User Manual

SFR Password

SFR
IT-ENGINEERING

www.sfr-password.com
August 2009

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FOREWORD

When buying SFR Password you chose one of the most innovative software solutions for Windows Mobile devices.

SFR Password combines easy handling with highest security for your device.

With just a few clicks in a picture of your choice you may define a password which is at the same time safe and easy to remember. Thus you protect your Windows Mobile device against unauthorized access and give it an individual appearance.

Picture passwords are not only easier to remember but also much more practical than common text passwords. Furthermore, they are safer. And in contrast to e.g. biometrical procedures, no additional hardware is needed – just install the software and get started!

This manual will lead you through the installation of SFR Password and acquaint you with the handling of the program. You will find information on the following topics:

Topic	Page
Installation The first chapter guides you step by step through the installation procedure up to the first password definition.	6
Defining a picture password Become familiar with the Visual Key technology. Experience the simplicity in handling it.	13
Defining a text password Find out more about text passwords and their usage.	15
Defining a numeric password Read the introduction to PIN passwords.	16
Program documentation Here you will find a detailed description of all functions and set-up possibilities of SFR Password.	18
The patented Visual Key-Technology This chapter is for those readers who want to learn more about how the program works and why the process is so secure.	25

Note: All functions of this software have been tested by hundreds of Windows Mobile users around the world on all kinds of devices. Even so we recommend that you save all important data before you start the installation of SFR Password on your Windows Mobile device. Please refer to your device manual for further information.

SFR GmbH may not be held liable for any loss of data. Please read the information in the license agreement that will be shown during the installation (it may also be found in this manual).

SFR Password was developed for the operating systems Windows Mobile 5.0, 6.0, 6.1 and 6.5. Incompatibilities with other applications are improbable, but they cannot be ruled out entirely.

Should you have any problems with our software, please visit www.sfr-password.com and read our FAQ.

Additionally you will find our forum there which helps to solve many problems.

Alternatively you may send us an e-mail to support@sfr-software.com.

We hope you will enjoy SFR Password!

I am confident that you will soon be unable to imagine a Windows Mobile device without SFR Password.

I hope you enjoy SFR Password!

Winfried Schöttler
- Managing Director SFR GmbH -

INSTALLATION

Preliminary Remarks

In order that you may install and use SFR Password as easily as possible, our software developers created a convenient installation routine and intuitive software handling. The installation routine will run almost completely software assisted. Only where you have to choose certain options, you will get a message which may be answered with one click.

⇒ The suggested settings have been thoroughly tested, and we recommend that you confirm them.

The software installation of SFR Password is effected in three steps, which are described here in detail:

#	Installation step	Page
1.	Installation on the Desktop PC	8
2.	First start of the software after Setup	10
3.	Definition of the first password	11

⇒ SFR Password can also be installed directly on your Windows Mobile device without using ActiveSync. Just copy the CAB-file onto your Windows Mobile device and execute it there.

In order to install SFR Password a connection between desktop PC and Windows Mobile device must be established.

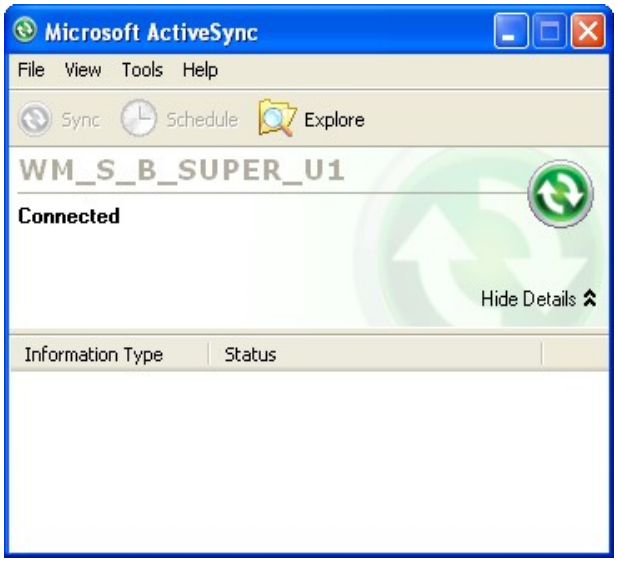
⇒ Should you have any problems with this connection, please refer to your Windows Mobile device's manual, or ask the manufacturer of your hardware.

The following steps apply to a connection established with the Microsoft software ActiveSync®.

