



PAPAGENO

SAPconnect

Version 5.9

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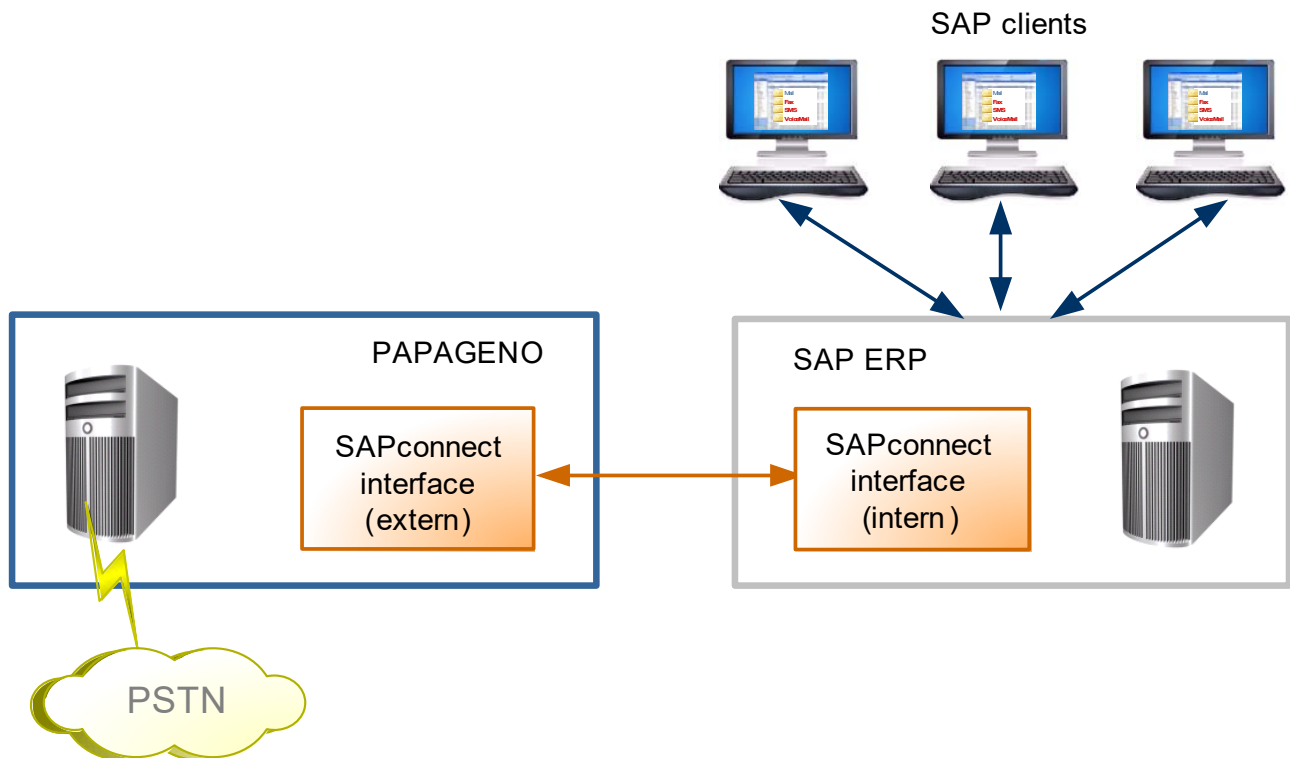
PAPAGENO-SAPconnect



The PAPAGENO SAPconnect interface supports the sending and receiving of faxes, short messages and voicemails from all SAP ERP (formaly R/3) applications.

PAPAGENO-SAPconnect is available for use in Unix, Linux und Microsoft Windows

The connection to PAPAGENO takes place via the internal RFC-Interface of SAP. The external SAPconnect-Interface records on a defined SAP ERP Gateway. The communication of the internal RFC-Interface with the external RFC-Interface also takes place via the SAP ERP-Gateway. The allocation of the respective external und internal interface follows from the so-called programme-ID.



