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1 Introduction

General

The **skeye**.integral 2 is a **m**obile **d**ata **e**ntry unit which are suitable for all applications in storage, external sales or branch offices, and meets all requirements on modern data acquisition:

- link to wireless LAN network
- use of memory cards
- data acquisition via laser scanner, imager or RFID

The MDE device supports all conventional MDE standard applications such as modern Windows CE software with graphic user interface, in addition to the use of standard applications such as Internet browser, TCP/IP protocols, and ActiveSync connections to the PC.

In addition to input via the standard MDE keyboard (15 keys) the device can also be operated using a large colour display with touch input. Alternatively, a version with 34 keys is available for alphanumeric input.

The skeye.integral 2 mobile data entry device is fitted with a powerful Marvell PXA-270 processor and the Microsoft Windows CE operating system.

A cover cap protects the antenna necessary for radio transmission and an accessible CF card slot. The devices also fitted with an internal SD slot and an embedded WLAN module which is not accessible to the user.

Data exchange with standard ERP systems such as SAP can be realised, as can the integration of various radio technologies whether GSM/GPRS for applications any location or the integration in existing local networks via WLAN.

Features

The **skeye.**integral 2 or rather HW 90200/V3 has improved in comparison with the skeye.integral predecessor model with the following features:

- Windows CE 5.0 operating system
- Marvell PXA 270 624 MHz processor

Identification:

Once the storage battery has been removed (see chapt. 4.3), the serial number label containing the following information is visible: HW 90200/V3...

"Revision 2.1" is then shown in the "HWI-Block" at "Start ⇒ Program" \Rightarrow System \Rightarrow Sysinfo".

Purpose	of
documen	۱ŧ

This documentation describes the functions and settings necessary for the **skeye.**integral 2, gives important user detailed information

about the peripheral devices and specifications.

Readership

This documentation is intended for all users of the **skeye.**integral 2.

Terminology

sl	keye.	.integral	2
OI	· HW	90200/	V3

Mobile data entry device (hereinafter also

MDE also known as MDE device)

Power supply unit HW 14200

Broadband switched power unit for power supply of MDE, docking stations and storage

battery charger.

HW 50200 Docking

station

Docking station for HW 90200/V3.

Storage battery HW 19200 Rechargeable lithium ionic batteries (storage

battery) for MDE power supply.

Compact Flash memory card

Compact Flash memory card (hereinafter also *CF memory card*) as additional data

storage for MDE device.

CF card slot

CF memory card insertion slot.

SD card slot

SD memory cards

1.1 Intended Use

The skeye.integral 2 has been designed for use in the commercial sector and for acquiring and transferring data within buildings or vehicles or outside under moderate climate conditions.

The skeye.integral 2 is not intended for use in private households.

Please pay attention to the information of this user guide, especially the safety notes. Intended use means that the device must only be used and operated in accordance with the information contained herein. Any other use is not an intended use and may lead to property damage or even personal injury. Höft & Wessel does not accept any liability for damages caused by a usage other than the intended usage.

1.2 Safety Notes

Carefully read and follow the user manual and the safety informations mentioned in this chapter before peforming further steps. You have to:

- read
- keep the information in mind during work.

This is the precondition for

- secure working with the product
- undisturbed handling

1.2.1

General Safety Notes



Protect the MDE against theft and abuse.

Transport and Storage:

- Keep the MDE out of the reach of small children.
- The device must only be shipped in original or comparable robust packaging. Shipping the device e.g. in a normal padded bag does not provide sufficient impact and pressure protection.
 - Such improper packaging would fall under the definition of the term Negligence.

Connection:

 The device has to be connected to a USB 1.1 or higher interface. Otherwise, short circuit and fire may be caused.

Handling:

- ♦ Never expose the MDE to very high temperatures e.g. behind the windscreen of a motor vehicle.
- Never insert any implements not intended for use with this device in the instrument's openings.

Operating:

- ◆ Do not use the MDE permanently in an evironment with high humidity. Do not dip it into fluid or wet it completely.
- Only use your MDE with original equipment. Non-compliance voids the warranty.
- ♦ Do not operate your MDE when you are in explosive areas, for instance in petrol stations, fuel depots, chemical plants, below deck in ships, near blasting operations, in locations where a large volume of dust particles (such as flour, wood or metal) is present in the air, LPG-operated vehicles, etc.
 - We recommend to switch off the device completely. This also applies to places where you are usually advised to switch off your vehicle motor.

- ◆ Do not operate in close range of strong electromagnetic fields. Failures may be caused.
- ◆ Interference may be noticed near electric devices. Therefore, always pay attention to local safety regulations.
- ♦ Users with hearings aids must note that radio signals of electronic devices (with radio equippment) may launch into hearing devices causing an unpleasant noise.

Maintenance, Service and disturbances:

- ◆ The MDE is apart from charging of accu pack and the mentioned comments lifetime maintenance-free and does not need special care.
- Do not try to open, repair or modify your MDE. The manufacturer will not be liable for any damage caused in that way. Apart from other things, the function for correctly charging the battery may be influenced. As a result, excessive charging voltage, uncontrolled charging and discharge current, leakage of harmful substances, excessive heat generation, bursting or fire may occur.
- ♦ Any tampering by non-authorised persons will invalidate the warranty.
- ◆ If your MDE needs to be repaired or maintained, please contact your specialised dealer.
- Clean the housing only with damp cloth and mild detergent.

1.2.2 Safety Notes for the Lithium Ionic Battery



Read the following safety information carefully to avoid incorrectly handling the storage battery and any possible hazards resulting from this.

Nonobservance of the safety information or incorrect use of the storage battery can lead to excessive current flow, to the discharge of harmful substances, excessive heat development, explosion or fire.

Ambient conditions:

- ◆ The temperature may not be outside the admissible operating and storage temperature range of -20 to + 60 degrees centigrade. The temperature may be within the range of 0 ℃ to + 40 ℃ during charging.
- ◆ Do not transport or store storage batteries together with metal objects such as hair clips, necklaces etc. This can cause short-circuits in the storage battery. When transporting or storing the storage battery, please use a non-conductive (insulated) container.
- ◆ Do not put storage batteries into fires, and keep them away from heat sources and naked flames such as fireplaces or heaters.
- Do not immerse storage batteries in water or seawater, and do not allow them to become wet. Storage batteries which have become wet must always be replaced with new ones because internal short-circuits can cause dangerous heat emissions if further used.

◆ Do not throw storage batteries, and do not allow them to fall on hard surfaces.

Handling:

- Protective devices to prevent danger are built into the battery. To ensure for a proper operation, do not disassemble the battery or modify parts of it.
- Do not disassemble Li-ion bare cells of the storage battery. There is the danger of flammable fluid being spilt.
- ◆ Do not directly solder the battery. Doing so melt the insulation, damage the sealing parts or protective devices, cause leakage of battery fluid (Electrolyte) from the batteries, bursting or fire.
- ◆ Do not short-circuit the battery by directly connecting the positive (+) and negative (-) terminals with objects such as wire. Short circuiting generates heat which may damage the equipment. In worst case, this may cause leakage of fluid, bursting or fire.
- Do not put the battery into a microwave oven or pressurised container.
- Do not pierce the battery with a nail or other sharp object, hit it with a hammer, or step on it.

Operation:

- When recharging, use the battery charger specially designed for that purpose.
- If the battery gives off an odor, generates heat, becomes discolored or deformed, or in any way appears abnormal during use, recharching or storage, immediately remove it from the device or battery charger and stop using it. Return it to the distributor or manufacturer from whom you purchased it.

Service:

♦ Lithium-ion battery is a designated product of Recycle. The battery after using is a valuable resource, so don't throw away. When a battery is no longer usable, discharge it. When you dispose of the Lithium battery, insulate it by wrapping the terminals with tape. Mixing the battery with other metals or batteries may lead to fire, heat, or explosion. Then, return the battery to Höft & Wessel. As a part of its normal service, Höft & Wessel guarantees that all used batteries are fed to the recycling process.

The return of the batteries ensures reuse of the chemicals contained. This recycling process avoids any impact to the environment. Höft & Wessel guarantees that all batteries returned are fed to the recycling process.

See also extract from BattV (Decree for the return and disposal of used batteries and accumulators, Germany) as of 09.09.2001:

"The manufacturers are obliged to take back and reuse toxic containing batteries according to the regulations and dispose of non-reusable batteries that have been handed in by distributors (§5) or public disposal departments (§9)."

Health hazards:

- ◆ If a storage battery leaks, and the electrolyte enters the eye, do not rub but rinse out thoroughly under flowing water and then seek medical assistance. Otherwise, eye damage can result.
- If a storage battery leaks and the electrolyte makes contact with clothing or the skin, the skin or clothing must be rinsed out under flowing water in order to prevent damage to the skin.

1.2.3 Safety Notes for the Docking Station



- ◆ The batteries may only be charged with the battery charging device recommended by the manufacturer. The utilisation of another battery charger might be dangerous and leads to an end of the warranty.
- ◆ Do not try to open, repair or modify your device. The manufacturer will not be liable for any damage caused in that way. Apart from other things, the function for correctly charging the battery may be influenced. As a result, excessive charging voltage, uncontrolled charging and discharge current, leakage of harmful substances, excessive heat generation, bursting or fire may occur.
- If the docking station changes shape or colour, generates heat or in any way appears abnormal stop using it. Return it to the distributor or manufacturer from whom you purchased the docking station.
- ◆ Use the docking station only with the supplied power supply. The main voltage must correspond to the technical data mentioned on the power supply.
- Use the docking station only in dry, closed rooms and not in direct sunlight, e.g. behind windows.
- ◆ The device has to be connected to a USB 1.1 or higher interface. Otherwise, short circuit and fire may be caused. Otherwise, excessive heat generation, bursting or fire may occur.
- ♦ Keep the device out of the reach of small children.

