

XUXAADM – 14.4

XUXA v5.0

Demonstration X.400 User Agent

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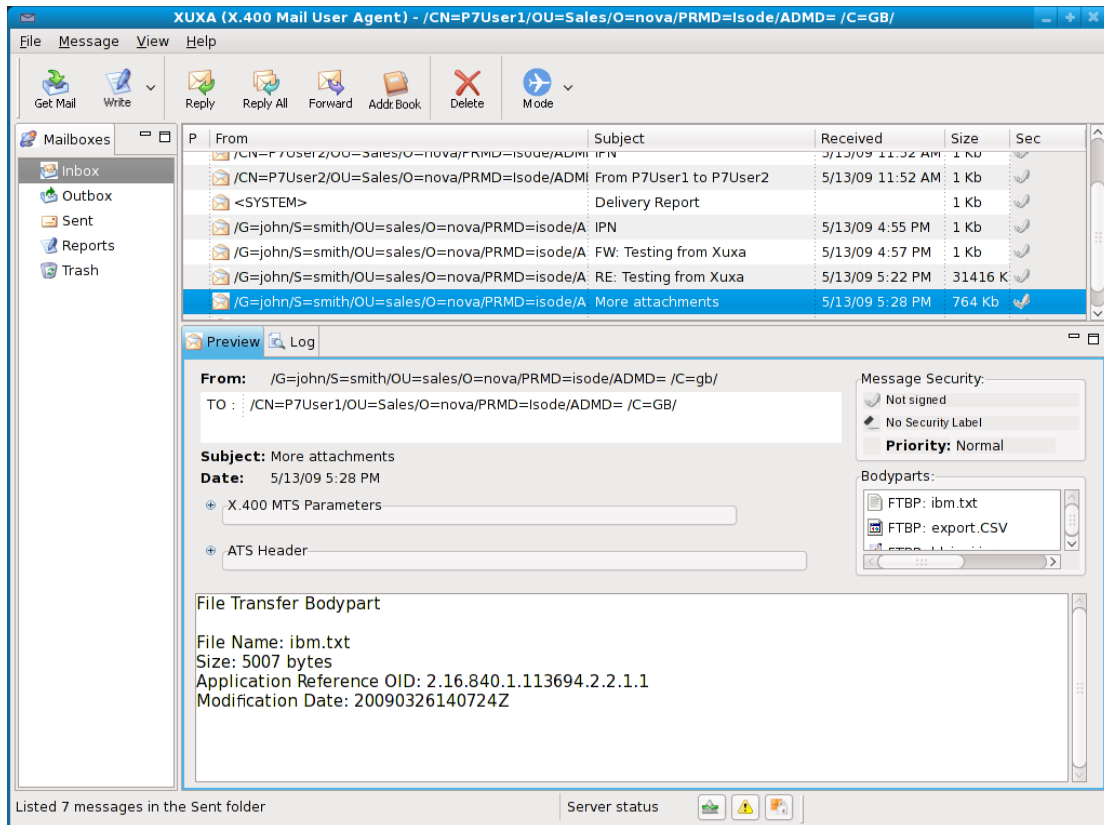
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1. XUXA

XUXA (X.400 User (X) Agent) is a demonstration cross-platform X.400 User Agent, provided by Isode to help Isode customers demonstrate and test Isode products and APIs. XUXA is a Java GUI, with look and feel modelled on the open source Thunderbird client.



2. Goals of XUXA

Primary goals:

- To demonstrate features of the Isode API and Server products that cannot otherwise be easily shown.
- To help customers make use of these features in their own applications by providing a good sample application.
- To help customers set up, evaluate and demonstrate Isode products.

Secondary goals:

- To help Isode and Isode customers test Isode products.

- To provide a source code base which Isode customers can purchase from Isode to build specialized applications using some or all of the XUXA code.
- To showcase a pure “client only” application that holds all data on the server, which it accesses with standard protocols.

XUXA enables:

- Sending X.400 messages and probes using P7 to an X.400 Message Store
- Sending X.400 messages and probes using P3 to an X.400 MTA
- Listing, fetching and deleting messages using X.400 P7.
- Retrieving messages using X.400 P3. (Note that these are held in memory, and not retained on exit). This is useful for testing M-Switch X.400 without a Message Store.
- Setting and displaying message priority.
- Control of delivery reports and IPNs (Inter-personal Notifications) on a per-recipient basis.
- Display of delivery reports and IPNs.
- Auto-generation of IPNs on message reception.
- Generate, Display and Save text encoded body parts (IA5 and General Text (with choice of character set)).
- Generate, Display and Save FTBP encoded body parts.
- Generate, Display and Save binary body parts
- Recognize G3Fax and forwarded messages.
- Control of most X.400 Message Transport Service parameters.
- XUXA can generate and display X.411 Security Labels.

3. Non-Goals of XUXA

Things we are not trying to do or going to do:

- Build a User Agent product that we will sell.
- Implement local storage of data in XUXA.
- Implement features that do not directly help the goals (e.g., printing)
- Implement body part viewing or editing capabilities (e.g., don't display or edit flight plans – just show as a big icon)

4. XUXA Capabilities

XUXA provides access to a range of X.400 capabilities. XUXA has “modes”, that provide capabilities for markets that make extensive use of X.400. This description groups features by mode. Some features are specific to the markets (and mode). Others are general purpose X.400 features, of particular interest to the market.

5. Installing XUXA

Windows

Xuxa is shipped as part of the M-Switch package. Even if you want to run Xuxa on a stand alone machine without the servers, you will have to install M-Switch on the machine and select the *Client Only* option.

Linux

Xuxa is shipped as an RPM, and should be installed in exactly the same way as the other Isode RPMs. If you want to run it as a client, the following RPMs are the minimum you should install:

ISDxuxa-14.4v0-0.pt.i386.rpm
ISDx400-14.4v0-0.pt.i386.rpm
ISDbase-14.4v0-0.pt.i386.rpm
SDpp-14.4v0-0.pt.i386.rpm
ISDtps-14.4v0-0.pt.i386.rpm

Version Requirements:

v1.0 Requires R11.4v0 or later
v2.0 Requires R11.4v4 or later
v2.1 Requires R11.5 or later
v3.0 Requires R12.0 or later
v3.1 Requires R12.0v1 or later
v3.3 Requires R14.0 or later
v4.0 Requires R14.1 or later
v4.1 Requires R14.3 or later
v5.0 Requires R14.4 or later

6. Running Xuxa

Windows

You can running by choosing: *Start -> Program Files -> Isode RI4.4 -> XUXA*

Linux

Just run */opt/isode/bin/xuxa*

7. Configuration

Xuxa is configured using Java Preferences, and not any more with a text file. This allows you to have several accounts configured at once.

However, to retain backwards compatibility, when run for the first time, Xuxa will offer the choice of importing the existing text configuration from a previous version into . It will also save the time stamp of the text configuration. This is because if the text configuration file is later on modified, during startup Xuxa will offer the chance to re-import it.

Windows

This is the place where the old text configuration file is created on Windows
<C:\Documents And Settings\<YOUR USER>\Application Data\Isode\xuxa-config.ini>
Use Notepad or any other text only editor, and edit the file if necessary.

Linux

This is the place where the old text configuration file is created on Linux:
<~/xuxa/xuxa-config.ini>

Use any other text only editor, and edit the file if necessary.

If you create your configuration using Isode Quick Configuration program, then a text configuration file will be created automatically for you, and when you run Xuxa it will offer you the chance to import it.