Installation step 1

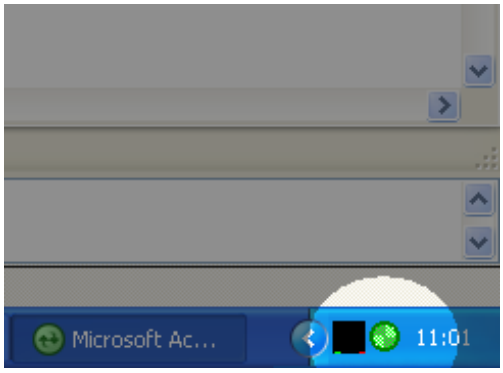
Installation on the Desktop PC

Establish connection (Windows XP and older)



Establish an "ActiveSync"-connection between your PC and your Windows Mobile device.

Pay attention to the **green control light**. It symbolizes an existing connection throughout the installation step 1.



A **gray control light** means that there is **no connection**. In this case please try to reconnect.

⇒ Note: If you cannot establish an "ActiveSync"-connection, restart your PC with the Windows Mobile device still connected.

Establish connection (Windows Vista)

First of all establish a connection between your PC and your Windows Mobile device. In order to do this in Windows Vista you have to start the Windows Mobile Device Center.

If you do not have it installed on your PC please download it for free from the Microsoft download pages.

Make sure the connection is established.

Start Setup File

Start the installation file from your download directory. Choose your desired language from the dialog appearing next and confirm your selection by clicking on **Next >**.

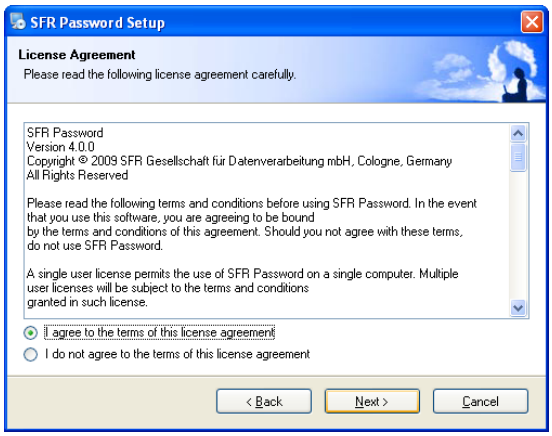
The installation routine will greet you with the "Welcome"-screen. Click again on **Next >** to continue the installation process.

Accept license agreement

During the installation process you will be shown the license agreement for SFR Password.

If you want to install and use SFR Password, please select "I agree to the terms of this license agreement" and confirm with **Next >**.

The following dialogs presented by the installation wizard enable you to change the installation folder and the shortcuts for the start menu. You can stick to the default settings by clicking on **Next >** or adjust them as required.



Software Installation

SFR Password will now contact your Windows Mobile device's operating system and begin with the actual software installation.

⇒ If you have installed an authentication software other than the standard application of your operating system you will have to uninstall it first as described for SFR Password on page 24 .

Termination of Copying Process

The copying process is now finished. Please confirm the upcoming message by clicking on OK.

Step 1 of the installation process is now complete. You will not need the desktop PC for the further process.

Installation step 2

First start of the software after setup

After finishing the installation process SFR Password will automatically start up the main menu.

You now have the opportunity to define a password, change the settings of SFR Password or activate the software.

The button for activating the device protection will not be enabled until you successfully defined a password!!

⇒ Please notice that upon the first installation SFR Password will be running in a 30-day evaluation period. Your Windows Mobile device will no longer be protected by SFR Password on expiration of the evaluation period!

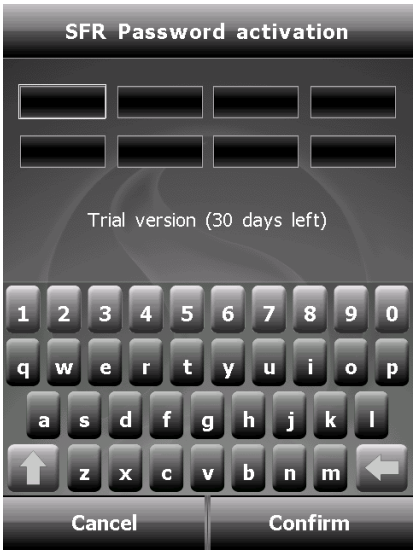
Activation of the software

Tap on **Registration** in the main menu in order to open the **SFR Password activation** dialog. There you have to enter the activation key you obtained on purchasing SFR Password.

⇒ You can delete characters entered by mistake by tapping the ⇐ symbol.

⇒ Jump to any edit field by tapping on it.

Tap **Confirm** when you completed entering the activation key.