1.2.4 **Safety Notes for the Battery Charger**



- ♦ The batteries may only be charged with the battery charging device recommended by the manufacturer. When using another battery charger, excessive heat generation, bursting or fire may occur.
- ♦ Do not try to open, repair or modify your device. The manufacturer will not be liable for any damage caused in that way. Apart from other things, the function for correctly charging the battery may be influenced. As a result, excessive charging voltage, uncontrolled charging and discharge current, leakage of harmful substances, excessive heat generation, bursting or fire may occur.
- If the battery charger changes shape or colour, generates heat or in any way appears abnormal stop using it. Return it to the distributor or manufacturer from whom you purchased it.
- Use the battery charger only with the supplied power supply. The main voltage must correspond to the technical data mentioned on the power supply.
- Use the battery charger only in dry, closed rooms and not in direct sunlight, e.g. behind windows.
- Keep the device out of the reach of small children.

Safety Notes for the Power Supply 1.2.5



- ◆ Do not try to open and/or repair and/or alter the power supply. The manufacturer will not be liable for any damage caused in that way.
- Use the power supply only with the power cable delivered.
- The power cable has to be inserted completely into the table power supply. The other end is inserted into a socket. Be sure to push the prongs all the way in.
- The outlet of the power supply has to be put all the way into the current supply of the device.
- Be sure to push the power cable cord always into an easily accessible socket.
- Always connect the power cable to the device before plugging it into the wall outlet.
- Check that the plug is clean before plugging it in.
- Do not place any objects on top of the cord.
- Do not place the cord near heating equipment.
- ♦ Do not connect cables other than those specified in this manual. Doing so may result in fire or improper operation.
- Do not use a damaged cord.
- ♦ Handle the power cord with care. Improper handling may lead to fire or shock.
- Avoid excessive bending, twisting, and pulling of the cord.
- ♦ When disconnecting the power cable, hold the plug firmly. Do not tug on the cord itself.
- Use power supply and power cable only in dry rooms.

1.2.6 Safety Notes for Laser



The following figures show different laser systems of the mobile devices including the respective laser emitting windows. If the type designation of your skeye.integral 2 contains option S5, S6, or S2, your device is equipped with a laser (see table on the next page).



Fig. 1: Laser scanner (Option S5) - Imager with laser aimer (Option S6) - Long range scanner (Option S2)



Fig. 2: Emitting window types



The respective laser system of your skeye.integral 2 can be identified by its type designation (inside battery compartment):

Option	tion Module Example	
S5	Laser scanner HW90200/V35	
S6 Imager module with integrated laser aimer HW90200/		HW90200/V3S6
S2 Long Range Scanner		HW90200/V3S2

Please observe the following notes:

The laser beam is classified as a class 2 laser according to the following standard: IEC60825-1:2007 and EN60825-1:2007.

It is presumed that a short contact with this kind of laser beam does not do any harm, however, the following precautions are recommended:

- Do not direct the laser beam to persons intentionally.
- Do not look directly into the laser beam.
- Do not manipulate the laser.
- Do not attach optical accessory at the laser beam exit.
- ◆ Do not observe the laser beam with optical instruments like magnifier, telescope or binoculars.
- Be careful that no unintentional reflections at the surface are caused by the laser beam, which may lead to a focusing of the beam.
- If you do not use the device store it in a place without access for trespassers.

1.2.7 Safety Notes on the Imager with LED Aimer



If the type designation of your skeye integral 2 contains the S7 option, your device is equipped with an imager module with integrated LED aimer (e.g. HW 90200/V3S7).

Please observe the following notes:

The LED light source is classified as a class 1 LED according to the following standard: IEC60825-1 ED 1.2:2001.

A class 1 LED is presumed to be safe under reasonably foreseeable conditions of operation. Even looking directly into the light beam by accident does not do any harm.

Caution: When changing the settings of the imager/aimer module except for those described in the user guide the LED radiation may exceed the harmless area of class 1.

1.2.8 Safety Notes for the Infrared Interface



The skeye integral 2 is equipped with an infrared interface on its narrow edge that also contains the system interface. Using an LED (Light Emitting Diode) the interface emits invisible radiation according to class 1 of the international standard IEC 60825-1.

Although this class is presumed to be safe, the following precautions are recommended:

- Please avoid direct eye contact with the infrared-beam.
- ◆ Take into account that the beam consists of invisible light which can not be perceived.

1.2.9 Safety Notes on GSM/GPRS



A GSM/GPRS communication can be realised via integrated module. If your device features such equipment pay attention to the safety notes.

Radio devices (such as GSM) are subject to certain restrictions when used in proximity to electronic instruments:

When being in an aircraft completely power off your skeye.integral 2 (see chapter. 3.3.3). Using the skeye.integral 2 in an aircraft interferes with the electronic equipment on board and might be dangerous. The use is illegal. Non-compliance with this safety instructions may lead to prosecution.

- ◆ Switch off your MDE in hospitals or similar places to prevent an interference with medical devices.
- Switch off your MDE at places where you are advised to switch off your mobile phone.
- ♦ The unit may affect pacemakers.
 - The Federal Office for Radiation Protection recommends a distance of no less than 20 cm between a mobile phone and a pacemaker to ensure no interference takes place. This recommendation is also in line with studies and recommendations issued by independent institutes.
 - Users with pacemakers must ensure a distance of at least 20 cm between the MDE and the pacemaker.
- ♦ The unit may affect hearing aids.
- Interference may be noticed in close proximity to televisions, radios, PCs.
- ♦ Please phone only via headset, do not hold the device directly against your ear.

1.2.10 Safety Notes on Wireless LAN



A Wireless LAN communication can be realised using an integrated module. If the type designation of your skeye.integral 2 contains the R4 option, your device is equipped with a WLAN module 802.11b/g (e.g. HW90200/V3R4). If so, please pay attention to the following safety notes.

Radio facilities – as well as WLAN - are subject to certain restrictions during use near electronical devices. In this connection please read the safety notes of the previous chapter.

Wireless LAN data communication can be easily intercepted and recorded. Anyone who is operating a Wireless LAN card in the same subnet can "sniff out" and decrypt any sent data packets with the appropriate software.

In order to make unauthorised access to your Wireless LAN more difficult, Wireless LAN functions such as Wired Equivalent Privacy (WEP) or WiFI Protected Access (WPA) should be enabled.

Using a VPN allows encryption of the transmitted data and authentication of the user on the other end.

See also chapter 5.6.3.

1.2.11 Safety Notes on Data Loss



It is very much recommended that all important data be backed up as durable hardcopy. It is very much recommended to store all recorded data to flash disk and to regularly back up the data on an external medium. Given certain conditions, loss or modification of data can occur in practically any electronic storage system. Therefore, we do not accept any liability for loss of data or data being otherwise rendered unusable following incorrect use, repairs, faults, battery problems, software errors or for any other reason.

We shall not be held liable either directly or indirectly for any financial loss or third party compensation claims which arise on foot of the use of this product and all and any of its functions, such as stolen credit card numbers, loss or modification of data, etc.

1.3 **Disposal**

The skeye.integral 2 is not intended for use in private households. The device must not be disposed of via a public waste disposal system. For disposal, return the device to the Höft & Wessel AG.

Explanations on this Manual

1.4 Explanations on this Manual

The User Manual is designed to enable you to get your skeye.integral 2 up and running quickly and is structured as follows:

- ◆ Introduction
- ♦ Taking into operation
- ♦ Software
- ♦ Communication/Data exchange
- Troubleshooting
- Annex

It is assumed that your are familiar with Microsoft Windows 2000 or Windows XP. In case of problems refer to the corresponding Microsoft documentation.

1.4.1 Note Pictograms

Safety notes in the text are always illustrated in the same way. In this manual three different safety notes are used.



NOTE!

A note points out tips on simplified use of the system / device for example by describing a simplified workflow using a certain tool.



CAUTION!

A CAUTION warning sign points out potential dangers relating to the equipment (i.e. short circuit) or loss of data.



WARNING!

The WARNING sign draws the user's attention to potential dangers that could be harmful to the health/life of the user (i.e. electric shock) or seriously damage the equipment (the equipment could be destroyed).



Indicates an alternative method to complete a task or additional information on a topic.

1.4.2 **Registered Trademark**

The following terms and names used in this manual are registered trademarks and products of the corresponding companies:

- Microsoft®, Windows®, Windows NT®, Windows XP, Windows CE®, Windows CE.NET® and ActiveSync® are registered trademarks of the Microsoft Corporation, USA.
- Other product and company names may be trademarks of other companies.

All trademarks mentioned and possibly protected by third parties are subjected to the ownership of the corresponding registered owners.