If you didn't run the Isode Quick Configuration program (quickconfig) on the machine you want to run Xuxa, then you have three options:

- 1) Run Xuxa and configure it with its GUI (*File -> Preferences*)

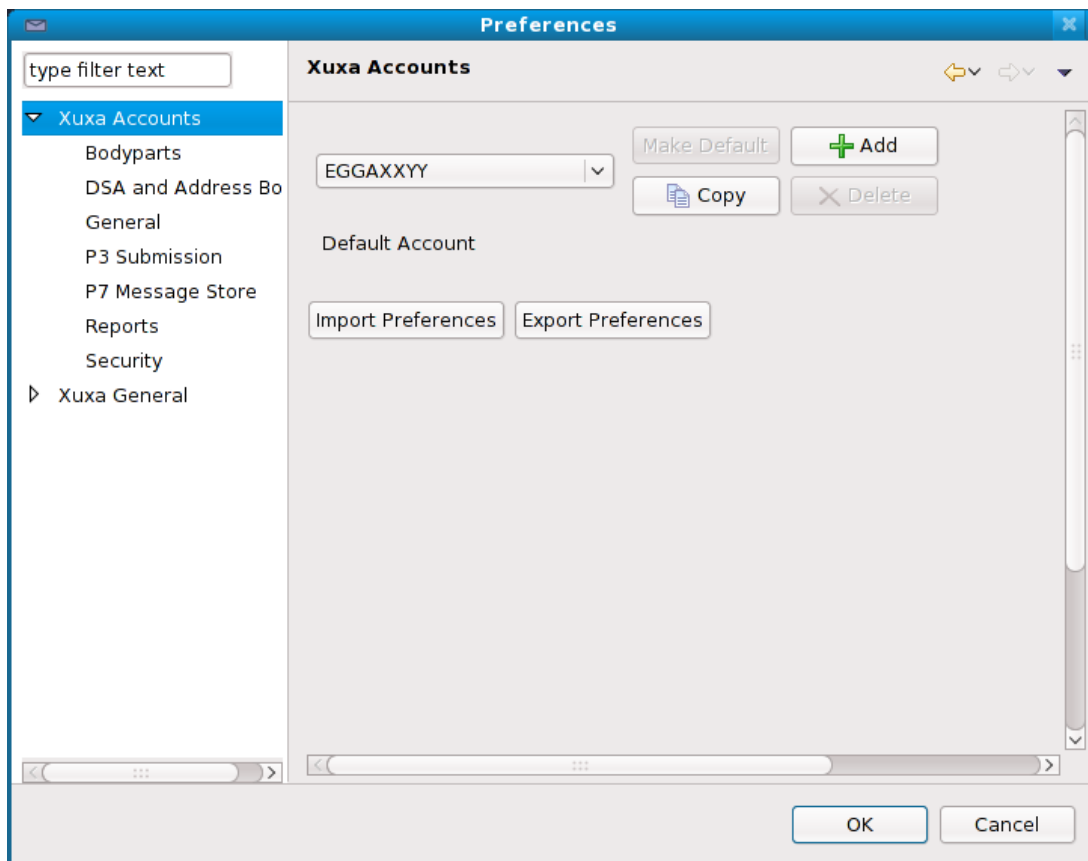
- 2) Copy the sample *xuxa-config.ini* from another system and edit it (create the *~xuxa* directory for Linux)
- 3) Export the configuration file from a running version of Xuxa, and import it into the new one

In order to use Xuxa, you'll need to configure at least the information of the P7 Message Store account that you are using, and the X.500 Directory that contains your Address Book.

8. Preferences

Accounts

To set your preferences, select **File -> Preferences** and you will see a window similar to the one below.



Xuxa can only be connected to one account at a time, but can have several accounts configured, and one of them is always a default account. The default account is the one that is used at startup. You can make Xuxa prompt for the account to use by selecting the option “Prompt to select account at startup” in the Xuxa General tab.

You can also Add, Delete or Copy a new account by clicking on the appropriate button. In case you add a new account, you will be prompted for the account name. After that, you should expand the other tabs under “Xuxa Accounts” and set the values for this new account.

In case that the new account has a lot in common with one of the accounts you have configured, you can click on Copy, enter the name and then modify the relevant data.

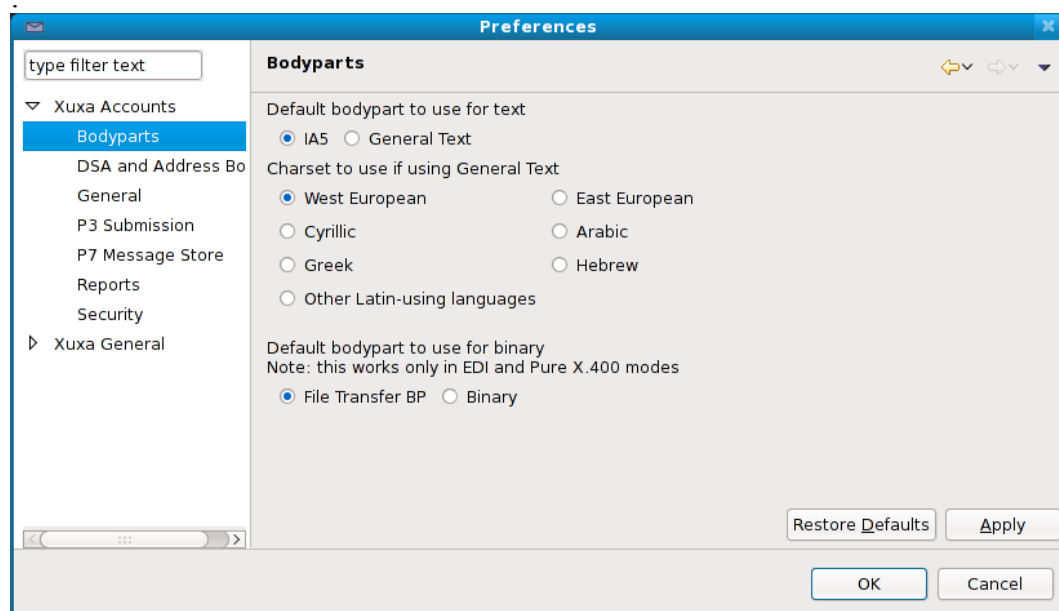
Bodyparts

When you compose a message, it is possible to attach files to it, and so create a message with several bodyparts.

By default, text messages will be sent using IA5 bodyparts. All X.400 User Agents can deal with IA5 text, and so it's a sensible default, but bear in mind that some characters are not included in IA5, so the content of your message can be converted.

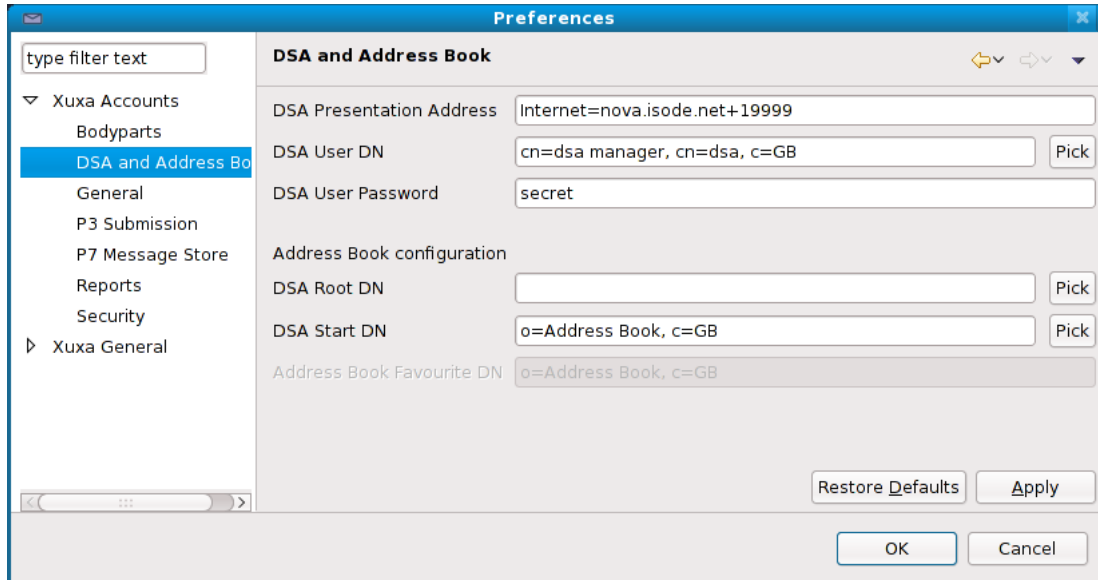
If you want to change the default to use General Text, you can change it in the Bodyparts Preference page. You can also choose the encoding of the charset to use for General Text.

