PROGRAM FOR **SMS SERVER** OF GSM GATES

# Blue Gate ISDN, Mini Gate A, Blue Gate SIP, PRIma Gate, Blue Gate A, Blue Gate ISDN Brave, Blue Gate A Brave

# SMS-Mail

**User guide v 13.4.19.1**

# Content

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## Object of program and brief description of its functioning

- Program can be used for transfer of SMS messages using GSM data gates (both with analog port and RS-GATE module and with ISDN port and REM module). In addition it can be used with Mini Gate A and Blue Gate SIP etc.

- Incoming SMS messages are transformed in order to be accepted as a usual e-mail by usual programs for emails (Outlook, Outlook Express, Windows Live Mail, Thunderbird etc.). Similarly, outgoing e-mail messages are converted by the program into SMS messages and are sent to the connected gate.

- It is possible to route delivering of SMS to the particular PC by writing of the relevant name of PC in the net on the beginning of SMS. Usual SMS messages can be read using all PCs that are available for PC with SMS_Mail program within the local net. Telephone numbers for SMS are entered in a form compatible with e-mail ones – it is possible to save them into directory as other e-mail addresses.

- The program collaborates with GSM gate in batches. In pre-set time intervals, it withdraws SMSs collected by GSM gate and sends SMSs delivered as e-mails from SMTP clients.

- If after connection to the gate, the program detects that the gate is cast by call, it will postpone change of SMS messages.

- When the connection with the GSM gate is established, the program permanently listens as SMTP and POP3 server on relevant ports. After first establishment of connection, the program deals with requirements of e-mail clients independently on the fact whether it is connected to the gate or not.

- The program is intended for example for an independent PC. However, it can function also as SMTP and POP3 server for more PCs in a local net.

- The program can work also in mode without interaction with screen or keyboard. Thus, it is possible to run it automatically e.g. from planned tasks after PC start or from administrator account as service application.

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## Block schema of information processing:
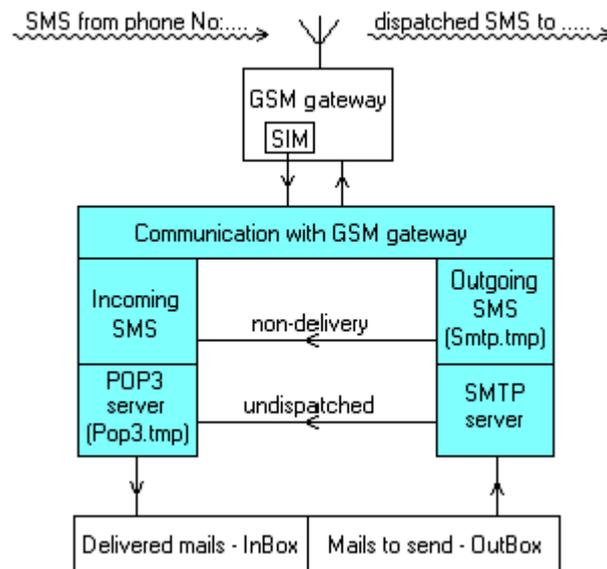
# Program installation

Install the program in the PC physically connected to the GSM gate. **Program is always installed as a DEMO version and only after entering the relevant registration code (see below) the program is converted into an unlimited version.**

DEMO version limitations:

The only limitation is reduction of length of transferred SMS messages to 10 characters after which advertisement text is added:



Installation:

1. Run SMS_Mail_Setup.exe.
2. Choose option - New installation.
3. Validate license agreement, select name of installation folder and folder of programs in „*Windows / Start / All programs*".
4. You can enter also GSM port and the key for IMEI of GSM gate. However, these options are accessible also after installation.

# Communication between program and GSM gate

After installation, run the program and set parameters of communication between GSM gate and the program:

- Select type of GSM gate with which the program will communicate.
- According to GSM gate type, the communication proceeds through serial port COM, USB port and virtual COM port or TCP-IP.
- Some parameters of data transfer will be preset by selection of GSM gate type.
- Further, select relevant COM port or IP address of GSM gate.

Data exchange between GSM gate and the program proceeds repeatedly in batches.

- Time interval of batch processing is given in minutes.
- Size of interval is convenient to select according to gate workload.
- In case of heavy workload of SMSs and low workload of voice communication, select short interval and on contrary in case of heavy workload of voice communication, select long interval (GSM module is occupied for calls during communication with the program).
- **Attention! The gate will always stay for half of minute after end of data communication in data regime and thus it will be occupied for calls.**
- Regime "on line" is not fully compatible with normal telephone traffic through the GSM gate.

Note:

- If the program will operate continuously (e.g. as a server for several PCs) it is convenient to run it after PC start. Therefore place program short cut to the directory „Run after start". In the program itself, set automatic start of batch processing after program start.
- Protocol TCP/IP is necessary for program functioning. If this protocol is not installed (Win2000) in your PC, please first, install it!
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# Registration – transfer from DEMO version to full version

After program start by pushing Start button, there are continuously written out actions that are executed in cooperation with program (receipt and dispatch of SMS by the gate, receipt and dispatch of e-mails to individual clients, signal intensity etc.) in the program window. First action of SMS server after start is checking of IMEI code of first GSM module of the gate. This code is necessary for gaining of registration code required for operation of program as full version. IMEI code should be sent to your distributor. After that, you will gain the code that you enter to the relevant cell of the program.