Message Formats

The PAPAGENO-SAPconnect interface supports the utilisation of using integration in the JetForm Output Pak. PCL is now also supported as transfer format alongside PostScript (PCL licence required).

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1. Note the Prerequisites

PAPAGENO

- The **PAPAGENO server** (version 5.9) is installed, running and accessible.
- In PAPAGENO a license at least is free for a user (incoming and outgoing faxes will be sent to a PAPAGENO gateway user.
Per defined destination a separate PAPAGENO user is required.

SAP

- A SAP ERP system is installed.
- Entering SAP service ports
If SAP software is already installed on the destination computer, the necessary SAP ports have already been entered. If this is not the case, the corresponding ports must be manually entered in the `services` file (see below).

Entering SAP Service Ports

If you need to enter the corresponding ports manually, you can find the `services` file under Unix in the directory `/etc`,
under Windows in the directory `Windows/system32/drivers/etc`.

- ▶ Open the `services` file.

Under Windows:

- ▶ Insert a new line at the file end.

Windows/Unix:

The following ports must be entered:

```
sapgw00 3300/tcp bis  
sapgw99 3399/tcp
```

Only those ports which are also required by SAP need to be entered. This means that if you use the SAP gateway services `sapgw06` and `sapgw07`, you only need the gateway ports `3306/tcp` and `3307/tcp`.

- ▶ Enter the usual ports in the `services` file and save.

2. RFC - Destination

In the directory `$FAXROOT/gateway/sapconnect` the configuration program generates the configuration file `saprfc.ini`. This file contains the information regarding a logical destination in a block beginning with `DEST=all`. For the sending of documents, an **RFC server destination** must be defined as logical destination, and for the receiving and return of messages regarding the status of send documents, an **RFC client destination** must be defined. This means, that for each client both a server destination and a client destination must be defined.

The SAPconnect-components of the fax software consist of an RFC server programme and an RFC client programme. Both SAPconnect components are administered with the PAPAGENO-Process manager LAMBDA. With the command `runfax` the SAPconnect gateway processes are getting started.

Information Regarding Adjustments to SAPconnect in SAP R/3 version 3.1x and higher and SAP ERP

The following specified points are not configuration instructions, but should simply be used for reference and explanation.

Please see the R/3 or SAP ERP online documentation on the CD or the OSS in "SAPconnect" for a description of the configuration of the SAPconnect-Interface.

The following transactions must be protected:

SU01: Generation of a SAP CPI/C-User. External CPI/CProgramme (e.g. fax gateways) are registered under an RFC user. This user is configured as CPI/C-User with the key profile `S_A.SCON`.

SCON (R/3 3.1x), SCOT (R/3 4.0x): The transaction SCON is laid down under the overlapping adjustments of 40 PAPAGENO SAP PAPAGENO-SAPconnect-Interface the communication methods, format groups and conversion rules. The formats supported by Gateway are PostScript, Tiff and ASCII. RFC-nodes, the node attributes, the routing and the send attribute classes are defined within. Tables for country codes, exception country codes, number change exit and number change entry are protected within !

SM59: Generation of an RFC-Destination.

SCOA: Diagonal-oriented oder batch-oriented fax sending.

Pay attention to the notes regarding configuration in the OSS where necessary.

3. Installing PAPAGENO-SAPconnect

The Installation program `install_sap` imports the interactive installation and configuration of the PAPAGENO SAPc onnect RFC Interface.

Execute `install_sap`

Start Installation

Under **Unix/Linux**:

- Log in as user `comfax`.

Under **Windows**:

- Log in as `Administrator` or as user `comfax`.
- Start the installation program with `install_sap`.
- Select the desired installation language.