Installation step 3

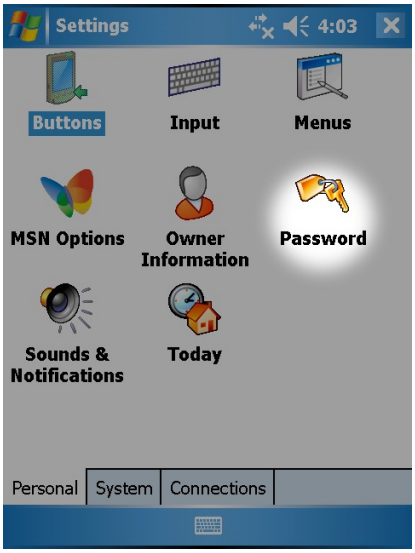
Definition of the first password

The third and last step of the installation process consists in the definition of your first password.
(For details see chapter "Definition of a password" on page 11).

DEFINITION OF A PASSWORD

The following paragraphs will guide you step by step through the definition of a password on your windows mobile device.

Start SFR Password



Installing SFR Password will replace the default Windows Mobile password application or any other previously installed password application. Therefore you can start SFR Password as you would do so for the default password application in the personal settings area on your Windows Mobile device.

Start ► Settings ► Personal ► Password

Simply tap the Password icon to start SFR Password.

In addition you can also start SFR Password by using the shortcut created in the SFR Password folder located in the "**Programs**" folder.

In there you can also find a shortcut for locking your Windows Mobile device.

⇒ If you already have defined and activated a password with SFR Password you will be prompted to verify yourself by entering the password. This step is required to protect your Windows Mobile device from unauthorized access.

Choosing the login type

SFR Password offers you the following three password types you can choose from:

- Picture password
- Text password
- PIN password

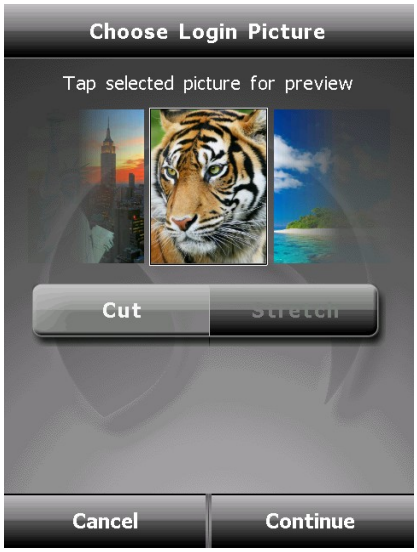
Choose your desired login type by tapping the symbols ◀ and ▶ . Confirm your choice by tapping the **Continue**-button.

Picture password

The **Choose Login Picture** dialog enables you to select a picture that will be used for defining your picture password. The picture in the center with a thin white border represents the current selection. You can change it by tapping on the half shaded pictures to the left or right side of it.

Tap on the selected picture if you want to get a fullscreen preview of it. In order to close the preview just tap again on the screen.

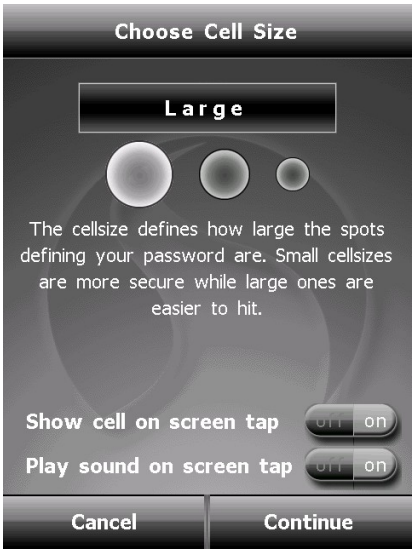
You can confirm your selection by tapping on the **Continue** button.



⇒ If you don't feel comfortable with the representation of your selected picture you can modify its appearance by tapping the **Cut** or **Stretch** buttons. Those buttons will not be enabled if your picture is already properly sized.

⇒ You can also use custom pictures not included in the selection by copying them into your **My Documents** folder on your Windows Mobile device. The next time you enter the **Choose Login Picture** dialog it will be present in the selection list.

Adjust picture password settings



The dialog **Choose Cell Size** allows you to balance the input precision of your picture password between the highest possible security and the easiest input. Choose a small cell size for higher security or a large one for easier input of your picture password.

In addition you can also enable or disable optical and acoustical feedback while entering your password. Enabling the option **Show cell on screen tap** draws a circular shape for each spot you tap on the screen. Enabling **Play sound on screen tap** will trigger a sound for each tap on the screen.

