

# ixi-UMS FAPI Connector

**Installation & Configuration** 

**Onlineversion** 

# Content

1 O <sub>1</sub>	verview	3
1.1	Features	3
1.2	Requirements	3
1.3	Functionality	4
	Process Inbound	
	Process Outbound	
	Licensing	
2 In	stallation	7
2.1	Language	7
2.2	Welcome	7
2.3	License Agreement	8
2.4	Destination Location	8
	Installation	
	Finish	
	i-UMS FAPI Connector Management	
	Global Settings	
	1.1 Global	
	1.2 PCL Mode	
	1.3 Log	
	Manage Instance	
	Instance name	
	<b>3.1 General</b>	
Ū	3.3.1.1 Mode	
Ū	3.3.1.3 Other directories	
-	3.2 Outbound Definitios	
	3.3.2.1 General	
3	3.3.2.2 Format	18
3	3.3.2.3 Header	19
_	3.3.2.4 Coverpage	
	3.3 Outbound Default Settings	
Ū	3.3.3.1 Sender information	
-	3.3.3.2 Sender Permission	
_	3.3.3.4 Coverpage general	
-	3.3.3.4 Coverpage phone etc	
	3.3.4.1 Faxe	
-	3.3.4.2 Reports	
_	3.5 Log	
	Information	
4 In	fo	29

4.1	About estos	29
4.2	Version	29

# 1 Overview

ixi-UMS Enterprise provides its unified messaging features with Fax, Voice and SMS for various system environments. For the integration into third-party systems, ixi-UMS Enterprise among other things offers the ixi-UMS FAPI Connector.

In order to ensure the connection of the ixi-UMS FAPI Connector to the third-party system, the respective interfaces for the connection between the ixi-UMS FAPI Connector and the third-party system must be realized according to the specifications of the ixi-UMS FAPI Connector.

## 1.1 Features

The ixi-UMS FAPI Connector can be customized for the connection to the data source individually. The following customizations are possible:

- Fax text in ASCII- or HTML-format in the job file
- Multiple Instances possible
- Multiple recipients possible per message
- Attachments in every render-capable format (server-rendering)
- Multiple attachments
- Multiple fax jobs in one job file
- All the descriptions of the header fields arbitrary
- Processing of the message types Fax, SMS, Voice and TTS
- Header information in single lines or in one line one after another
- Reports to other ixi-UMS Enterprise Connector
- · Processing of inbound messages

# 1.2 Requirements

- Windows 10 (32bit / 64bit)
- Windows Server 2012/2012R2
- Windows Server 2016/2019
- ixi-Framework 7.00
- at least ixi-UMS Kernel 7.00

Overview 3

# 1.3 Functionality

The job file is provided in the directory SPOOLOUT by the third-party application. This directory is periodically browsed by the ixi-UMS FAPI Connector for files that correspond with the <u>determined file filter</u>. The data part can be passed on in the job file or as attachment. The ixi-UMS FAPI Connector converts the header part into ixi-UMS format. In the process, not available yet required header information is extended with the <u>default information</u>.

#### Example:

Header passed on to the ixi-UMS FAPI Connector:

@@RECIPIENT:+49 8142 47989798

@@RECIPIENT:+49 30 798946

@@SENDER:meier@firma.de

@@PRIORITY:2

@@COVER:

@@ATTACHMENT:f:\attachments\welcome.doc;0

@@SENDER DDI:789

Header like passed on to the subsequent ixi-UMS Enterprise component by the ixi-UMS FAPI Connector:

MAIL FROM:meier@firma.de

RCPT TO:fax#+49 8142 47989798

RCPT TO:fax#+49 30 798946

Importance:normal

X-IFAXDATA-HeaderFile:

X-IFAXDATA-FaxEnabled:1

X-IFAXDATA-FaxLocal:1

X-IFAXDATA-FaxCountryWide:0

X-IFAXDATA-FaxInternational:0

X-IFAXDATA-Department:

X-IFAXDATA-DChID:789

X-IFAXDATA-SenderID:

X-MaxPages:

X-COVERINFO-Businessphone1:

X-COVERINFO-BusinessFax:

X-COVERINFO-Company:

X-COVERINFO-Address:

X-COVERINFO-Department:

If one of the "Must"-fields is not available or if the conversion cannot be executed successfully, the job is classified as error job and is provided in the subdirectory ERROR together with an error report.

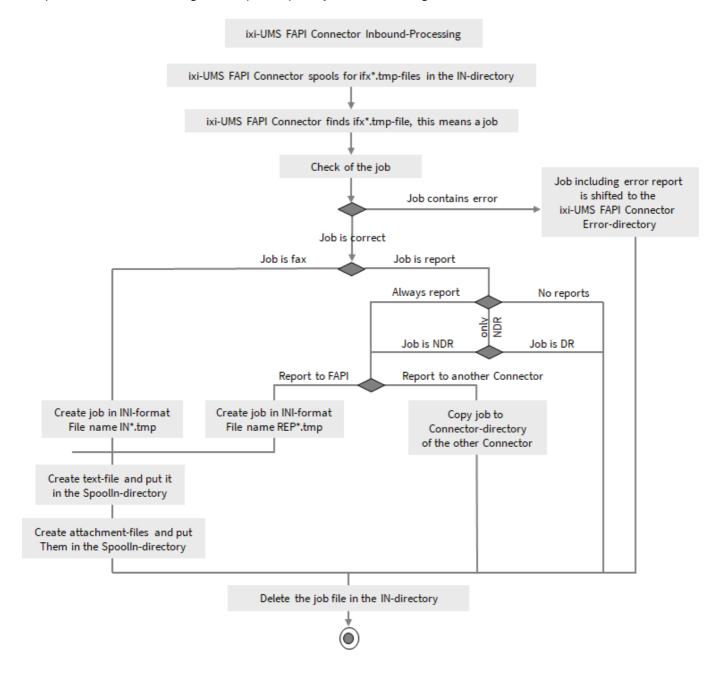
The data part of the fax message can be passed on as attachment or in the job file as ASCII-text or HTML-format. The data part is embedded in Mime-format.

