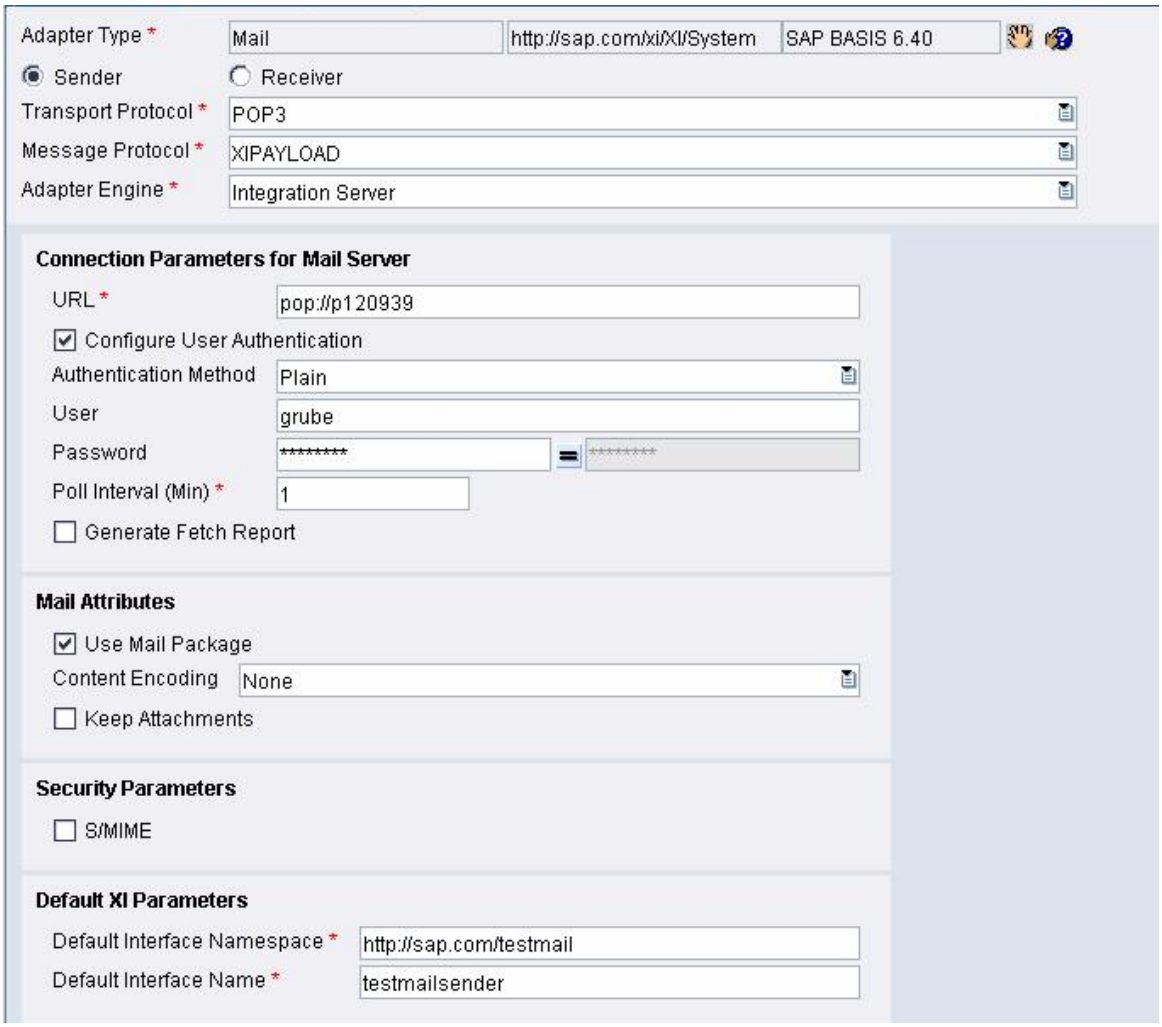


If you select the *Use Mail Package* checkbox, the XI payload looks as follows:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<!--  Response  -->
- <xim:Mail xmlns:xim="http://sap.com/xi/XI/Mail/30" xmlns="">
    <Subject>This is a Mail</Subject>
    <From>"Stefan Grube" <grube@sap.corp></From>
    <To><grube></To>
    <Content_Type>text/plain;charset="iso-8859-1"</Content_Type>
    <Date>2005-04-27T14:04:23Z</Date>
    <Message_ID><004001c54b31$cfe2b8b0
      $956b120a@P120939></Message_ID>
    <X_Mailer>Microsoft Outlook Express 6.00.2800.1437</X_Mailer>
    <Content>This is the Content of the mail. This is the second line.</Content>
  </xim:Mail>
```

Some invisible new-line characters may be used within the *Content* tag. Special characters, such as symbols (<), are escaped.

