

Installation and User Guide for smsZipper v0.7

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1 General issues

This description is intended to describe the functionalities of the smsZipper V0.7 by providing some screenshots of the application. The document is based on the tests and the screenshots made with the Nokia 6630. However the main features are the same for all the enabled phones, even though some differences in the screen size, buttons, etc. can be experienced on different models. We have successfully tested the smsZipper on several phones and it would be nice to have some feedback in case you install it on different than those listed. A list of tested phones is available at:

<http://kom.aau.dk/project/mobilephone/index.php?section=17>

1.1 What is it?

The smsZipper is a tool to compress SMS text messages, patented by the University of Aalborg. The tool enables you to compress text messages by factors two to three depending on the content (higher compression ratios are possible, but not in this free version). Different languages are supported (English/German/Italian/Danish) and more will be added soon.

The idea is based on:

S. Rein and C. Guehmann and F.H.P. Fitzek. Low Complexity Compression of Short Messages. 2006. in IEEE Data Compression Conference (DCC), IEEE Computer Society Press. Snowbird, UT.

The JAVA 2 Micro Edition version of the tool has been developed by Gian Paolo Perrucci and Morten V. Pedersen.

1.2 How does it work?

First of all, in order to work, the application has to be installed on both sender and recipient phones. smsZipper allows the user to write an SMS and when it is ready to be sent, smszipper compresses the text automatically and sends it out. On the other side, when the recipient phone gets the incoming message on the smsZipper port, it

automatically starts the application up (if it is not already open) and decompresses the text. Then an alert is shown to inform the user that a new message has been received.

1.3 Which version to choose?

The tool comes with different language packages including English and a second language. However the User Interface is always in English. We highly recommend not to install more than one package on the same mobile.

The languages that are supported so far are:

- English
- German
- Danish
- Italian

The compression of the text highly depends on the content and whether the language package matches with the language of the written text. So we recommend you to choose the package according with the language you use to write the SMS.

2 Requirements

The smsZipper is a tool developed in J2ME and it is supposed to work on all the JAVA enabled phones. However the minim requirements are:

- MIDP 2.0
- CLDC 1.0 or CLDC 1.1

For those who are not familiar with technical specifications of the phones, a list of MIDP 2.0 phones is available at

<http://kom.aau.dk/project/mobilephone/index.php?section=17>

It is recommended to have at least 500Kb of free memory space on the phone before installing the application.

3 Installation

3.1 Download

By accepting the Aalborg University/smsZipper Personal License Agreement the tool can be downloaded free of charge for personal, non-commercial purposes only, from:

<http://smszipper.kom.aau.dk>

3.2 Installation

After you have downloaded the tool there are different possibilities to convey it towards the mobile phone.

- Using Bluetooth
- Using programs from the phone vendors

3.2.1 Installing smsZipper V0.7 via Bluetooth

If you are using Bluetooth to send the application to the phone, just right-click on the file you downloaded and then ->send to-> Bluetooth device.

Choose now your phone on the list and send the file.

The tool is received by the phone as an incoming message. Therefore go to the INBOX and start the installation process. Meanwhile the installation process, just follow the instructions.

3.2.2 Installing smsZipper V0.7 using phone's vendor programs

You can send the jar file to the phone via Bluetooth, IRDA or cable connection using programs from the phone vendor (such as PCSuite from Nokia) to install the program. Such an action may be required by some phones. This we have experienced for the Nokia 6230.

4 smsZipper V0.7 features overview

4.1 smsZipper V0.7 GUI overview

The Figure 1 shows some screenshots of some of the main Forms of the tool. Please note that they have been taken by using Nokia 6630. On different phones the GUI could look differently, but the main content is the same.