When multiple messages are stated in one job file, an individual outbound message file is generated for every job.

After that, the file is passed on to the ixi-UMS Render Connector and processed.

## 1.4 Process Inbound

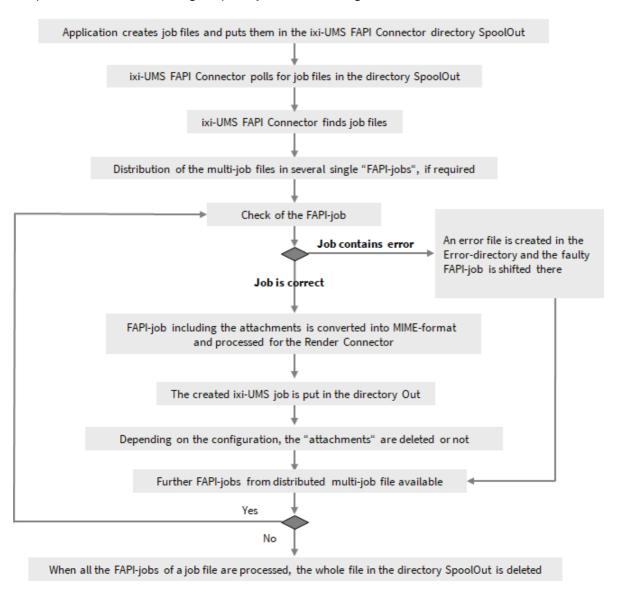
The process for inbound messages and reports is portrayed in the following.



Overview 5

## 1.5 Process Outbound

The process for outbound messages is portrayed in the following.



For information about the required format of a job file, please refer to the respective articles at "Additional Information".

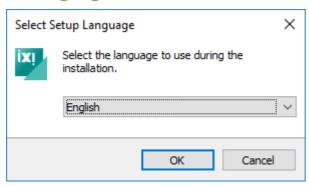
# 1.6 Licensing

The license for the ixi-UMS FAPI Connector is controlled via the license key of the ixi-UMS Kernel. You can request a demo license at: <a href="mailto:license.com/license.com

# 2 Installation

- 1. Remove/uninstall all previous versions of the ixi-UMS FAPI Connector
- 2. Log in with the ixi-UMS Administrator Account
- 4. Install the ixi-Framework 7.00
- 5. Install the ixi-UMS Kernel (optional; can also be installed on separate machine)
- 6. Install the ixi-UMS FAPI Connector

# 2.1 Language

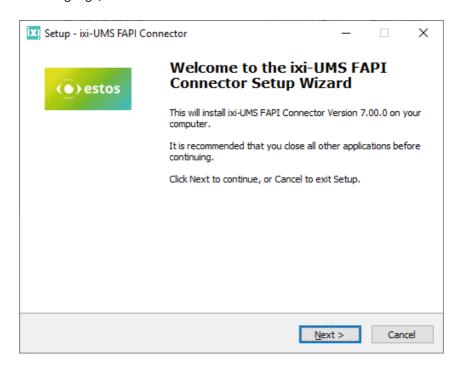


The setup of the ixi-UMS FAPI Connector can be executed in the languages German and English.

The language of the setup does not determine the language of the MMC-SnapIn. This was determined by the first ixi-UMS Enterprise component installed and can be changed as described at Additional Information.

# 2.2 Welcome

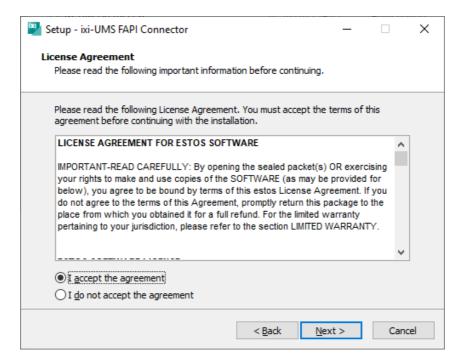
After having determined the language, the installation is started.



Overview 7

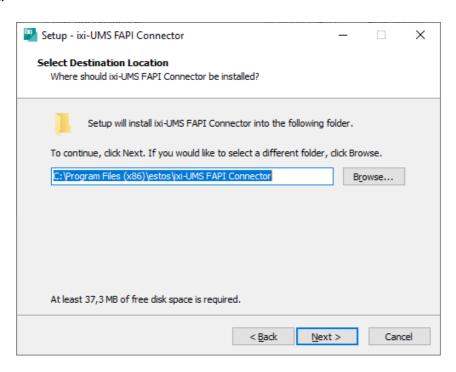
# 2.3 License Agreement

The end user's licence agreement is indicated. Peruse this carefully and choose "I accept..." Only then the installation can be continued.



## 2.4 Destination Location

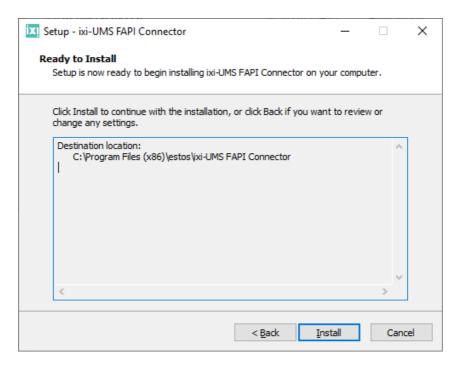
After that, you have to determine the installation path. The default path is a path on the directory level of the ixi-Framework installed beforehand.