Finally, the default bodypart to use for binary attachments is the File Transfer Bodypart. Only for EDI and Pure X.400 modes, it is possible to change the default, and to use the Bilaterally Defined (Binary) bodypart. All files attached this way will be added as a Binary bodypart, and so they won't have any extra information, like the file name or size



DSA and Address Book

The other fundamental set of parameters that need to be configured is the X.500 Directory and Address Book information. This is needed so that Xuxa can find the addresses (O/R Names) of users to which it can send messages.



Here, the only mandatory attribute is the **DSA Presentation Address**. This is usually something like `Internet=<your_host_name>+19999`

If you set just the Presentation Address, you will be able to connect to the DSA and browse your address book. However, if you want to edit the information in the address book, you will need to set up the correct authentication information to connect to the DSA. This is done by setting the **DSA User DN** and **DSA User Password** parameters.

Once you set the DSA Presentation Address, you can use the **Pick** button to bind anonymously to the DSA and navigate to the user you want to use, and automatically set the **DSA User DN**, **DSA Root DN** and **DSA Start DN** parameters.

If the **DSA Root DN** is not set, when opening the Address Book, you will connect to the DSA and start browsing from the top of the DIT (The World). However, if you set the **DSA Root DN** the Address Book will start showing the DIT from the chosen Root DN.

Similarly, if you set the **DSA Start DN** attribute, your selected entry will be shown in the browser by default. These Dns can be entered manually, pasted or selected via the **Pick** button if a DSA connection is available.

General

If you want to change the default mode in which Xuxa starts, change it in the General page. The colour scheme settings is disabled at present.

P3 Submission

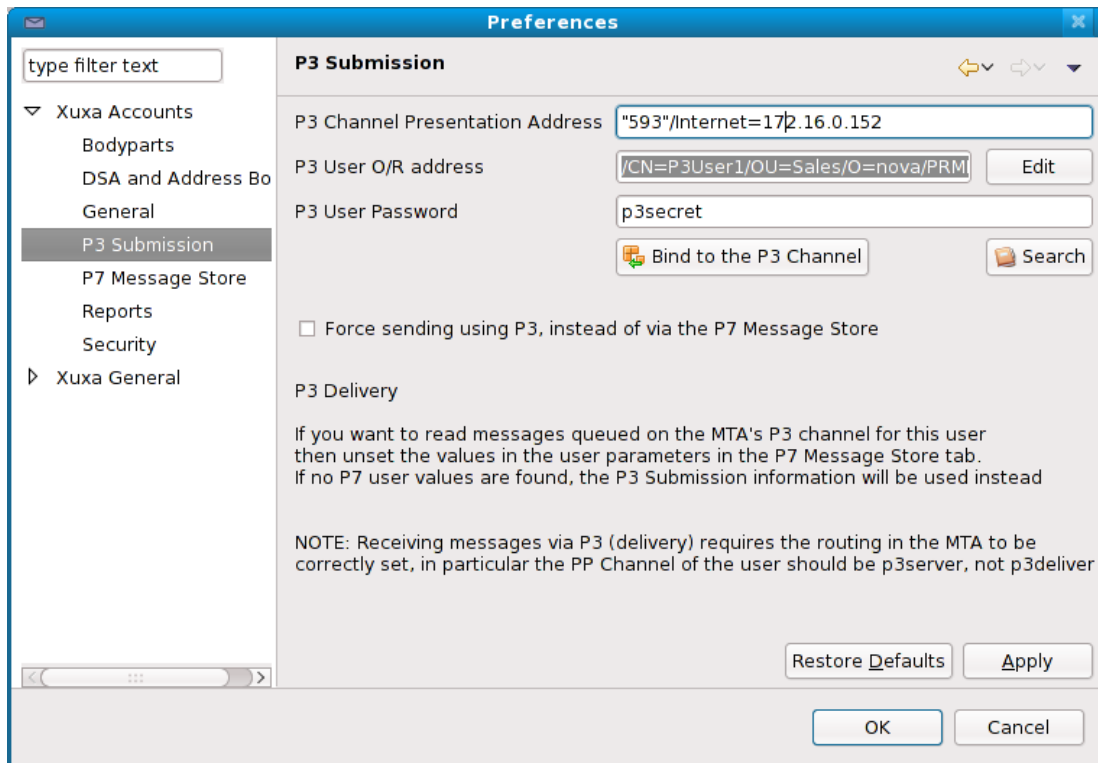
If you don't have access to a P7 Message Store, or if you want to test P3 Submission and Delivery, you can still use Xuxa.

It is now possible to configure P3 Submission information in the Preferences. When you enter the correct information and check the “Force sending using P3” checkbox, all new messages will be sent using the P3 protocol directly to the MTA, instead of using P7 and sending it to the P7 Message Store.

Since version 4.1, is it possible to receive (accept the delivery) of the messages via P3. This allows Xuxa to work without a P7 Message Store. But as Xuxa doesn't store messages on disk, messages received via P3 will only be available as long as Xuxa is running. Once you restart the program, the messages are gone, as the MTA no longer has them, and Xuxa didn't save them.

To configure P3 Delivery in the Preferences , you will have to enter the correct P3 Channel Presentation Address (something like “593”/Internet=123.45.67.8), the P3 User O/R address (the same as the P7 Message Store user O/R address) and the P3 User Password.

NOTE: Bear in mind that once a user is created in EMMA as a P7 Message Store user, all messages will be delivered to the P7 Message Store, and therefore they won't be available for P3 Delivery. If you want to change that, you need to change the user's PP Channel from *p3deliver* to *p3server*.



The ***P3 Channel Presentation Address*** is the full address of the P3 Server channel that the program will connect to in order to send and receive messages. If it is an Isode P3 Server channel, it will typically be listening on port 102, so it can be omitted, and will have a transport selector of “593”. Use EMMA to look at the *p3server* channel's Presentation Address in the Inbound tab.

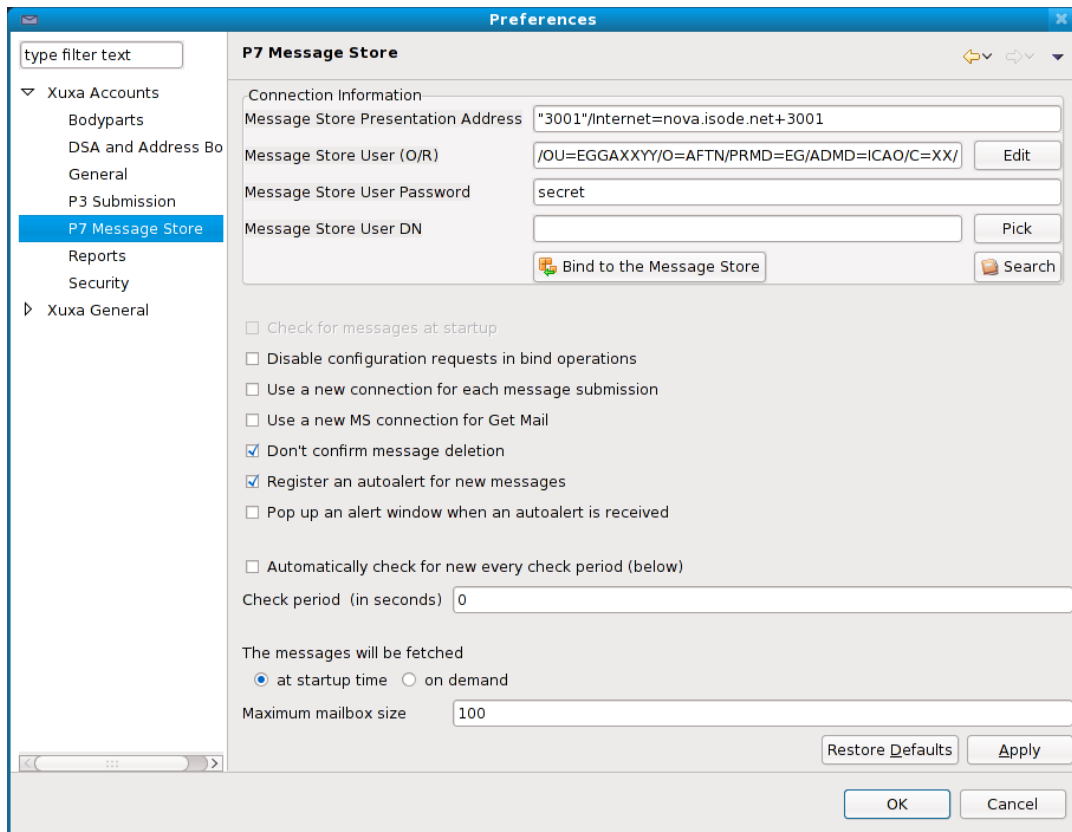
The ***P3 User (O/R)*** is the O/R address of the P3 user that Xuxa is going to use to send and receives messages. If you want to know what users are available and know their passwords, configure the DSA and access the Address Book by clicking on the ***Search*** button, or use EMMA to connect to the DSA and search for the available users.