2 The MDE skeye.integral 2

2.1 Basic device

skeye integral 2 with numerical keypad (15 keys)

- Storage battery HW 19200 with 1700 mAh
- Windows CE 5.0
- Laser scanner

Scope of delivery: Power supply unit HW 14200 incl. cable

2.2 Accessory

- Battery charger HW 16200 (for 2 storage batteries)
- Storage battery HW 19201 with 3400 mAh
- Skeye.integral 2 case
- Pistol grip
- Strap for pistol grip

2.3 Docking Stations

- Docking station HW 50200 (USB/serial, including power supply unit and USB cable)
- Docking station HW 50200 modem (USB/serial, including power supply unit and USB cable)
- Docking station HW 50200 ISDN (USB/serial, including power supply unit and USB cable)
- Docking station HW 50201 Ethernet (including power supply unit)

2.4 Options

- 2D Imager*
- Longrange scanner*
- RFID module 13.56 MHz acc. ISO 15693
- WiFi module, 802.11b/g
- GPRS (Triband, Class 10)
- Bluetooth (BT 1.2, Class 2)
- 19 key numerical keypad
- 34 key alhpanumerical keypad
- Pistol grip with scanner trigger key
- Different memory equipment

*instead of laser scanner

2.5 **Views**

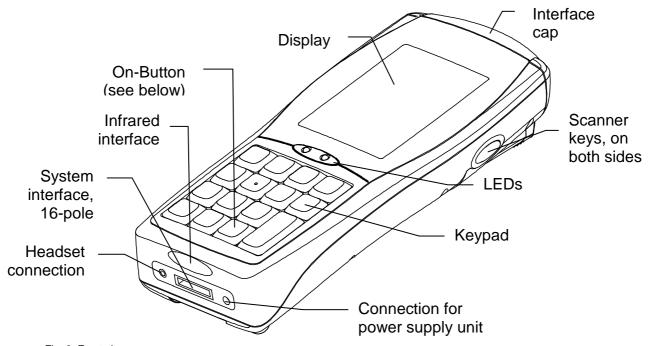


Fig. 3: Front view

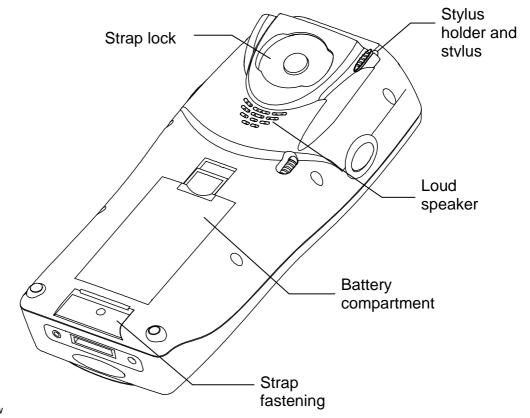
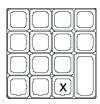


Fig. 4: Rear view

3 Initial Steps

- 1. Insert the storage battery (see chapter 4.3)
- 2. Press the ON button to switch on the MDE.*
- 3. Take out the stylus (Fig. 4)
 - * In case of a 15 and 19 key version, the device is activated with the second key starting from the bottom right by default.



Using the software, you can assign the <On> function to another key.

Devices with a 34 key keypad are equipped with a separate ON/OFF button.

3.1 Operating the skeye.integral 2 with the Stylus

The stylus functions as a computer mouse. It is used to navigate on the screen and to select elements.

Remove the stylus from its clamp and put it back when you do not need it.

Tapping

Tap the screen with the stylus once to open elements and to select options.

Dragging

On screen, keep the stylus pressed and drag it over the screen to select text and pictures. Move the stylus to a list to select several elements.

Double-tap

A double-tap is the same as double-clicking the mouse.

Tap and hold

Tap on an element and keep the stylus pressed onto the screen to display a list of actions for the element. In a context menu, select the action to be performed.

Tapping (close menu)

To close a menu (e.g. the start menu) tap a free space on the desktop.

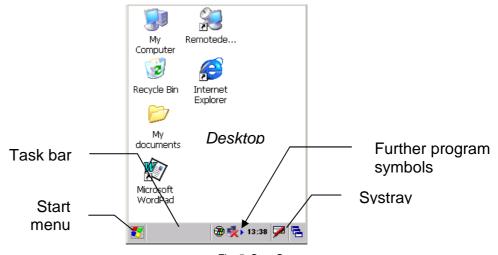


3.2 **Microsoft Windows CE - Basics**

This MDE supports the Windows CE version 5.0 (copy deadline, subject to changes).

3.2.1 **Start Screen**

Having started Windows CE the following screen (which may vary) appears:



3.2.2 Desktop Symbols

The following list contains an explanation of the symbols which can usually be found on a Windows CE surface:

Symbol	Program	Description
	My Computer	Displays the available memory devices e.g. CD ROM and disk drives as well as the network. Due to its link to the system control the My Computer also provides for a direct access to the system management tools.
	My documents	This is your personal folder. Windows creates personal folders for each computer user.
	Recycle bin	Here, Windows stores deleted files. Files deleted by mistake may be restored.
	Internet Explorer	Searches web and WAP sites and downloads new programs and files from the internet.
	Word Pad	Creates new documents and displays Word documents created on the desktop PC for further editing.
3	ActiveSync	Synchronises files between the device and the desktop PC.

3.2.3 Start Menu

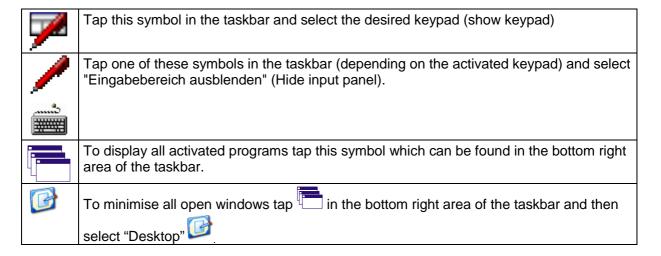
Use the **Start** menu to call programs, change settings, manage favourites etc.

- In the task bar tap the symbol to open the Start menu.
- Tap and then select Programs to call further programs.
- Tap and then select Settings to perform further settings.

3.2.4 **Taskbar**

The taskbar is a special workspace component which can be used to switch between open windows and to access global commands and frequently used objects.

Symbols of the taskbar (examples):



3.2.5 Calling up the Desktop at Any Time

To minimise all open windows tap the following symbol in the bottom right area of the taskbar:

3.2.6 Storing further Symbols on the Desktop

Frequently used functions can be stored as symbols on the desktop. If you miss a frequently used function on the desktop proceed as follows:

1. Double-tap the **My Computer** symbol. The Workspace directory opens up.



2. In the workspace directory double-tap the tolder in which the program/function is stored.

The corresponding folder opens up.

- 3. earch and mark the file for the function to be stored on the desktop.
- 4. Open the **File** menu and select **Send To**.

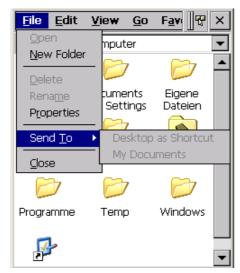


Fig. 6: File | Send to

5. In the submenu, select **Desktop as Shortcut**. *The shortcut will be created.*

3.2.7 Right Mouse Button Function

The right mouse button is used to open popup menus that support functions like Copying, Deleting, and Sending.

To call the functions of the right mouse button tap the element for which you want to perform the action and keep the stylus pressed.

The popup window of the right mouse button displays. Here, you can select the desired function.

If you do not wish to perform an action tap any position outside the menu.

Showing/Hiding the Keyboard 3.2.8

Tap in the taskbar and select the desired keyboard. Showing:

in the taskbar (depending on the activated keypad) Hiding:

and select "Hide input panel".

3.2.9 **Setting the Properties of the Input Panel (Keyboard)**

1. Launch: Start ⇒ Settings ⇒ Control Panel The Control Panel window appears.





Fig. 7: Control Panel

2. In the Control Panel window double tap the following symbol:



The Input Panel Properties window appears.

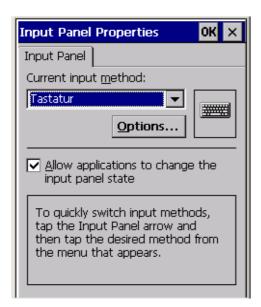


Fig. 8: Input Panel Properties

3. In the **Input Panel Properties** window select the current **input method** (Keyboard, Large Keyboard, skeye keyboard) and the **Options** button.

Depending on the selected input method the **Skeye Keyboard Options** window appears.

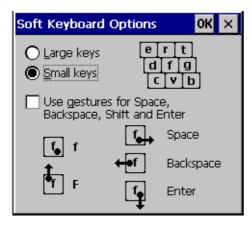


Fig. 9: Soft Keyboard Options | Keyboard

- 4. Perform the desired settings.
- 5. Click [OK] to confirm.

3.2.10 Regional/Language Settings

Under Regional Settings Properties you may set the country and language for the user interface.

- 1. Launch: Start ⇒ Settings ⇒ Control Panel The **Control Panel** window appears.
- 2. In the **Control Panel** window double tap the following symbol:



The Regional Settings window appears.

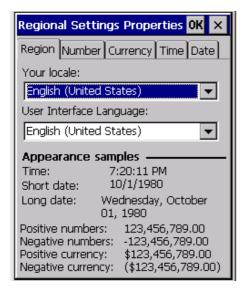


Fig. 10: Regional Settings Properties

- 3. Under Your locale set your country. This way, country-specific formats like digits, currency, data and time are applied automatically.
- 4. Under **User Interface Language** set your language.
- 5. Click [OK] to confirm.
- 6. Go to **Start** ⇒ **Programs**⇒ **System** ⇒ **Reset** and perform a reset. The settings will take effect.

3.2.11 Setting Date and Time

- Launch: Start ⇒ Settings ⇒ Control Panel.
 The Control Panel menu appears.
- 2. In the **Control Panel** window double tap the **Date/Time** symbol. The **Date/Time Properties** window appears.





