SOFTWARE

SAP

PARTNER

AVM INFORMATIQUE

GRAPHIC FAX FOR R/3 (4.X) ADMINISTRATOR'S GUIDE SAPCONNECT INTERFACE

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INTRODUCTION

The **GCS platform** is installed on a NT machine and communicates with the SAP system by Microsoft TCP/IP and RFC protocol through SAPconnect.
On the SAP system, no AVM programs are installed; there are only settings to parameter.
On the SAP clients, there is nothing to install.

SAPoffice

SAPoffice is the communication interface between the application modules and SAPconnect.
A fax sent from an application module generates a record in SAPoffice.
Faxes supervision (resending faxes…) is done in SAPoffice.
Any user wishing to send and receive faxes must have a fax number in his SAPoffice address.

SAPconnect

The communications server SAPconnect is used for SAP R/3 starting from version 3.1G: it replaces the former communications server SAPcomm.
It is integrated in SAP and runs as a background job.
Sending a fax with SAPconnect uses various components in SAP:

- the application module (or SAPoffice) which has generated the fax.
- the messages control module.
- the addresses management module.
- SAPScript which formates the document.
- SAPoffice, which manages the sent document and transmits it to SAPconnect.

SAPconnect uses the “RFC” interface (Remote Function Call) to communicate with outside in a client/server mode: this interface enables to call modules in SAP from outside (case of an SAP external client), and to be called from SAP (case of an SAP external server).

Graphic Fax for R/3 gateway

Graphic Fax for R/3 product is a NT service installed on the fax server, which can send faxes and telexes.
It is composed of 2 modules:

- a server module that processes the calls from SAP to send faxes.
- a client module that processes the sending status and incoming faxes from the fax server to transmit them to SAP.

A number (0 to 99) is assigned to each **Graphic Fax for R/3 gateway**, to be able to manage several simultaneous connections to various SAP systems and various SAP clients, the whole connected to one or more fax servers.
The initialization file of each SAP gateway is named **..\trafic\etc\sapfaxYY.ini** (where YY is the number of the SAP gateway - 00 to 99) and contains information about the server and client modules.
For each SAP gateway, the server module is named **..\trafic\system32\sapsrvYY.exe** and the client module is named **..\trafic\system32\sapcliYY.exe**.
All mandatory information for the connection of the server and client modules of all SAP gateways is located in the file **..\trafic\etc\saprfc.ini**.
All mandatory information for the faxes incoming routing is located in the file **..\trafic\etc\saproute.ini**.

Graphic Fax for R/3 gateway number 0 is mandatory; if it's deleted, you must replace it by another gateway which will be deleted, so that the gateway number 0 always exists (all is done automatically by the remote administration tool)

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Server module

On start up, the server module of the **Graphic Fax for R/3 gateway** registers itself to the SAP system with an identifier, and waits for faxes coming from SAP.
When sending a fax, SAPconnect selects the concerned server module, according to the fax number of the recipient and then it transmits the fax. Thus it is possible to achieve Least Cost Routing.

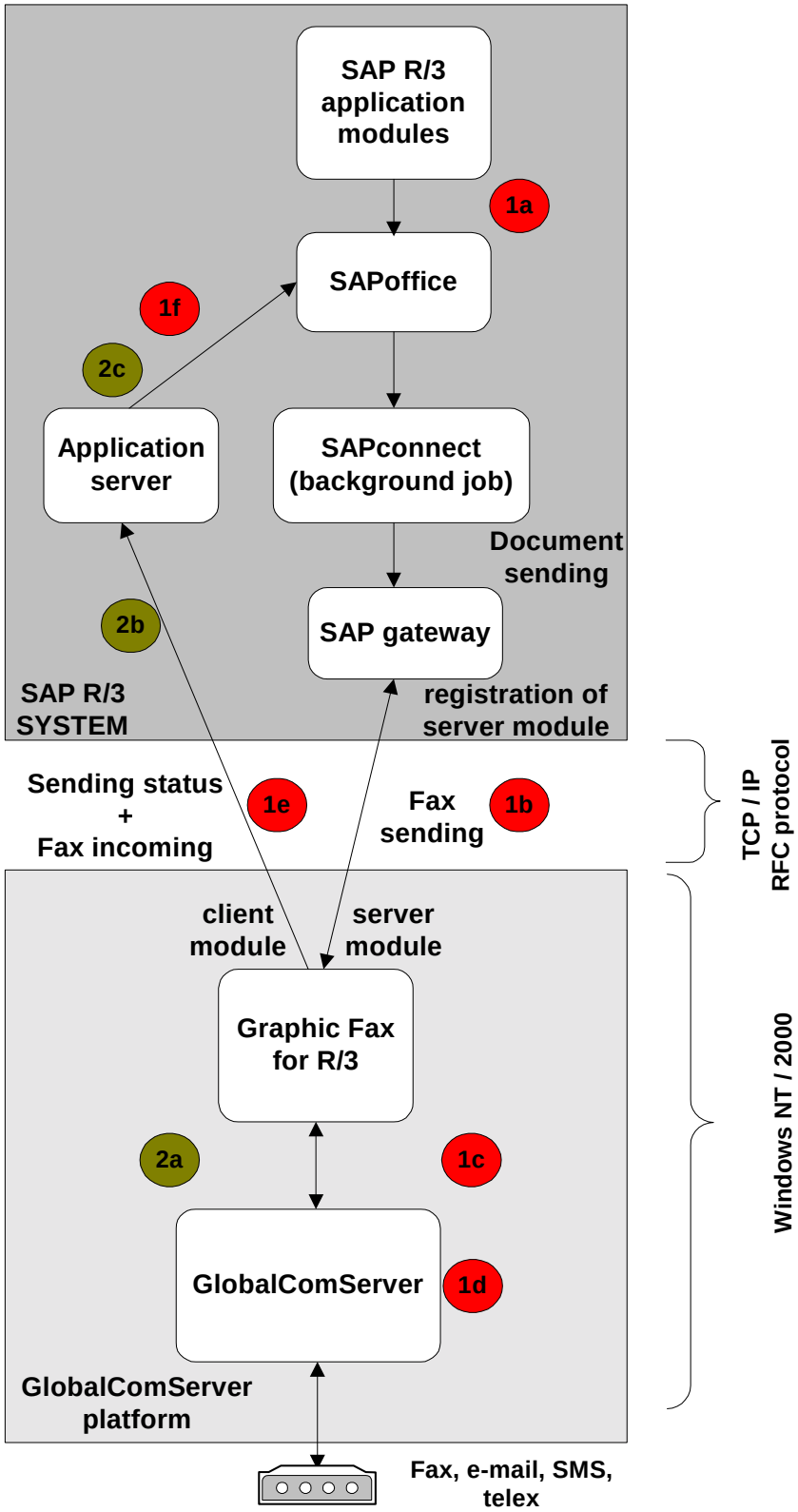
Client module

On start up, the client module loops on standby of the sending status and receptions coming from the fax server.
When it detects a sending status or a reception, it connects to SAP by a CPI-C user under one client preset.
The client can connect himself by 2 ways:

- load balancing: the application server the least busy is dynamically selected by SAP, which will carry out the processing.
- specific application server : the application server that will carry out the processing is fixed in advance.

GENERAL WORKING PROCESS

The **Graphic Fax for R/3 gateway** is a NT service, which runs in a client/server mode. It is located on the fax server.



Sending

Sending faxes from application modules or SAPoffice

When you send a fax, SAP checks the recipient in SAP databases to find his fax number.
If the fax number is not found, the system will ask you for the recipient fax number.
After that, a record is automatically added to your SAPoffice outbox, and a request is added to the SAPconnect queue.
The fax will be sent outside SAP several minutes after it was generated (5 minutes minimum).
Transfer from SAPconnect to Graphic Fax for R/3 server module
You have to wait for the SAPconnect idle cycle to end (5 minutes minimum) before it can be sent to the external fax server (from the time the fax is generated to when).
The **Graphic Fax for R/3 gateway** (server module) receives immediately the outgoing fax.

Transfer from Graphic Fax for R/3 to the fax server

Graphic Fax for R/3 gets the fax sent by SAPconnect, processes it and transmits it to the fax server in 2 files (1 sending request file and 1 data file).

Fax server

The fax server polls the sending requests from Graphic Fax for R/3 with a cycle time, that can be adjusted in the initialization file **..\trafic\etc\topsrv32.ini**: parameter **Findfileh**.
It sends the fax, and generates a sending status for **Graphic Fax for R/3**.

Transfer of sending status from Graphic Fax for R/3 to to application server

The **Graphic Fax for R/3** client module polls the sending status of the fax server with a cycle time that can be adjusted in the initialization file **..\trafic\etc\sapfaxYY.ini**: parameter **cycle**.
It gets the sending status generated by the fax server, processes it and transmits it immediately to SAPconnect.

Sending status of sent faxes from SAPoffice or application modules

The fax status is displayed in the SAPoffice sender's outbox.
For erroneous status, a pop-up message is generated automatically by SAP to warn the sender.
For successful status, the value of column **VW** (viewed) in SAPoffice outbox is updated.

Incoming

Transfer from the fax server to Graphic Fax for R/3

The fax server gets the fax and generates an incoming request for the **Graphic Fax for R/3** client module.

Transfer from fax server to Graphic Fax for R/3 client module

The **Graphic Fax for R/3** client module polls the incoming request of the fax server with a cycle time, that can be adjusted in the initialization file **..\trafic\etc\sapfaxYY.ini**: parameter **cycle**.
It gets the incoming request generated by the fax server, processes it and transmits it immediately to the SAP system.

Transfer from application server to SAPoffice

A mail is generated with the fax content in the SAPoffice inbox.

The fax is stored on the SAP machine.
It is possible to generate a pop-up message in case of erroneous and / or successful incoming, by 2 parameters in the initialization file **..\trafic\etc\sapfaxYY.ini** (see Client module/main screen).