⇒ On definition of a password SFR Password will always draw the circular shapes marking the touched spots!

Define a picture password

Now you can define your picture password by tapping several spots on the picture you have selected. Each spot will be marked by a circular shape for a short period of time. The number inside that shapes indicates the number of the spot you already entered. You can define up to 16 spots.

⇒ The more spots you enter the more secure your picture password will be.

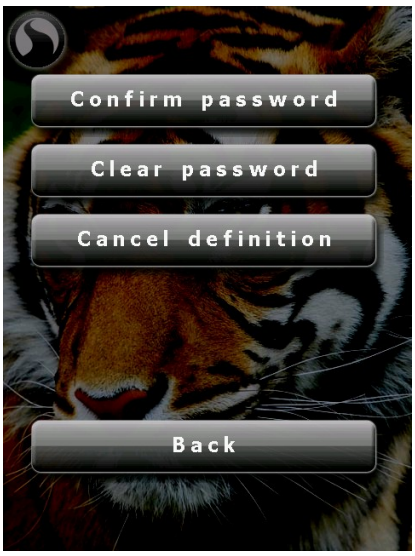
⇒ We recommend to define at least 4 different spots for your password.

Confirm your input by pressing the action key of your Windows Mobile device. Alternatively you can open the password menu (see page 14) by tapping the symbol and choose the menu option **Confirm password**.

Afterward you will be prompted to verify your new picture password. To do so simply reenter your password again.

On a successful password verification SFR Password will enable your new password and switch back to the main menu.

The password menu



The password menu enables you to correct your input. In order to do so tap on the **Clear password** menu option. Thereafter you will be prompted to redo the password definition process.

You can cancel the password definition process and return to the main menu anytime be tapping the menu option **Cancel definition**.

The menu option **Back** closes the password menu and you can continue defining or verifying your password.

You can confirm your password by tapping on **Confirm password**. This option is required if no **Fast Login** is enabled (see Page 20).

Text password

Use the keyboard to enter your text password and confirm your input by tapping the key.

Thereupon you will be prompted to verify your password. Repeat your input. After a successful verification of your new password it will be automatically enabled by the application and the main menu will appear.

You can open the password menu by tapping the symbol .

The menu option **Clear password** resets your current input and enables you to restart the password definition process.

Tapping on **Cancel definition** also discards your input but then brings you back to the main menu.

The menu option **Back** closes the password menu so that you can continue to define or verify your password.

PIN-Password

Use the numeric keys to enter your numeric password and confirm your input by tapping the Enter key .

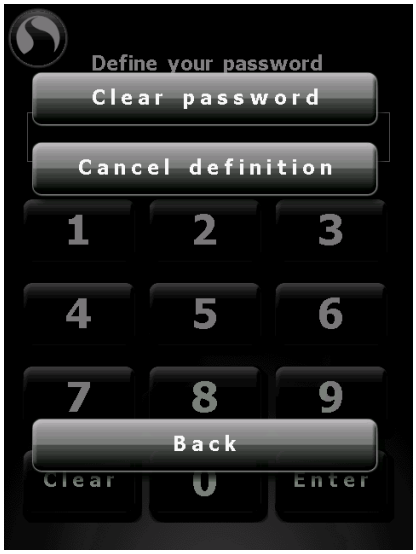
Thereupon you will be prompted to verify your password. Repeat your input. After a successful verification of your new password it will be automatically enabled by the application and the main menu will appear.

You can open the password menu by tapping the symbol .

The menu option **Clear password** resets your current input and enables you to restart the password definition process. In addition you can use the Clear key to clear your input.

Tapping on **Cancel definition** also discards your input but then brings you back to the main menu.

The menu option **Back** closes the password menu so that you can continue to define or verify your password.



Enable/disable password

You can enable or disable a successful defined password anytime by tapping on the appropriate **ON** or **OFF** button in the main menu.

⇒ The device protection of SFR Password also prevents external connections from your desktop PC. Therefore you will be prompted to enter your password on establishment of any kind of connection to your Windows Mobile device.

Memorize your password good! After enabling the device protection your device will be locked and can be unlocked only by entering the correct password. Not even SFR GmbH will be able to unlock it!