Fig. 11: Date/Time Properties

- 3. In this window, set
 - the current date
 - the corresponding time zone
 - the correct time
- 4. Click [Apply] to confirm the settings.
- 5. Click [OK] to close the window.

3.2.12 **Setting Volume and Sounds**

By default, all sounds of your MDE are activated. For screen tapping option Loud is activated.



To save energy, deactivate the sounds.

- 1. Launch: Start ⇒ Settings ⇒ Control Panel. The Control Panel menu appears.
- 2. In the **Control Panel** menu double tap the symbol for volume and sound.







Fig. 12: Volume & Sounds | Sound

- 3. Perform the desired settings.
- 4. Click [OK] to confirm.

3.2.13 Entering Owner Properties

Entering owner properties is required for identifying the device. This is required for a connection to the desktop PC using ActiveSync.

In addition, you may enter information in the **Notes** area displayed when you switch on the device.

Under Owner Properties enter the network ID (see chapter 5.7).

- Launch: Start ⇒ Settings ⇒ Control Panel.
 The Control Panel menu appears (see Fig. 7).
- 2. In the **Control Panel** window double tap the **Owner** symbol. *The Owner Properties window appears.*





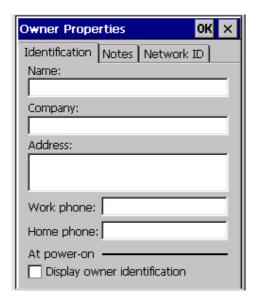


Fig. 13: Owner Properties

3. In the **Owner Properties** window fill in the fields and confirm with **[OK]**.

3.2.14 Using CF cards

The MDE is equipped with an expansion slot for Compact Flash cards (CF) Type 2.

Each extension card requires a special Windows CE driver from the manufacturer. The driver must support the corresponding operating system and the Marvell PXA 270 (624 MHz) processor.



Prior to buying an extension card be sure those criteria are met. Note that despite of using a new driver, the cards may be not compatible.

To install a new driver, you usually need to set up an ActiveSync connection (see chapter 8.2 ff.).

In addition, follow the instructions of the card manufacturer.

3.3 Switching off the skeye.integral 2

There are three ways to switch off your MDE:

- Suspend mode
- Automatic Standby (AutoOff)
- Complete Power Off by Removing the Storage Battery

3.3.1 Suspend Mode

Suspending a device means that it is inactive and thus consumes less power. A suspended MDE can be activated any time.



While suspending information in the RAM is maintained. If the power supply is interrupted e.g. due to a discharged storage battery, information in the RAM gets lost.

It is thus recommended that you store all current data prior to suspending the MDE.

Suspending the skeye.integral 2:

 Tap Start in the task bar. The Start menu opens up.

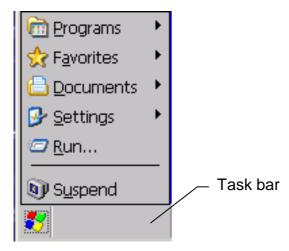


Fig. 14: Start menu

2. Tap Suspend.

3. The MDE will be suspended in its current state. All open windows, documents, workbooks etc. are not closed but maintained in the working memory.

The MDE is suspended.

If the power supply was not interrupted e.g. due to a discharged storage battery the data will be available again when you switch on/start the device.

3.3.2 **Automatic Standby – Power Supply**

Use the **Power Supply** function to save battery life. If you do not operate the unit for a certain time e.g. the display will be dimmed or the unit is set to suspend mode.

- 1. Launch: Start ⇒ Settings ⇒ Control Panel. The **Control Panel** menu appears.
- 2. In the **Control Panel** menu double tap **Power**. The **Power Properties** window appears.



3. Select the **Schemes** tab.

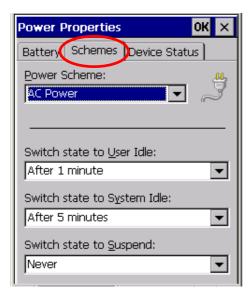


Fig. 15: Automatic power off

4. Perform the desired settings.

The entered times are added up. (Example: after 1 min user idle, after 6 min idle)

- 5. Click [OK] to confirm the changes.
- 6. Close the Control Panel menu.

See also chapter 4.1.2.

3.3.3 Complete Power Off by Removing the Storage Battery

Completely power off your MDE in the following situations:

- if you do not operate your MDE for a longer period of time (storage battery saving)
- when entering an aircraft.
- in explosive areas
- for shipping the MDE



Removing the storage battery will delete the RAM after a while (see the following table). In this case, all data in the RAM e.g. installed programs, settings or stored files are lost!

Time data is maintained in the RAM in case of a completely charged buffer (required charging time: about 20 min): nuten):

HW 90200/V3... with 64 MByte SDRAM⇒ approx. 15 minutes

If the buffer is not completely loaded, the time decreases correspondingly.

We recommend that you perform the following tasks before you remove the storage battery:

- Store important data in the "FlashStorage" folder of your MDE (see chapter 6.2.2).
- mirror your data via ActiveSync to your desktop PC (see chapter 8.2 ff.)
- back up your data via SysBackup (see chapter 6.2)

Performing a complete power off:

- 1. Did you back up your data via SysBackup (see chapter 6.2)?
- 2. Did you store all important data and programs in the "FlashStorage" folder?
- 3. Did you mirror all important data to your desktop PC?
- 4. Did you remove the storage battery as described in chapter 4.3?

4 **Further Functions and Settings**

4.1 **Display**

4.1.1 Calibrating the touch screen

This function is required to fine-tune the touch screen; the better the touch screen is calibrated the more precisely it will react.

When calibrating the touch screen note the following:

- Touch the cross and keep the stylus pressed at the middle of the cross until the cross moves to the next marking.
- Do not drag the stylus over the touch screen.
- Do not rest your hand on the touch screen!
- 1. Launch: Start ⇒ Settings ⇒ Control Panel
- 2. Double-tap the **Stylus** symbol. The **Stylus Properties** window appears.



Stylus

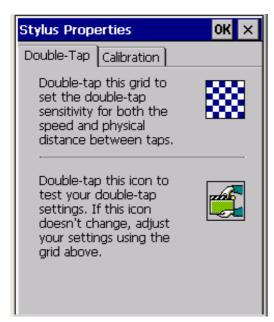


Fig. 16: Stylus Properties

3. In the **Stylus Properties** window tap the **Calibration** tab.



Fig. 17: Stylus Properties | Calibration

- 4. On the **Calibraton** tab select [**Recalibrate**]. The window for calibrating the touch appears.
- 5. Position the stylus in the centre of the cross displayed (the more precise, the better the touch screen will respond later) and hold the position until the cross changes its position.
- 6. Click [OK] to confirm.
- 7. Close the **Stylus Properties** menu.



Over time, the touch screen, and thus its calibration, may reset somewhat. Should you notice that the touch screen does not respond as precisely as before, repeat the calibration procedure.

4.1.2 **Setting the Brightness**

The MDE supplies no contrast settings as the contrast of a TFT screen cannot be changed.

- 1. Launch: Start ⇒ Settings ⇒ Control Panel The Control Panel menu appears.
- 2. In the **Control Panel** menu double-tap the backlighting symbol. The Backlight window appears.



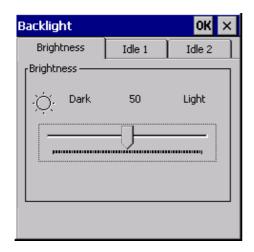


Fig. 18: Backlight | Brightness



- 3. In this window, adjust the brightness of the backlight with the slider. To conserve battery power, keep the brightness setting as low as possible.
- 4. Then, change to the "Idle 1" tab.

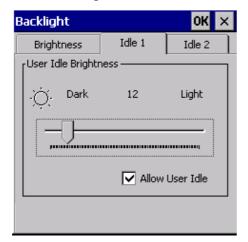


Fig. 19: Backlight | User Idle Brightness

- 5. In this window, use the slider to dim the brightness for the Idle1 mode (see chapter 3.3.2).
- 6. If required, change to the **Idle 2** tab.

The Storage Battery

- 7. In this window, use the slider to dim the brightness for the Idle2 mode (see chapter 3.3.2).
- 8. Click [OK] to confirm the setting.

4.2 The Storage Battery

4.2.1 Charging the Storage Battery

The storage battery in the MDE is automatically recharged if the device is

- connected to the power supply unit
- placed in the docking station (with connected power supply unit)

The Systray displays one of the following symbols:



Storage battery is charged (full storage battery)



The storage battery is below the first voltage level.



The storage battery is below the second voltage level.



There is an external power supply but the storage battery is not charged (full storage battery)

In addition, the storage battery can also be recharged in the battery charger HW 16200 (which can be optionally obtained) or in the docking stations (see chapter 2.3).



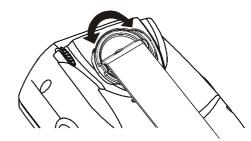
Caution:

Always recharge the storage battery in time. If the storage battery is discharged data loss may occur.

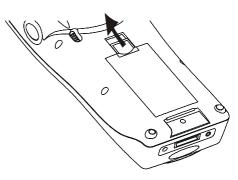
4.3 **Changing the Storage Battery**



- 1. Back up your data before changing the storage battery.
- 2. Switch off the device before changing the storage battery.
- 1. Rotate the upper clamp of the rubber band by 90° to the right or left to loosen it.

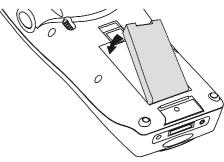


2. Move the slider to the top and remove the storage battery.



3. Insert the new storage battery and move the slider downwards.

The storage battery audibly locks into place.