Note: The code in question to IMEI can be already enclosed to the gate with the program by a distributor.

**Full version of the program will work only with the gate to which IMEI the code is issued. When the program is used with other gate and with other GSM module, the program will work as DEMO. After entering correct code for IMEI, DEMO version will be converted to full version and the window for entering code disappears.**
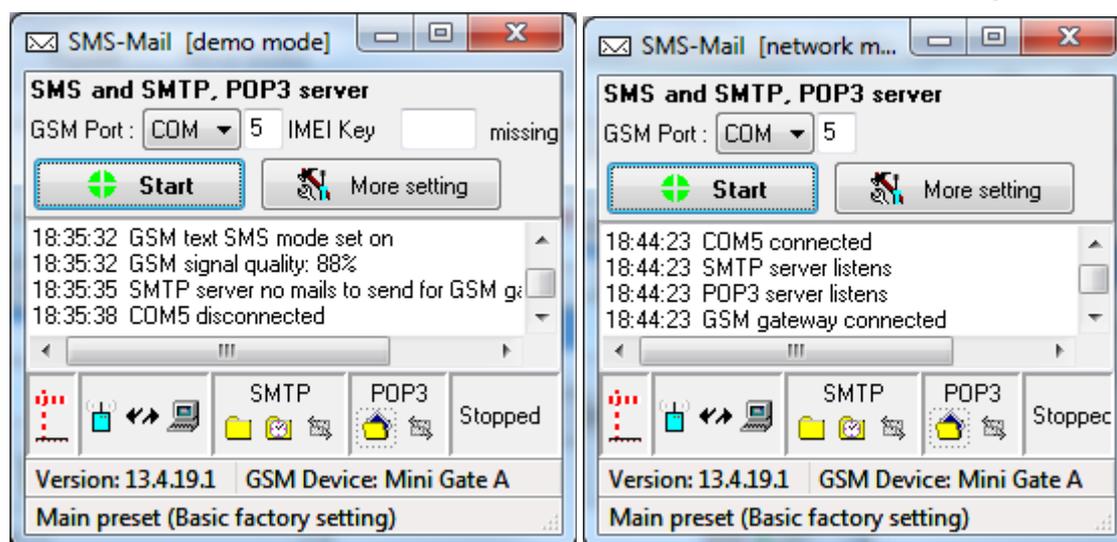


**Attention: the code for IMEI of Blue Gate ISDN is connected with IMEI of 1st GSM module.**

Actual state of the program is displayed in the name of the main window. When the program works in DEMO mode, in the main window an editor for code entering will appear.

## Program states signalization

Periodical connecting on    , off    .

States in course of communication:
disconnected    , connected    , communication established    ,
error during communication    ,
reading of SMS messages    , writing of SMS messages    .

States of SMTP and POP3 servers:
server running unsuccessful –  „gray text",
server connected and is listening – „**black text**",
data are not in the reservoir    , data are in the reservoir    
client is not connected    , client is connected

# Main window of the program and basic setting

## SMS-Mail [demo mode]

**SMS and SMTP, POP3 server**

GSM Port : COM ▼ 5  IMEI Key [    ] missing

[ ⊕ Start ]  [ 🛠 More setting ]

```
18:35:32 GSM text SMS mode set on
18:35:32 GSM signal quality: 88%
18:35:35 SMTP server no mails to send for GSM ga
18:35:38 COM5 disconnected
```

| | SMTP | POP3 | |
| | 📁 📬 📭 | 📥 📭 | Stopped |

Version: 13.4.19.1   GSM Device: Mini Gate A

Main preset (Basic factory setting)

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## SMS-Mail setting

- GSM device
  - SMTP, POP3
  - Exchange
- ▲ E-mail to SMS
  - Long E-Mail
  - Charset
  - Pre-set Time
- ▲ SMS to e-mail
  - Autorouting
  - Basket
  - Aliases PC
  - Replace address-phone

**GSM device**   [ ini ] [🇬🇧] [🇨🇿]

**Select GSM device**   [ Mini Gate A ▼ ]   [ Serial COM port ▼ ]

**Serial COM port**
COM port number [ 5 ]   Baud Rate [ 19200 ▼ ]   ☑ DTR On
SMS format  ◉ text   ○ PDU   ☑ RTS On

**Ethernet IP address and TCP port of GSM gate**
IP address [ 192.168.1.250 ]   TCP port [ 11201 ]   [ Default ]

**IMEI of GSM device and KEY for the full version of this program**
IMEI [          ]   Key [      ]

[ OK ]   [ Cancel ]

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**SMTP, POP3**   [ ini ] [🇬🇧] [🇨🇿]

**SMTP**
Port where the SMTP server listens [ 25 ]
☐ Limit the number of SMTP clients
Maximum number of SMTP clients list [ 100 ]

**POP3**
Port where the POP3 server listens [ 110 ]
☐ Limit the number of POP3 clients
Maximum number of POP3 clients list [ 100 ]

**User Name** [ smsmail ]

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**Exchange**   [ ini ] [🇬🇧] [🇨🇿]

☐ Start SMS, E-mai exchange at program begining

SMS, E-mail exchange mode :   ◉ Periodically   ○ On line

Interval for SMS, E-mail exchange : [ 5 ] min.