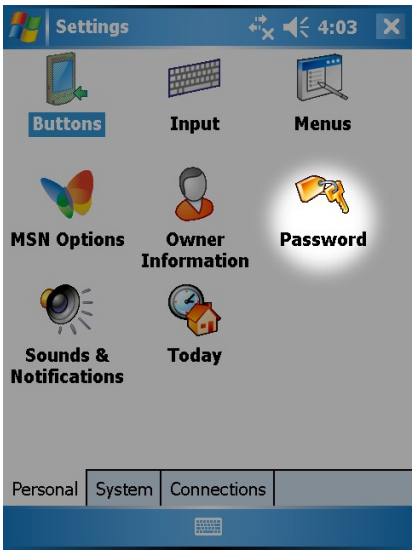
Your only chance to unlock it then is by executing a hard reset and erasing all personal data on the device permanently!

Close

Tap the **Close** button to exit SFR Password.

PROGRAM DOCUMENTATION

Start SFR Password



Installing SFR Password will replace the default Windows Mobile password application or any other previously installed password application. Therefore you can start SFR Password as you would do so for the default password application in the personal settings area on your Windows Mobile device.

Start ► Settings ► Personal ► Password

Simply tap the Password icon to start SFR Password.

In addition you can also start SFR Password by using the shortcut created in the SFR Password folder located in the "**Programs**" folder.

In there you can also find a shortcut for locking your Windows Mobile device.

⇒ If you already have defined and activated a password with SFR Password you will be prompted to verify yourself by entering the password. This step is required to protect your Windows Mobile device from unauthorized access.

The main menu

If you entered your password correctly you will reach the main menu. From here you can easily access all functions of SFR Password.

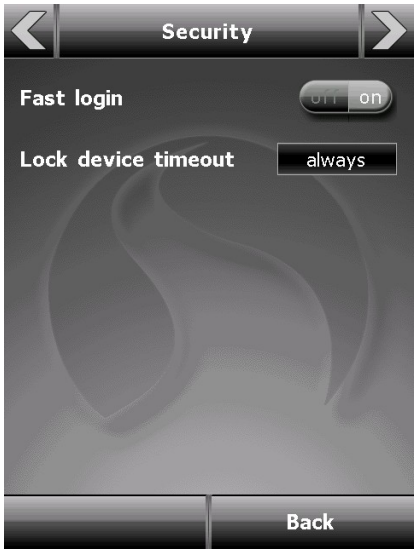
Overview of SFR Password

- Define password (S. 11)
- Settings (S. 19)
- Registration (S. 9)
- Device protection OFF|ON (S. 17)
- Close (S. 17)

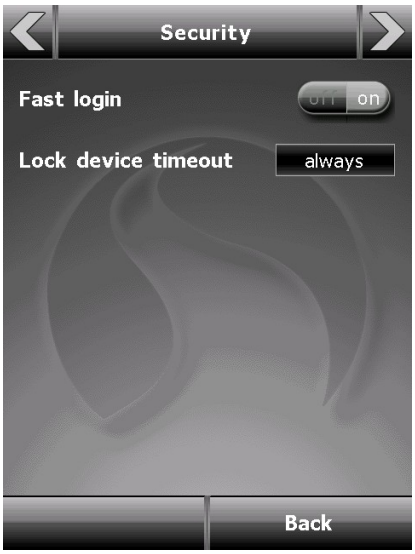
SFR Password settings

All settings of SFR Password are divided into the three groups **Security**, **Infos** and **Visuals**. After tapping the button Settings in the main menu SFR Password always opens up the settings group **Security**.

Use the arrow buttons and on the title bar to access the other setting groups.



Security



The settings group **Security** allows you to adjust the behavior of SFR Password by changing the settings **Fast login** and **Lock device on timeout**.

Fast login

This setting allows you to login in a very convenient way without the need to confirm your input. This means that as soon as you entered your password correctly your Windows Mobile devices will be unlocked without any further confirmation requirement.

Lock device timeout

SFR Password automatically locks your Windows Mobile device if it has not been used for a time period specified in this setting. By tapping on the timeout field you can adjust the inactivity period by choosing one of the following values:

- always
- after 1 minute
- after 5 minutes
- after 15 minutes
- after 30 minutes
- after 1 hour
- after 6 hours
- after 12 hours
- after 1 day
- never

⇒ **always**: Your Windows Mobile device will be locked every time you turn it off. Not later than 1 minute it will be locked even if it is turned on!

⇒ **after ...**: It will be locked on inactivity of a time period specified in the timeout field. Turning off the device within the specified time period will not lock the device!

⇒ **never**: The device will never be locked by SFR Password. You have to initiate the device lock by yourself. Simply tap on the Lock device shortcut in the SFR Password folder of your Programs folder.

Back

Tapping on the **Back** button brings you back to the main menu.

symbol

A tap on the left-arrow symbol brings you to the settings group **Visuals**.

symbol

A tap on the right-arrow symbol brings you to the settings group **Infos**.