4. Re-insert the upper clamp of the rubber band.

Fig. 20: Changing the storage battery



Always recharge the storage battery in time. If the storage battery is discharged data loss may occur.

4.4 Scanner operation

The MDE should be in the position shown in the figure below when triggering the scanner.

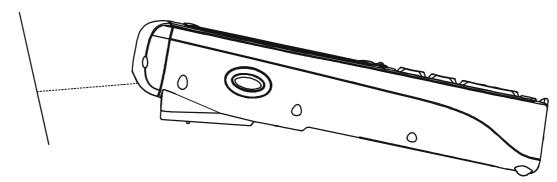
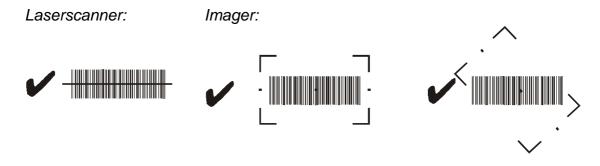


Fig. 1: MDE, position during scanning

The following figures show the positions from which the scanner beam can be aligned onto the barcode during scanning.



The following figures show how the scanner beam should <u>not</u> be pointed at the barcodes. Successful scanning is impossible to achieve from these positions.



5 Advanced Programs and Settings

5.1 **System Information**

1. Launch: Start ⇒ Programs ⇒ System ⇒ SysInfo The **SysInfo** window appears.



Fig. 21: SysInfo

- The Versions tab displays information on operating system, serial number, and storage battery parameters.
- ◆ The **Memory** tab displays information on physical memories, drives and data memories.
- ♦ Operating system and system programs can read the hardware configuration of the devices from the **HWI-Block** (Hardware Information Block).
- ◆ The KDI-Block (Customer information block) tab contains information on the files permanently stored on the device.
- ◆ The GSI-Block tab (device specific information block) contains device specific information.

Tap [**OK**] to close the window.

5.1.1 SysInfo Report File

When calling the system information a report file is automatically created containing the same information as SysInfo.

When you tap [**OK**] the **Save as** dialog box opens up and you can save the file as "SysInfoReport.txt".



Fig. 22: Report file creation



Please include the report file in case of a support request.

5.2 **Changing the Memory Size**

- 1. Launch: Start ⇒ Settings ⇒ Control Panel The **Control Panel** menu appears.
- 2. In the Control Panel window double-tap the following symbol: The **System Properties** window appears.





Fig. 23: System properties | Memory

- 4. Use the slider to change the memory for data and programs.
- 5. Click **[OK]** to confirm the changes.

5.3 Activating Password Protection

You can protect your MDE with a password.

- Launch: Start ⇒ Settings ⇒ Control Panel
 The Control Panel menu appears.
- 2. In the **Control Panel** window double-tap the following symbol: Password **Properties** window appears.



Fig. 24: Password Properties

- 3. Enter the password.
- 4. Confirm the password.
- 5. Activate at least one of the functions.
- 6. Click [**OK**] to confirm the changes.

5.4 Shell Config

Shell Config can be used to perform some useful changes:

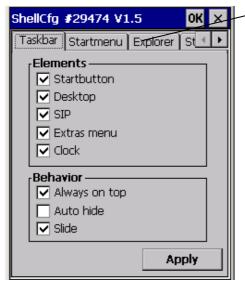
- Hide/show Start button or additional menu
- Activate/deactivate quick launch symbols
- ♦ Show keyboard activated/deactivated
- ♦ Show/Hide My Computer or Recycle Bin
- Display information on the battery status
- Display information on WLAN connection
- etc.

These configurations are useful if users are only allowed to call certain programs via the **Start** menu. You may also set specific displays for Systray.

- 1. Launch: Start ⇒ Settings ⇒ Control Panel The **Control Panel** menu appears.
- 2. Double-tap the **ShellCfg** symbol. The **ShellCfg** window appears.



ShellCfq



Further tabs

Fig. 25: ShellCfg

- 3. Perform the required changes.
- 4. Tap [Apply] to confirm.
- 5. Tap [**OK**] to close the window.



You are only prompted to enter the password when the program is called via "LaunchShell.exe".

5.5 Installing Software

You may

- download software from the Internet or LAN and install it on your MDE, or
- download and install software via a connection to you desktop PC (with docking station and ActiveSync).



When choosing software, always ensure that it is compatible for the corresponding operating system and the Marvell PXA 270 (624 MHz) processor.

1. Pay attention to chapter 6.2 (Data backup)



2. Regardless of the selected installation folder, some programs will install additional components in the \Windows folder.

It is recommended that you back up these components with SysBackup (see chapter 6.2) to ensure that they can be restored after a complete power off.

5.6 Wireless LAN

If the type designation of your skeye.integral 2 contains the R4 option, your device is equipped with a WLAN module 802.11b/g (e.g. HW90200/V3R4).

If you wish to upgrade a skeye.integral 2 (without WLAN module) you can purchase a CF Wireless LAN card. When doing so, you should ensure that the driver supports the corresponding operating system and the Marvell PXA 270 processor.

5.6.1 **Wireless LAN Network Settings**

- 1. Set up a Wireless LAN access point that provides access to a LAN or the Internet. Follow the instructions of your Wireless LAN access point documentation.
- 2. Launch on the MDE: Start ⇒ Settings ⇒ Control Panel ⇒ Network and Dial-up Connections



Start ⇒ Settings ⇒ Network and Dial-up Connections

3. Double-tap the WiFi module.



4. Activate Obtain an IP address via DHCP. DHCP is activated by default.

₹

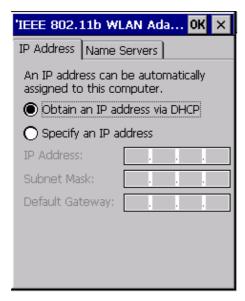


Fig. 26: Wireless LAN | IP address

- 5. To manually set the IP addresses enter the addresses under IP address, Subnet mask, Gateway and Nameservers.
- 6. Tap [OK] for all queries to exit the dialog.
- 7. Change to the Internet Explorer, select View, and then click Internet Settings.
- 8. Select the Connection tab.



Fig. 27: Internet Explorer | Connection

If your LAN uses a proxy server for internet connections activate the options Bypass proxy server for local addresses and Access the Internet using a proxy server and enter the address of the proxy server.

9. Tap [**OK**] to close the window.

The network symbol displays in the taskbar.



5.6.2 **Wireless LAN Configuration**

1. Double-tap the network symbol. The following window appears:



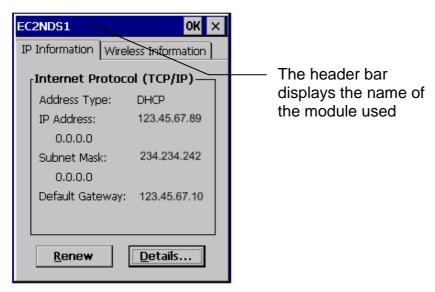


Fig. 28: Internet protocol (TCP/IP)

2. Select the Wireless Information tab. The following tab appears:

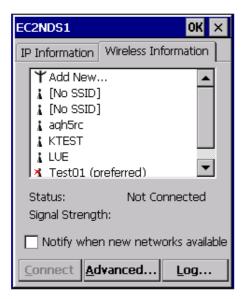


Fig. 29: Wireless information

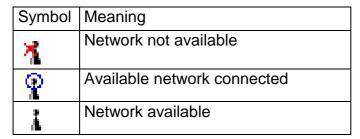


Fig. 30: Network symbols

3. On the Wireless **Information** tab select a network and double-tap the corresponding selection for further options.

The following window appears:



Fig. 31: Wireless Properties

- 4. If you selected Add new... as the network on the Wireless Information tab fill in the fields.
- <u>SSID</u> is the name of the network used to determine your Wireless LAN network. To ensure a communication between all network computers be sure to use the same SSID for all. SSID is the address set in the access point.
- When accessing via an access point, option This is a computer-to-computer (ad hoc) network is not activated.
- WEP is the data encryption used to prevent unauthorised access to the network. Enter the common network key (password). This ensures that data is encrypted when being transferred over the network.
- The encryption type is set under **Encryption**. Under **Authentication**, set the method used by a Wireless LAN client to logon to an access point (e.g. WPA), see also chapter 3.2.11.
- The *network key* must be the same as used for the configuration of the access point.



Be sure to protect your Wireless LAN network. We recommend that you consult a specialist (see also chapter 3.2.11.).

Further settings for the access point (e.g. Mac filter) may be required.

5.6.3 Preventing Unauthorised Intrusion into a Wireless Network

- Change the password for the router respectively the access point (very important). The devices are shipped with a default password. If you do not change it, anyone can access your access point settings and change them.
- Change the address area. If you do not use DHCP (automatic address assignment) changing the address area will increase security as the standard area no longer works.
- **Specify an SSID name.** This is the network name of the **radio network**. Change the default and enter a new name.
- Switch off the SSID broadcast. By default, wireless routers send the name of the network. This simplifies the configuration (e.g. for Windows XP).
 Unfortunately, this also makes your network visible in all WLAN-enabled devices. If you switch off the SSID broadcast, the network name will no longer be sent.
- **Set MAC filters**. Many access points support the filtering of MAC addresses. Activate this filter and enter the allowed MAC addresses of your network devices. This way, the access points only supports connections with your PC. Connection will be denied to any other devices.
- Enable WEP or WPA encryption Access points and WLAN adapter labelled with the WiFi logo can encrypt the transmitted data. Please note that WEP encryption is not secure. Programs widely available on the Internet can capture your data traffic and use this data to obtain the WEP key.
- Deactivate the "File and Print Sharing" on the Windows computer. (This
 applies only if you are not running a server and do not need to access other PCs
 over the network). This stops unauthorised access to view or modify files on
 your PC.
- Deactivate the Guest Account on your Windows Computer.
- Install a virus protection software.
- Install a firewall.