8

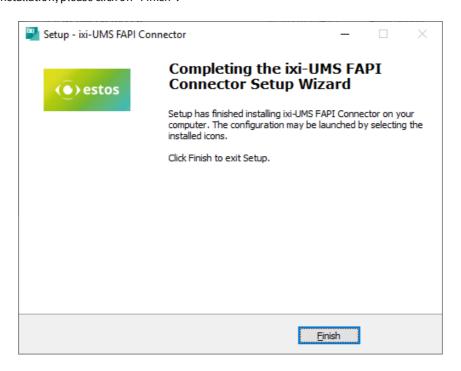
# 2.5 Installation

Before the copying is started, another summary is displayed.



# 2.6 Finish

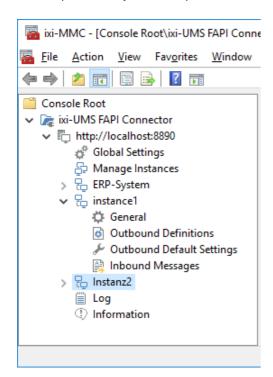
In order to finish the installation, please click on "Finish".



Installation 9

# 3 ixi-UMS FAPI Connector Management

During the installation, the required SnapIn is registered on the machine automatically. The SnapIn - like any other SnapIn - can be added to an MMC.



If the SnapIn shall also be available on other machines, the "FAPIMgmtSnapIn.dll" must be registered with "regsvr32" on the respective machine.

All the required files are deposited in the folder "..\ixi-UMS FAPI Connector\Management". The folder should be copied to the respective machine completely.

Via right-click on "ixi-UMS FAPI Connector" and "Add", other ixi-UMS FAPI Connectors from version 7.0 on installed in the network can be added to the console and therewith also be configured.

#### Changing the language of the SnapIn

How to switch the language of the SnapIn after installation is explained in the additional information under "Changing MMC Language"

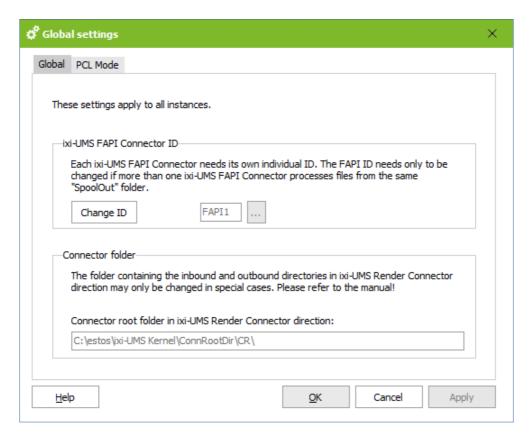
10 Installation

# 3.1 Global Settings

The following settings are valid for all instances of ixi-UMS FAPI Connector.

## **3.1.1** Global

If several ixi-UMS FAPI Connectors are in parallel operation and they get the files from the same directories, each connector must be assigned an individual ID.



The ixi-UMS Enterprise components use "transfer directories" to transfer the incoming and outgoing UMS messages from one component to another.

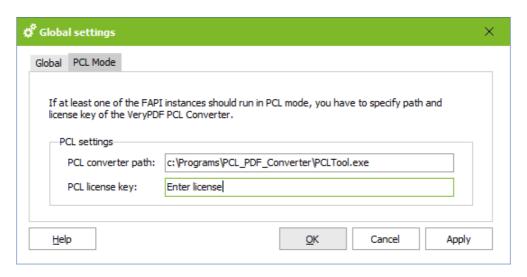
The connector directory is read during installation from the installed ixi-UMS Kernel or ixi-UMS MDS. All required ixi-UMS FAPI Connector directories for the file transfer are created in this directory.

The path specified here should only be changed in special cases, e.g. if a ixi-UMS MDS is installed later on the same computer.

#### 3.1.2 PCL Mode

If "PCL-Control characters" are stated in the fax messages to be sent, the fee-based software "VeryPDF PCL Converter" (http://www.verypdf.com/pcltools/index.html) is required for the printing of these files in order that the control characters are interpreted and converted correctly. Otherwise, it is interpreted and printed as normal text.

The path to "including PDFTools.exe" and the required license must be entered here.

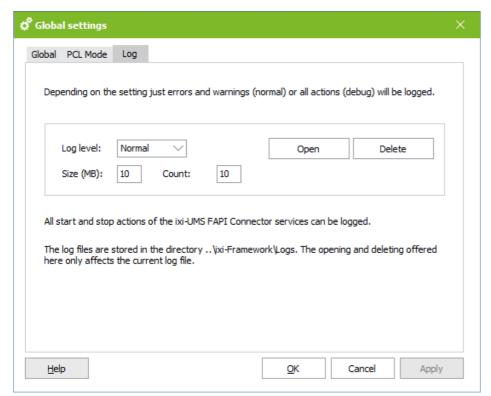


The PCL mode can be <u>activated per instance</u>.

# 3.1.3 Log

In this log, the actions of the service are logged, as well as the paths of the instances specified in each case. It is possible to specify how large the log files should become and how many files should be preserved.

Count: 0 = Log files are not deleted.
Size: 0 = Log file becomes infinitely large



#### Log Level:

#### None

No logfile will be write

#### Normal

only errors and warnings are logged.

#### Debug

All processes are logged. The log level should be set to "Debug" for debugging only, not steadily.

The current log file can be opened using the "Open" button and removed using the "Delete" button.