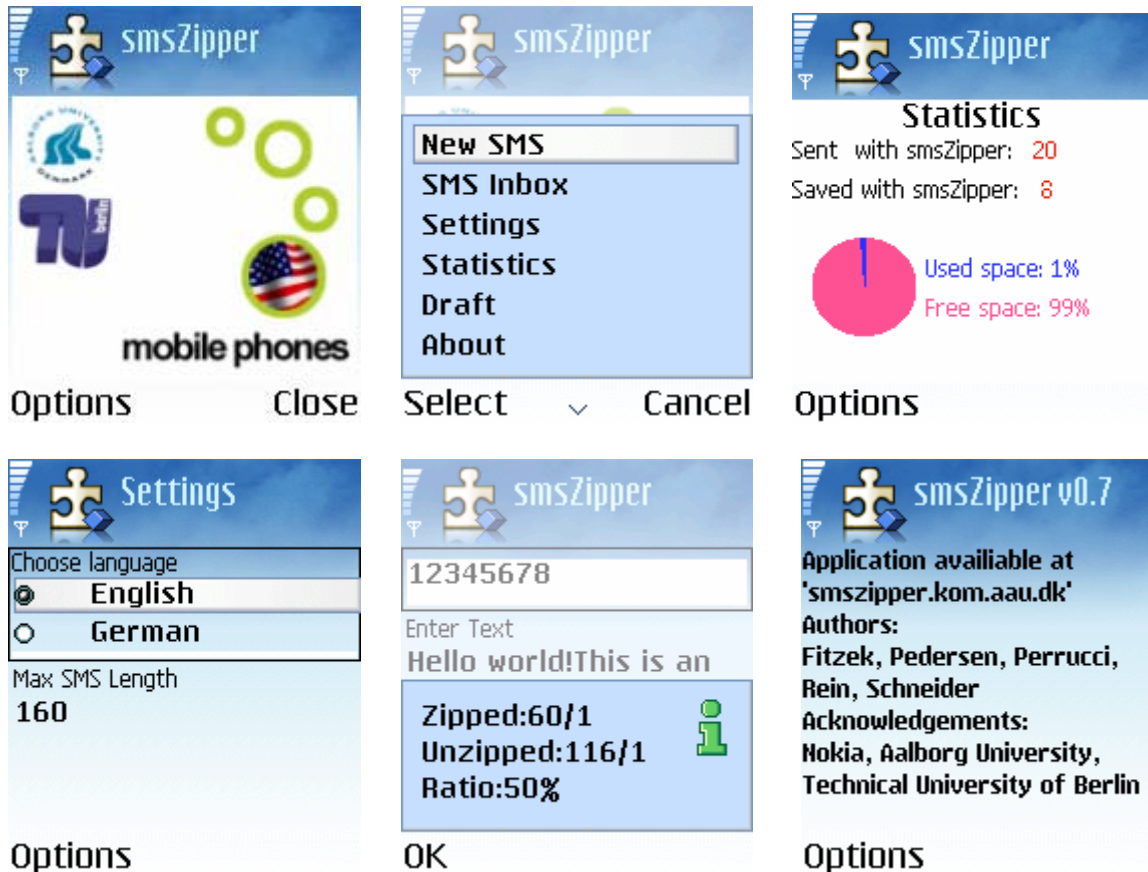


Figure 1 – Some screenshots of smsZipper V 0.7

4.2 Getting started using the tool

4.2.1 Setting the language and the SMS maximum length

The smsZipper supports different language packages. Each package contains 2 languages, except for the English version which just includes the English language.

Trough the Settings Form, it is possible to change language of the compressor and to set the maximum length of the SMS, as well. By default this value is 160, but there could be some different sizes depending on special agreements with the phone company or on the country of interest. The Figure 2 shows some screenshots of the Settings Form.

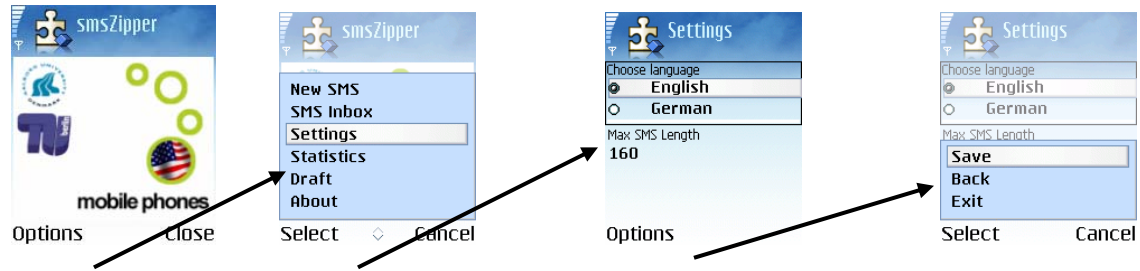


Figure 2 Settings Form screenshots

To apply the changes it is necessary to press the “Save” button. Changing the language of the compressor, the labels of the buttons are still in English. In fact the changing only affects the compression gain: i.e. compressing English text with English compressor gives a larger gain then compressing it with German one!