Infos

The settings group **Infos** allows you to configure SFR Password to show some useful information although the device is locked. In order to do this simply enable the buttons for the information you would like to see whenever you will be prompted for your password.
The following information are available:

- **Show last missed call**
  Displays the last missed phone call. The number in brackets pinpoints the total number of missed phone calls.

- **Show SMS**
  Displays the name or the phone number of the last received SMS. The number in brackets pinpoints the total number of unread SMS entries.

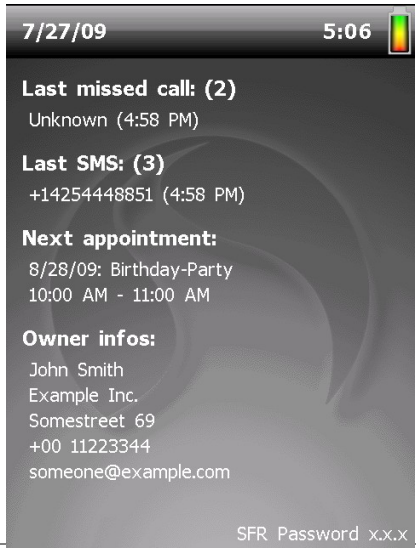
- **Show next appointment**
  Displays the title and the date of the next upcoming appointment from your Windows Mobile calendar.

- **Show owner infos**
  Displays the owner infos you entered in your Windows Mobile device.

Back
Tapping the **Back** button brings you back to the main menu.

symbol
Tapping the left-arrow symbol brings you to the settings group **Security**.

Preview
You can get a preview of the info-screen with all the changes you made if you press the Preview button. To close the preview simply tap on the screen.



⇒ The current date, time, battery load and the version number of SFR Password will always be displayed if any of the infos have been enabled.

⇒ The preview will be only available if at least one info settings has been enabled.

Visuals

The settings group **Visuals** enables you to modify the appearance and the language of SFR Password.

Effects (transitions, ...)
Enabling this setting activates blending effects while SFR Password switches from one dialog to another. Disable this settings if you want to navigate faster through the software.

Style color
Tap this button to show the Choose colors dialog (S. 23) that enables you to colorize the SFR Password application.

Language
By tapping on the language field you can change the language of SFR Password.

Back
Tapping the **Back** button brings you back to the main menu.

Symbol
Tapping the right-arrow symbol brings you to the settings group **Security**.

Change style colors

All graphical components of SFR Password are displayed and colored based on color templates that can be modified in this dialog. In order to do this select the component type (e.g. background, bars, controls, …) and tap on the color you would like to apply to that component.

The preview field immediately shows any changes made to the component colors.

Cancel

Tap on the **Cancel** button to discard all changes.

Confirm

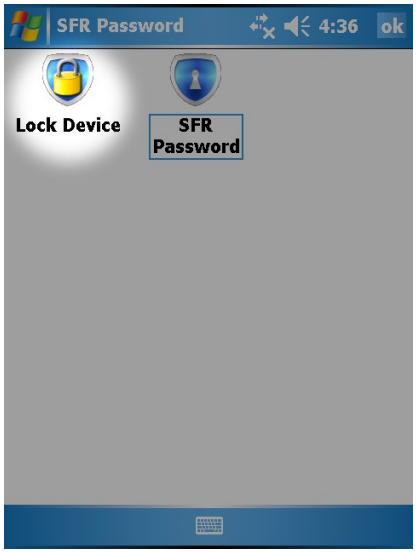
Tap on the Confirm button to apply all changes to the color template. Please be patient until the appearing progress bar indicates that the coloring process has been finished.

Manually lock device

SFR Password enables you to lock your Windows Mobile device at anytime manually. This makes sense in case of planing to leave your device unattended and having set the lock timeout to a high value or to never lock it automatically.

For that purpose you can tap on the Lock device shortcut in the SFR Password folder of your Programs folder. As soon as you did that SFR Password will lock your Windows Mobile device and turn it off..