Older log files must be opend in the file system under

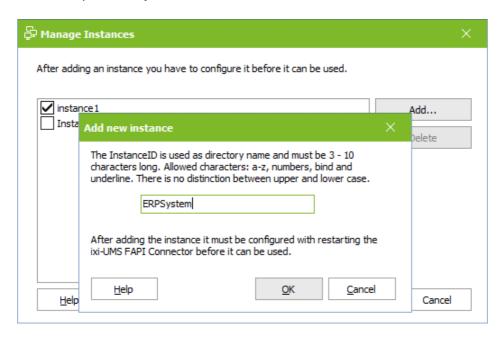
...\ixi-frameworks\Logs

# 3.2 Manage Instance

To connect several different applications, several instances can be created in ixi-UMS FAPI Connector. The instances can be switched active or deactivated (e.g. for preparing the connection).

Each instance can be configured individually. If files are to be sent from different systems, further instances can be created using the "**Add**" button.

The specified name is used to create the required connector directories. Each instance must have a unique directory name.



During creation, all required directories are automatically created in the connector main directory specified under <u>Global Settings</u>. Additionally, the directory paths can be <u>specified / changed separately</u> for each instance.

After creating the instance, it must be configured and the ixi-UMS FAPI Connector service must be restarted.

## 3.3 Instance name

For each instance, the <u>Mode</u>, <u>Directories</u>, <u>header and format specifications</u> and the behaviour for <u>Inbound Messages</u> can be set individually.

#### 3.3.1 General

Under "General" the general working method and directories are defined.

#### 3.3.1.1 Mode

For each instance you can define in which mode it should work.

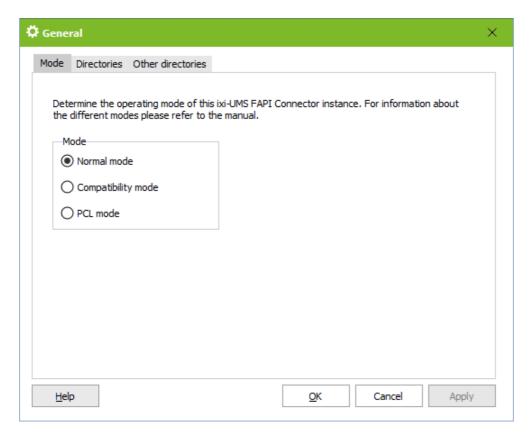
#### **Normal mode**

Formats, the header fields and names can be defined and changed as required.

#### Compatibility mode

Only files with a specified format are processed.

All format specifications and header fields are preset and cannot be changed.



## **PCL** mode

If "PCL control characters" are specified in the fax messages to be sent, the PCL mode must be activated. All <u>format specifications</u> and <u>header fields</u> are preset and cannot be changed.

For more information about setup and the software required, see Additional Information.

#### 3.3.1.2 Directories

The ixi-UMS Enterprise components use "transfer directories" to transfer the incoming and outgoing UMS messages from one component to another. All directories are created during the installation.

The transfer directories, in which the job files for sending from the connected system are stored, incoming messages are fetched from the connected system or the faulty jobs are stored, can be individually adapted.

#### Outgoing messages are stored under (SpoolOut)

Specify the directory in which the connected system stores the job files for shipping.

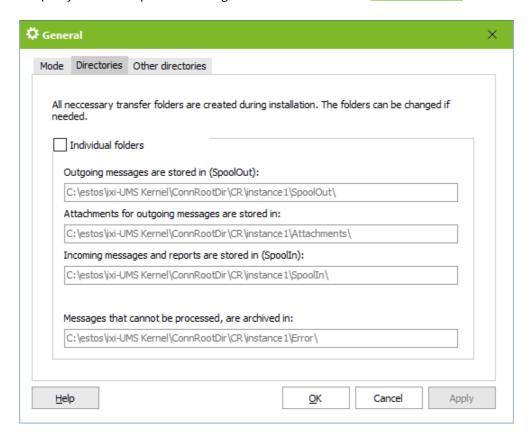
#### Attachments for outgoing messages...

Enter the directory in which the connected system stores the attachments (optional) for sending.

### Incoming messages and reportas...

Specify in which folder the incoming messages, the feedback messages created by the ixi-UMS Kernel and the error messages created by the ixi-UMS Render Connector are stored.

If required, you can specify a folder for positive and negative confirmations under Other directories.



## Messages that cannot be processed...

Outgoing files that could not be processed by the ixi-UMS FAPI Connector are moved to the "Error" directory. For these faulty files the following applies:



If it is specified under <u>Reports</u> that reports should be returned to the ixi-UMS FAPI Connector, the error directory should be monitored for incoming files.



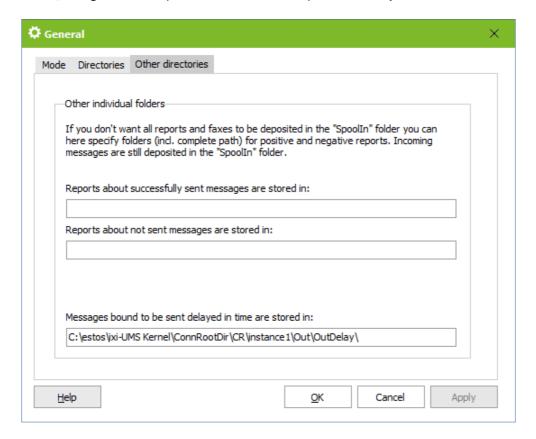
If under <u>Reports</u> it is defined that **reports should be given to another ixi-UMS Connector**, the faulty file is put into the error directory and <u>additionally a error-message</u> for the transfer to the other <%PRODUCTNAME%> Connector is passed. The recipient of the response is the original sender of the message.

Please note that the service account of the ixi-UMS FAPI Connector requires full access to all specified directories. This should be checked especially if the ixi-UMS FAPI Connector and the specified directories are on separate machines.