The following figure illustrates a sample configuration of the sender mail adapter:



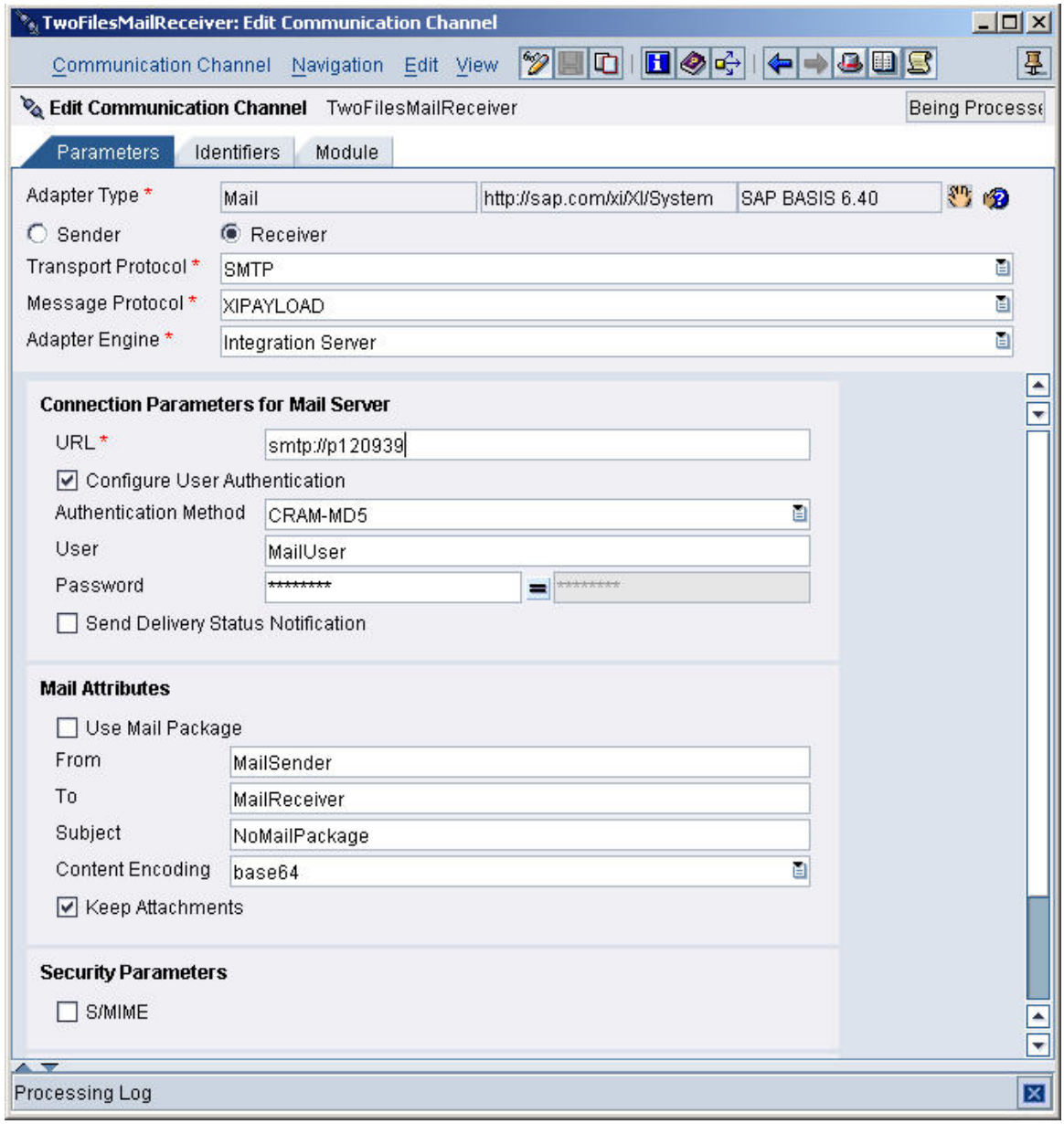
3.2 Configuring the Receiver Mail Adapter

For outgoing mails, you need SMTP or IMAP4 access to your mail server. To access the mail server, enter the following URL:

smtp://YourServer or imap://YourServer/YourInbox

By selecting the *Use Mail Package* checkbox, you can include additional information to the XI message payload, that is, the mail sender.
If the mail has a plain-text format, you can select the *Use Mail Package* checkbox to convert the mail message to XML.