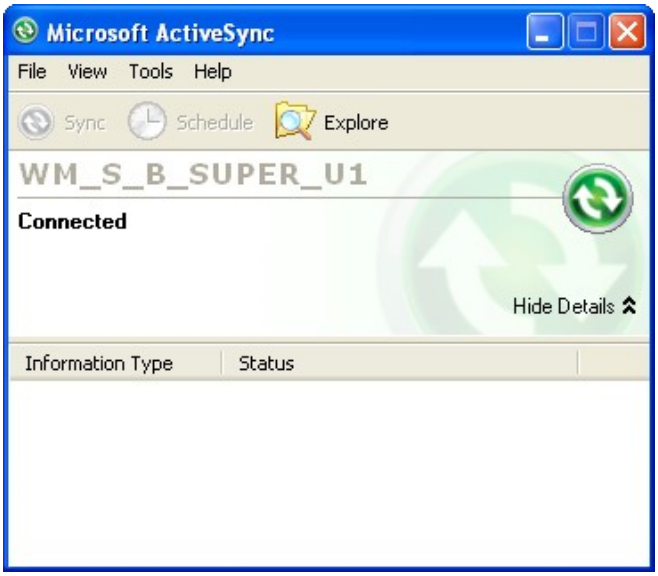
⇒ You cannot lock your Windows Mobile device if no password has been defined and enabled!



Uninstalling SFR Password

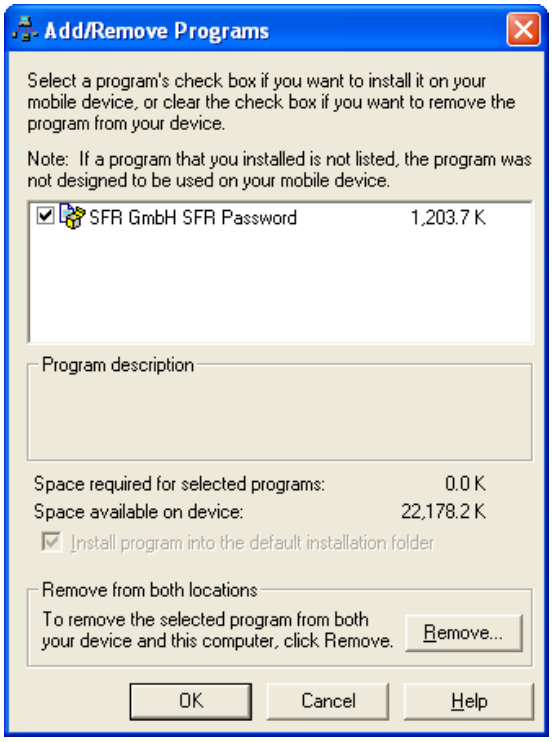
If you want to uninstall SFR Password you should do this analog to the installation process (see page 7) using an ActiveSync® interface.

Start the ActiveSync software with a double click on the symbol in the task bar.



Then call up the option **Add/Remove Programs...** in the menu **Tools**.

ActiveSync will present you the **Add/Remove Programs** dialog.



Deactivate the control box beside the entry **SFR GmbH SFR Password** by clicking on the checkbox to delete it.

Click on **Remove...** to start the uninstall process.

If you are sure you want to remove SFR Password confirm the following message with **OK**.

SFR Password will now be deleted completely from your Windows Mobile device. If you want to use SFR Password later on to protect your device, you will have to reinstall the software as described in the chapter Installation (see page 7).

⇒ Please note: You cannot uninstall SFR Password as long as your password is still enabled!

⇒ Also note: After uninstalling SFR Password your Windows Mobile device **will not be protected by a password anymore**. The ActiveSync password will also be deactivated by the uninstall process.

THE PATENTED VISUAL KEY-TECHNOLOGY

Most operating systems and many programs require that the user identifies himself. Usually this is effected by typing in a text password. For security reasons these passwords should not be created associatively (NOT the children's first names, NOT the wedding day, etc.). Furthermore, the passwords should be changed regularly.

Thus most computer users have to memorize several difficult and ever changing passwords. This results in severe safety gaps, as many users either ignore these rules or note their passwords down.

Visual Key: An alternative to text passwords

The disadvantages sketched above may be eliminated in an economical and uncomplicated way by the use of passwords based on pictures. It is much easier for humans to remember pictures (or parts of pictures) than text. Furthermore, associations with pictures are more variegated and individual.

The input of a visual password is effected by selecting several spots in a picture (e.g. by tapping with the stylus). There are more advantages to this method:

This procedure is not limited to systems equipped with keyboards but may also be employed on touch screens or kiosk systems.

In comparison to other methods, such as biometric identification technologies, generally no additional hardware is required to employ it, since virtually all today's computer systems are equipped with a mouse or other input device.

Contrary to biometric identification technologies, there is no direct correlation between the identification and the person identifying. Several persons may even use the same password.

The process

As a first step to define a password the user chooses a picture. This may be any picture, but ideally it should have a multitude of distinguishable details. Then the user selects one or more spots in the picture by stylus tap or using another input device. The password (the Visual Key) will be created from the selected points and their order.