After the call of the installation program `install_sap`, you will be requested to configure the first destination or to exit the programme. The first destination must be a **Server Destination**, the second a **Client-Destination**. When configuring multiple destinations, this order is adhered to.

Defining a Server Destination

In order to define a server destination, several tasks must be carried out.

Name and Type (DEST, TYPE)

The name of the server destination can be whatever you like. It must be written in capital letters and can have up to 10 alphanumerical characters, e.g. FAX. The type of destination is at a server destination: R, the programme Id is the logical name (whatever you like), which is used in R/3 in the transaction **SM59** during generation of an RFCDestination in the field `Programm ID`. (See also above in „Information Regarding Adjustments to SAPconnect in SAP R/3 version 3.1x and higher and SAP ERP“, page 4”).

- Enter a name for the server destination (maximum 10 characters).
- Confirm the type `R`.
- Enter the programme Id.

Computer Name (GWHOST, GWSERV)

In the next step, the name of the computer on which the **SAPconnect gateway** is running, or the computer on which SAP R/3 is installed must be specified, in addition to the name of the SAP-Gateway-Service. The RFC Trace Level does not have to be changed.

- Enter the name of the computer, on which the SAP-Gateway is running, or the name of the computer on which SAP R/ 3 or SAP ERP is installed.

- ▶ Enter the name of the SAP-Gateway-Service.

Logfile (FAXGWSRV)

The PAPAGENO-SAPconnect RFC Server program generates a log file, whose name can be inputted. The log filename is made up of a prefix `1` from this name, and the date of generation as file extension. The file itself is saved in the directory `gateway/sapconnect/server destinationname` under the fax server root directory.

- ▶ Enter, if need be, a name for the log file.

Specifying Local PAPAGENO Server Names (FAXGWHOST)

The external server program is started via the process manager LAMBDA from PAPAGENO. Therefore, the local PAPAGENO Server name, on which the PAPAGENO-SAPconnect gateway should be started, must be specified.

- ▶ Enter the host name of the PAPAGENO server.
Please take note of capital and small case letters!

Entering imeout (GWTIMEOUT)

Because PAPAGENO-SAPconnect is to be implemented as an external RFC programme for R/3 or SAP ERP connection aborts can occur when the R/3 or the SAP ERP system is shut down, for example for maintainance reasons. Via a configurable timeout, the Gateway can be informed of how long it should try to restore the connection to the SAP system. If, after the Timeout is reached, the connection could not be restored, the process must be newly started. The process must be restarted, after the SAP system is once more accessible, e. g. under the User identification `comfax` either with the command: `runcomfax` or with the command: `1-startgateway destination` (see Manual „PAPAGENO Configuration, Installation and Administration“, part B1 „Starting and Stopping the PAPAGENO Servers“, page 51).

Attention! During the reconnect phase, the status of the process in the PAPAGENO process manager is `active`. When the duration for which the R/3 or SAP ERP system is not available increases, then the time period between individual reconnect attempts become correspondingly longer (max. 1h). For this reason, the gateway should always be restarted when the R/3 or SAP ERP system can be accessed once more. Use the commands `1-stopgateway destination` and `1-startgateway destination` for this.

- ▶ Enter the number of minutes for which the Gateway should try to restore the connection to the SAP system.

Entering Gateway User (FAXUSER, FAXPASSWORD)

The sending of documents takes place within the fax software via a Gateway-User. Simultaneously, this means that a login of the PAPAGENO User licence is reserved for this user. The user name can consist of a maximum of 10 alphanumerical characters. If a user is already set up, this is used, if not, the user is newly set up by the configuration programme. The user password can have a maximum length of 20 characters.

Attention! On no account use an already existing user account which has already been set up for other applications!

- ▶ Enter the user name and the user password.