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# Setting of new account for cooperation with SMS-Mail

It is necessary to set an account for cooperation with SMS-Mail in a program for e-mails

(Outlook etc) in all PCs, from which you wish to send and receive SMS messages.

## Example is for Outlook 2010

1. Select File > Information > Add account > Configure manually... > E-mail in Internet
2. Setting of Internet e-mail
   - Name: for example „Name SMS"
   - E-Mail address: for example „+420123456789"@smsmail.sms
   - Server incoming and outgoing: name of PC or IP address of PC with running SMS_Mail program
   - Password: „anything" - to remember
   - **DO NOT** – Require login  ... (SPA)
3. More setting
   - General - Name: for example „Name SMS"
   - Server for outgoing mail – not to check
   - Connection – by (LAN)
   - Specify – ports according to setting of SMS_Mail, DO NOT – preserve copies
4. Test account setting...
   - Run SMS_Mail
   - Connect to GSM gate
   - Click on Test
   - In the SMS_Mail window there will appear connection and disconnection of SMTP and POP3 clients.

## Windows Live Mail / Outlook express

Very similar to Outlook 2010

## Example is for Thunderbird

1. Select Tools > Account settings...
2. Account action > Add mail account...
3. Establishment of mail account
   - Your name - „Name SMS"
   - E-Mail: for example +420123456789@smsmail.sms
   - Password: „anything" - to remember
   - Continue
4. Searching ...**STOP**
5. Manual setting – Server setting
   - Address of server: name of PC or IP address of PC with running SMS_Mail program. J
   - Port: according to SMS_Mail setting
   - User name: „Name SMS"
   - Connection security: None
   - Authorization: Password, insecure transfer

**Note:** If both e-mail client and program SMS_Mail are running on single computer, use „local host" for the server name of both incoming and outgoing mail.

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# Sending and receipt of SMS messages

## Sending:

- Write SMS as a usual e-mail. The length must not exceed that of one SMS message. If this condition is not fulfilled, the e-mail will be returned by SMS-Mail with an error message or split into more SMSs according to program setting.
- Address field "To" should be filled with address in the form: +xxxxxxxxxxxx@yyy.zz, where +xxxxxxx is a number in an international form, yyy and zz can be anything what email client is willing to accept. Recommended form is „+123456789012@smsmail.sms". Telephone number can also be in the position of yyy.
- The same text is possible to send to more clients by using copy or entering more addresses.
- The cell "Subject" is not passed to SMS – therefore anything, what enables a message identification, can be here.
- Send Mail by newly created account, for example like this:
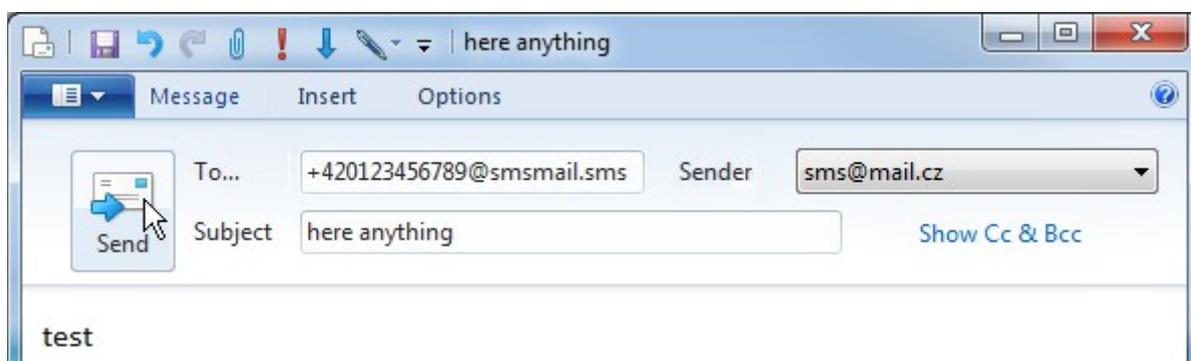