4.2.3 Statistics

The Statistics Form gives to the user some information, as shown the Figure 3.

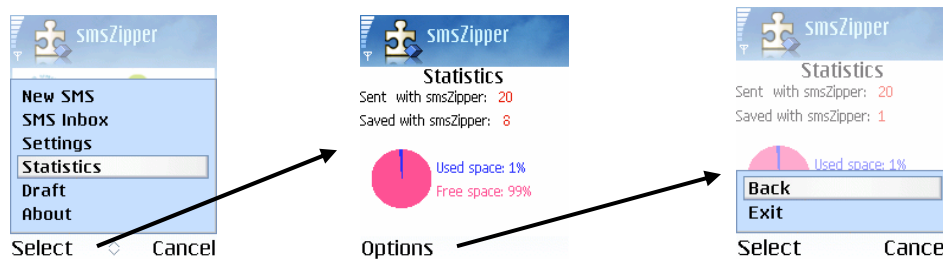


Figure 3 Statistics Form screenshots

There are two kinds of information:

- Memory status:
Information about the space used by the smsZipper and the space still available.
- SMS status:
Information about the total number of SMS sent and the number of SMS saved using smsZipper.

4.2.4 Writing a new SMS

Writing an SMS is very easy because the Form to write it looks like the one normally used. There is number box where the phone number of the recipient should be put, possibly added from the contacts list, as shown in the Figure 4.

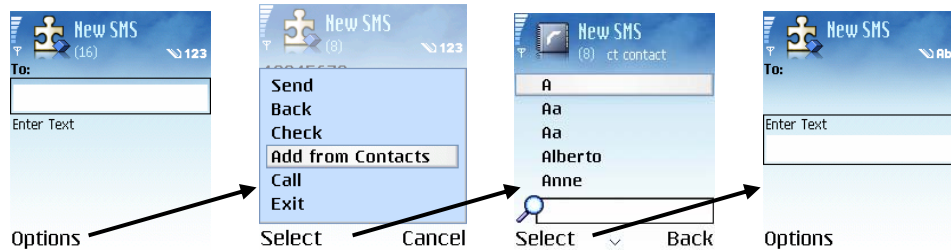


Figure 4 Adding a phone number from the contacts

Below the number box, there is the text box where SMS must be written. It is possible to use the T9 to write it easy.

4.2.5 Checking the length of the SMS

Before sending the SMS, it is possible to check the length of the SMS and how many SMS will be sent. This can be done using the “Check” button as shown in the Figure 5.

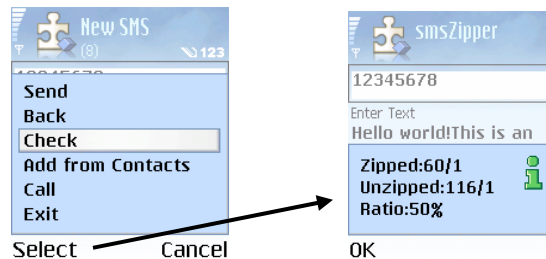


Figure 5 Check button screenshot

The Form shows an alert with the compression ratio, the sizes of the zipped and unzipped texts and after the “/” the number of SMS to send are shown.

4.2.6 Sending an SMS

After writing the SMS, it is possible to send it, just pressing the button “Send” as shown in the Figure 6.

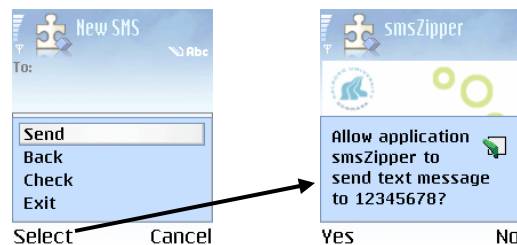


Figure 6 Sending the SMS

Due to security restrictions, before sending the SMS, it is necessary to allow the tool to do it.

In case the message is not sent, either because there is no network coverage or due to a lack of the money in the account (if a prepaid sim card is used), the SMS is saved in the Draft Inbox.