# 3.3.1.3 Other directories

If the responses are <u>not transferred to another ixi-UMS Connector</u>, all responses and incoming messages are stored in the same <u>"Spoolln" directory</u>.

Optionally, positive and/or negative send-reports can be stored in a separate directory.



#### Message bound to be sent delayed...

Outgoing messages (files) that are to be sent immediately are copied from ixi-UMS FAPI Connector to the "Out" directory and fetched there for further processing. Files that have a send time in the future are copied to the out\OutDelay folder.

Please note that the ixi-UMS FAPI Connector service account needs full access to all specified directories. This should be checked especially if the ixi-UMS FAPI Connector and the specified directories are on separate machines.

## 3.3.2 Outbound Definitios

All definitions and specifications for the outgoing job files must be entered here. The header fields and format specifications for the outgoing files must be defined.



If the ixi-UMS FAPI Connector is set for compatibility mode, NO changes can be made.

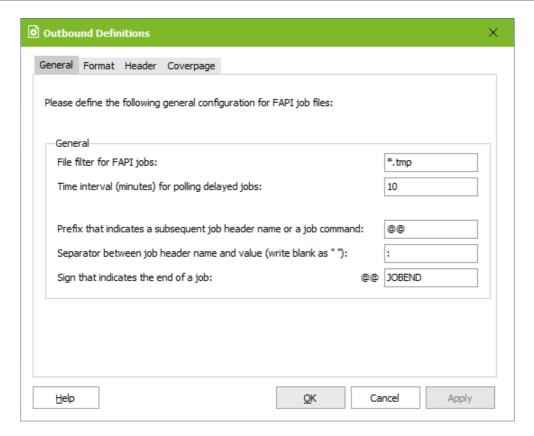
Only under <u>Format</u> it can be determined whether attachments should be deleted or not.

## 3.3.2.1 General

In "normal mode" all format specifications and header fields can be freely defined.

Specify which file ending outgoing job files have. If you also use delayed sending, you can specify how often the folder is checked for the sending time specified in the jobs.

Value	Description	Default
File filter	Defines the convention for the naming of outbound jobs.	*.tmp
	Example: out*.tmp; the job file then e.g. must be named: Out687897654.tmp	
Time interval	Polling Interval for time-delayed jobs in minutes	10



Specify the prefix and separator for the specifications in the job file.

Prefix	Value that must be put in front of a header field or command	@@
Separator	Separator between name and value of the job header fields	:
Job end:	Ends a message. Therewith, several messages can be transferred in one job file.	JOBEND

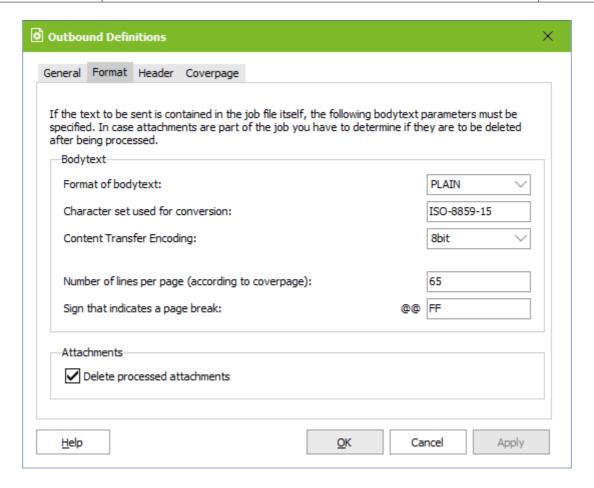
## 3.3.2.2 Format

In "normal mode" all format specifications and header fields can be freely defined.

#### **Bodytext**

If the text to be sent is transferred as a bodext in the job file, you must specify the format in which the body text is transferred. If the body is transferred in plain text, you must configure further specifications for character set and encoding. If the text is passed as plain text, you must specify the page length and the flag for a page break.

Value	Description	Default
Format of the body text	HTML or PLAIN	PLAIN
	For the type "PLAIN", additional subsequent settings must be made	
Character set	Character set that shall be used for the conversion, e.g. ISO-8859-15, UTF-8, This specification can also be passed per job and then overwrites the default value entered here	ISO-8859-15
Encoding	Possible values: 8bit, Base64, Quoted-printable, This specification can also be passed per job and then overwrites the default value entered here	8bit
Number of lines per page	Number of lines per page; depending on the font and the type size stated in the coverpage (fax.htm)	
Pagebreak:	With PLAIN-text, a pagebreak can be forced, e.g. @@FF	FF



#### **Attachments**

If the part to be sent is transferred as an attachment, you can specify whether the file should be deleted after processing or should remain in the <u>transfer directory</u>.

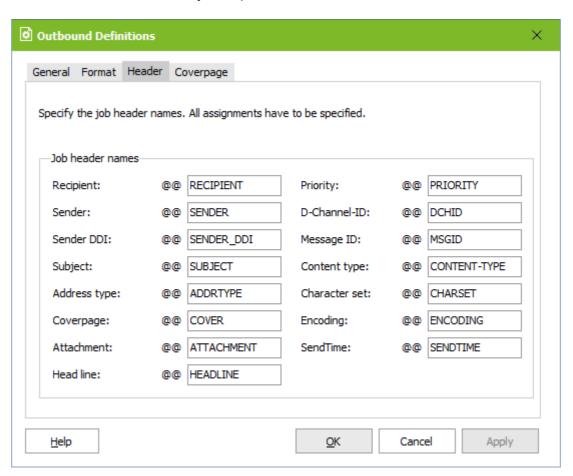
## 3.3.2.3 Header

In "normal mode" all format specifications and header fields can be freely defined.