You can also paste the value in the text editor, or use the ***Edit*** button to invoke the O/R address editor.

The ***P3 User Password*** is the password used for the ***P3 User (O/R)*** mentioned above. You can find this if you edit the user in EMMA, and check the *MTS Password (P3)*.

P7 Message Store

To configure the P7 Message Store, select ***File -> Preferences*** expand the ***Xuxa Accounts*** node, and select the ***P7 Message Store*** tab.



The **Message Store Presentation Address** is the full address of the P7 Message Store that the program will connect to in order to send and receive messages. If it is an Isode Message Store, it will typically be listening on port 3001, and will have a transport selector of “3001”.

The **Message Store User (O/R)** is the O/R address of the P7 Message Store user that Xuxa is going to use to send and receives messages. If you want to know what users are available and know their passwords, configure the DSA and access the Address Book by clicking on the **Search** button, or use EMMA to connect to the DSA and search for the available users.

You can also paste the value in the text editor, or use the **Edit** button to invoke the O/R address editor.

The **Message Store User Password** is the password used for the **Message Store User (O/R)** mentioned above.

The **Message Store User (DN)** is the DN address of the P7 Message Store user that Xuxa is going to use to send and receives messages.

You can also paste the value in the text editor, or use the **Edit** button to invoke the DN Picker, which is a DSA Browser.

If you click on the **Search** button, and you have the correct DSA connection details configured, you will be able to search on your address book, and select a user from the DSA. In that case, both the user's O/R address and DN will be copied to the relevant fields, making switching accounts easier.

For example, you can copy an existing account, and then use the **Search** button to quickly change the information.

If you want to connect to the Deutsche Telekom P7 Message Store, select the option **Disable configuration requests in bind operations** as the values returned by the bind operation are invalid and make the bind operation fail. Bear in mind that this means that you won't have access to your sent messages (in the Sent folder).

Some P7 Message Stores don't work well when using the same connection to both send and receive message. In that case, select the option **Use a new connection for each message submission** and in that way a new bind to the Message Store will be performed when needed.

Similarly, the option **Use a new MS connection for Get Mail** opens a new connection to the Message Store every time a user clicks on the Get Mail icon. This can be useful if, for example, the connection to the Message Store is lost because it was restarted or the connection was dropped.

The option **Don't confirm message deletion** does just that.

When the option **Register an autoalert for new messages** is set, Xuxa will detect that a new message has been delivered, and will fetch it automatically in the background.

The options **Pop up an alert window when an autoalert is received** and **Don't confirm message deletion** will do just that.

The other options are there to set up timers to make the program check every X number of seconds.

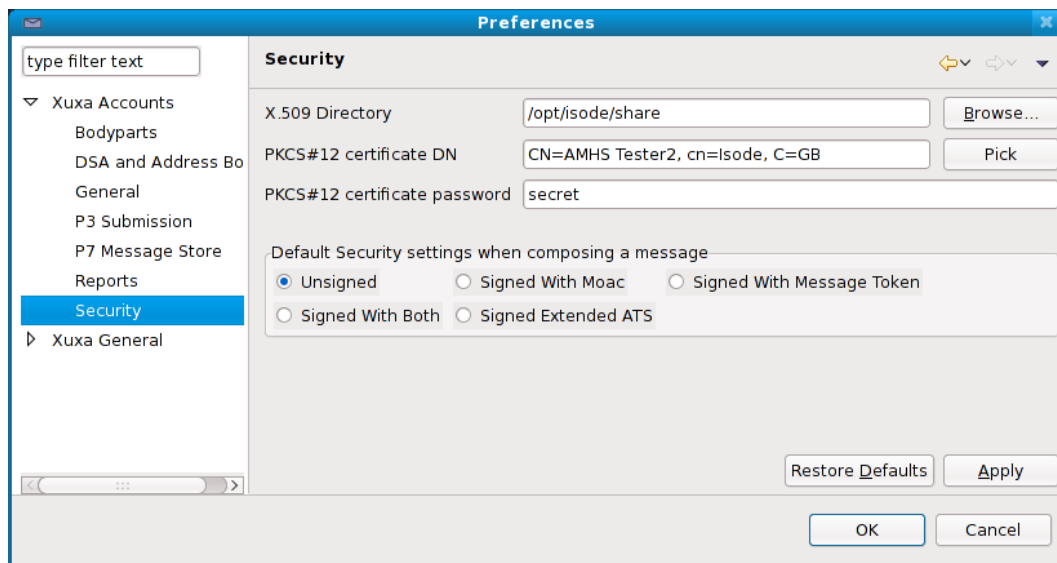
If you are planning to test the X.400 Message Store with very large mailboxes, the option **The messages will be fetched: at startup time or on demand** allow you to optimize the MS operations, as if configured to be fetched on demand, messages will only be fetched when the user wants to see them. The default behaviour is to read all the messages at startup time.

A relatively new feature in XUXA is the ability to configure the maximum number of messages that the program will be able to handle. This can be configured with **Maximum mailbox size** the default value of 0 means that the internal limit will be used instead. Bear in mind that when the maximum is reached, all new messages are ignored.

Security

The following settings are optional, but must be set if you digitally sign your messages, or

to check the signatures of received X.400 messages.



The **X.509 Directory** is the path of the directory which contains a “x509” subdirectory where the PKCS#12 files are kept. On a standard Unix installation there will be a sample one under `/opt/isode/share`, and on Windows it will be under `%SYSDRIVE%\Program Files\Isode\share`

The value **PKCS#12 Certificate DN** is used to choose with one of the PKCS#12 certificates to choose from the directory mentioned above, and the password for that certificate is configured in **PKCS#12 Certificate Password**.

If you want to make sure all your messages are signed (or signed to the Extended ATS), you can select the default security settings to be used when composing a new message.

Xuxa now provides several ways to digitally sign a message.

- **Unsigned**
No digital signatures are added to the message
- **Signed with MOAC**
This provides a Message Originator Authentication Check.
- **Signed with Message Token**
This provides content integrity, and message sequence integrity.
- **Signed with both**
This is a combination of Signed with MOAC and Signed with Message Token, and provides all the features of both.
- **Signed Extended ATS**
This is the recommended way of digitally signing Aviation messages according to the ICAO SARPs.

See more detailed information in the **Security** section.

Xuxa General

This page allows you to set some general preferences. The checkbox *Prompt to select account at startup* can be useful in a demo situation, when you have several accounts configured and want to choose with one to use before connecting to an account.

Default way to presenting O/R Names

Most X.400 User Agents display users as O/R addresses, but it's possible to use Directory Names (Dns) which are more friendly and provide a good abstraction.

The preference control in this page allows you to choose which one is the default way of presenting O/R Names: as O/R addresses only (the default), as a DN if present, or as both. In this last case, what is shown is the DN, followed by a \$ and then the O/R address.