SAP R/3 CONFIGURATION

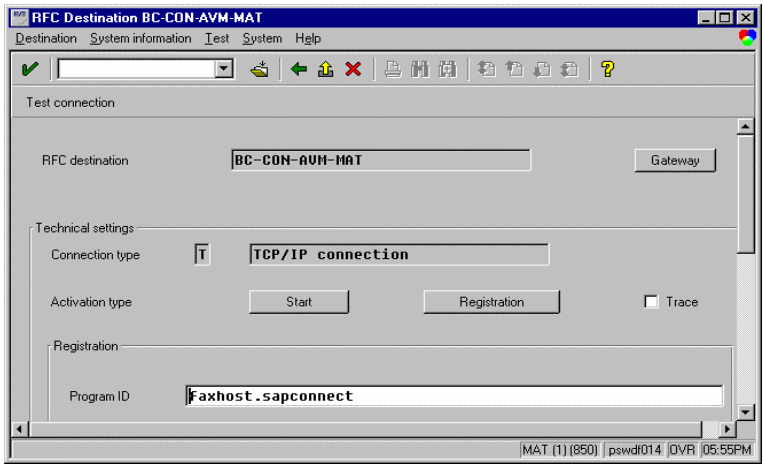
To configure SAP R/3, you have to log on the SAP machine with administrator's rights (table modification, user creation…):
The changes are **client-dependent** and **client-independent**.

Create a CPI-C user

Access by transaction **SU01** and the menu **"users" -> "create/change"**.

- the user name must match the field "**CPI-C user name"** of the **Graphic Fax for R/3** client module accessed by the remote administration tool (see Define a Graphic Fax for R/3 gateway)
- password must match the field "**password"** of the **Graphic Fax for R/3** client module accessed by the remote administration tool (see Define a Graphic Fax for R/3 gateway)
- choose CPI-C type
- enter authorization profile : **S_A.SCON**
- save data by the button **"save"**

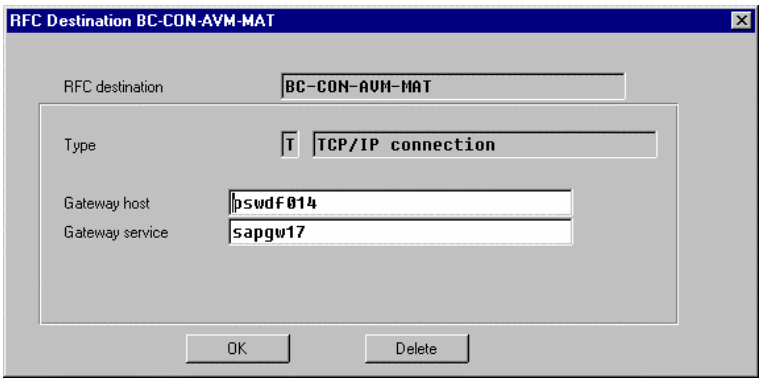
Create a destination



Access by transaction **SM59** and button **"create"**.

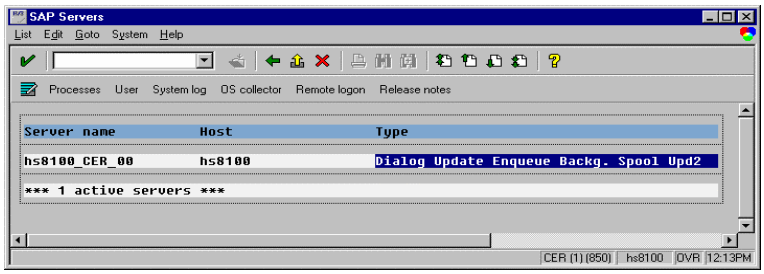
- name of RFC destination
- connection type : choose T for TCP/IP
- description : enter a short description and press **"ENTER"**
- activation type : click on **"registration"**
- program ID : the program ID must match with the field "**Program ID"** of the **Graphic Fax for R/3** server module accessed by the remote administration tool (it is advised to choose a name made up of the fax server hostname, the SAP system name and the client number (see Server module/connection setup screen)

➢ menu **"destination" -> "gateway options"**:



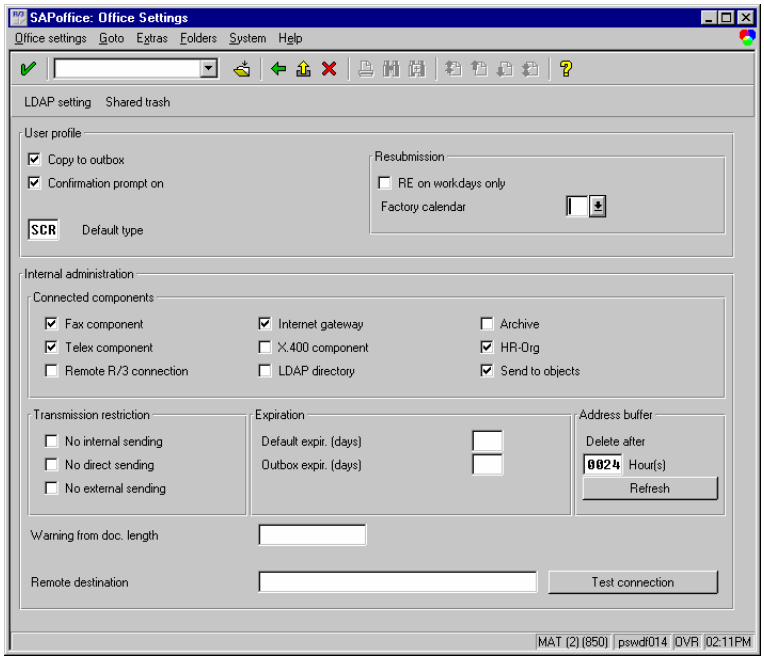
➢ gateway host : the gateway host must match the field **"SAP gateway hostname"** of the **Graphic Fax for R/3** server module accessed by the remote administration tool (see Server module/connection setup screen)
➢ gateway service : the gateway service must match with the key **"SAP gateway service"** of the **Graphic Fax for R/3** server module accessed by the remote administration tool (see Server module/connection setup screen)
➢ save gateway data by the button **"OK"**
➢ save all data by the button **"save"**

The transaction SM51 enables to see the R/3 system number and the hostname used for the gateway service.



The button "test connection" enables you to test the current connection of the server module of the Graphic Fax for R/3 gateway.

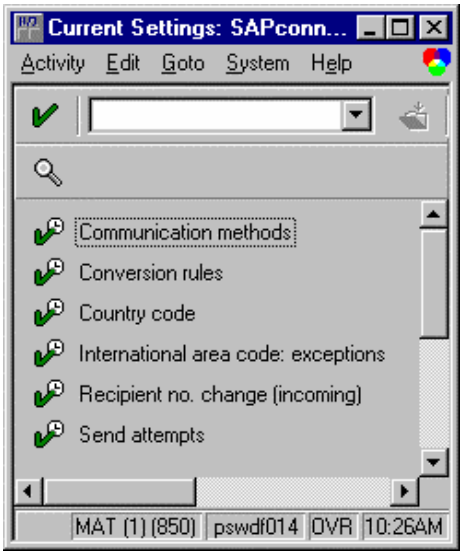
SAPoffice configuration



Access by transaction **SO16**: this menu allows you to configure SAPoffice for managing outgoing and incoming faxes.

- check **"fax component"** in area **"connected components"**
- save data by the button **"save"**

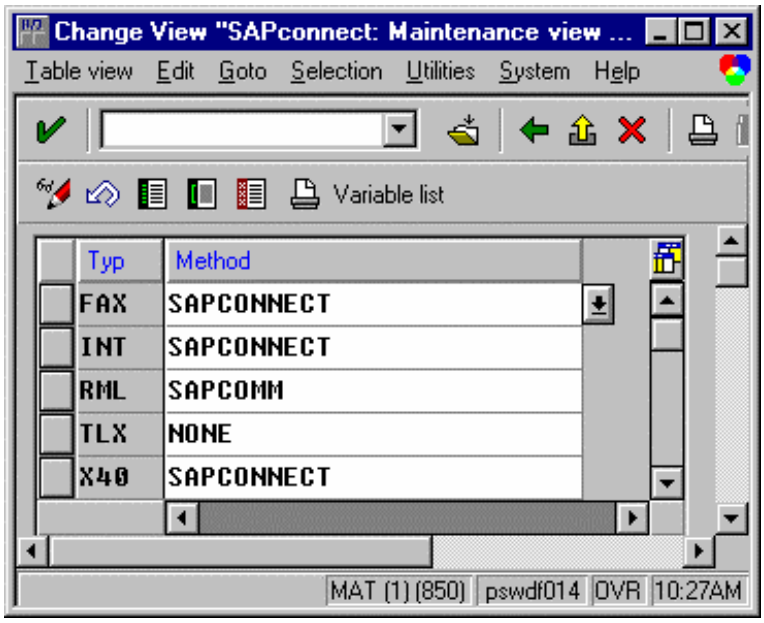
SAPconnect configuration



Access by transaction **SCOT** and the menu **"goto" -> "customizing"**.
This transaction allows to configure SAPconnect :

- management of the faxes by SAPconnect
- definition of the conversion formats
- exception rules in the incoming fax numbers
- number of sending attempts and interval between 2 tries

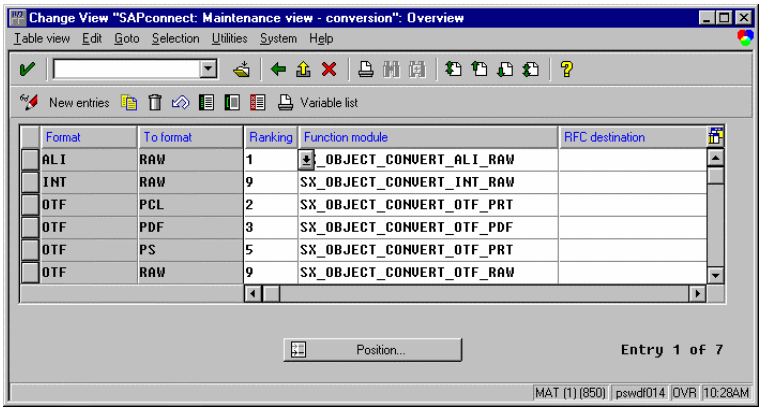
Communication methods



Access by double-click on button **"execute"** on the left of the line **"communication methods"**.