In this dialogue, the assignment of the ixi-UMS Enterprise commands to the commands in the job file is made. All the assignments must be available, also if they are not transferred in the job file.

#### Remark:

For further information about the format of a job file, please refer to "How To - Format of a Job File".



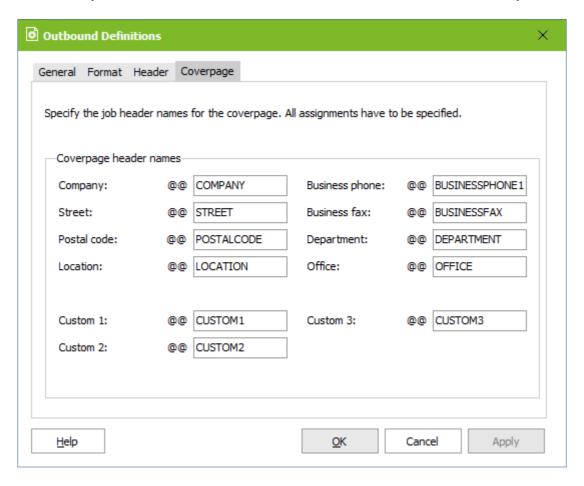
Header Field	Default	Value	Description	
Recipient:	RECIPIENT	Numeric and +, fax#, sms#, voc#, #tts	Recipient number (several possible per header) If this information is not defined in the header, the job is copied to the Error-directory	
Sender:	SENDER	Alphanumeric as well as @ and .	Sender; as e-mail address or complete phone number	
Sender DDI:	SENDER_DDI:	Numeric	Sender extension; is attached to the sender number of the ixi-UMS Kernel	
Subject:	SUBJECT	All characters	Subject; is transmitted together with the report	
Adress type:	ADDRTYPE	Numeric; Fax, SMS, Voc	Information about the type of message (Fax, Voice or SMS). If the address type is transferred with the recipient, this is used.	
Coverpage:	COVER	Alphanumeric	Information about the folder in the ixi-UMS Render Connector, in which the coverpage to be used is deposited	
Attachment:	ATTACHMENT	Alphanumeric	Several possible per header Additional file as attachment. If another path than the default Attachment-Path is stated in this field, this one is used. Otherwise it is presumed, that the file lies in the attachment-directory stated at "Directory Information". Further information at "How To - Format of a Job File".	

Header Field	Default	Value	Description
	·		·
Priority:	PRIORITY	Numeric	Fax priority for the sending at the ixi-UMS Enterprise Server: 0=Low; 1=Normal; 2=High
D-Channel-ID:	DCHID	Numeric	Value transmitted in the D-channel, e.g. for the measuring and billing
Message ID:	MSGID:	Alphanumeric	Transmitted with the sending report
Content type:	CONTENT-TYPE	Alphanumeric	See "How To - Format of a Job File".
Charset:	CHARSET		
Encoding:	ENCODING		
Sendtime	SENDTIME	Numeric	See "How To - Time-delayed sending"

# 3.3.2.4 Coverpage

In "normal mode" all format specifications and header fields can be freely defined. The information transferred in the header fields determined here are exclusively analyzed with the creation of a coverpage.

All the assignments must be available even if they are not transferred in the job file. All the other fields that are not contained in the job file are added by the <%CONNECTORNAME%> and are filled with the <u>default values</u>, if necessary.



For further information about the topic "Coverpage" as well as the assignment of the variables, please refer to the manual of the ixi-UMS Render Connector (ixi-UMS Kernel Manual) - Addinial Information.

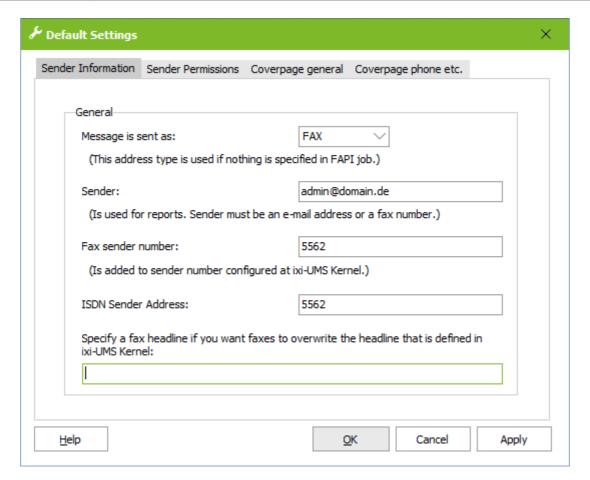
## 3.3.3 Outbound Default Settings

Here you can deposit values for some of the header fields, which are entered in the outbound message if the field is not available in the job or no value is transferred.

#### 3.3.3.1 Sender information

All the information in the following are only entered in the job if the respective value is not available in the job file.

Message is sended as:	If no address type is stated in the job file, the message is processed in the type stated here. If the address type is transferred with the recipient, this is used.	
Sender:	Sender: If no sender is stated in the job file, the information deposited here is entered. A valid of address or an UMS-number valid in the ixi-UMS Enterprise system is mandatory here.	
Fax sender number:	If no sender information is transferred in the job file, the number deposited here is entered.	
ISDN Sender Address:	The number is displayed as D-channel information. A global entry for example may make sense when all the messages (sender) shall be charged via the same D-channel number in the PBX.	



If a fax header is specified for this instance, it overwrites the sender ID entered in ixi-UMS Kernel under "Service Fax".. The headline specified here can be overwritten by specification in the job.