## Receipt:

- Received SMS is in a standard e-mail format.
- In the cell "From", there is shown a telephone number of a sender in the already mentioned form. The number is shown in the same form as in the subject of the message. The mentioned form of SMS number enables both use for answering by a button „Reply", where it appears in a correct form for sending, and direct saving to a directory to other email addresses. Thus, it is possible to select SMS numbers in similar way as other email addresses from the directory.
- Sending and receipt of SMS messages will proceed according to setting of e-mail program either immediately or after pressing the button „Send/Recv" or in pre-set periods (more details in help of the used program).
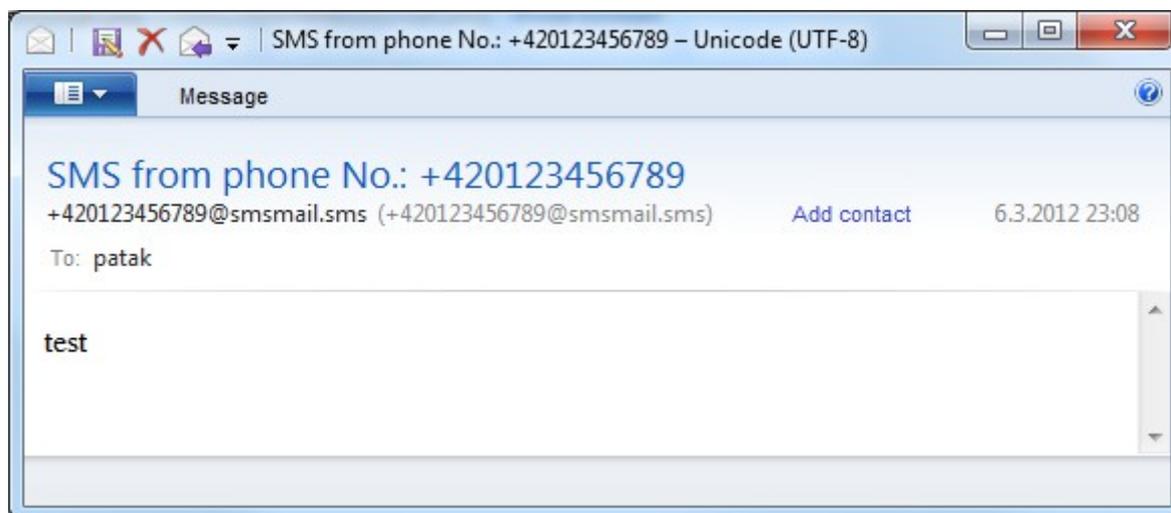
# Simple sending of SMS message without e-mail client

It is possible to use for testing of the program functioning independently on functioning of mail SMTP clients.
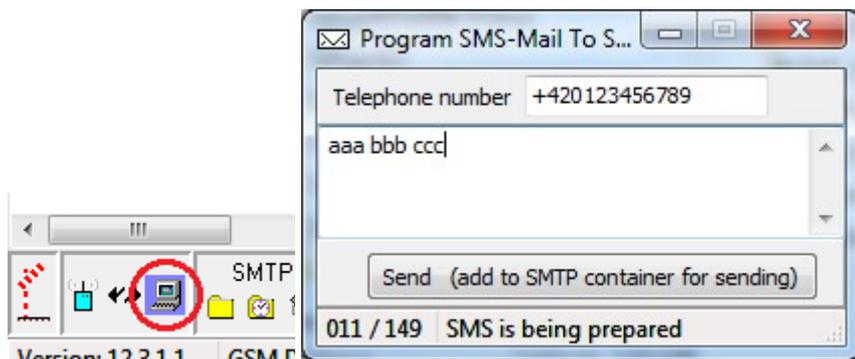


# Check of file buffer with received messages, prepared for mail clients

It is possible to use for check of received messages before their transfer to mail POP3 clients.
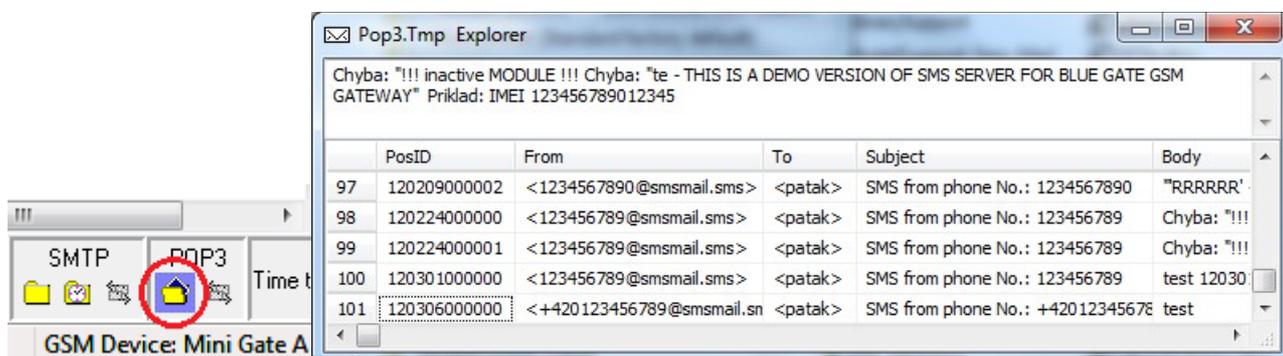


# Check of mail clients activity

Activities of individual SMTP or POP3 clients can be followed and set by windows „Clients Explorer".
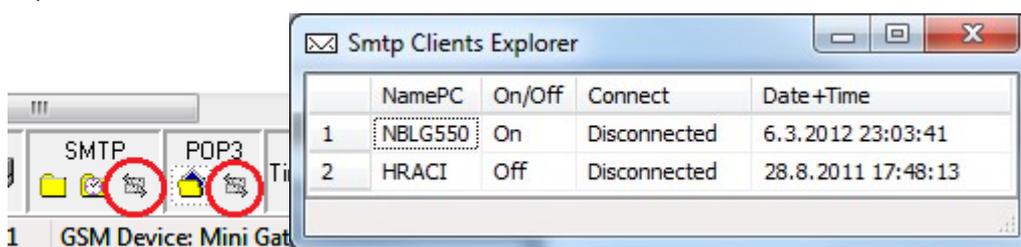


By click on client line by right mouse button, it is possible to:

- delete – e.g. After long idle (column Date+Time)
- switch off – to deny access to SMTP or POP3 server of SMS_Mail for client
- disconnect – if client is connected for long time and data are not transferred

Clients are identified according to name of PC in which their mail client is running.