The chosen details and their sequence are easy to remember. Additionally, the picture itself helps the user to form individual associations ("there is a BOAT on the RIVER, passing a MAN wearing a HAT").

In order to identify himself to the system later on, the user just has to pick the selected spots in their original order in the given picture.

Technical implementation

Before generating the password the program divides the selected picture (not necessarily visible to the user) into cells. The number of created cells forms the maximum character set (the "alphabet") for the password, each cell representing a single character.

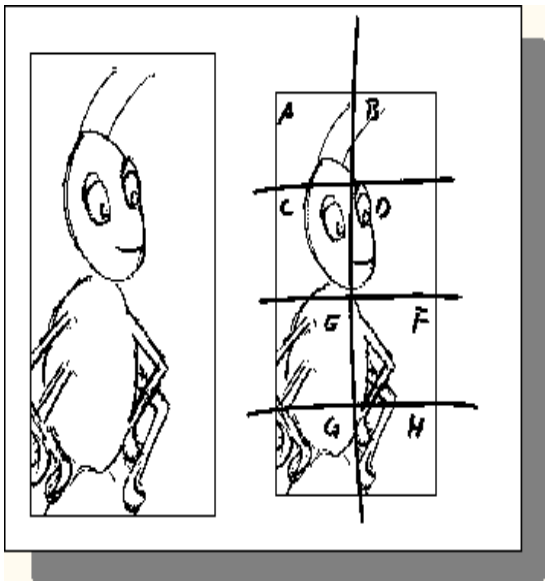
In order to define a password, the user may select any desired spots in the picture: The character of the cell belonging to the spot will be transferred to the password.

Later on, the user identifies himself by choosing the same order of points, thus composing the same password again.

There are two different procedures to divide the picture into cells:

1. Regular allocation

The picture is divided into regularly sized cells (e.g. rectangles or hexagons). When defining a password this grid is shifted with each input so that any selected spot is situated exactly in the center of a cell. This serves to compensate the inevitable "fuzziness" of later input.



Since it is as good as impossible to hit exactly the same spots (pixels) again when entering the password, this shifting of the entire grid defines the whole cell as valid input area, thus permitting small deviations in any direction.

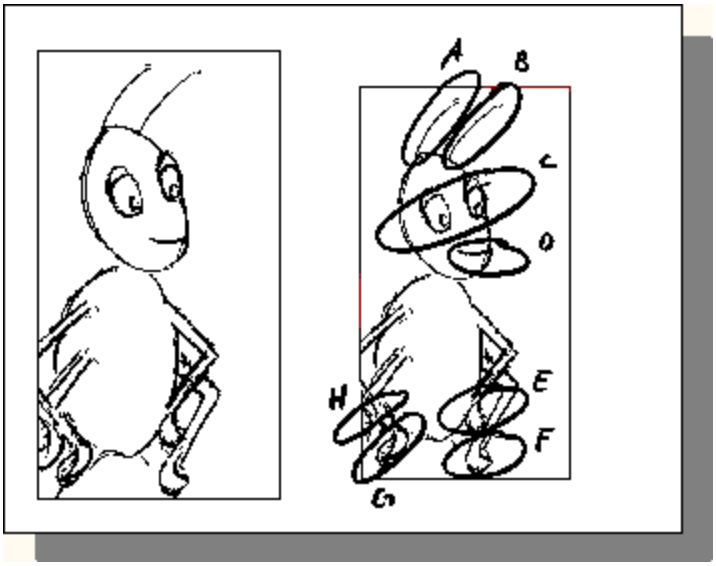
Apart from the graphic, the cell size and the offsets of all grid shifts must be stored. All this information will be needed to generate the correct password from the user's input. However, it is neither necessary nor wanted to store the password itself.

The security of the password depends on the cell size as well as on the width and height of the underlying graphic, since these data determine the total number of cells and thus the range of the alphabet.

The regular allocation procedure is used by Visual Key PPC. Additionally, for each touch the first cell's value is randomized and stored. Thus the first cell does not always represent the character "A" but may contain any character.

2. Irregular allocation

With the irregular allocation of a graphic its particularities can be taken into account (distinct points, individual symbols, remarkable areas). In this case the allocation is done either manually or with appropriately "intelligent" programs. In contrast to the first procedure there is no unspecific fault tolerance. Therefore the user and the creator of the mask have to agree upon how certain symbols shall be analyzed (e.g. "edge or surface").



In addition to the graphic the complete mask (the alphabet) must be stored. Again the security level of the password is dependent on the range of the alphabet (total number of defined areas).

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SFR Password

Version 4.0.0

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