Please note that despite all these tips, the Wireless LAN is not fully secure; however, intruders will have a much harder job breaking into your network. If you wish to operate your WLAN to a higher safety standard, please contact an IT security consultant (such as a System vendor).

5.7 **Entering the Network ID**

To get access to network resources enter information on the network identification.

1. Launch: Start ⇒ Settings ⇒ Control Panel ⇒ Owner The **Owner Properties** window appears.



2. Select the **Network ID** tab.

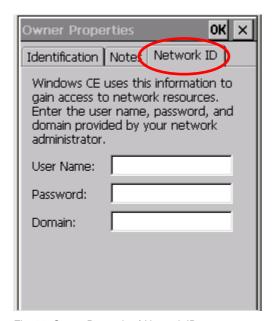


Fig. 32: Owner Properties | Network ID

3. On the **Network ID** tab fill in the fields and click [**OK**] to confirm.

5.8 Updating the Operating System



If you update the operating system all data in the memory of the MDE will be deleted. Prior to an update back up all data to an external memory.

- ⇒ Please enquire for current operating system version.
- Copy the files of the update program to an SD card and insert it into the SD slot of your MDE.
- 2. Double-tap on **My Computer**.

 The **My Computer** window appears.
- 3. Navigate to the directory of the CF card.
- 4. Double-tap the "updateCE.exe" file to execute it.



5. Tap [Update].

Do not interrupt this process! While updating, the MDE needs to be connected to the battery charger. If the power supply of the MDE is interrupted during the update, the system software might get damaged.

6. The old operating system image will be overwritten with the new image.

Caution: All RAM data gets lost!



Fig. 33: Update

7. Tap [Yes] to terminate the update.

The system reboots and the new operating system image will be loaded.



Please note:

Do not restore a SysBackup created before under the new image as this might lead to problems.

6 **Data Backup**

6.1 **General Data Backup**

Windows CE stores

- The main memory
- Files
- **Databases**
- Registry

in the RAM.

RAM allows for a fast access. If the storage battery is removed or discharged, the RAM memory contents will be lost.

The flash memory contains all data saved in the \FlashStorage folder and subfolders. The data stored in flash memory will persist even if the battery is discharged.



This is why important data and programs should be stored in the "FlashStorage" folder. See chapter 6.2.



Back up your data on the MDE as often as possible.

In addition, we recommend mirroring important data to your PC or other storage media.

6.2 SysBackup

Using "SysBackup" you can

- create
- restore and
- delete a backup.



NOTES:

- ⇒ Backup data saved with SysBackup should only be restored to the image under which they were created.
- ⇒ If the option for asking the user is deactivated before the backup is created your are not prompted for confirmation after the booting process.
- ⇒ SysBackup only stores and restores data but does not delete them. This might be important in the following szenario:

 When you need a cleaned up desktop you can delete the "My Computer" and "Recycle Bin" symbols using a setting in "ExplorerConfig" as the symbols are created on the desktop via RegistryKey. However, all other symbols on the desktop are created in the \windows\desktop directory using *.Ink-files. From there, they have to be deleted in the autostart directory using a corresponding batch file as after a cold start of the device these files are automatically stored at this location while booting and are not deleted when you restore a backup.

6.2.1 Calling SysBackup

Start SysBackup via

- **Start** ⇒ **Run** ⇒ **SysBackup** (enter SysBackup) or
- Start ⇒ Programs ⇒ System ⇒ SysBackup The "SysBackup" window appears.

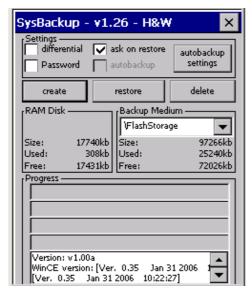
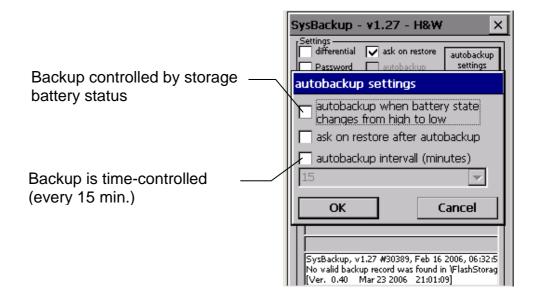


Fig. 34: SysBackup

Select [autobackup settings] to perform further settings.



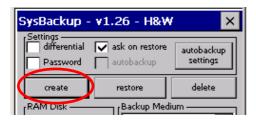
An automatic backup interval that is too short will have a negative effect on the performance.

6.2.2 Creating a Backup

Copy all important data to the "\FlashStorage" folder or its subfolders.

Everything must be backed up to ensure system settings are not lost after a battery has fully discharged or there has been a total shutdown.

- 1. Open the "SysBackup" program (see chapter 6.2.1).
- 2. In the SysBackup window tap [create].



The message "Execute backup?" appears.



Fig. 35: Execute backup?

3. Click [Yes] to confirm.

The SysBackup is performed. After completion the following message displays:



Fig. 36: Backup completed

- 4. Click [OK] to close the message.
- 5. Click [Exit] to close the window.



NOTE!

If you change your system settings e.g. after a new calibration of the touch you will have to perform a SysBackup.

If not, the settings will no longer be available e.g. after a complete power off.

6.2.3 **Restoring the Backup**

- 1. Open the "SysBackup" program (see chapter 6.2.1).
- 2. Select [restore].



The message "Execute restore?" appears.



Fig. 37: Execute restore?

3. Click [Yes] to confirm the message. The backup will be imported.

If there is no backup after a restart of if a backup is not required (e.g. after a warm start) the "Sysbackup" program searches all flash media (including the "FlashStorage" memory card) for the "autostat.exe" application. If such application is found it will be executed. There is an autostart mechanism independent from the registry as Sysbackup will always be automatically performed after the system start.



Please note:

RAM data will possibly be overwritten. All data will be updated to the state prevailing at the time of backup creation.

6.2.4 Deleting a Backup

- 1. Open the "SysBackup" program (see chapter 6.2.1).
- 2. Tap [delete].



The message "Erase backup files?" appears.

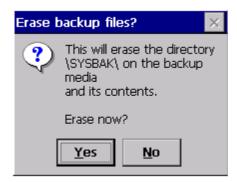


Fig. 38: Erase backup files

3. Click [Yes] to confirm the message.

The content of the \FlashStorage\SYSBAK directory will be deleted.

7 **Docking Station (standard)**

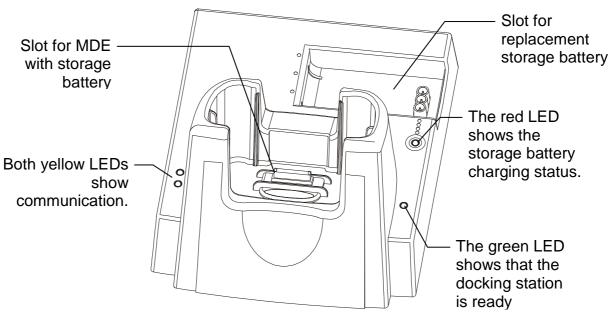
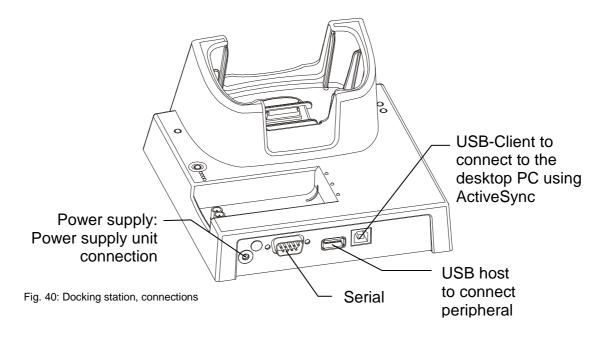


Fig. 39: Docking station

7.1 **Connections of the Docking Station**

Several connections can be found at the rear side of the docking station.



7.2 Technical Data

Casing:

- Outside shell in impact-resistant plastic, self-extinguishing in accordance with UL94V-0
- Baseplate in galvanised steel plate.
- Rear panel in semi-stainless steel

Slots:

- One slot for the MDE including storage battery. The following interfaces are used:
 - MDE device power supply, 9 V +/-5 %, 2.0 A
 - USB deviceSerial interface
- Charging slot for HW 19200 or HW 19201 storage battery

Ports & Connectors:

- Power supply:
 - Connection for HW 14200 power supply, DC voltage input
 Mini DC Power Jack Ø1,3 mm, 9 V / 2.5 A
- Data interfaces:
 - Ethernet ➤ 10/100Base-T
 - > Ethernet socket
 - USB host
 ➤ USB 2.0 standard
 - Low-power hub
 - Used for interlinking of several ethernet docking stations
 - USB device ➤ USB 2.0 standard
 - Connection to PC possible; the HW 50251/V1 then logically represents itself as a USBnet Device (no support when using ActiveSync)
 - Connection possible to USB host port on another ethernet docking station for interlinking purposes.