- select for the line **"FAX"** the method **SAPCONNECT**
- save data by the button **"save"**

Conversion rules

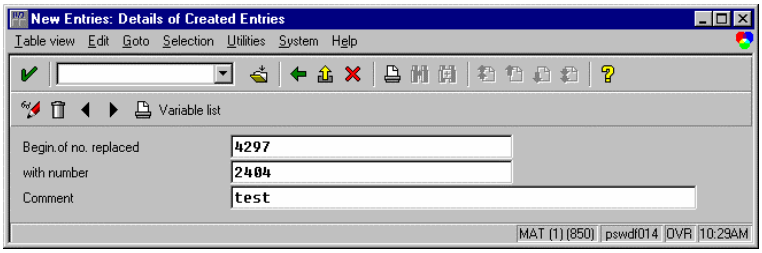


This configuration is mandatory if faxes are sent in format PCL (format POSTCRIPT exists by default).

Access by double-click on the **"execute"** button on the left of the line **"conversion rules"**.

- enter in the field **"format"** the format **OTF**
- enter in the field **"to format"** the format **PCL**
- enter in the field **"ranking"** the value **8**
- enter in the field **"function module"** the name **SX_OBJECT_CONVERT_OTF_PRT**
- save data by the button **"save"**

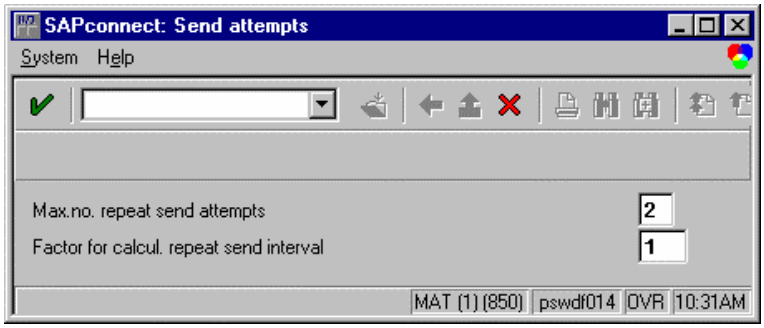
Exception rules for incoming faxes



Access by double-click on the **"execute"** button on the left of the line **"recipient no. change (incoming)"**.

- begin. of no. replaced : enter the beginning sequence of the fax number that shall be replaced
- with number : enter the substitute sequence that shall replace the previous one
- comment : enter a short description
- save data by the button **"save"**

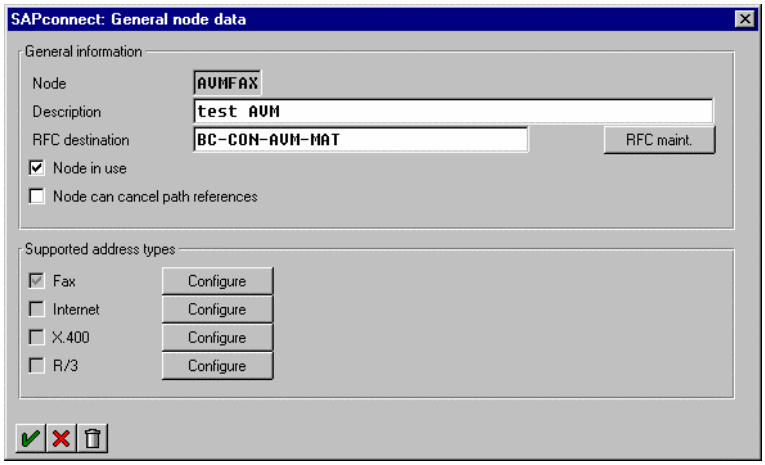
Configure sending attempts



Access by double-click on the **"execute"** button on the left of the line **"send attempts"**.

- maximum no. repeat send attempts : enter the maximum number of tries (0 = 1 attempt to send)
- interval in minutes between 2 repeat attempts : enter an interval
- confirm by **"ENTER"**

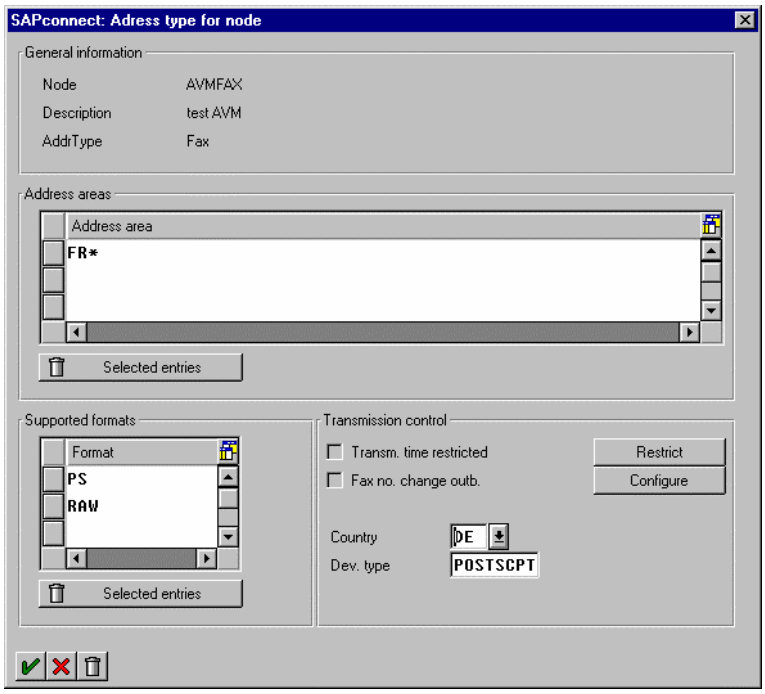
Define node



Access by transaction **SCOT**, the menu **"view" -> "nodes"** and click on the "create node" button.

- node : enter the name of the node
- description : enter a short description
- RFC destination : choose the RFC destination created before
- node in use : check this box
- click on the **"configure"** button on the right of the line **"fax"**

Node attributes

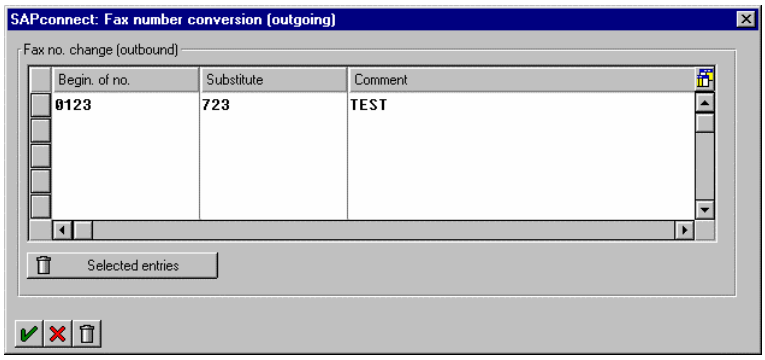


Access by previous menu.

- enter in the field **"address area"** the fax number area (example : "*" or "GB *")
- enter in the field **"format"** the names of the supported formats (RAW, PS ou PCL)
- country: enter the country code of the fax server location
- enter in the field **"Dev. type"** the type used for layout formatting ("HPLJ4", "POSTSCPT", "ASCIIPRI")
- save data

For one node, you can only select one printer language (POSTCRIPT or PCL for example)

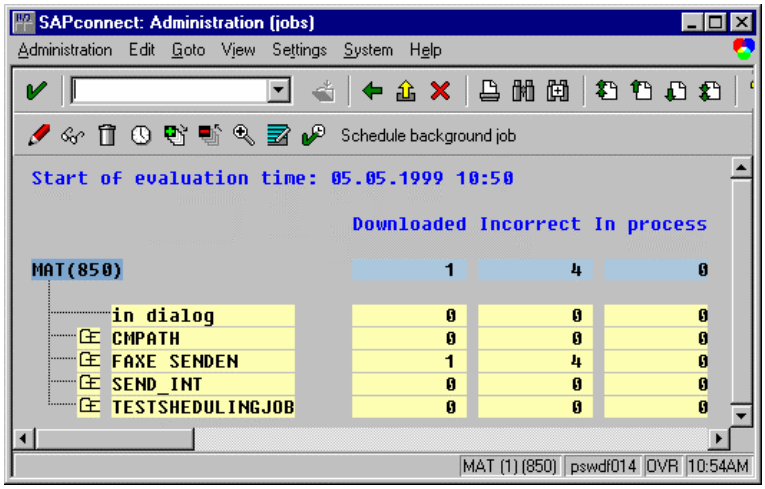
Exception rules for outgoing faxes



Access by previous menu and click on the "configure" button on the right of **"fax no. change outb."**.