It is possible to switch on regime where only IP addresses of PCs are used.

In the column Date+Time, there is time of last client connection.

New or deleted client is added to table automatically.

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If number of clients is limited and new client overflows limit of allowed clients, this client will be switched off immediately after addition.

The communication proceeds through TCP-IP on ports 25 and 110. However, it can be necessary to use other ports than standard ones sometimes. For example, when services IIS are running in a computer with SMS-Mail program. It is recommended to set a port to any free value in range from 1024 to 49151. In case of using a nonstandard port, it is necessary to set this port to all clients, too.

Preferably, such settings should be performed by a system administrator that has an access to settings of users' competences, setting of antivirus programs, firewalls etc.

## Transfer of e-mail into SMS message

- It is necessary to adjust text of e-mail in order to be sent as SMS message regarding its length and text simplicity, without supplements and pictures.
- If e-mail is sent in more copies, program SMS_Mail will try to send SMSs to all telephone numbers given in e-mail addresses.
- If the program SMS_Mail assesses a received e-mail as untransferable to SMS message, it will return it to sender with flag „undispatched".
- If you send e-mail to a nonexistent number, it will be returned to sender with flag „non-delivery".

## E-mail is too long for transfer into one SMS message

This can be solved in dependence on relevant setting. E-mail can be shortened, split into more SMS messages or returned to sender.
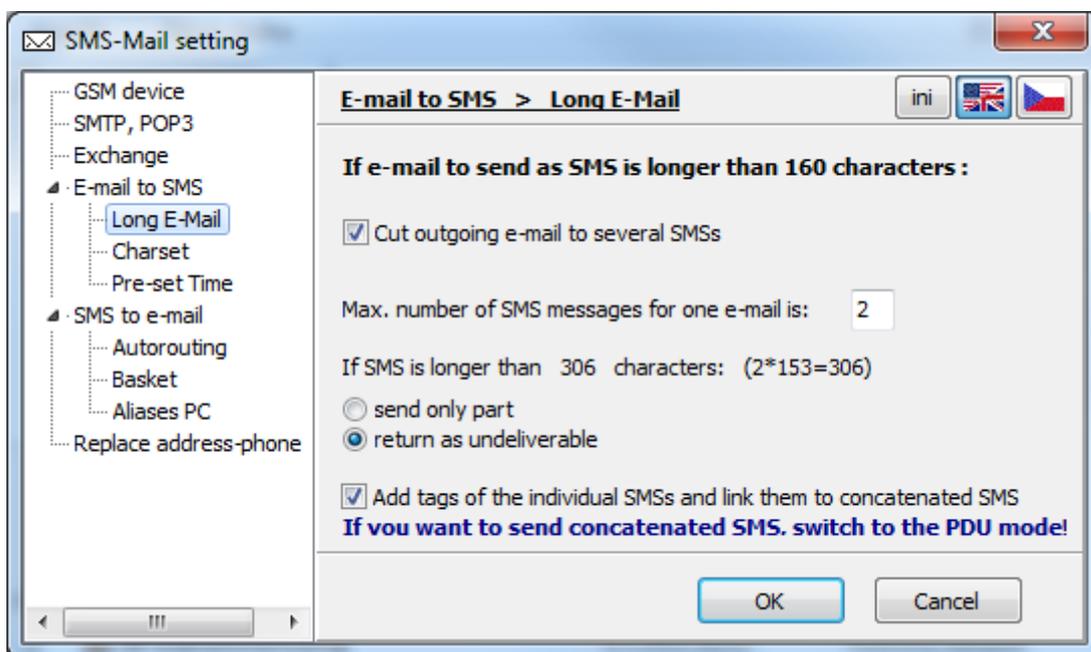


If it is necessary to transfer messages longer than 160 characters as one unit; the program can add markers to the message and these markers will cause reunion of the message sent in more parts into one unit.

# E-mail does not contain characters reliably readable in mobile phone

According to setting, the program can try to detect charset and to convert characters into similar ones without diacritical marks.
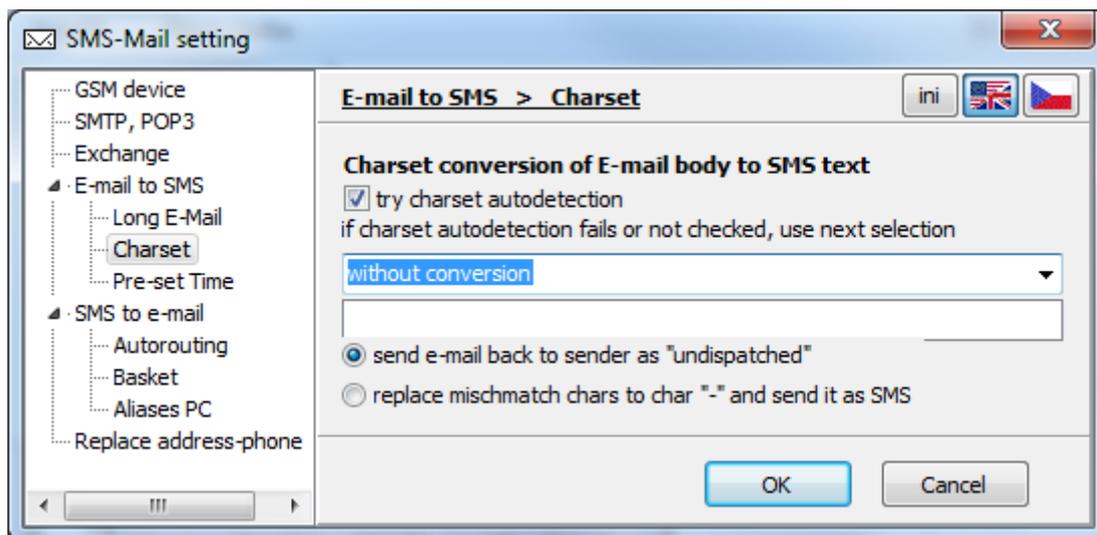