Summary of the Key Words

Below, the PAPAGENO-specific key words at a destination of **Type Server** are summarily listed

Key word	Description
FAXUSER	PAPAGENO gateway user
FAXPASSWORD	PAPAGENO gateway user password
FAXGWHOST	Host name of the computer on which the external server program is running.
FAXGWSRV	Server logbook name without file extension.
GWTIMEOUT	Period in minutes of the attempt to restore a connection between the external and the SAP (R/3 or ERP) program.
HEADLINE	Headline
TSI	Faxnumber to be transmitted with a fax.
PINCODE	Pincode for the assignment of the die Zuordnung der Gebühren
CPI	<p>This number will be delivered and displayed with each SMS. The recipient can answer if this number is entered as fixed network SMS number.</p> <p>A CPI entered here will be transmitted rather than the SAP sender number.</p> <p>See also manual „PAPAGENO Configuration, Installation and Administration“, „Using SMS service:“, page 98 and „Using Fixed Network SMS“, page 98.</p>

Concluding Server-Destination

Thereby, the first server destination is configured. You will be asked to accept the data record, or to edit it anew.

- ▶ Select `Y` for „yes“ to accept the data record.
or
- ▶ select `C` für „cancel“ to abort the configuration
or
- ▶ select `R` für „redo“ to edit the data record.

When you have accepted the data record, it will be imported into the file `saprfc.ini`.

Defining Client-Destination

After configuring the first server destination, you configure the first RFC Client-Destination.

The name of the Client-Destination must correspond with the name of your R/3 or ERP system (SID), e.g. P11, T10. In exceptional cases another name must be used, e. g. if a second gateway runs on the R/3 or ERP system under another clientele. The Client-Destination is preset and is type A.

- ▶ Enter the name of the Client Destination.

Applikation Server and System Number

- ▶ Enter the name of the application server and the system number (`ASHOST`, `SYSNR`) (z. B. 00, 03) an.

Entering Name of the SAP-Gateway Computer (GWHOST, GWSERV)

When the name of the SAP-Gateway computer does not correspond to the name of the Application Server, the name of the SAP-Gateway computer must be entered here.

- ▶ Enter the name of the SAP-Gateway computer.

Name of the SAP-Gateway Service

The name of the SAP-Gateway-Service is automatically expanded with the system number, e. g. `sapgw00`, `sapgw03`. The RFC-Trace-Level does not, in general, have to be changed.

Log File

The PAPAGENO-SAPconnect-RFC-Server programme generates a log file, the name of which can be inputted. The log filename is made up of a prefix from this name, and the date of generation as file extension. The file itself is filed under the FAXSERVER root directory `.../gateway/sapconnect/client destination name`.

- ▶ Enter, if needs be, a name for the log file.

Specify Local PAPAGENO Server Name (FAXGWHOST)

The external Client Programms is started via the PAPAGENO process manager. Therefore, the local PAPAGENO Server name on which the PAPAGENO-SAPGateway should be started, must be specified.

- ▶ Enter the host name of the PAPAGENO Server. Please take note of capital and small case letters.

Pollintervall (FAXINTERVAL)

Furthermore, information regarding the poll interval is still required. This inputs how often the input and output of the PAPAGENO-Gateway-User should be interrogated regarding incoming documents or stati. The specification of the interval is in seconds.

- ▶ Enter the poll intervall in seconds.

Gateway-User Name, User Password and Clientele (GWUSER, GWPASSWORD, GWCLIENT)

For the RFC Client Programm log-on to a SAP-System the CPI/C log-in information is required: user-name, user password and clientele. These specifications correspond with the entered user data entered in the transaction SU01

PAPAGENO-User Name, User Password (FAXUSER, FAXPASSWORD)

These PAPAGENO-Gateway-User information has already been made available at the server destination.