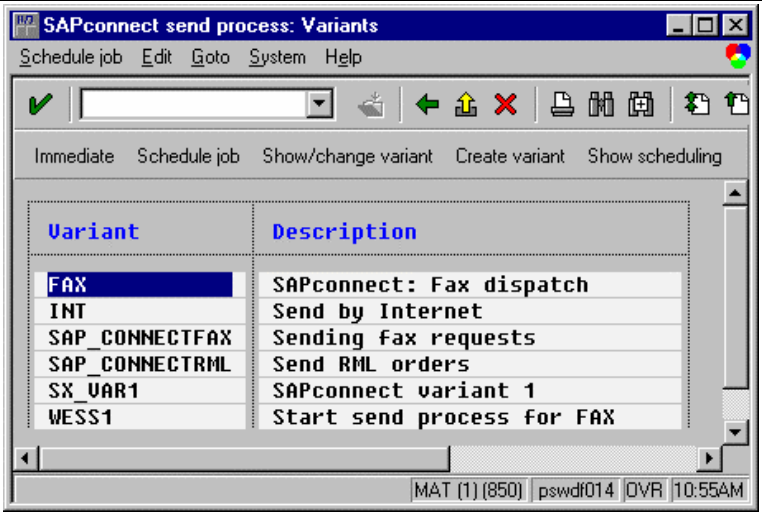
- begin. of no. : enter the beginning sequence of fax number that shall be replaced
- substitute : enter the substitute sequence that shall replace the previous one
- comment : enter a short description
- save data

Create a SAPconnect background process

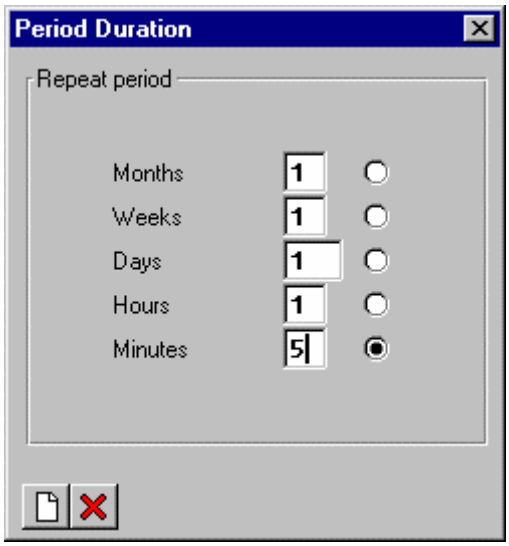


Access by transaction **SCOT**, menu "view -> jobs" and button "schedule background job".

- enter the job name "SAPCONNECT", and confirm



- select the line "FAX" and click on button "schedule job"



- enter date and time of the first execution, and click on **"schedule periodically"**
- choose a minimum short duration of 5 minutes
- save data

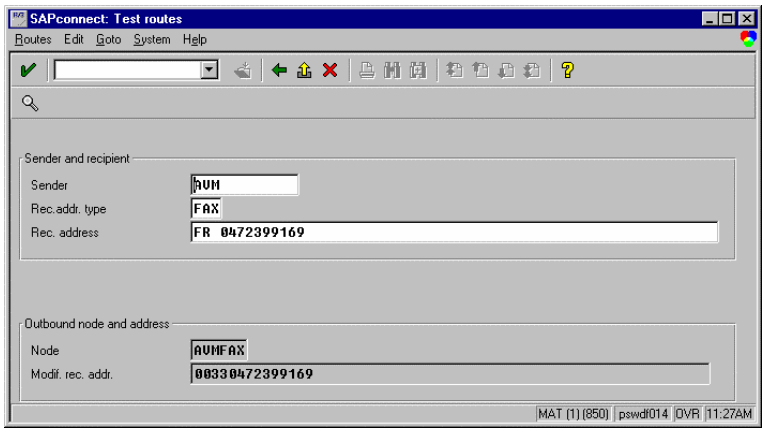
Assign fax number to SAPoffice user

Access by transaction **SU01**, enter the name of user and then click on the **"change"** button

- enter a fax number
- save data

Start again for all users

Outgoing fax routing test



Access by transaction **SCOT** and the menu **"goto" -> "routing test".**

- select the service **"FAX"**
- enter a country code and fax number and then press **"ENTER"**

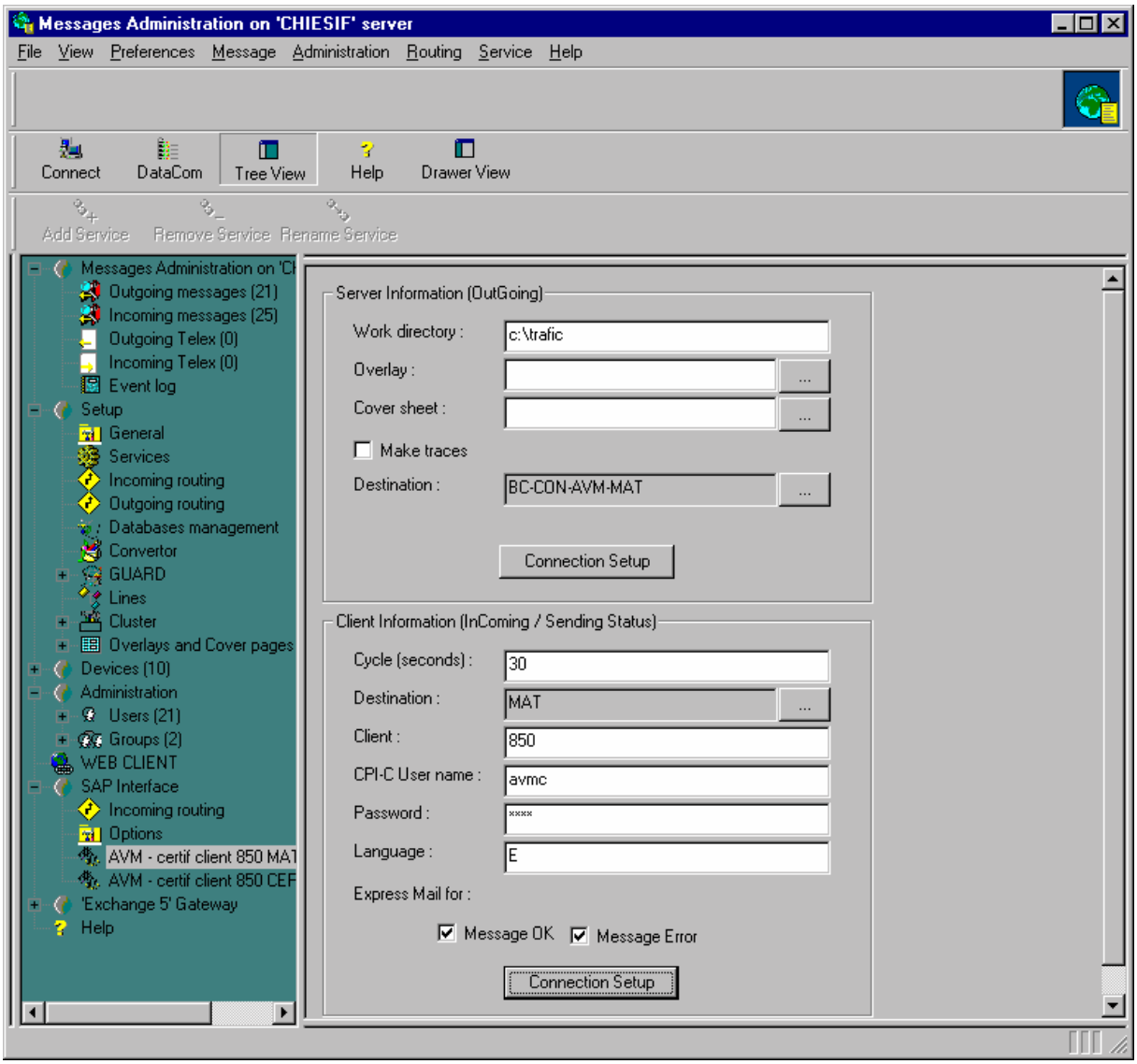
In the area **"outbound node and address"**, the selected communication node is displayed as well as the final recipient fax number.

GRAPHIC FAX FOR R/3 CONFIGURATION

Remote administration

Define a Graphic Fax for R/3 gateway

To add a new **Graphic Fax for R/3 gateway**, you must click on the button **"add service"**. Then enter the name of the gateway: choose a name composed of the SAP system name and the client number assigned to this gateway.
The configuration view displays 2 parts: the server module and the client module.



Server module (main screen)

For the server module that sends faxes, you have to enter details:

- work directory : this directory contains the temporary files
- overlay : this is the default overlay for all faxes, except for faxes with overlay or cover page specified in the content (name of overlay file without PCL extension)
- cover page : this is the default cover page for all faxes, except for faxes with overlay or cover page specified in the content (name of cover page file without PCL extension);

the previous parameter has priority, thus this parameter will never be used if the field **"overlay"** is filled

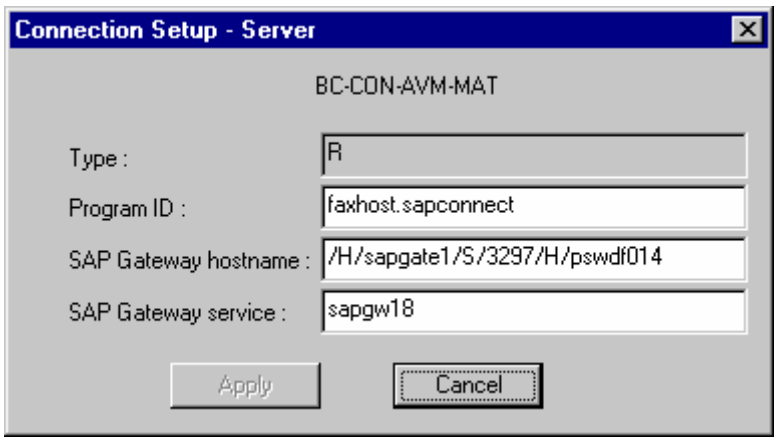
- make traces: this parameter enables to have traces in the NT event viewer
- destination : this parameter enables to define the connection with SAP

if you create a new **Graphic Fax for R/3 gateway**, click on the button **"..."**, enter a name composed of the SAP system name and the client number and then confirm the creation of the destination

If you change the destination configuration, click on the button **"connection setup"**

Server module (connection setup screen)

This window displays the connection information:



- Program ID : this identifier must match the field **"program ID"** defined in SAP (See Create a destination)
- SAP gateway hostname : hostname of the SAP gateway. It must match the hostname declared in SAP (See Create a destination); the fax server must know this hostname
- SAP gateway service: SAP gateway service. It must match the gateway declared in SAP (See Create a destination)

Click on the **"apply"** button.