The following figure illustrates a sample configuration of the receiver mail adapter:



3.2.1 Working with Mail Packages

You can dynamically set the sender, receiver, and mail title by using the mail package format. When the mail package format is used, your structure of the payload must adhere to the structure of the mail package. The following figure illustrates an example of an XI payload with the mandatory elements:

```
<ns:Mail xmlns:ns="http://sap.com/xi/XI/Mail/30">
  <Subject>Hello</Subject>
  <From>sender@sender.com</From>
  <To>receiver@receiver.com</To>
  <Content>This is a mail</Content>
</ns:Mail>
```

You can create the mail package structure using the graphical mapping tool. The XSD of the mail package is provided as an attachment in SAP Note **748024**.

3.2.2 Creating a Mail Package with XSLT Mapping

If you want to determine the mail receiver dynamically from a payload field, but want the payload to be sent unchanged, sometimes it is too complicated to use the graphical mapping tool to create the mapping. The following figure provides an XSLT example that you can use, if your original payload provides the tags *sender*, *receiver,* and *subject*. The XSLT will set these values and copy the whole payload to the *Content* tag. The original payload will be the mail body.

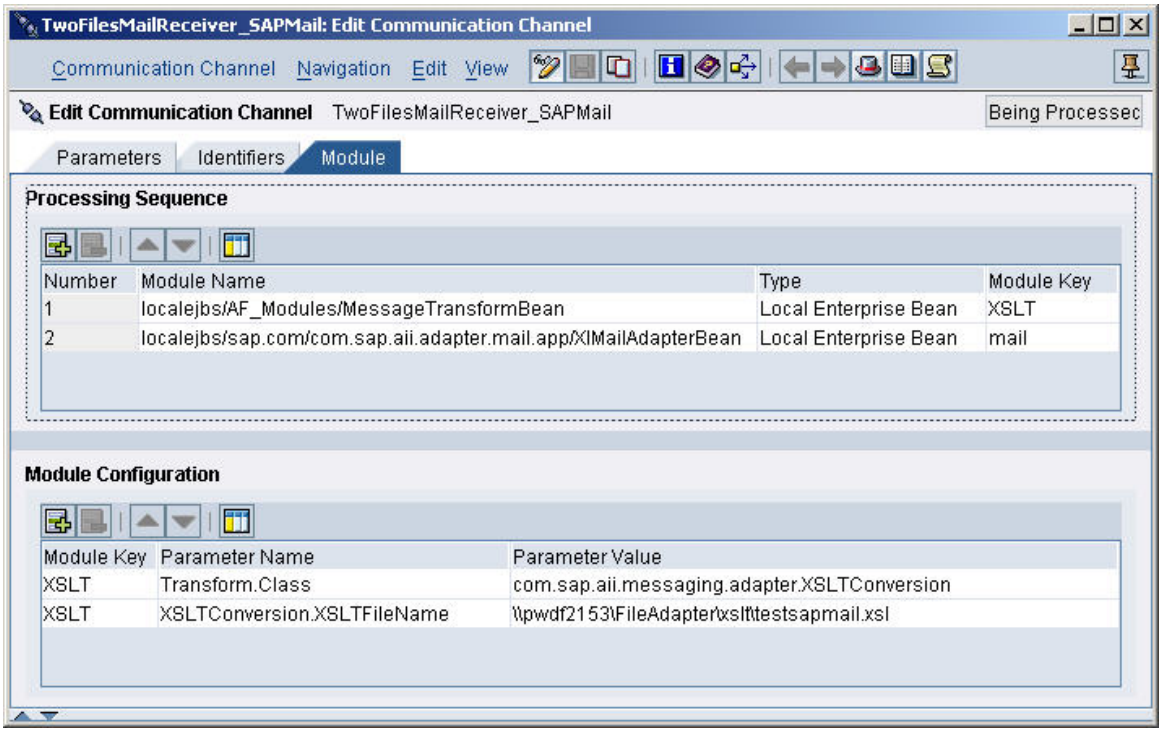
```
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
version="1.0">
  <xsl:output method="xml" indent="yes" />

  <xsl:template match="*">

    <ns:Mail xmlns:ns="http://sap.com/xi/XI/Mail/30">
      <Subject><xsl:value-of select="//subject"/></Subject>
      <From><xsl:value-of select="//sender"/></From>
      <To><xsl:value-of select="//receiver"/></To>
      <Content><xsl:copy-of select="/"/></Content>
    </ns:Mail>

  </xsl:template>
</xsl:stylesheet>
```

When you use the *MessageTransformBean* module in the module processor configuration of the communication channel, you can directly apply the XSLT mapping to the adapter module.