9. The Address Book

Xuxa doesn't allow you to enter the O/R address manually, this is a design feature to prevent errors due to mistyping and to enforce the concept of Directory based user agents. This version connects to the Directory (DSA) to allow Xuxa users to browse and search for O/R addresses.

The information in the Address Book has to be created and maintained by an external program. If you have run the Isode Quick Configuration tool, it will have created a number of users, and also created an Address Book.

If you haven't run *quickconfig* on the machine where you are running Xuxa, you will need to generate one with all the addresses that you are going to use for testing.

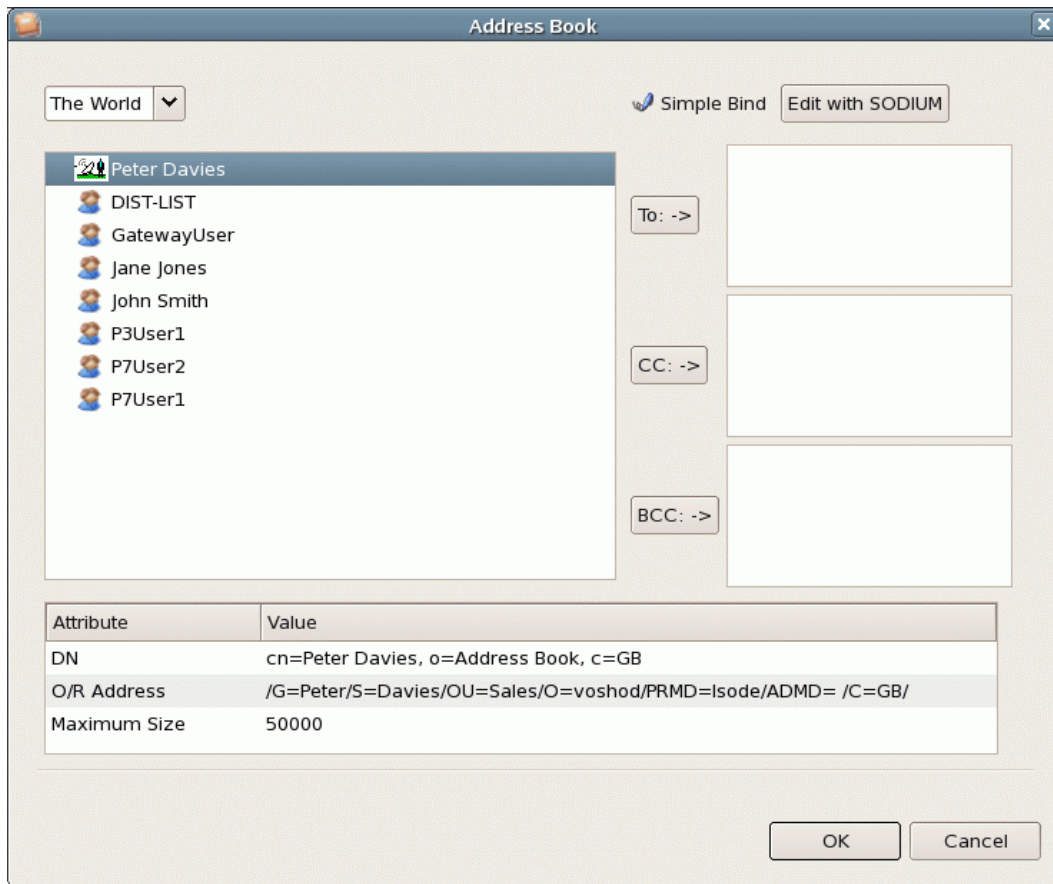
The first thing you need to do is to generate the place in the DIT where you will store your Address Book. By default this is "*o=Address Book, c=??*".

You can create this entry in the DSA using any Directory User Agent, for example DDM or SODIUM.

Once you have this set up, you can configure the White Pages templates in EMMA to automatically generate the White Pages entries in your Address Book.

Finally, another easy way to add entries to your Address Book is to launch SODIUM from within EMMA.

When you click on the Address Book icon in Xuxa, if you have configured the DSA information correctly, a window similar to the one shown below will pop up.



This window shows that Xuxa is acting as a Directory User Agent, because the information shown is retrieved from the DSA. Once you select an entry, some of the entry's attributes will be shown in the display at the bottom of the Address Book window.

In the case shown above, you can see that the user Peter Davies is different from the other users in the window, because it has the "Maximum Size" attribute set, and that means that a different icon is used to show this difference.

If you want to compose a message to a user, simply select it and then click on the To, CC or BCC buttons, and then click on OK.

Adding users manually to the Address Book

There are cases when you may want to add a user to the Address Book manually. This is the case, for example, of an external user (that wasn't created with EMMA), or one that is local but was created by a user template that didn't have the White Pages set.

In that case, you have to use Sodium to create the entry in the DSA for that user. For that, you can click on the "Edit with SODIUM" button.

Please note: unless you have configured correctly the DSA Authentication, neither

Xuxa (or SODIUM) will let you modify the information in the Directory, so make sure that you have connected with at least “Simple Bind”.

Once you have SODIUM running (either standalone or launched from Xuxa, is the same), you can easily create a new user by cloning an existing one. Select an existing user, click on the “*Clone*” button at the bottom of the screen. Then enter the new user as it will appear in the Address Book (a short, easy to identify name), and click on OK. A new editor will appear, and you will have to complete all mandatory fields before you can click on Add. In case you have used cloning, remember to change the existing O/R address in the Messaging tab to the new one. Use copy-and-paste to avoid typing errors.

10. Basic operation

Listing the content of a mailbox

If you have configured Xuxa correctly, when you run it, the first thing it will do is to automatically connect to the Message Store and list the contents of the mailbox. If there are no messages in the user mailbox, the message table will appear empty.

Sending a message

You can start by testing sending a message to yourself. Provided that you have your own O/R address entered in the Address Book, you can do this by clicking on the *Write* icon. A new window appears, click on the small orange book icon and this will make the Address Book window pop up.

Select the address of the user you want to compose a message to (yourself ?) and then click on the *To:*, *Cc:* or *Bcc:* buttons. You can also double click on the address to have it added automatically to the *To:* field. After you have finished, you have to click on *OK*.

Enter the Subject of the message, and type something on the content editor, and finally click on the *Send* icon. A confirmation window with “Message submitted” will appear. You will also see the *Message Submission Identifier* returned by the MTA, and also the submission time. The *Message Submission Identifier* allows you to correlate sent messages with delivery reports.

Receive your message

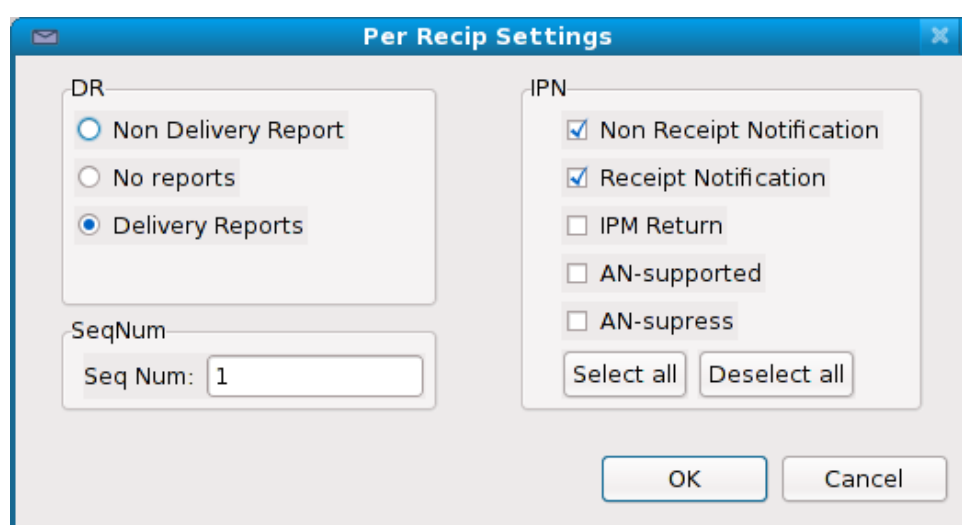
To receive the message you have sent to yourself, click on the *Get Mail* icon. If you have configured the Register an AutoAlert option in the Preferences, messages will be automatically fetched in the background.