Client module (main screen)

For the client module that returns sending status and transfers incoming faxes, you have to enter details:

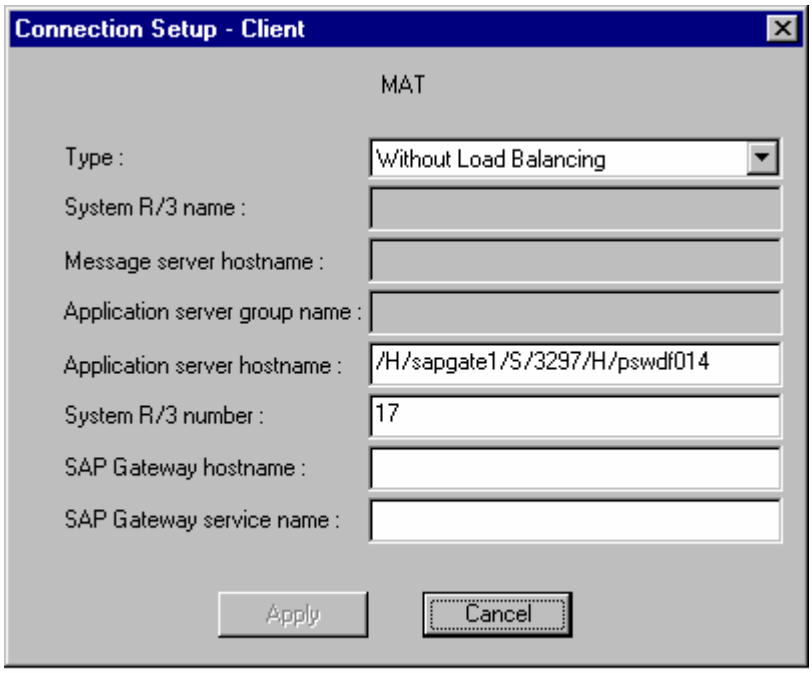
- cycle : frequency in seconds of sending status and incoming fax test from GlobalComServer
- client : this is the client number of the SAP system
- CPI-C user name : this is the CPI-C user name used to connect to SAP by RFC protocol, this parameter must match the name declared in SAP (See create a CPI-C user)
- password : this is the CPI-C password used to connect to SAP by RFC protocol, must match the password declared in SAP (See Create a CPI-C user)
- language : this is the connection language (E or F)
- express mail for : this parameter enables to generate a pop-up message when a fax is received in SAP
- destination : this parameter enables to define the connection with SAP

If you create a new **Graphic Fax for R/3 gateway**, click on the button **"..."**, enter a name composed of the SAP system name and the client number and then confirm the creation of the destination

If you change the destination configuration, click on the button **"connection setup"**

Client module (connection setup screen)

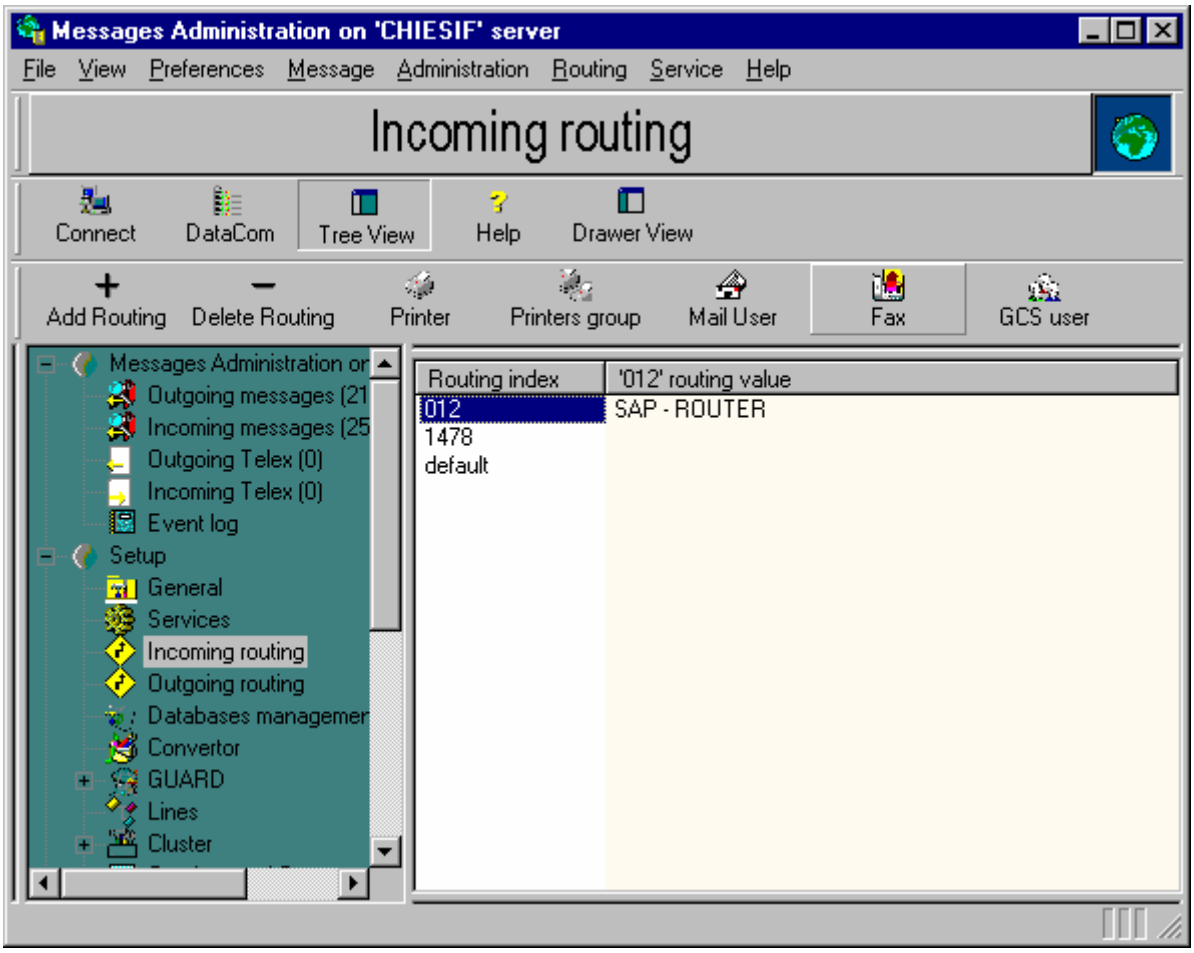
This window displays the connection information:



- type : select **"without load balancing"** if you want to execute the processing on one specific application server, select **"with load balancing"** if you want SAP choose the least charged application server to execute the processing
- SAP system name : SAP system name used for **"with load balancing"** connection
- message server name : message server hostname used for **"with load balancing"** connection
- application server group name : group name of the application servers used for **"with load balancing"**
- application server hostname : application server hostname used for **"without load balancing"** connection
- system R/3 number : system number
- SAP gateway hostname : this parameter must match the hostname declared in SAP (See Create a destination). The fax server must know this hostname.
- SAP gateway service name : this parameter must match the gateway declared in SAP (See Create a destination)

Click on the **"apply"** button.

Incoming routing



This view enables to assign an incoming routing to the **Graphic Fax for R/3 gateway**.
To add a new incoming routing, click on the button **"add routing"** and enter the incoming number.
Then, click on the button **"add value"** and select the **Graphic Fax for R/3 gateway**.
To delete an incoming routing, select the routing and click on the **"delete routing"** button.

Options

This view displays the options you can include in the fax content. It is displayed for information. Each option must be enclosed by quotation marks.
When the **Graphic Fax for R/3 gateway** finds one of these options, it reads the information to process it and deletes it from the fax content.
You can add these options by modifying the SAPScript form to add specific characters. These characters will be inserted at the beginning of each fax.

Example of fax file:

"/I=cover""/s=Christopher Clark""/D=John William""/sujet=purchase order"

MISCELLANEOUS

To send a fax from SAP, there are 2 requirements:
- the sender must have his own fax number
- the fax object must contain the recipient fax number.

Sender fax number

Each user who wants to send or receive faxes must have a fax number in his SAPoffice address.

Outgoing

The fax number may be dummy.
Several users can send faxes with the same SAPoffice fax number.
For sending status, SAP distinguishes the senders by user name.

Incoming

The recipient fax number must match the incoming routing defined on the fax server, after SAP incoming exception rules have been applied.
Assign fax number to SAPoffice user
Access by transaction **SU01**, enter the user name, click on the **"change"** button and click on tab **"address"**.

- enter a fax number
- save data

Don't forget the other users.

Automatic assignment of recipient fax number

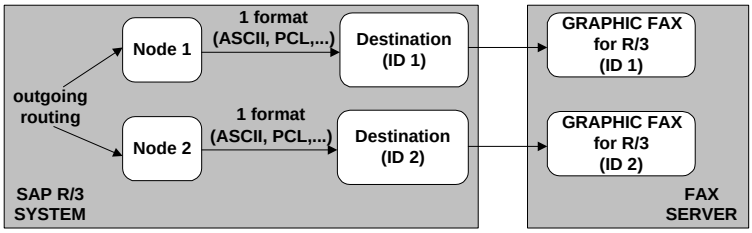
Standard documents

Standard documents don't need any modification; SAP reads automatically the recipient fax number in SAP databases.
If the recipient fax number is not in the databases, the system will ask the user for the fax number.