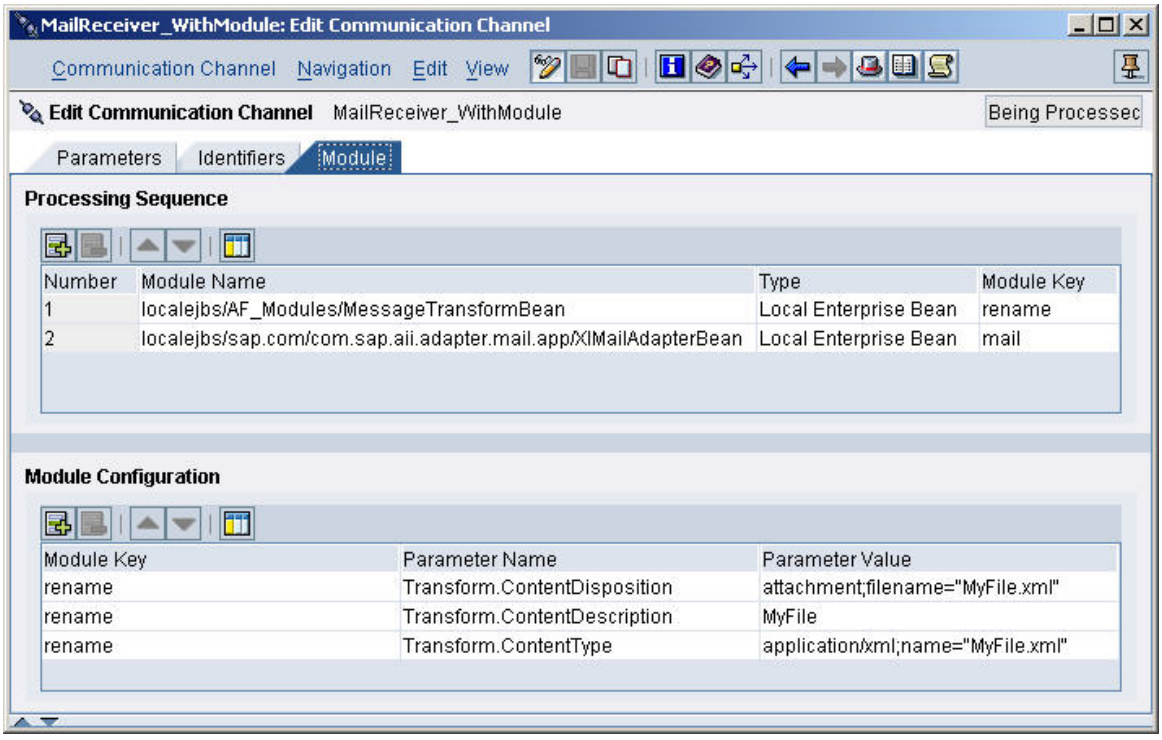
Enter **`localejbs/AF_Modules/MessageTransformBean`** as the first module. Select the *Type* **`Local Enterprise Bean`** and select a value for *Module Key*. Use this module key to create the following two lines in the *Module Configuration*:

`Transform.Class`	`com.sap.aii.messaging.adapter.XSLTConversion`
`XSLTConversion.XSLTFileName`	`<YourFolder/YourFile>`

You can also use the XSLT file for an interface mapping in the Integration Repository.