Send a message requesting Delivery Reports or IPNs

By default, you will only get a Delivery Report (DR) if the message fails to be delivered. To send a message requesting a positive Delivery Report, compose a message like before, and click on the “*Per Recip*” button that appears on the same line as the destination address.

In X.400 Delivery Reports and IPNs are requested on a **per recipient** basis, so you can have a combination of addresses, for some you request a positive DR, for some just the negative DR and for some you can request receiving no reports at all.

If you want, you can change the default value for both the Delivery Reports or IPN requests, by setting the value you want in the Preferences.



Notifications, also known as read receipts are formally called Inter Personal Notifications (IPNs). The current version of Xuxa allows you to request the IPNs, displays the values of the IPNs received, and since v2.1 it also generates IPNs when receiving a message.

The generation of Delivery Reports (positive and negative) is handled by the MTA, and Xuxa displays the received DRs and IPNs as English text messages.

If you are going to sign the message using a Message Token, you can also set the message sequence number. Start with 1, and increase it for every message you send to the user.

11. Bodyparts (attachments)

This version of Xuxa provides better handling of bodyparts (attachments), both while composing a message and displaying bodyparts of received messages.

Generation

By default, all messages are sent using an IA5 bodypart (which is basically plain text without special characters) with the content of what the user types in the editor. This can be changed in the Preferences to make it send General Text bodyparts by default. Another Preferences option allows you to change the encoding of attachments in Pure X.400 and EDI modes. By default attachments are sent as File Transfer Bodyparts but it can be changed to use Binary.

Attachments can be added to a message, the type of bodypart used depends on the mode Xuxa is in, and also on the file extension of the bodypart.

In the case of Aviation mode messages using the Flight Plan, NOTAM and MET templates they are presumed to be **replacing** the content typed. Flight plans are expected to end in “.fpl”, NOTAM messages in “.notam”, BUFR messages in “.bufr” and OPMET messages in “.opmet”. All other attachments (including BUFR messages) are sent using the File Transfer Bodypart (FTBP).

For demo purposes, if the attachment file name ends with “.text” IA5 will be used, and if it ends in “.gentext” General Text will be used instead (this last encoding is not always working correctly at the moment).

Reception

If you compose a message with Xuxa or another X.400 user agent, this version of Xuxa will be able to recognize and handle the following bodyparts:

- IA5
- General Text
- Binary
- FTBP

Selecting the bodypart from the list will display the content of the bodypart for IA5 and General Text. For FTBP a summary of the information will be displayed, but not the content itself. If you want to save the bodypart, you can right click on the bodypart in the Bodyparts list, or select the menu option Messages -> Save Bodypart.

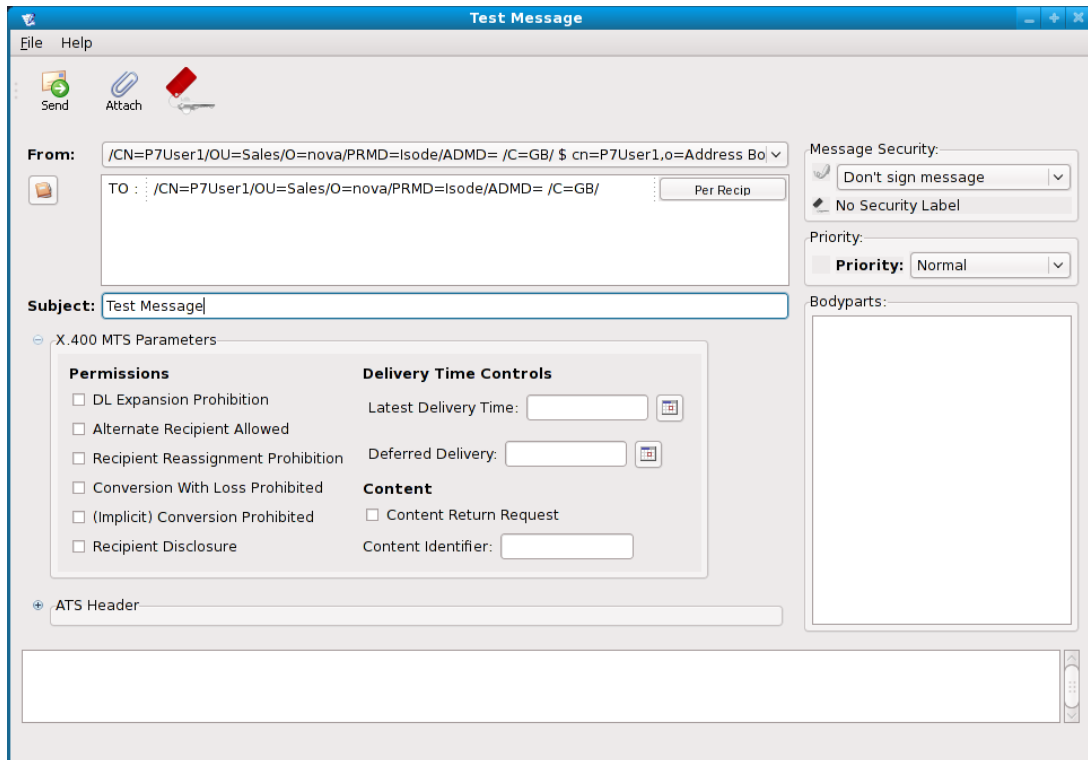
It will recognize but not handle these bodyparts:

- G3Fax
- Message (as in Forwarded message)

Future versions will allow you to handle other bodyparts better.

12. MTS Parameters

XUXA can be used for capability testing and demonstration of M-Switch X.400, using MTS and other features shown below.



The following M-Switch capabilities can be tested using the addressing settings:

- Generation of delivery and non-delivery reports in normal operation to good and bad addresses.
- Generation of delivery reports on operator actions, such as message timeout and deletion.
- Alternate recipient. This gives an alternate address to use, if the primary one fails (either by being invalid, or if delivery is not possible in an appropriate time frame). It can be tested by using an invalid primary address and setting an alternate recipient.

The following M-Switch capabilities can be tested using the X.400 MTA Parameter settings:

- DL Expansion Prohibition. Will give DR if message is sent to a distribution list.
- Alternate Recipient Allowed. If set, the MTS may send the message to an alternate recipient (specified on the receiving system), in the event that the originator specified address is invalid. This can be demonstrated by setting "Admin Alt. Recipient" in M-Switch.
- Recipient Re-assignment Prohibition. This prevents the message from being

sent to another recipient by use of a redirect. This can be demonstrated by use of a redirected address.

- Conversion with loss prohibited. This prohibits message conversion that will lead to information loss. None of the standard M-Switch channels performs a “lossy” conversion. However, any M-Switch conversion channel can be configured to say that it loses information. This can be used to demonstrate this flag.
- (Implicit) Conversion Prohibited. This prohibits all conversion. It can be tested by sending a message to a recipient behind a gateway, such as a MIXER gateway, which will be rejected with this parameter set.
- Recipient Disclosure. This allows the message recipient to see all the MTS recipients. This cannot be demonstrated with the current XUXA version, as other MTS recipients are not shown.
- Latest Delivery Time. This can be used to set the latest time at which a message may be delivered. It can be tested by stopping M-Store X.400 to prevent message delivery.
- Deferred Delivery. The capability to defer delivery of a message can be demonstrated easily.
- Content Return Request. This requests that the original message is returned with negative delivery reports. Although the current version of XUXA does not display returned content, the capability can be demonstrated by requesting content return on a large message to a bad address. Content return can be inferred from the substantial increase in size of the delivery report.
- Content Identifier. This can be set to arbitrary values in a message, and viewed in associated DRs.
- Original EITs (Encoded Information Types). XUXA sets this when sending a message. On reception, this can be viewed, to see both body part types, and character set types used in general text. FTBP content types are not shown in the current version of XUXA.