Non standard documents

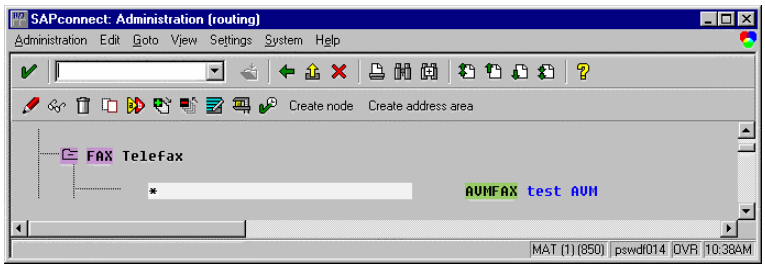
Non-standard documents need a program modification; this modification enables you to search for the recipient fax number in SAP databases.

Outgoing Routing



You must define the routing in SAP (transaction **SCOT**) according to the final recipient's country.
To define an outgoing routing, you just have to assign a **Graphic Fax for R/3 gateway** to 1 or several countries.
Of course, you must define a default **Graphic Fax for R/3 gateway**.
Access by transaction **SCOT** and the menu **"view" -> "routing"**.

To create a new outgoing routing click on the **"create address area"** button:



- enter in the field **"addr type"** the type **FAX**
- enter in the field **"address area"** the fax number area (example : "*" or "FR *")
- enter in the field **"node"** the node which will handle the outgoing fax
- save data

SAPoffice

SAPoffice contains all outgoing and incoming faxes in the outbox and the inbox.
So, either users delete faxes regularly or they make a purge by transaction **SO30**.
As SAPconnect doesn't provide the SAP user name of the sender, the sender's fax number will be checked by the **Graphic Fax for R/3 gateway** for each outgoing fax: this fax number is compared to the login of the fax server users.
The users can supervise their faxes in SAPoffice: they can see if the faxes have been sent outside SAP, they can see the final sending status, they can resend their faxes if necessary.

SAPconnect

SAPconnect runs as a background job: the minimum idle period is 5 minutes.

Format type

Each **Graphic Fax for R/3 gateway** has its own format type: ASCII, PCL or PostScript.
All faxes sent to one **Graphic Fax for R/3 gateway** have the same format type: the main document is converted in the format type defined and the attached files, if some, are not converted.
If you want to send graphic faxes, you must configure the node assigned to the **Graphic Fax for R/3 gateway** with the PCL format.
If you never send graphic faxes, you can choose ASCII format.
If you send graphic and non graphic faxes to one Graphic Fax for R/3 gateway, you must use PCL format type : thus all faxes will be converted in PCL.

Initialization files

Those files, located in **..\TRAFIC\ETC**, are modified by the remote administration tool. There is no manual modification to do (or eventually for the SAP hostnames only).

Connections file “saprfc.ini”

This file contains all **Graphic Fax for R/3** CPI-C links, for connection of all server and client modules to the SAP systems.
To use this file, you must define a system environment variable named **"RFC_INI"**, which value is the full pathname of this file.
For that, you must:

- select menu **"start” -> ”settings” -> “control panel"**
- double-click on the icon named **"system"**
- choose the tab **"environment"**
- select a line of the system variables
- enter the name **"RFC_INI"** in the area **"variable"** at the bottom of the window
- enter the path and the name of the file **saprfc.ini** in the area **"value"** at the bottom of the window
- click on **"set"**

This file contains several blocks. Each block defines information for one server or client module of one gateway **Graphic Fax for R/3**:

↳ Server module **Graphic Fax for R/3**:

- DEST : identification name for connection of server module (this name must match with the parameter **"destination"** of section **"server"** of initialization file **sapfaxXX.ini**)
- TYPE : **‘R’** for server (registration)
- PROGID: identification of server module for SAP, composed of fax server hostname and program name **sapfaxXX** (this name must match with the program ID defined in SAP, see Create destination)
- GWHOST: SAP gateway hostname (SAP machine hostname generally), this name can contain SAPRouter string (ex : /H/avm/H/sapgate/S/3297/H/hs8200)
- GWSERV: SAP gateway service like **sapgwXX** (this gateway service must match the name defined in SAP, see Create a destination)

Example:

```
DEST=SERVEUR_501
TYPE=R
PROGID=hostfax.sapfax00
GWHOST=hs5001
GWSERV=sapgw00
```

↳ Client module **Graphic Fax for R/3** with load balancing:

- DEST : identification name for client connection (this name must match the parameter **"destination_client"** of the section **"client"** of initialization file **sapfaxXX.ini**)
- TYPE : **‘B’** for client with load balancing
- R3NAME : R/3 system name (value of field DEST by default)
- MSHOST : hostname of message server
- GROUP : group name of application servers (PUBLIC by default)

Example:

```
DEST=CLIENT_501
TYPE=B
R3NAME=EUD
```

MSHOST=hs5001
GROUP=PUBLIC

↳ Client module **Graphic Fax for R/3** connected to a specific application server:

- DEST : identification name for client connection (this name must match the parameter **"destination_client"** of the section **"client"** of initialization file **sapfaxXX.ini**)
- TYPE : **'A'** for client without load balancing
- ASHOST : hostname of application server (SAP machine hostname generally), this name can contain SAPRouter string (ex : /H/AVM/H/sapgate1/S/3297/H/hs8100)
- SYSNR : R/3 system number
- GWHOST : hostname of SAP gateway (ASHOST by default), this name can contain SAPRouter string (ex : /H/avm/H/sapgate/S/3297/H/hs8200)
- GWSERV : SAP gateway service like **sapgwXX** (this gateway service must match the name defined in SAP, see Create a destination) (gateway of ASHOST by default)

Example:

DEST=CLIENT_502
TYPE=A
ASHOST=hs5001
SYSNR=00
GWHOST=hs5001
GWSERV=sapgw00

The file WINNT\system32\drivers\etc\hosts of the fax server must contain the SAP machine hostname
<TCP/IP address> < hostname >
Example:
125.122.1.5 hs5001

The file WINNT\system32\drivers\etc\services of the fax server must contain the following entries (this is done automatically by the remote administration tool):
<sapgwXX> <port number>/tcp
<sapdpXX> <port number >/tcp
<sapmsYYY> < port number >/tcp

XX is the SAP system number
YYY is the SAP system name

Example:
sapgw00 3300/tcp
sapdp00 3200/tcp
sapmsEUD 3600/tcp

Graphic Fax for R/3 initialization file "sapfaxYY.ini"

This file is located in the directory **..\trafic\etc** (**YY** is the number of the NT service).
It contains one section about server module (section **"server"**) and one section about client module (section **"client"**)

↳ server module:

- work_directory : local work directory containing temporary files
- logo : form to be applied to all SAP outgoing faxes, if they don't have any form or cover page name in the fax file itself
- cover_page : cover page to be applied to all SAP outgoing faxes, if they don't have any form or cover page name in the fax file itself, and if the parameter above **"logo"** is empty
- trace : trace activation ('0' = no trace, '1' = trace)
- service_display_name : name of the NT service displayed in the NT services list
- destination : identification name of server module in the file **saprfc.ini**

- split : flag to split a global ASCII document into several faxes (each fax must begin with a specific syntax : [fax:number;name=sender])

↳ client module:

- cycle : idle time in seconds between each process (30 s by default)
- destination_client : identification name in the file **saprfc.ini**
- client : client number of SAP machine
- user_CPIC : CPI-C username for connection with SAP
- password : password of CPI-C user
- language : language of SAP connection
- reception_ok_express : activation of express mail for successful incoming faxes ('0' = mail, '1' = express mail)
- reception_error_express : activation of express mail for erroneous incoming faxes ('0' = mail, '1' = express mail)

Example:

```
[server]
work_directory=c:\trafic                (mandatory)
logo=sap                                (optional)
cover_page=                             (optional)
trace=1                                 (optional)
service_display_name=EUD client 320     (mandatory)
destination=EUD                         (mandatory)
split=1                                 (optional)

[client]
cycle=20                                (optional)
destination_client=EUD                  (mandatory)
client=850                              (mandatory)
user_CPIC=avmc                          (mandatory)
password=ds87                           (mandatory)
language=E                              (mandatory)
reception_ok_express=1                  (optional)
reception_error_express=1               (optional)
```

- if a mandatory parameter is missing the service does not start
- any modification of this file will become effective when the service Graphic Fax for R/3 restarts
- if an optional parameter is missing, the service adds a warning message in the application log of the event viewer; but if this parameter exists and is not correct, the service does not start.

Incoming routing file "saproute.ini"

This file is located in the directory **..\trafic\etc**.
It contains one section named "routing" with all the incoming fax numbers assigned to one service **Graphic Fax for R/3** (from 00 to 99).

Example:

```
[routing]
0001=00
0002=01
```

If an incoming fax number is not in this file, the service **Graphic Fax for R/3** number 0 is selected by default.

Options file "sapinfo.ini"

This file is located in the directory **..\trafic\etc**.
It contains one section named "send" with all the possible attributes for a fax.

Example:

```
[send]
/l=name of the form or cover page
/s=sender name
/D=recipient name
/sujet=fax object
```

To be accepted by Graphic Fax for R/3, these attributes must be inserted in the beginning of the fax, each attribute enclosed with quotation marks.

Example of fax file:

"/l=cover""/s=Christopher Clark""/D=John William""/sujet=purchase order"

The fax will be sent with a cover page named **"cover.pcl"**, the sender name is "Christopher Clark", the recipient name is "John William" and the fax object is "purchase order".