Summary of the Keywords

Below, the PAPAGENO - specific key words at a destination of **Typ Client** are summarily listed:

Key Word	Description
GWUSER	SAP R/3 or SAP ERP CPI/C user (configured as in SU01)
GWPASSWORD	Password CPI/C User
GWCLIENT	Clientele, in which the CPI/C user was configured.
GWLANG	System language (e. g.: D for „Deutsch“)
FAXUSER	PAPAGENO gateway user
FAXPASSWORD	Password of the PAPAGENO gateway user
FAXGWHOST	Host name of the computer, on which the external client program is running
FAXINTERVAL	Poll cycle of the client program (in seconds)
FAXGWCLNT	Name of the client logbook without extension

Concluding Client Destination

Thereby the first client destination is configured. You will be requested to accept the data records or to edit them.

- Select `y` for „yes“, to accept the data records,
or
- select `c` for „cancel“, to abort the configuration,
or
- select `r` for „redo“, to edit the data record.

When you have accepted the data record, it will be imported in the file `saprfc.ini`.

Configuring Further Destinations

`install_sap` overwrites all configurations every time when it is started and creates a new `saprfc.ini` file. For this you first have to enter the existing destination(s) before you enter a new destination.

Example:

The definition of the destination 1 and 2 already exist. Now a third destination should be defined.

- Start `install_sap`.
- Enter the values of the destinations 1 and 2 once more. Then enter the values of the new destination 3.

4. Executing Further Configurations

Executing configurations in PAPAGENO

Creating a Distribution Rule in PAPAGENO

A distribution rule must be created in the PAPAGENO administration program, in accordance with which incoming faxes addressed to users should be forwarded on to a Gateway-User. (The gateway user is automatically stored by `install_sap`). Other distribution rules can exist alongside this, which assign incoming faxes with particular extension numbers to PAPAGENO-Users. These users then see the faxes in their PAPAGENO surfaces.

A requirement for this is that the device which receives faxes can recognize extension numbers.

- In the administration program enter a distribution rule which means that all incoming faxes should be forwarded to this user.

(Also see manual „PAPAGENO Configuration, Installation and Administration“, Part C, „Enter at Least One Distribution Rule“, page 109).

Attention! Elaborations to the functionality of the PAPAGENO/ SAPconnect-Interface are described in the file `Release.notes` in the directory `$FAXROOT/gateway/sapconnect`.

Automatic Configuration

The configuration programme attends to entries
under Linux/Unix in the `.profile` file
under Windows in the `.../etc/config` file

There, the environmental variables `GWROOT`, `TIFFORMAT` und `LOGFILEEXPIRATION` are set up. `GWROOT` is set up on the path `$FAXROOT/gateway/sapconnect/log` and is evaluated by Gateway for Logbook entries. `TIFFORMAT` is set to the value `15` and describes the format of the exported incoming documents. Using `TIFFORMAT=15`, the Gateway exports incoming documents in Tiff G4 multipage format. `LOGFILEEXPIRATION` is set to `5`, which means that the server- and client logfiles are erased after 5 days.

Setting the Trace Levels

The OMEGA configuration variable `GW_LOG` controls the Trace-Level of the log files generated by PAPAGENOSAPconnect. The possible values (`num`) are 1, 2, 3 or 4. When `4` is entered, all available information will be written in the log files. It is recommended to set the Trace-Level to 4 in the start phase and later on, to set it to `1`.

Under **Unix/Linux**:

- Log in as user `comfax`.
 - Start a shell.
- or:

Under **Windows**:

- Log in as administrator.
- Start a prompt.

- Set up the trace level using
o_put_config GW_LOG *num*

The Trace-Level is automatically set to 4 by the installation program.

Concluding Configuration

So that the changes come into effect after completed configuration:

- Stop the fax software.
- Log off from the System.
- Log in to the system again and restart the fax software.

5. PAPAGENO Processes

When the fax software is restarted, an extra PAPAGENO process is activated per defined destination:

Gateway/sapconnect : *destination*

The status of the processes must be "active". If this is not the case, you must check the log files to discover why the processes have not been allowed to start. The log file loggw , which not only contains the messages of the start process, but also respectively a Server- and Client-log file, can be found under the name defined during installation.