13. The Sent folder, Outbox folder & testing

Since R14.0 the P7 Message Store supports keeping copies of sent messages in the user's mailbox. This feature is now used by Xuxa to show the Sent messages, which are the ones that are provided by the Message Store.

This feature allows a new method of testing the messaging infrastructure with Xuxa: one or more Sent messages can be selected, and then using the menu option **Messages** -> **Copy to Outbox**, it will place a copy of the sent message in the Outbox, ready to be sent to the MTA.

In this way, test batches of messages can be prepared and then run at the same time.

14. The Log view

Right next to the *Preview* tab in the middle of the screen, there's a new tab called *Log*.

Up until R14.4, Xuxa used to log the main operational events to stdout. This was available for Unix users, but not for Windows users.

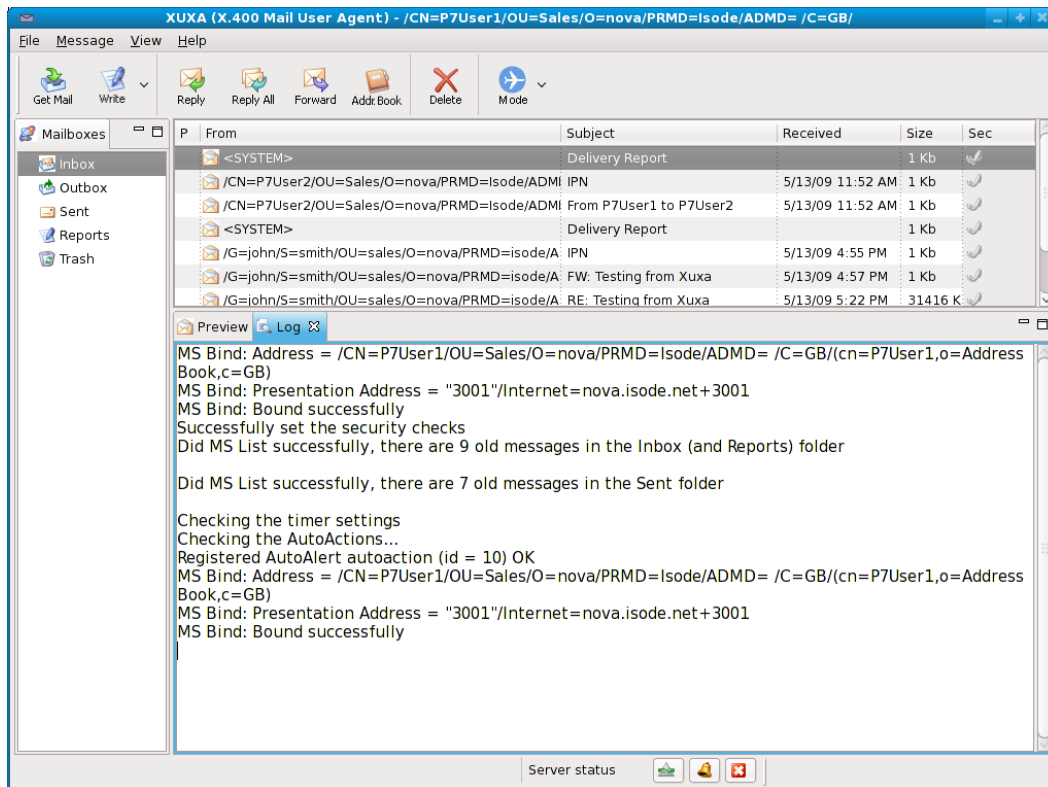
The new *Log* tab captures all the information that used to go to the stdout, and displays it in a standard text editor.

What gets logged varies from feature to feature, but it basically shows more low level information that is not normally available in the graphical interface.

Here's a typical logging :

```
MS Bind: Address = /CN=P7User1/OU=Sales/O=nova/PRMD=Isode/ADMD= /C=GB/  
(cn=P7User1,o=Address Book,c=GB)  
  
MS Bind: Presentation Address = "3001"/Internet=nova.isode.net+3001  
  
MS Bind: Bound successfully  
  
Successfully set the security checks  
  
Did MS List successfully, there are 9 old messages in the Inbox (and  
Reports) folder  
  
Did MS List successfully, there are 7 old messages in the Sent folder  
  
Checking the timer settings  
  
Checking the AutoActions...  
  
Registered AutoAlert autoaction (id = 10) OK
```

One interesting feature is that you can still use the other aspects of Xuxa as you see the activity being logged. For example, you can send a message, delete a message, or see what gets logged when a message is received.



15. Troubleshooting and FAQ

Here are the typical problems you can encounter when running Xuxa

The version of Java installed is wrong

Java 5 (also known as 1.5) is required. If you are running Java 1.4 you will get an error like this:

```
java.lang.UnsupportedClassVersionError: com/isode/simplex400api/MStore
(Unsupported major.minor version 49.0)
```

The Message Store is not running

You will get an error box with this message: *“It is not possible to connect to the Message Store. Reason: x400_ms_open failed: Internal config error”*.

Action:

Check that the *presentation_address* key of the configuration file is correctly specified.

If it is, check that Message Store is running on the target system (look for the pumice process).

If it is running, check that you can connect from the machine where you are running Xuxa to the port where the Message Store is running. Check if you can ping the machine, and also if you can telnet to the Message Store port (*telnet myserver.mycompany.com 3001*)

The Message Store user + password is incorrect

You will get an error box with this message: “*It is not possible to connect to the Message Store. Reason: invalid credentials for connection*”.

Action: Check the user and password combination is correct by double checking your configuration file and the configuration of the Message Store using EMMA (if it is an Isode server).

Cannot open the Address Book

If you get an error box with this message: “*The DSA access details have to be configured before trying to access the Address Book*”.

Action: Follow the instructions, and set the DSA and Address Book information to connect correctly. You can copy the information from another DUA like SODIUM or DDM. You need to restart the program for the new DSA parameters to take effect.

The DSA connection parameters are incorrect

This can happen if, for example, you have misconfigured the DSA User name and password.

FAQ

Do I need a valid Isode license file to run Xuxa ?

No, you don't need an Isode *license.dat* file in the machine for the present version. The copyrights of the program still apply nevertheless.

16. Advanced topics

Xuxa modes

In order to make the program adapt better to the needs of the different markets that use X.400, Xuxa provides three specialized modes of operation. This can be changed by clicking on the small black triangle that is part of the *Mode* icon.

One the mode is selected, two things will happen: one is that the new message templates will change to suit the mode the program is in. The other is that any special behaviour for the mode will be activated.

Aviation mode:

This mode allows you to compose AMHS messages by attaching a pre-formatted content from a file. There are templates for Flight Plans (.fpl), NOTAMs (.notam), MET (.met) and BUFR (.bufr). See **Use of templates** below for an explanation. Once the attachment file is selected, its contents will be used to compose an AMHS message. The standard X.400 attributes can be set as normal, but in Aviation mode also the ATS Headers can be set. The current version (v2.1) supports both Extended

and Basic Encoding.

Military mode:

The following Military features are supported:

- In military mode XUXA encodes Inter-Personal Messages as P772 according to STANAG 4406. Arbitrary P772 messages may be imported from files. This enables testing that an X.400 messaging infrastructure correctly supports P772 message transfer.
- Six level military message priority (deferred; routine; immediate; priority; flash; override) can be used.
- One P772 X.400 Heading Extension (Message Type) can be set and displayed in the Military Header section. More heading extensions will be added in the future.

* A new Military Header has been added in version 3.0, for now it only has the parameter Message Type, which has four values: Exercise, Operation, Project and Drill.

EDI mode:

XUXA supports two standard X.400 features of specific interest to EDI customers:

- Display of general text body parts, as well as IA5.
- Setting general text to: "West European", "East European", "Cyrillic", "Arabic", "Greek", "Hebrew", "Other Latin-using languages".
- Support of FTBP (file transfer body part), and the ability to send arbitrary named files, such as Word documents.

Pure X.400 mode:

This mode should be used when no market-specific behaviour is required, just the pure X.400 standard behaviour.