It can also return e-mail as undispatched or to rewrite the characters with „-".

Preferably, a sender should write e-mail so that it was readable in mobile phone after transfer into SMS message.

## E-mail must be sent as SMS in pre-set time

If this regime is switched on, it is possible to write information on time of SMS message sending to e-mail subject.
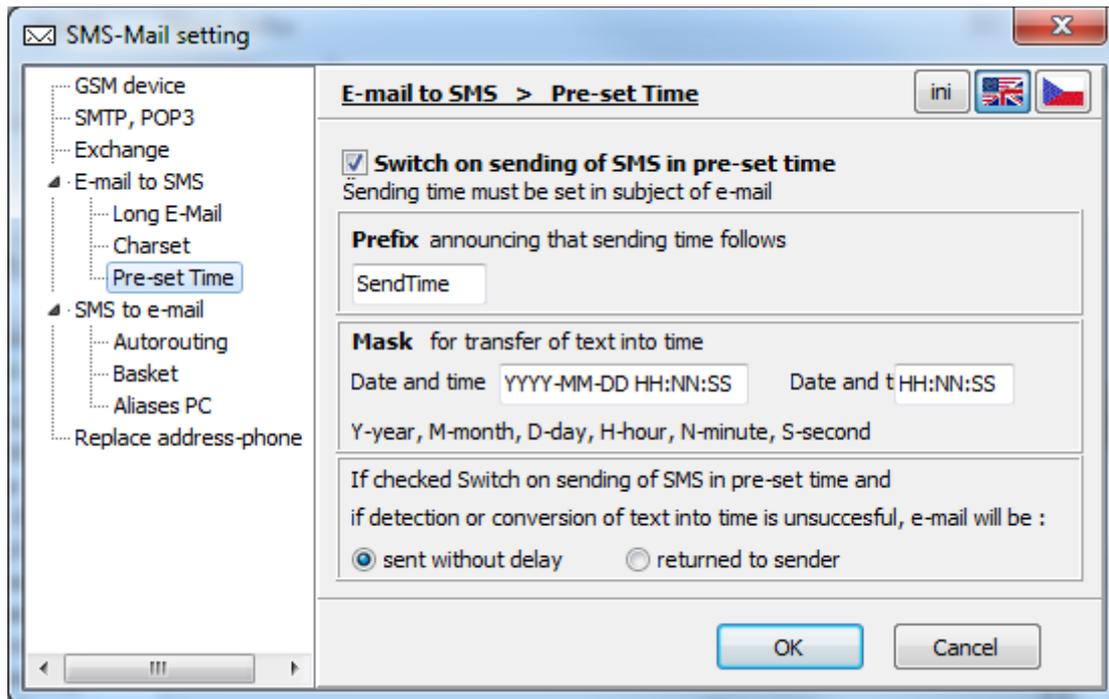


## Reception of SMS messages by e-mail clients

SMS message is routed to GSM gate according to telephone number of GSM gate by GSM operator. Therefore, it is necessary to specify to which POP3 clients of SMS_Mail program the received SMS messages will be released. By default, standard SMSs sent to GSM module are delivered to all PCs in local net that have relevant accounts created in program for work with emails and routed to SMS_Mail program. However, there are also other options how to define whom the accepted SMSs will be delivered as e-mails.

SMSs can be routed to a particular PC automatically by intelligent routing of SMS_Mail program and option Auto routing. SMS can also be routed by the way that a SMS message sender will write a name of a particular PC to text of the message. It is also possible to choose mode when all accepted messages will be released to „only" or „also" one particular PC the name of which is given in settings of program „basket".

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# Specification of recipients to whom SMS messages will be released