- Check the log files in the directory `$FAXROOT/gateway/sapconnect/log` and in the respective destination-subdirectory.

Additional information is also available regarding PAPAGENO monitor functions.

Starting and stopping Gateway-Processes

The Gateway-Processes can be started, either singly or all together, with the commands

`l_startgateway destination` or
`l_startgateways`

Analogous to this, the Gateways can be stopped, either singly or all together, with the commands

`l_stopgateway destination` or
`l_stopgateways`.

See also manual „PAPAGENO Configuration, Installation and Administration“, part B1 „Starting and Stopping the PAPAGENO Servers“, page 51.

6. Outgoing and Incoming documents

Checking Outgoing and Incoming documents

The Gateway-User's outgoing and incoming queues can be checked by logging in via a PAPAGENO-Client using the user handle of the gateway user or by logging in as user `FAXADM`. (For further details of „FAXADM“ see manual „PAPAGENO Configuration, Installation and Administration“, part B1 „Reserved User Names“, page 45).

Attention! The Gateway can only import stati or incoming documents into SAP, when the dokuments use the status "completed".

Send jobs can be printed and viewed by means of PAPAGENO (comFAX client) without the functionality of the PAPAGENO/SAPconnect interface being impaired.

Send Jobs

The point in time in which a document is sent is controlled by the priority of the SAP document. If a job is sent in SAP with normal priority, then the send time specified in SAP is used on the PAPAGENO server. High priority jobs are sent immediately, without the SAP send deadline being evaluated. Low priority jobs are evaluated as send jobs to be sent in the night.

7. Accounting

Gateway User Database

The **PAPAGENO Gateway User Database** is set up during the installation of the gateway.

Every SAP user is automatically entered in this gateway user database when they send a message from SAP via the PAPAGENO/SAPconnect interface. The gateway receives the SAP user's sender address. In SAPconnect this is the sender's fax number.

The database can be viewed using the PAPAGENO administration program (menu item Gateway).

Information about Fax Jobs

A fax job generated through the PAPAGENO SAPconnect interface receives both the type of the generating gateway, (e.g. SAP), and the sender's address, in the send data structure. In this way, information such as sender, generating application (e.g. SAP R/3), fee units, number of pages, sending time of the job, etc. are directly accessible from the fax job (see PAPAGENO tool `a_find_do`).

Further file-oriented possibilities available for accounting can be taken advantage of by means of entries in the **configuration file** `saprfc.ini`

REPORT=*specifiers*

This entry generates an `account.inf.` file with the corresponding accounting information in the directory `gateway/sapconnect/client destination name` within the fax server root directory. *specifiers* is used to define which information is desired. All values are available as parameters as described for the command `a_find_do`.

In addition, the following parameters can also be defined:

%U : SAP sender address

%t : Fee units

%b : SAP subject line

Example:

The entry

```
REPORT=%f;%U,%t,%e,%b
```

could, for example, generate the following line in the `account.inf.date`:

```
4711,+49 89 54750 0;2;complete;SAP Testdocument
```

ALPHALOG=*name date expire* :

This stores away the logbooks of outgoing fax documents, as ASCII files `faxid.log` within the path specified via the environmental variable `GWROOT` in the *name date* directory. *expire* can be used to enter the expiry time of the directory.

Example

The entry `ALPHALOG=alphalog '%d.%m.%Y' 3` generates a directory `alphalog.30.11.00` within the directory `/opt/comfax/faxroot/gateway/sapconnect/ log` (if `GWROOT=/opt/comfax/faxroot/gateway/sapconnect/log`), which is then erased after three days.

ATTENTION! If *date* is not specified a blank string must be entered. '%d.%m.%Y' is used as the standard value: ALPHALOG=name \ \ expire. If the directory should not be erased, then *expire* must not be entered.