3.2.3 Changing the Name and Type of the Payload

By default, the payload of the XI message is sent as an attachment. If you use mail package, the mail text in the *Content* tag is sent as a mail body (inline). If you want to change this or influence the name of the attachment, you can do this using the MessageTransformBean module. This is illustrated in the following figure:



Enter `localejbs/AF_Modules/MessageTransformBean` as the first module. Select the *Type* **`Local Enterprise Bean`** and select a value for *Module Key*. Use this module key to create the following three lines in *Module Configuration*:

Transform.ContentDisposition	inline|attachment
Transform.ContentDescription	<Filename>
Transform.ContentType	<Mimetype>/<Subtype>

If you use the Mail Package, then you have to apply the Mime type in the tag Content_Type:

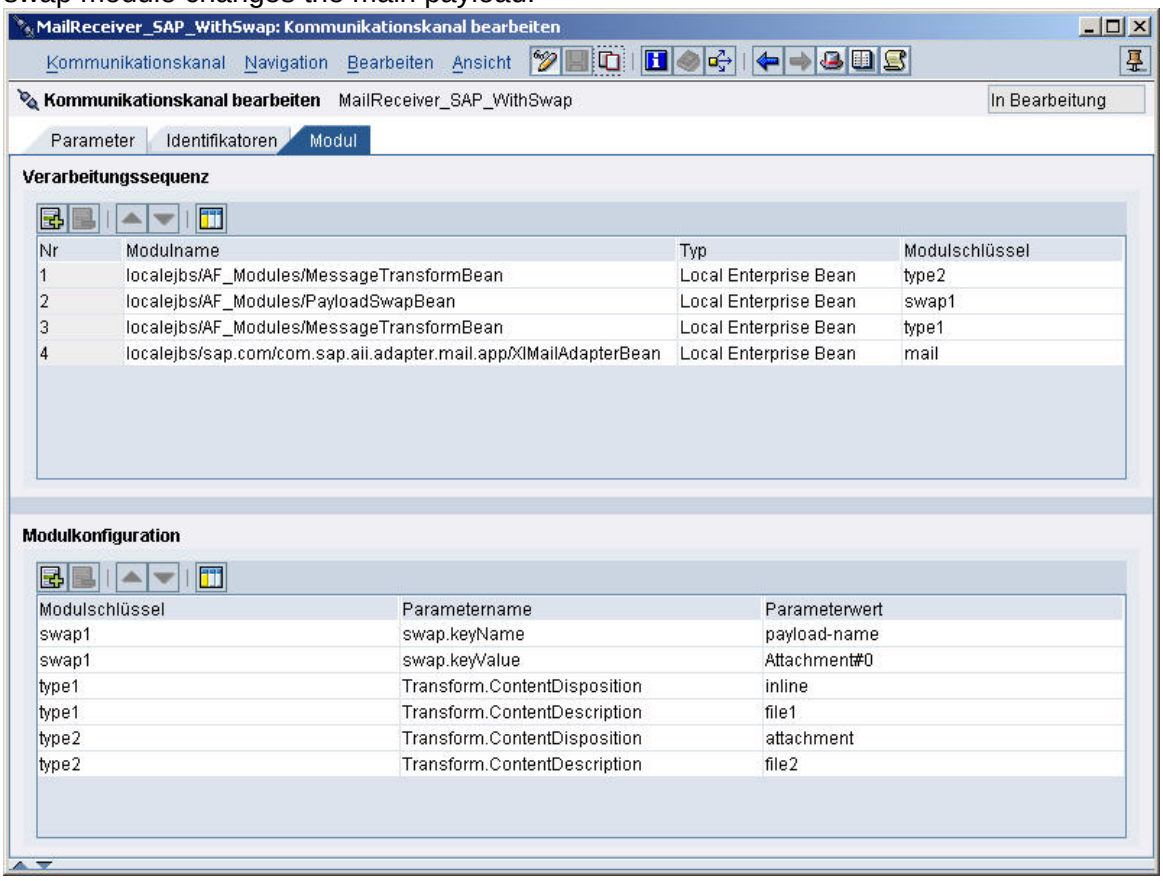
```
<ns:Mail xmlns:ns="http://sap.com/xi/XI/Mail/30">
  <Subject>Hello</Subject>
  <From>sender@sender.com</From>
  <To>receiver@receiver.com</To>
  <Content>This is a mail</Content>
  <Content_Type>text/plain; charset="ISO-8859-1";
name="MyFile.xml"</Content_Type>
</ns:Mail>
```

Exactly how the mail content is displayed at the receiver end depends on the mail client. If the customer has a different mailing system, the mail look may look different at the customer side.

3.2.4 Sending a Mail with Attachment

If you want to send a mail with a body and attachment, or with several attachments, the message sender has to provide an XI message with additional attachments. For each additional payload of the XI message, the mail adapter creates an attachment for the mail. To enable this feature, you select the *Keep Attachments* checkbox when configuring the mail adapter. By default, the payload of the message is also sent as an

attachment. If you do not want the payload to be sent as an attachment, set *ContentDisposition* to **`inline`**.
If you want to give each attachment a certain name, you can use the swap module. The swap module changes the main payload.



Enter the **`localejbs/AF_Modules/PayloadSwapBean`** module as `Local Enterprise Bean` between the two modules that change the attachment names. Select a value for *Module Key*. Use this module key to create the following two lines in the *Module Configuration*:

swap.keyName	payload-name
swap.keyValue	<Name of the Payload>

You can find the name of the payload that you want to set as the main payload in the XI message monitor (SXMB_MONI).

If you want to use the mail package here, make sure that the last attachment has the correct mail package content.

4 Useful SAP Notes

SAP Note **748024**: Here you can download the XSD structure of the Mail Package.
SAP Note **794943**: Description of the module “PayloadSwapBean”
SAP Note **793922**: Description of the module “MessageTransfo

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