Displays:

- 1 green LED and 2 yellow LEDs on the front panel signal docking station operating status
- 1 red LED for replacement storage battery charging process
- 1 green + 1 yellow LED integrated in ethernet socket, signal ethernet connection made (green, left) and current data transmission (yellow, right)

Storage battery charging:

- In accordance with manufacturer's instructions
- Charging in MDE: controlled by MDE charging electronics
- Charging in replacement battery charging slot: controlled by ethernet docking station charging electronics
- When inserted rechargeable battery is recognised, first charging using constant current charging, subsequently

- switches over to constant voltage charging.
- Charging start with reduced charging current for rechargeable batteries with low voltage.
- Automatic switch-off of charging process when rechargeable battery fully charged.
- Automatic switch-off if battery overheats.
- approx. 2.5 h (HW 19200) or Charging duration:

approx. 5 h (HW 19201)

Surrounding conditions:

- Operate only in enclosed rooms
- Ensure good ventilation is available
- Operating temperature:

limit values: 0 % to +40 %. recommended range: 10 $^{\circ}$ to +30 $^{\circ}$ C, Storage temperature: -20 °C to +60 °C

• Humidity: up to 85 % (non-condensing)

Rules and Standards: CE conformity

• German ElektroG and RoHS conformity

Dimensions: L 14.5 x W 17.3 x H 9.2

Weight: approx. 900 g (without storage battery)

7.3 Charging the storage battery

The docking station provides charging and operating current for the MDE when inserted, and also provides a charging function for a replacement storage battery.

Charging batteries

in the MDE:

- If the MDE device cannot be switched on despite an inserted storage battery, or if the MDE device display shows a weak storage battery voltage, the storage battery should be recharged.
- A message on the MDE's screen indicates that the battery is in need of charging.
- To charge the battery, place the MDE (including battery) in the docking station (connected to power)
- If the LED on the MDE is **red**, the MDE has been placed correctly in the docking station.
- In addition, the charging process is indicated on the MDE's screen.

Replacement battery:

- If you wish to charge a replacement battery, place the battery in the docking station (connected to power).
- If the red LED in front of the replacement battery compartment is on, the battery has been inserted correctly in the docking station and will be charged

End of charging process

MDE:

- If the red charging control LED of the MDE changes from permanent shining to flashing, the storage battery is fully recharged.
- The MDE is now ready for operation again.

Replacement battery:

• If the **red** LED in front of the replacement battery compartment is just flashing, the replacement battery is fully charged.

Charging duration

 A completely discharged battery will be recharged in approx. 2.5 to 3 hours. If the storage battery is not fully discharged, the recharging period is shortened accordingly. For a HW 19201 storage battery, the charging time doubles. The red charging control LED at MDE and docking station may

- be off
- shine permanently or
- flash

It may also indicate possible failures by

- blinking
- When flashing, the LED is activated only for a short time.
- When blinking, the on and off times of the LED are nearly equal.

To differ between blinking and flashing, a closer look at the LED is required. However, this is only necessary when the charging process does not start immediately, i.e. the charging control LED does not shine permanently or when the charging process takes remarkably long.

7.4 Connecting the Docking Station to the Desktop PC

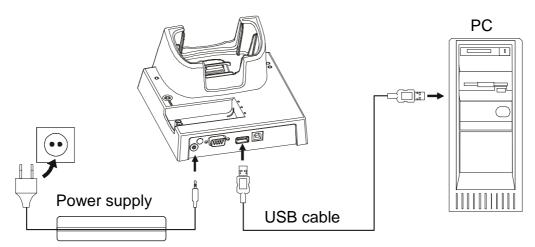


Fig. 41: Connection docking station ⇔ PC

- 1. Establish a connection between the docking station and the desktop PC at an USB port.
- 2. Connect the power supply unit to the docking station.
- 3. Insert the mains plug into the socket.

8 Communication/Data Exchange

8.1 General Information on Exchanging Data with the Desktop PC

You can connect your MDE to a desktop PC using a docking station. You may either use the USB client connection or the serial connection.

Please note that you have to perform the corresponding settings in ActiveSync when you change the connection type (see chapter 8.4).

To establish a connection between the MDE and a desktop PC install the ActiveSync program on your desktop PC (see chapter 8.2.2). Then you can establish a connection between the devices and setup a partnership between the MDE and the desktop PC.

8.2 **Exchanging Data using ActiveSync**

Using the ActiveSync program you can perform the following tasks (between your desktop PC and your MDE):

- Save and restore your MDE data
- Add and remove programs on your MDE
- Synchronise files
- Transfer and copy files

8.2.1 **System Requirements for the ActiveSync Program:**

- Desktop PC with a 486/33DX processor or higher
- Microsoft Windows NT Workstation 4.0 or Windows 95 (or higher).
- 8 MB main memory (12 MB recommended) for Windows 95 or higher and 16 MB main memory (32 MB recommended) for Windows NT Workstation.
- Hard disk with 10 to 50 MB free memory space (the actual demand depends on the selected functions and the current system configuration).
- Available 9-pole serial connection for remote data transmission
- VGA graphics adapter board or graphics adapter board with higher resolution (SVGA 256 colours recommended)

COMMUNICATION/DATA EXCHANGE Exchanging Data using ActiveSync

8.2.2 Installing ActiveSync on Your Desktop PC

- 1. Start the Internet-Explorer on your desktop PC (see chapter 8).
- 2. Enter the following Internet address: "www.microsoft.com".
- Under Product Ressources select Downloads.
- 4. Enter **ActiveSync** into the search mask and click **Go**.
- 5. Click the download link of the required ActiveSync software version.
- 6. In the following window click **Download**.
- 7. Follow the instructions on screen to install ActiveSync.
- 8. Restart your desktop PC.
- 9. After the restart the **Establish connection** window appears. Here, you are prompted to establish a connection to your MDE.

8.3 Sending and Receiving Data

8.3.1 skeye.integral 2 ⇔ Desktop PC

We recommend using the ActiveSync program for a PC communication (for information on the installation see chapter 8.2)

- 1. Place the MDE into the docking station connected.
- 2. Switch on the MDE.
- 3. Switch on the desktop PC.
- 4. On the MDE go to: Start ⇒ Programs ⇒ Communication ⇒ PC-to-PC connection

The "Connecting to USB" window appears.



Fig. 42: Connect to USB

As soon as the connection to the desktop PC has been established the window is hidden.



If a connection cannot be established check the cable position and the position of the MDE in the docking station. In addition, check the settings and then try again (see chapter 8.4).

If a connection has been established the "Neue Partnerschaft" (New partnership) window is displayed on your desktop PC (see next page).

Sending and Receiving Data



Fig. 43: New Partnership window

Here, you may

- select Yes to synchronize your MDE with your desktop PC or
- select No to logon as guest to the desktop PC.

Select **Yes** (See chapter 8.3.1.2).

or **No** (See chapter 8.3.1.1) and click [**Next>**] to confirm.

8.3.1.1 No – Login as Guest

If you log in as Guest to your desktop PC with your MDE you can copy or move files from the desktop computer to the MDE and vice versa.

No automatic synchronisation of calendar and files will take place. This would require setting up a partnership.

1. If you selected **No** in the New Partnership wizard, you will see the following window:

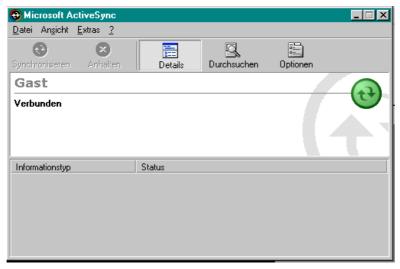


Fig. 44: Microsoft ActiveSync | Login as guest

2. You may now access your MDE from your desktop PC. Click the following symbol on your PC:



The My Computer window opens up displaying all available directories and devices.

3. Select the mobile device symbol for your MDE Mobile Device as well as a working directory on your desktop PC.

8.3.1.2 Yes – Setting up a Partnership

If you set up a partnership between the MDE and your desktop PC, you will be able to copy or move files from the desktop computer to the MDE and vice versa as well as automatically synchronise calendar and files.

1. If you selected **Yes** in the **New Partnership** wizard, you will see the following window:

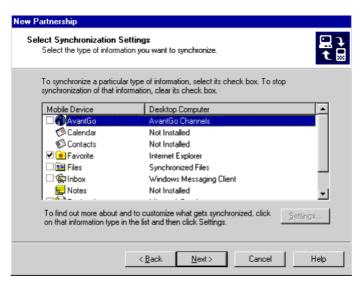


Fig. 45: New Partnership | Select Synchronisation Settings

- 2. Activate the **check boxes** you want to synchronize with your MDE. To display appointments, contacts or tasks on your MDE you require additional software not included in delivery.
- 3. Then, select [**Settings**] to define the synchronization settings.

The following window appears: (see next page).

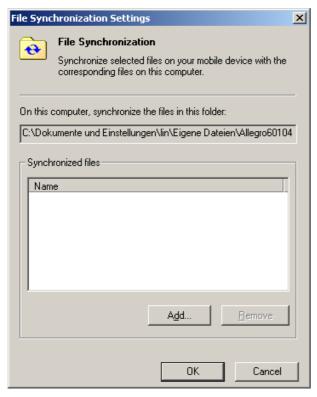


Fig. 46: Synchronising files

7. In this window select the desired settings for synchronization and click [**OK**] to confirm.

The **New Partnership, Select Synchronization Settings** window appears again.