8. Summary of the Environmental Variables

For an overview, all environmental variables interpreted by Gateway are once more listed.

Consider that

under Unix all environmental variables must be set up in the file `.profile`,
under Windows in the file `\FAXSERVER\etc\config`.

- ▶ Stop the PAPAGENO software.
 - under Unix with the command `stopfax`
 - under Windows by shooting down the service `Faxserver` via `System Control - Services`.
- ▶ Open the file `.profile` or `config`.
- ▶ In the `config` file enter a new line at the file end.
 - `LOGFILE_EXPIRATION=value`
Days (*value*), for which the Server- and Client- Logbook is not erased.
 - `GW_REPL=value`
Number (*value*) of redials during sending of faxes.
 - `TIFFORMAT=value`
is the format of the exported fax documents.
 - `SAP_CHARSET=POSIX charset`
is the used character set
 - `GWROOT`
is the directory of the PAPAGENO-SAPconnect-Log.
 - `RFC_INI`
is the directory, in which the `saprfc.ini` file exists. This variable must be set, when the standard directory `$FAXROOT/gateway/sapconnect` is not used.
 - `JF_FORM`
JetForm integration. Contains the path where the forms to be used can be found.
 - `JF_CMD`
JetForm integration. Contains the path where the Jet-Form programme `jfmerge` can be found.
 - `JF_OPT`
JetForm integration. Additional JetForm Merge options are not specified in the document.
- ▶ Restart the PAPAGENO software.
 - under Unix with the command `startfax`
 - under Windows by starting the service `Faxserver` via `System Panel - Services`.

9. Trouble Shooting

What to do, if...

... the gateway processes do not start when the fax software is started (status: 0). The corresponding server and client logfiles are not being generated?

- ▶ Check the entry `FAXGWHOST` in the `saprfc.ini` file.

The server name entered there must be exactly the same as the name in the entry `OMEGAHOST` in `\FAXSERVER\etc\config`.

What to do, if...

... the sending of documents from SAP is successful, but the status return messages do not result?

- ▶ Check whether return messages are activated in R/3 or SAP ERP.
- ▶ Check the corresponding client logfile in the file `gateway/sapconnect/client destination` for possible error messages.

For stati to be able to return messages to R/3 or SAP ERP, a valid login is required into PAPAGENO as well as into the R/3 or SAP ERP system.

- ▶ Check user names and passwords in the `saprfc.ini` file.

What to do, if...

... you have configured several clients for fax sending, but are only receiving in return one part of status messages in R/3?

- ▶ In the file `saprfc.ini` check, whether the same PAPAGENO gateway users are used for the individual clients.
- ▶ Change the user names during a configuration if necessary, and then configure these users manually in PAPAGENO (see manual „PAPAGENO Configuration, Installation and Administration“ part C, chapter 4. „Registering Users“, page 96).
- ▶ Stop and start the corresponding processes using `l_stopgateway` destination and `l_startgateway` destination.

What to do, if...

... a configured client process does not appear in the process monitor?

- ▶ Check the file `CLNIDS` in the directory `.../gateway/sapconnect`.

There is an entry in this file for every client destination to be started. This consists of the 'SID' and the client number, e.g. `CER100`. This entry is automatically generated when the installation program is

used. If client entries are added manually to the file `saprfc.ini`, the corresponding entries in the file `CLNIDS` must be carried out.

What to do, if...

.... a configured server process does not appear in the process monitor?

- ▶ Check the file `SVRIDS` in the directory `.../gateway/sapconnect`.

There is an entry in this file for every server destination to be started. This consists of the name as it is used in the Version 1.4.4 65, Chapter 8. Trouble Shooting B configuration file `saprfc.ini` for the server destination, e.g. `FAX_CER1`. This entry is automatically generated when the installation programme is used. If server entries are added manually to the file `saprfc.ini`, the corresponding entries in the file `SVRIDS` must be carried out.