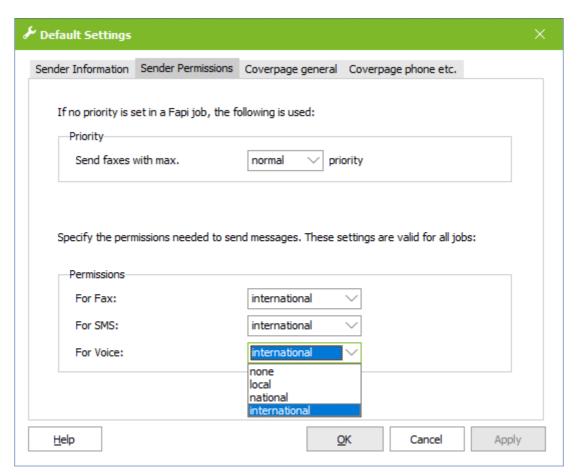
## 3.3.3.2 Sender Permission

#### **Priority**

If no other priority is specified in the job, the message is sent with the priority defined here.

## **Permissions**

You can set the authorizations globally for this instance and they are then valid for all outgoing messages. They **cannot** be transferred individually per job.



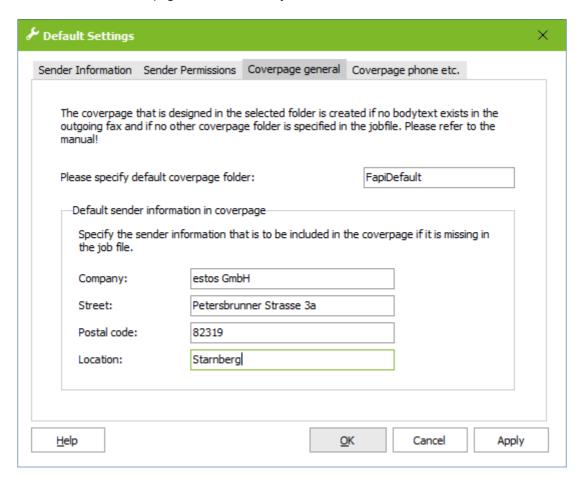
# 3.3.3.3 Coverpage general

Enter a folder for the coverpage valid for all the outbound messages, which is used when no value has been transferred in the job file. See also the Additional Information: "Coverpage for Fax Messages in TXT-Format".



When the feature "Coverpage Recipient Assignment" (see ixi-UMS Kernel Manual) shall be used, the respective faxrcpt.htm must be deposited in the directory

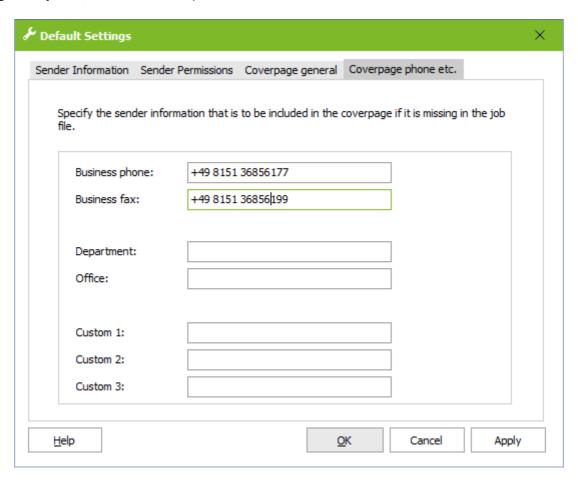
Values that are inserted <u>dynamically per fax</u> on the used coverpage can be transferred to the ixi-UMS Enterprise Coverpage. Provided that no values for the coverpage are entered in the job file, the default values stated here are used.



For more information about the cover page and the assignment of variables, please refer to the additional information in the ixi-UMS Render Connector / ixi-UMS Kernel Manual.

## 3.3.3.4 Coverpage phone etc

In addition to the <u>sender information</u>, further information can be added to the cover page. For the creation of the cover page, values can be transferred that are dynamically inserted per fax on the cover page used. If no values are specified for the cover page in the job file, the default values specified here are used.



To specify additional information on the cover sheet, you can use the "Custom" fields specified here.

For more information about the cover page and the assignment of variables, please refer to the additional information in the ixi-UMS Render Connector / ixi-UMS Kernel Manual.

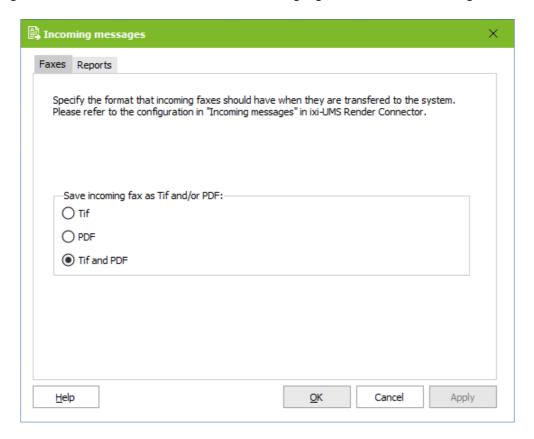
# 3.3.4 Inbound Messages

Here you can specify the format and options for incoming faxes and responses.

## 3.3.4.1 Faxe

Ist im ixi-UMS Render Connector unter "Eingehende Nachrichten" eingestellt, das eingehende Fax-Nachrichten als Tif und PDF erstellt werden, können Sie hier festlegen in welchem Format die eingehenden Faxe an das angebundene System übergeben werden.

Ist die Erstellung im ixi-UMS Render Connector auf eine Dateiart festgelegt, muss diese auch hier ausgewählt sein!



## 3.3.4.2 Reports

Here it can be determined whether and how the reports generated by the ixi-UMS Kernel are dealt with. The settings are valid for all the the instances.

**Note**: Whether the sent fax is present in the responses is defined in the ixi-UMS Kernel configuration under "Responses and Reports".