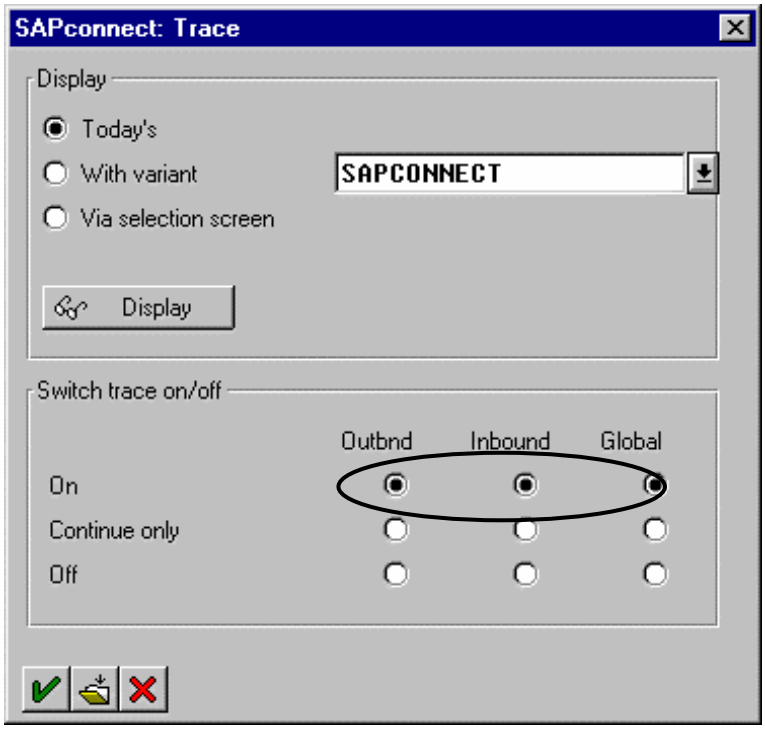
If the value of the information "/l=" begins with the character @, it is treated as a form, otherwise it is a cover page.

TROUBLESHOOTING

Tools

Activate SAPconnect traces

For the tests, you can activate temporarily the SAPconnect traces:



Access by transaction **SCOT** and the menu **"goto" -> "trace"**.

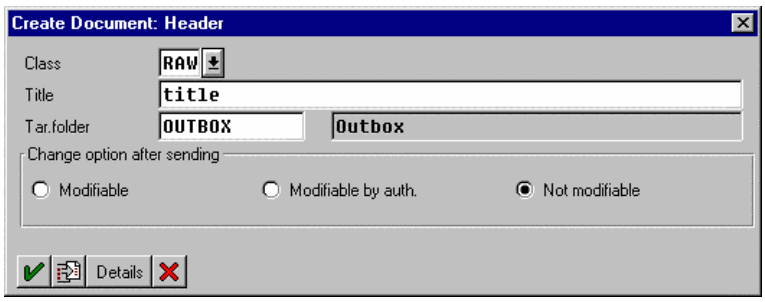
This transaction enables to display or to enable/disable SAPconnect traces for outgoing and incoming faxes.
Select the first line in area **"switch trace on/off"** for the 3 columns and save.
To display traces, select **"today's"** in area **"display"** and click on **"display"**.
Traces are displayed with date and time, table of contents sent to the fax server...

Do not forget to disable SAPconnect traces at the end of the tests by selecting the medium lines for the 3 columns and saving.

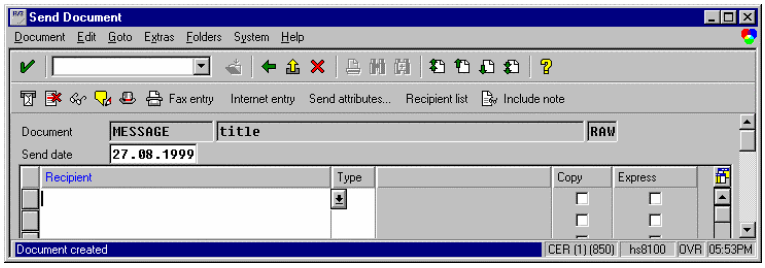
Create a SAPoffice message test

Access by transaction **SO02**.

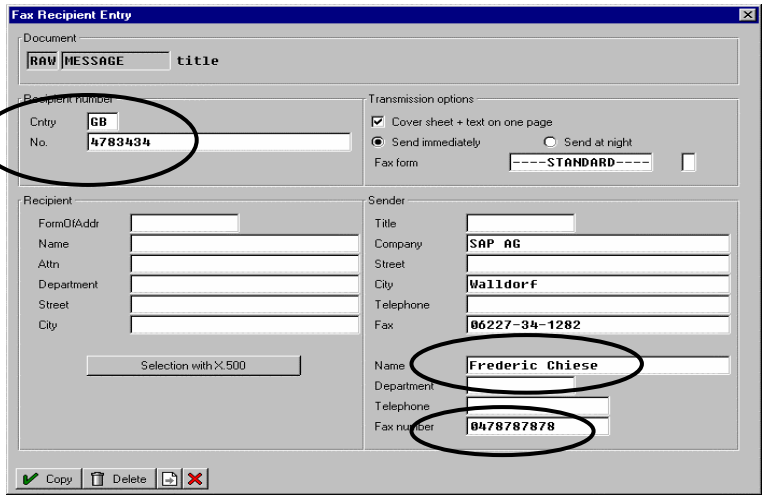
Click on the button "create"



Choose the type RAW (ASCII), enter the title of the message and confirm.
Enter a text for the message content and click on **"send"**:

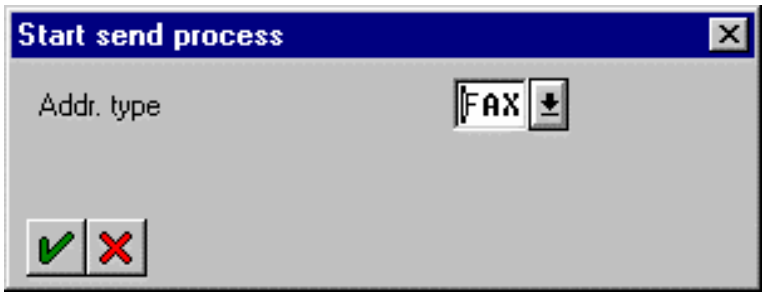


Click on **"fax entry"**.



The sender's name and fax number must be displayed on the right.
Enter a country code and a fax number on the top and confirm.
Click on the button **"send"**.

Activate sending process manually



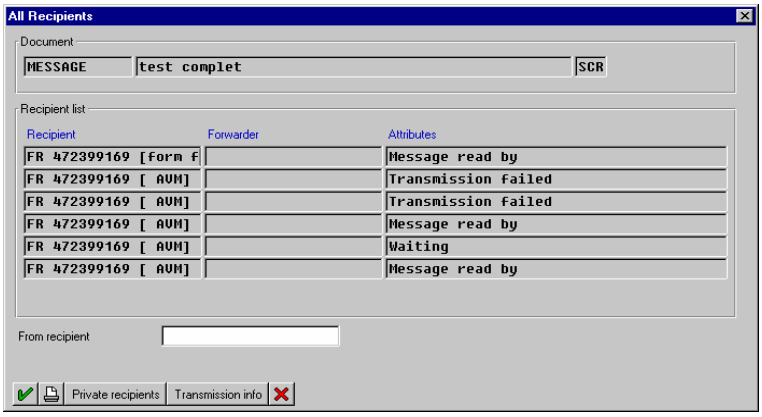
Access by transaction **SCOT** and the menu **"goto" -> "sending start"**.

This transaction enables you to start manually the SAPconnect sending process.
In area **"addr. type"**, select the type **FAX** and confirm.
Change screen to refresh.
If an error message appears immediately, it means that SAPconnect did not find the **Graphic Fax for R/3** server module.

Fax status in SAPoffice outbox

When a fax to send is generated, it is stored in SAPoffice outbox where you can see its status (transaction **SO02**).

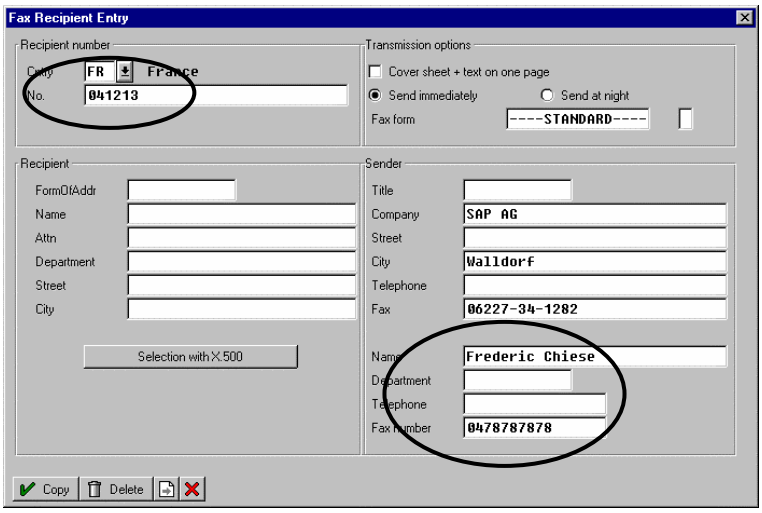
The column named **"No."** is the number of recipients.
The column named **"VW"** is the number of recipients who have received the fax.
Double-click on the line of the fax in the column **"No."**: the list of the recipients with each sending status is displayed.



There are 4 different status :

- waiting : SAPconnect did not try to send the fax outside SAP
- arrived : the fax has been sent outside SAP successfully
- transmission failed : SAPconnect tried to send the fax outside SAP but there was an error, or the fax sending status was an error
- message read by : the fax has been successfully received by its recipient

Double-click in the column **"Recipient"**:



You must have several fields filled: **"Recipient number"**, **"name"** and **"fax number"** of the sender.

Fax not sent by SAPconnect

Symptoms

When a fax is generated, it is sent outside SAP at the SAPconnect next start of (background job); thus you must wait to see the fax on the fax server.
If the fax does not appear on the fax server after the next start of SAPconnect and you do not have any error message, check the fax status in SAPoffice outbox.
If the SAPoffice status is **"waiting"**, it means that SAPconnect did not try to send this fax because information was missing: name or fax number of the sender, fax number of the recipient.
Display recipient information as described above to check the missing information.
It means that it is mandatory to resend the fax from SAPoffice because the fax server did not receive the fax.