## Automatic – intelligent routing- autorouting

It is possible to switch on the mode when the program remembers telephone numbers to which it sent SMS messages.
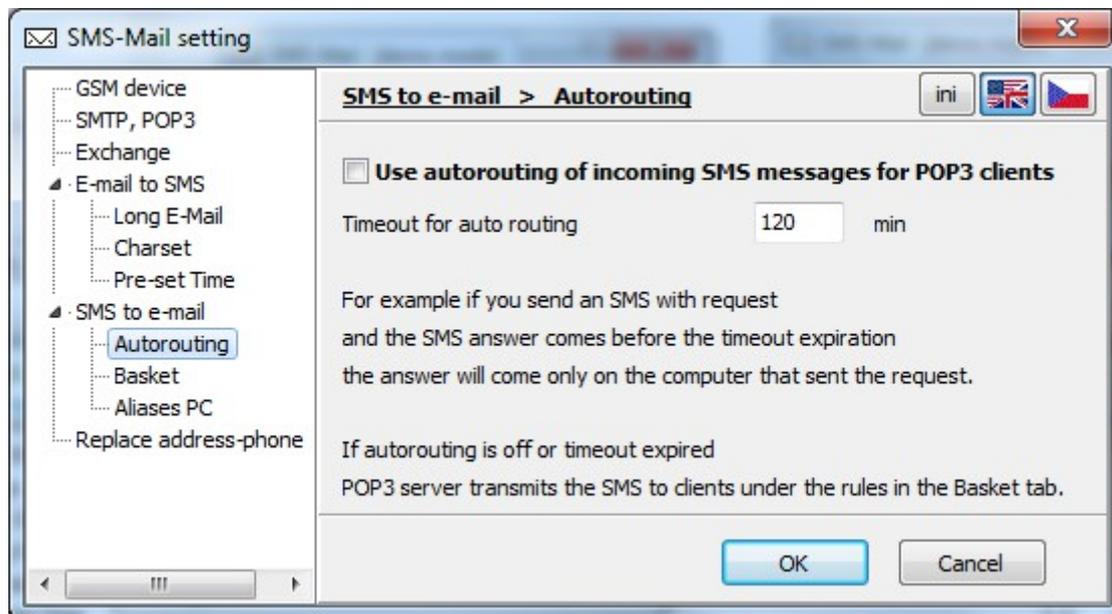


See comment in the settings window.


## Function basket

In basic setting, all SMS messages are released for all clients in local net that have accounts for work with program SMS_Mail created in e-mail client.
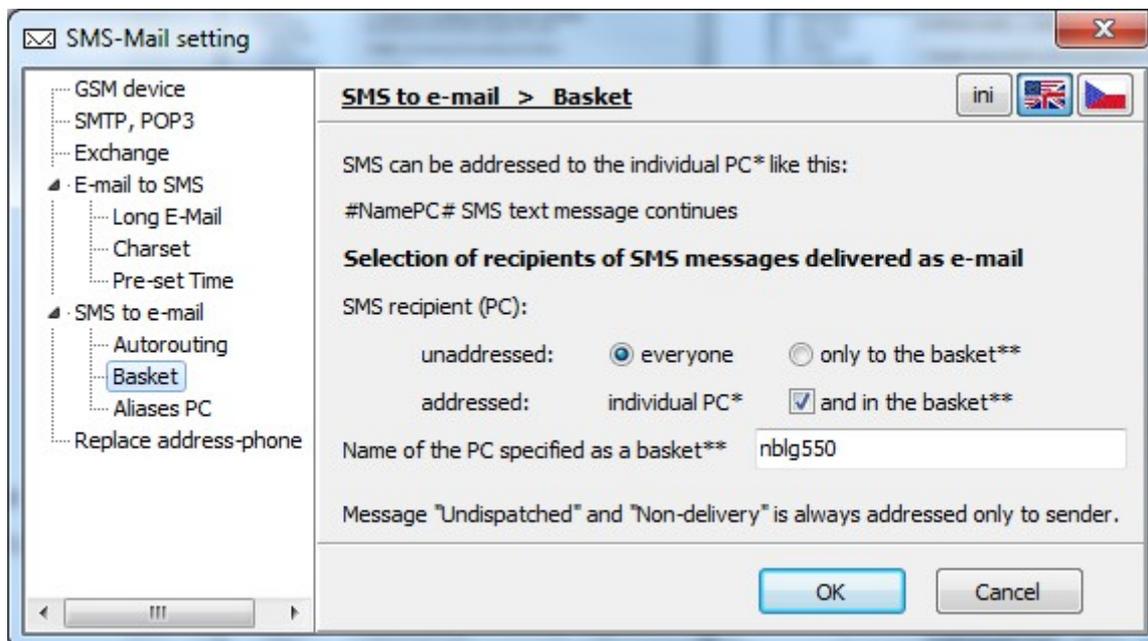


If it is not desirable to release all messages for all clients, it is necessary to specify one PC „ a basket" that will take messages.

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## Specification of the particular recipient – PC - by sender of SMS message

If it is necessary to deliver the SMS selectively to the defined computer in the net, the computer name, under which the PC is shown in the local net, will be placed in the beginning of the SMS message. The name must be entered between „#" marks.
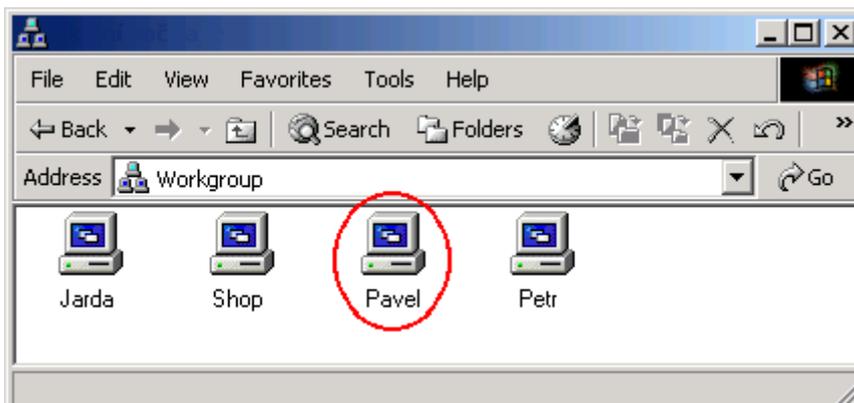


Example SMS for computer Pavel: #Pavel# Test SMS for Pavel.