## Always generate Reports

All the reports generated by the ixi-UMS Kernel are processed. According to the settings, the reports are passed on to another ixi-UMS Enterprise Connector or are deposited in the "SpoolIn"-directory.

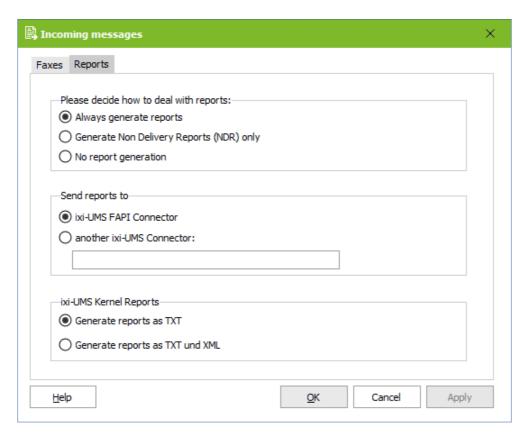
#### Generate Non Delivery Reports (NDR) Only

Only the Non Delivery Reports (NDR) generated by the ixi-UMS Kernel are processed. According to the settings, the reports are passed on to another ixi-UMS Enterprise Connector or are deposited in the "Spoolln"-directory.

### No Report generation

The reports generated by the ixi-UMS Kernel are deleted.

Error messages from ixi-UMS Render Connector und <%CONNECTORNAME%> are created in the Error-folder only



If reports are generated, they can be dealt with as in the following:

#### Send reports to

#### • <%CONNECTORNAME%>

The reports are deposited in the "Spoolin"-folder at "<u>Directories</u>". A report with the file description REP<original files name> is generated per outbound message and is stored in the folder.

With positive reports, a <original file name>.txt messages is created along with the report.

When the report contains an attachment (default with negative reports (NDR)), this is created as file in addition.

For information about content and format of the reports, please refer unter Additional Information "Inbound Files".

#### • another ixi-UMS Connector:

The report created by the ixi-UMS Kernel and ixi-UMS Render Connector is passed on by the ixi-UMS FAPI Connector to another ixi-UMS Connector.

In this way, reports can be routed to a messaging system, for example. The name of an existing connector directory must be specified.

All responses from ixi-UMS Kernel and ixi-UMS Render Connector are **moved** to the "IN" directory of the specified connector. In this case, the files are not split as explained in the under Additional Information "Inbound Files".

The error messages created by the ixi-UMS FAPI Connector (if an error occurred during the processing of outgoing messages) are further stored in the "Error" directory and **an additional report** is generated, which is stored in the IN directory of the specified ixi-UMS Connector.

The recipient is always the original sender of the message.

## ixi-UMS Kernel Reports

The ixi-UMS Kernel can create reports for sending and incomming messages in addition, as XML-sting. For more information please read ixi-UMS Kernel Manual.

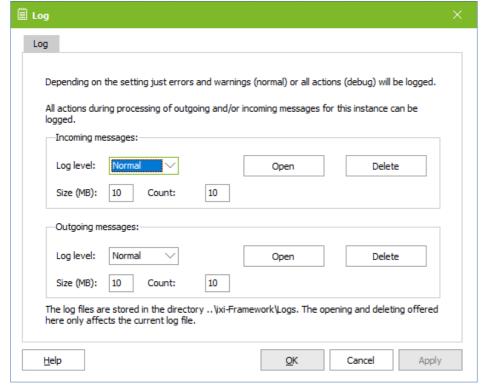
It must be determined, if the **reports as a TXT file** or as a **TXT file and XML file** should generate by the <%CONNECTORNAME %>.

## 3.3.5 Log

To troubleshoot this instance, you can enable logs here. The operations on incoming and outgoing messages are logged in separate log files.

It is possible to specify how large the log files should become and how many files should be preserved.

Count: 0 = Log files are not deleted.
Size: 0 = Log file becomes infinitely large



## None

No logfile will be write

#### Normal

only errors and warnings are logged.

### Debug

All processes are logged. The log level should be set to "Debug" for debugging only, not steadily.

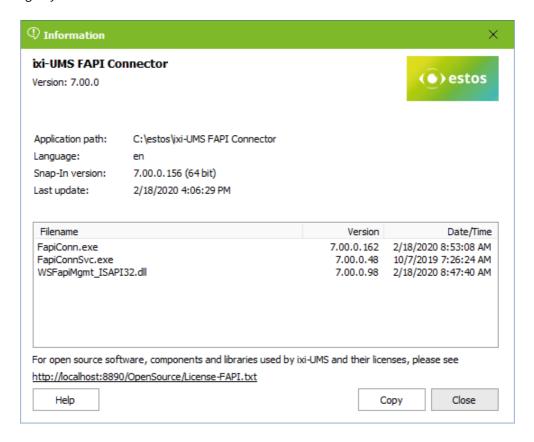
The current log file can be opened using the "Open" button and removed using the "Delete" button.

Older log files must be opend in the file system under

...\ixi-frameworks\Logs

# 3.4 Information

Info is intented to give you some information about the connector version installed and the current file versions used.



# 4 Info

# 4.1 About estos



Estos GmbH, headquartered in Starnberg near Munich, Germany, is a leading manufacturer of software solutions with focus on unified communication with unified messaging and CTI (Computer Telephony Integration). The products of estos ixi-UMS Enterprise support existing standards like standard interfaces and standard hardware; proprietary solutions are avoided. The company strives to provide its customers with future-oriented product development, with a focus on integration in available environments.

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For more information about estos and its products, please visit estos website.

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## 4.2 Version

Software: ixi-UMS FAPI Connector

Version: 7.10 Date: 2/25/2021