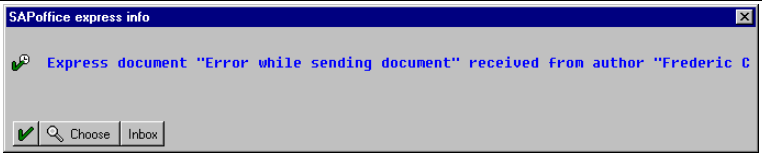
Solution

Make a copy of the fax, select the fax copy and click on the button "send"
Click on the button **"entry fax"** and enter all the information (sender and recipient)
Confirm and click on the button **"send"**: SAPconnect will send the fax the next time.

Sending error from SAP to the external fax server

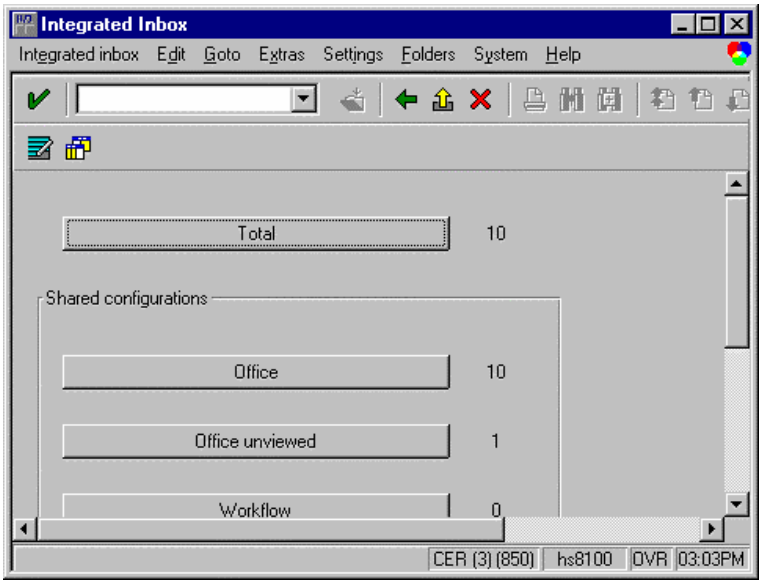
Symptoms

When a fax is generated, it is sent outside SAP at the SAPconnect next start of (background job); thus you must wait to see the fax on the fax server.
If the fax doesn't appear on the fax server after the next start of SAPconnect and you don't have any error message, check the fax status in SAPoffice outbox.
If the SAPoffice status is "waiting", it means that SAPconnect did not try to send this fax because information was missing: name or fax number of the sender, fax number of the recipient.
Display recipient information as described above to check the missing information.
It means that it is mandatory to resend the fax from SAPoffice because the fax server did not receive the fax.

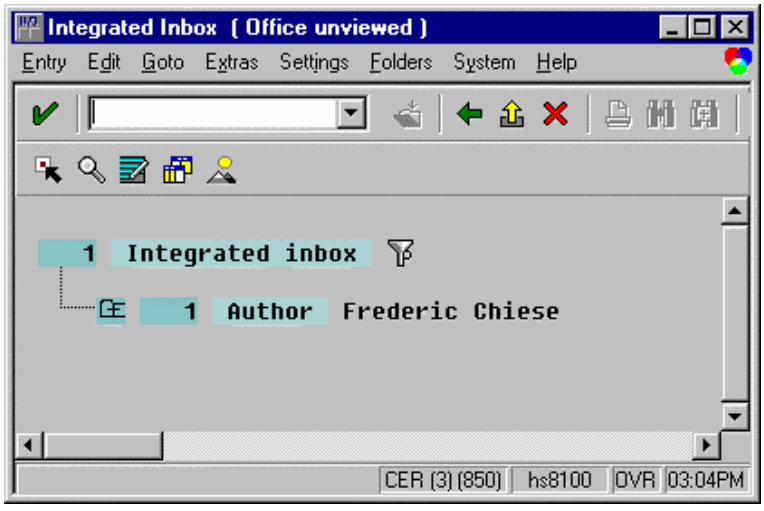


You can view the message in SAPoffice sender inbox by 2 ways:
- click on the button **"Inbox"**
- transaction **SO01**

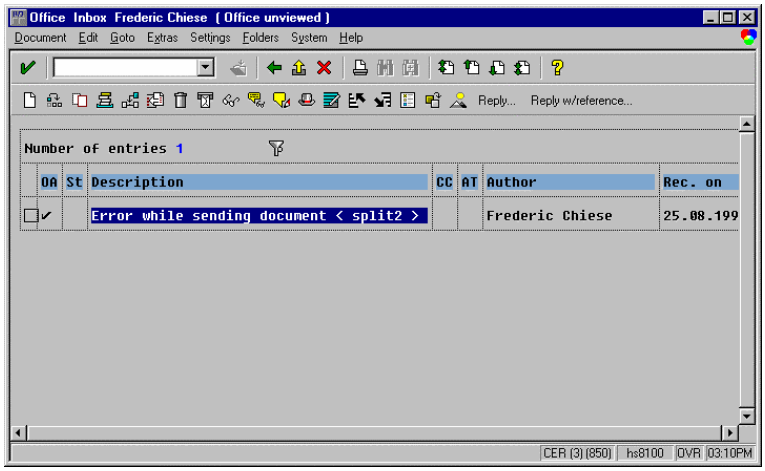
Then, the SAPoffice sender inbox is displayed:



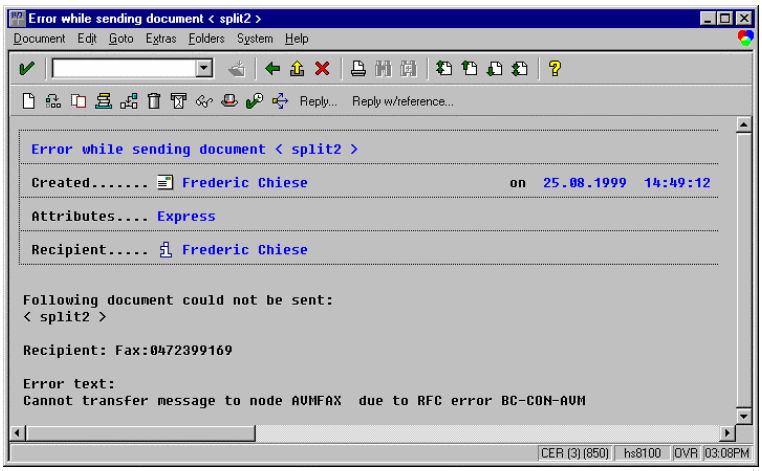
Click on the button **"Office unviewed"**:



Double-click on the line displayed:



Double-click in the column **"Description"**:



This message points out that the server module of **Graphic Fax for R/3 gateway** cannot be reached: note the name of the node (AVMFAX in the example) and the name of destination (BC-CON-AVM in the example) because they will be used to check the configuration.
You can also check the fax status in the SAPoffice sender's outbox: the status is **"transmission failed"**.

Solution

Check the fax server

You must check that the fax server machine is started, and that the **Graphic Fax for R/3 gateway** is started too.
Graphic Fax for R/3 puts all its error messages in the log **"application"** of the Windows NT event viewer (**"start" -> "programs" -> "administration tools" -> "event viewer"**).
Please consult this log.

Check SAP destination

Log on the SAP system and select the transaction **SM59**.
Display the TCP/IP connections and double-click on the destination displayed above.
The program ID displayed must match the field **"Program ID"** of the gateway in the fax server.
Click on the button **"test connection"**: it enables to check the **Graphic Fax for R/3** server module connection.
If an error message is displayed, the **Graphic Fax for R/3** server module is badly configured.
In case of Least Cost Routing, check the SAP outgoing routing.

Check SAP node

Select the transaction **SCOT** and menu **"view" -> "nodes"**.
Double-click on the node displayed above: you will see the associated destination and the outgoing routing.

Check SAPconnect traces

If SAP and fax server configuration seem correct, consult the SAPconnect traces (see above).

Connection restored

When the problem is corrected, you must select the fax in SAPoffice outbox and click on the button **"resubmit"**.

Fax without sending status

Symptoms

This error occurs when a fax is displayed as sent outside SAP (status **"arrived"**), but there's no sending status and no error message.

Solution

Stop **GlobalComServer**, but let **Graphic Fax for R/3 gateway** run.
Resubmit the fax from SAPoffice.

Check Graphic Fax for R/3 server module for sending

If the fax is well processed by the **Graphic Fax for R/3** server module, a file beginning with character **h**, named **h***, is generated in directory **..\TRAFIC\DEP**.
If there is no such file, please consult the log "applications" of the Windows NT event viewer (**"start" -> "programs" -> "administration tools" -> "event viewer"**) to see the error messages.

Check GlobalComServer

If the h* file exists, stop **Graphic Fax for R/3 gateway** and start **GlobalComServer**.
After a few seconds, the fax must appear in the outgoing fax database.
In case it is not in the database, please consult the log "applications" of the Windows NT event viewer ("start" -> "programs" -> "administration tools" -> "event viewer") to see the error messages.
If **GlobalComServer** has sent the fax, stop **GlobalComServer** after complete sending.
Open the file ..\TRAFIC\ARC\SAPS.CSV with an ASCII editor, go to the end of the file, and check that the last line matches the sent fax (date and time).

Check Graphic Fax for R/3 client module for sending status

If the last line matches the sent fax, close the file and restart **Graphic Fax for R/3 gateway**.
After few seconds, the **Graphic Fax for R/3** client module must process this sending status and delete the file.
If the file is not deleted, please consult the log **"application"** of the Windows NT event viewer (**"start" -> "programs" -> "administration tools" -> "event viewer"**) to see the error messages.
Otherwise, check the sending status in SAPoffice.
If the sending status is not received in SAP, please consult the log "applications" of the Windows NT event viewer (**"start" -> "programs" -> "administration tools" -> "event viewer"**) to see the error messages.

Check SAPconnect traces

You can consult SAPconnect traces (see above).