Use of templates for composing messages

Once you have set the mode in which you want to work, the templates available will reflect the mode of operation. For example, when operating in Aviation mode, the templates to create a new message will be: Flight Plan, NOTAM, MET and BUFR.

Digital Signatures

If Xuxa is correctly configured with security information (see the preferences section **Security** above), it is possible to request digitally signing a message when in aviation mode.

On reception of a message, if the message is digitally signed, the information about

the digital signature appear on the message Preview window. You will see the Distinguished Name (DN) of the user who signed the message, and the DN of the Certification Authority (CA).

Two P12 files are provided for testing, which correspond to the DNs *CN=AMHS Tester* , *CN=Isode, C=GB* and *CN=AMHS Tester2* , *CN=Isode, C=GB*
They are issued by the CA *CN=AMHS CA* , *o=Isode, C=GB*

If you want to create your own P12 certificates, please follow the instructions in this X.509 Evaluation Guide, <http://www.isode.com/Documentation/X509EVAL.pdf> , copy the certificates to the SHAREDIR/x509 directory, and then configure Xuxa to use your new P12 certificates.

Security Labels

XUXA can generate and display X.411 Security Labels.

In order to add a security label to a message, you have to click on the Security Label icon on the compose window and select a file that contains the security label that you want to use.

At the moment, you can choose between files with security labels encoded as XML or in BER (binary). A future version will allow you to compose your own security label or select it from a catalogue.

Message Priority

Xuxa allows you to set the priority of a message that you are composing. Just select the priority you want to give the message from the pull down list in the New Message window. There are three options: Normal Priority. High Priority and Low Priority. In Military mode there are more priority options.

When receiving messages, the priority will be displayed in the Preview window. Also an icon will be shown in the Inbox's message table (red exclamation mark for High Priority messages, and blue arrow pointing down for Low Priority)

Do not confuse the X.400 Priority value with the AMHS specific value Message Priority value that is part of the AMHS Headers. Also note that Delivery Reports have no priority.

When in Military mode, the set of priorities is different, and this is reflected in both their names and their icons.

Probes

When composing a message, you can select the menu option File -> Send as Probe. The current message being composed will be sent as a probe instead of as a message. You will get a Delivery Report (if the MTA supports probes) indicating what would

happen if you sent the message properly.

Optimizing the startup time for large mailboxes

By default, XUXA lists the contents of the mailbox and reads all the messages in memory. While this works well with small mailboxes, it can delay the startup if you have a large number of messages in your inbox.

In that case, you can set up a Preference option in the P7 Message Store page, indicating that you want the messages to be fetched *on demand* instead of *at startup* (the default).

17. AMHS Features

Templates for attaching common AMHS messages

In case you already have the content of a common AMHS message (Flight Plans, NOTAM, MET and BUFR), you can easily attach the content to compose the message. You do this by clicking on the right hand side of the *Write* icon, and select the appropriate message type from the pull down list. Alternatively, you can choose *Message -> New Message -> NOTAM* for example.

Xuxa offers you to attach a file from a default directory, and this can be configured in the Preferences (*Xuxa General -> Templates*)

Some sample messages (flight plans, NOTAM, EDI, General Text and BUFR) are available by contacting Isode support.

One thing that Xuxa will do is to recognize that an incoming message is of a given type, and show the corresponding GIF file. If you click on the GIF, you will see the actual content. If you find problems with the recognition, please let us know by sending the message in question, as we need feedback.

Templates for composing common AMHS messages

In Aviation Mode, when sending and receiving Flight Plans, NOTAM, MET and BUFR messages, Xuxa will allow you to set AMHS specific values, like Filing Time, Message Priority and Originator's Reference.

The behaviour of the application will be different in this mode. For example, if you set the ATS Header Message Priority to be *107 [AFTN (SS) / CIDIN (2)]* then the message that is sent will have automatically requested both Delivery Reports and IPNs, and also it will be set to have High Priority.

Similarly, if you choose ATS Header Message Priority to be *14 [AFTN (KK) / CIDIN (7)]* the priority will be set to Low.

AMHS Encoding choice

Xuxa can send messages in AMHS Basic Encoding or in Extended Encoding. You can see the difference by looking, for example, by looking at the format of the ATS Header value Filing Time. If it is just 6 digits, it is basic encoding, but if it has a UTC date then it's extended encoding.

According to the ICAO SARPs, it is not possible to mix recipients that require Basic Encoding and Extended Encoding. Xuxa will check the capabilities of all users in the Address Book, if they are present, and warn the user in case there is an inconsistency.

If you have to send a message to a mix of Basic and Extended users, then you have to force the use of Basic Encoding, by selecting the option *Force Basic Encoding* in the *Encoding Choice* parameter under *ATS Header*.

18. Running multiples copies of Xuxa in one machine

It is now much easier to run multiples copies of Xuxa in one machine. If you are running on Unix, the simplest thing is to run them as different Unix users.

If you are running on Windows, or don't want to have two different Unix users, then you can run a copy of Xuxa, which for example is configured to connect to user A.

Then run a second copy of Xuxa, which will initially connect to the same user A, and configure it to use user B. Quit the program and start again, and it will connect to user B, so you will have two programs running, one connected to user A and the other one to user B. The disadvantage of this method is that if, for whatever reason, you quit the user A program, you will have to repeat the configuration.

19. Notes

The following Preferences are not currently used:

- Colour scheme
- Default date format
- DSA Start DN and DSA Favourite DN

20. Change log

v5.0, April 2009 (R14.4)

NEW FEATURES:

- Use Eclipse 3.4.1
- Implement Message Token Digital Signatures
- Add a new log view tab in the message preview
- Set the content length and Original EIT when sending probes
- Added support for X.411 Security Labels
- Rearranged the mail preview window to make better use of the available space
- Configurable display of the DN of an originator, if available

BUG FIXES:

- Prevent XUXA from adding an extra IA5 bodypart when sending from Outbox
- Remove unnecessary settings of message content type
- Don't generate two bodyparts in AMHS Basic Encoding
- Fix bug that stops Xuxa from using the "Disable Config Requests"
- Fix display of message recipients in the Sent folder
- Attachments can be saved directly from the attachment table
- The Military Header value of Message Type is correctly set and read
- The Military Priorities and Precedences are now not mixed up
- A few minor Xuxa improvements and bugs fixes relating to security labels

v4.1, July 2008 (R14.3 final)

NEW FEATURES:

- Allow P3 Delivery (i.e receive messages via P3, not P7)
- Make Xuxa work with broken P7 Message Stores
- Improve behaviour on Windows Vista
- Improve layout of SendAction and improve P3 submission

BUG FIXES:

- Removed the "c=xx" hard coded DN
- Improve Xuxa account switching
- Remove unnecessary 'since' parameter to the MS List function
- Remove duplicated text and typos in Xuxa's IPN display

v4.0, October 2007 (R14.1 final)

NEW FEATURES:

- Upgraded Eclipse and SWT from 3.2.1 to 3.3.0

- Show Distribution List expansion history if set
- Allow the configuration of user DN, and set it when composing messages
- Set message store autoalerts back on for by default

BUG FIXES:

- Removed the "c=xx" hard coded DN
- Remove duplicate users when replying to messages
- Show the correct military priority icon in the message list (military mode)

v3.3, April 2007 (R14.0 final)

NEW FEATURES:

- Added support for reading the Sent folder in the Message Store
- Added support for copying messages to the Outbox folder
- Implemented Reply All
- Improved saving of bodyparts (on demand via menu option)
- Added a change log viewer

BUG FIXES:

- Priority display labels and icons in military mode
- Display of Cc: addresses as To:
- Improved management of mailbox size limits

v3.2, March 2007 (R14.0 beta)

NEW FEATURES:

- P3 Support, and P3 submission with P7 access
- Allow configuration of loading messages on demand
- Allow configuration of maximum mailbox size
- Allow sending a message as a probe
- Implement saving bodyparts (always request)
- Allow requesting a new MS bind per message sent and/or per new "get mail" operation