If the SMS is correctly sent, an alert informs the user of the event, otherwise, the alert informs the user that the SMS has been saved into the Draft Inbox.

4.2.7 Receiving an SMS

When an SMS is received by the smsZipper, the application automatically starts up (if it is not already running) and an alert is shown to inform the user of the event, as shown in the Figure 7.



Figure 7 Notification of an incoming SMS

4.2.7 Checking the Inbox

All the received SMS are stored in the smsZipper Inbox. The Figure 8 shows how easy the process for reading an SMS is.

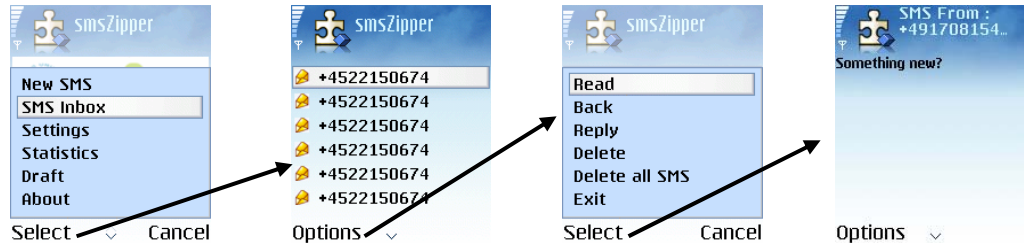


Figure 8 Checking the Inbox

4.2.7 Reply to an SMS

There is an easy way to replay to a received SMS. From the Inbox, selecting a message, it is possible to open the Reply Form just clicking on the "Reply" button as shown in the Figure 9.

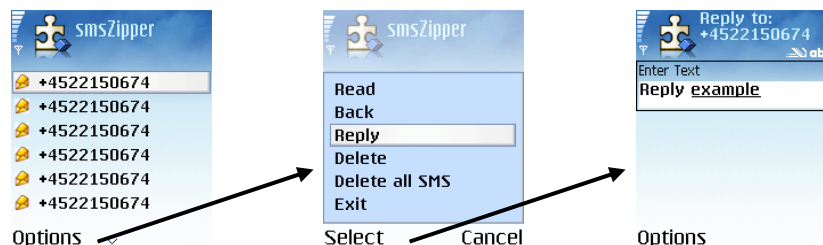


Figure 9 Replay Form

To send the SMS, just click on the “Send” button, as described in the section “*Sending an SMS*”.

4.2.8 Checking the Draft Inbox

In the Draft Inbox there are stored all those SMS which was not possible to send. The Figure 10 shows the procedure to restore an unsent SMS and to send it again.

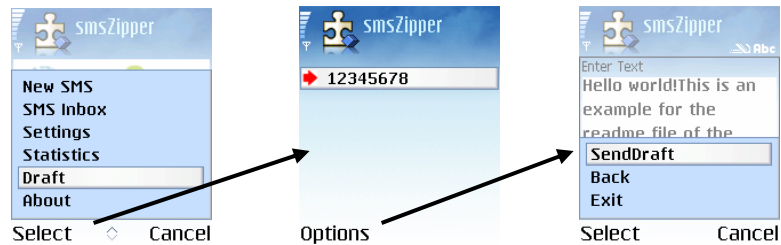


Figure 10 Draft Inbox

After the SMS is successfully sent, it will be deleted from the Draft Inbox.

4.2.9 About Form and Disclaimer

The Figure 11 shows how to have access to the About and Disclaimer Form.

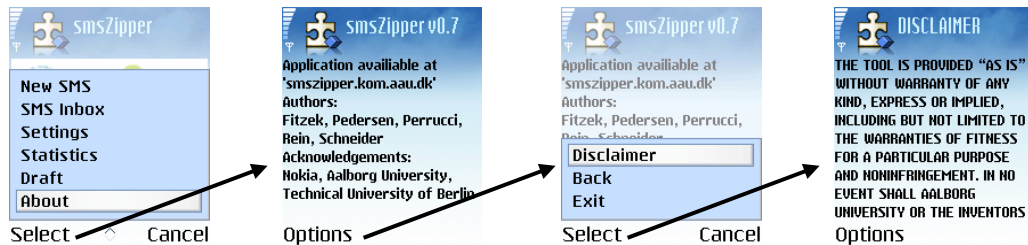


Figure 11 About and Disclaimer pages