It is possible to give more names, separated by commas, between „#" marks. Then SMS will be delivered only to these computers. For example: #Jarda,Pavel,Petr# Test SMS for Jarda, Pavel and Petr.

## Aliases as substitution of PC names in local net

It is possible to use aliases, given in Aliases table, instead of computer names.



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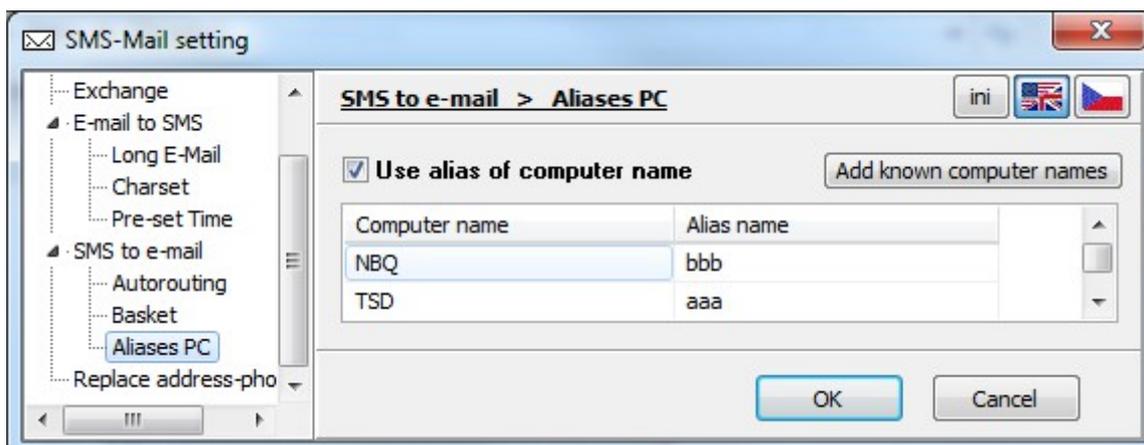
## Replacement of telephone number with e-mail address and vice versa

Already established e-mail addresses can be used and the program will replace them with telephone numbers. If telephone number and e-mail address are given in the table, it is possible to send SMSs to e-mail address with an aid of SMS program account and the program will replace the e-mail address with the telephone number. If SMS message is received from the telephone number given in the table, the program will replace the telephone number with the e-mail address during the transfer of the SMS into e-mail.
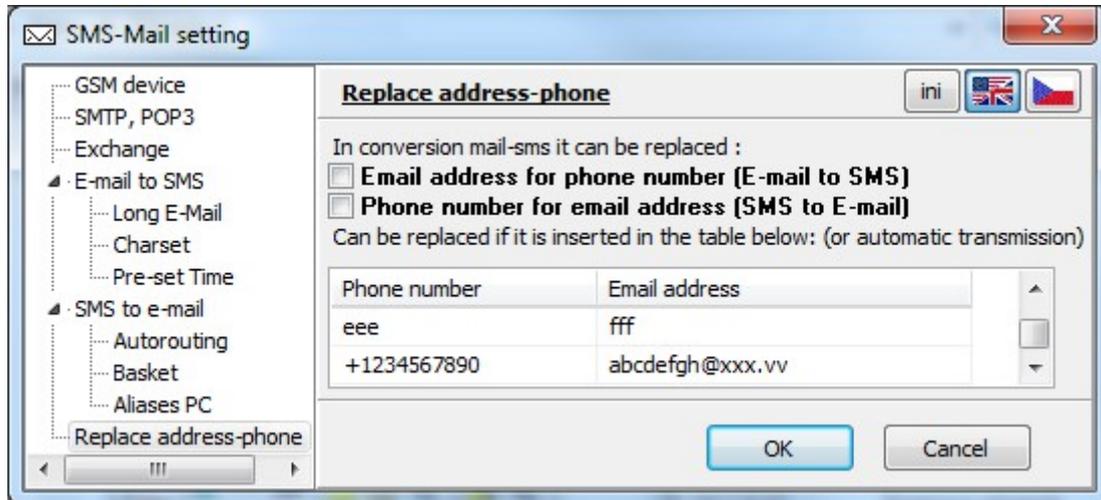


## Evaluation of correct program functioning

- All servers of SMS-Mail program must be active for correct program functioning.
- The icon must glimmer once at SMS server and letters in SMTP and POP3 texts must be displayed in a black color.

- After pressing of „Send/Recv" in Outlook, colored icons at POP3 server must glimmer once and the same event must happen in case of sending at SMTP server. Information about connected clients will appear in a status bar.

- After downloading of SMS messages from GSM gate, an icon of POP3 server will change into an icon and it will stay in this state even after downloading of messages by any client because messages are saved for other clients.

- After downloading of messages to SMTP server, the icon will change itself into the icon . After transfer of messages to GSM gate the icon will return to the state .

Servers of SMS-Mail program are established as independent adaptive sequence automats. Therefore texts in status window can differ in dependence on system and collaborating programs states and do not need to be repeated regularly.

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