8. Here, select [Next>].

The following window appears:

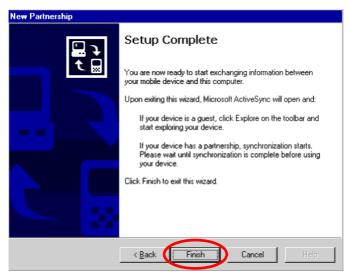


Fig. 47: New partnership | Setup Complete

9. Select [Finish].

Having completed the setup, the following window appears:

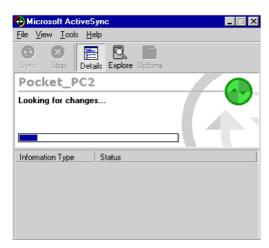


Fig. 48: Microsoft ActiveSync

The synchronisation has been completed successfully.

8.4 Changing the Interface

You may connect your MDE either serially or via USB to a PC. To change the interface used proceed as follows:

- Launch: Start ⇒ Settings ⇒ Control Panel
 The Control Panel menu appears.
- 2. Double-tap the following symbol: The **PC Connection Properties** window appears



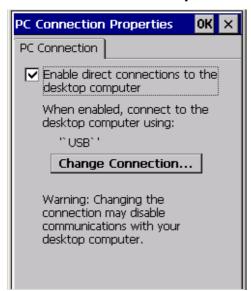


Fig. 49: PC Connection Properties

After the words "... computer using:" the system displays the interface used by the MDE to search for your computer.

3. Tap [Change Connection] to change the interface. The Change Connection window appears.

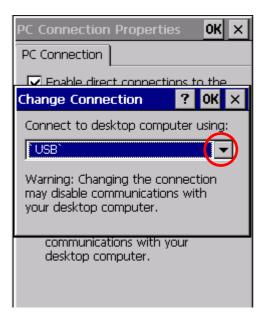


Fig. 50: Change Connection

- 4. Tap the arrow to see the interfaces available.
- 5. Select the interface.
- 6. Tap [**OK**] to close both windows.

8.5 Internet Explorer

To change internet options in the Internet Explorer proceed as follows:

1. Double-tap the following symbol: The Internet Explorer opens up.



2. In the menu bar of the Internet Explorer select **View**.

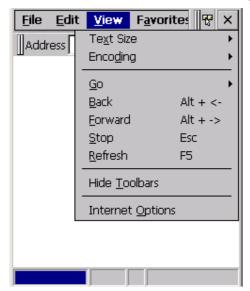


Fig. 51: Internet Explorer | View

3. In the **View** menu select **Internet Options**. *The Internet Settings window appears*.



Fig. 52: Internet Settings

4. In the **Internet Settings** window select the **Connection** tab. *The following tab appears:*



Fig. 53: Internet Settings | Connection

- 5. On the **Connections** tab set the connection type.
- If you use the MDE in a network environment (e.g. via Wireless LAN or Ethernet card) select Use LAN (no autodial).
- If you use the Internet via dial-up connection (e.g. modem) select the corresponding connection under "Autodial name". This dial-up connection will be automatically started when you open the Internet Explorer.
- 6. To setup Internet connections via proxy server in the network select **Access the Internet using a proxy server** and enter the network address of the proxy server.
- 7. Click [OK] to confirm.
- 8. Close the Internet Explorer.

9 Technical Data

Casing: • Outer shell, inner shell and cover caps in impact-

resistant plastic, self-extinguishing in accordance

with UL94V-0Safety class IP 54

Processor: Marvell PXA 270 624 MHz

Memory: • 64 MB RAM

• 128 MB Flash

Versions with higher memory capacities on request

Display:

Type: QVGA colour TFT with touchscreen

Size: 3.5"

Resolution: 240 x 320 pixels Number of colours: 65536 colours

Touchscreen:

Technology: Analogue resistive

Storage Battery: Replaceable lithium-ionic rechargeable battery;

1700 mAh

Optional: 3400 mAh

Connectors & Ports:

nectors & • CF card

• SIM card for integrated GSM module (optional)

Charging power connection

System interfaces for:

- barcode reading pen

- USB device

- USB host

- Serial communication

2-wire RS232 interface with V24 levels

- Charging current (when docking station plugged

in)

Headset connection, 3-pole

• Infrared interface

• SD card (only accessible internally, e.g. for fitting

with additional memory ex works)

₹

Surrounding Operating temperature: $-10 \, \text{C}$ to $+50 \, \text{C}$

conditions: Storage temperature: -20 ℃ to +60 ℃

Humidity: 10 - 90 % (non-

condensing)

Dimension: W 95 mm, H 48 mm, L 210 mm

Weight: approx. 500 g

Rules and • CE conformity

Standards: • German ElektroG and RoHS conformity



Safety class IP 54 is only guaranteed for the MDE device if the storage battery has been inserted and the interface cap is fitted.

10 Troubleshooting

In case there is no problem solution in this chapter

- open our homepage (<u>www.skeye.com</u>) and change to the support forum http://forum.skeye.com) or
- contact our service line. The phone numbers can be found in chapter 11.5.

10.1 Reset via Software

If an application does not react use the software to perform a restart.

Select Start \Rightarrow Programs \Rightarrow System \Rightarrow Reset



NOTE!

After a software reset, all data and settings will still be available on your MDE.

10.2 Reset via Hardware

If the touchscreen does not react or if you cannot switch on the device, press the reset button in the battery compartment of the device.

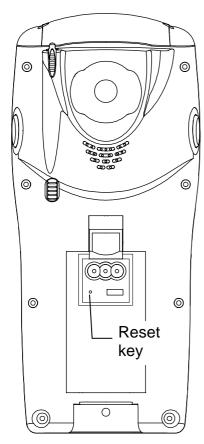


Fig. 54: MDE, reset

To initiate a reset, proceed as follows:

- 1. Remove the battery block.
- 2. Press the reset key located underneath the battery block.

Press the reset key carefully with low expenditure of force.

You can do this using an opened paper clip or similar.

3. Insert the storage battery. The MDE switches on automatically.



NOTE!

After a hardware reset, all data and settings including the RAM data are deleted from you MDE.

10.3 An Internet Connection cannot be Established

General:

Connections settings available?

Go to **Start > Settings > Network > Dial-up** connection: There must be at least one connection created. If there is no connection available create a new one. Use either a modem or Wireless LAN.

Internet explorer connection OK?

Open the Internet Explorer.

Open the View menu and select Internet Options. Select the Connections tab. If required, activate Use Auto Dial or Local Network. If required, activate Access the Internet using a proxy server and enter its address.

using a proxy server and enter its

Is the Internet Explorer set to online? Open the Internet Explorer and deactivate Work Offline in

the File menu.

10.4 **ActiveSync Connection Cannot be Established**

10.4.1 **Checking the Connection of the Docking Station**

Ensure all cables and power supply units are connected properly. The green LED of the docking station indicates operation readiness.

10.4.2 **Checking Connection Settings on the Desktop PC**

1. Start **ActiveSync** on the desktop PC.



Fig. 55: ActiveSync | File

2. Select Connection Settings... in the File menu. The **Connection settings** window appears.

(see next page)

ActiveSync Connection Cannot be Established



Fig. 56: Connection Settings

- 3. Check the settings and change if required.
- 4. Click [OK] to confirm.



If your desktop PC is protected by a firewall note that those programs might prevent ActiveSync connections.

10.4.3 Checking Registry Entries

If you are unable to establish an ActiveSync connection between the MDE and the PC via the **serial interface**. Microsoft recommends checking that the following registry entries are present, and if not, editing the registry accordingly.

CAUTION!



Registry entries must only be changed by experienced and authorised users (administrator).

Höft & Wessel as the producer does not accept any liability for damages (e.g. data loss, security vulnerability and so on) caused by registry changes.

Procedure for serial connections:

- On your PC call **Start** \Rightarrow **Run** \Rightarrow enter **Regedit** and execute.
- Select HKEY_LOCAL_MACHINE or HKEY_CURRENT_USESR.
- Open "Software\Microsoft\Windows CE Services".
 - ⇒ Do you see the following entries?
 - 1. [HKEY LOCAL MACHINE\Software\Microsoft\ Windows CE Services] "SerialPort"= <Valuet> "COM1" (or <Value> COM2)
 - 2. [HKEY_CURRENT_USER\Software\Microsoft\Windows CE Services] "SerialBaudRate"=0001c200 (115200) (for 115 kbit/s)

If the entries are not present, add them.

- Under HKEY_LOCAL_MACHINE click "Windows CE Services".
- ➤ Call Edit ⇒ New ⇒ String Value.
- > Enter **SerialPort** (no quotation marks)
- > Double-tap SerialPort. The **Modify String** window appears.
- > Enter **COM1** (or the COM port you use).
- ➤ Under HKEY_CURRENT_USER click Windows CE Services.
- Call Edit ⇒ New ⇒ DWORD Value.
- > Enter **SerialBaudrate** (no quotation marks)
- > Double-click SerialBaudRate to open the Modify DWORD Value window.
- > Select **Decimal** and enter **115200** (no quotation marks).
- Close the registry editor.
- > Restart your PC to enable changes.

11 Annex

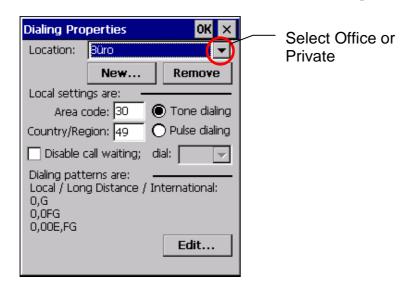
11.1 Dialing Patterns

A dialing pattern defines the dialing location and dialing type.

- 1. Launch: Start ⇒ Settings ⇒ Control Panel The Control Panel menu appears.
- 2. Double-tap the **Dialing** symbol.

 The **Dialing Properties** window appears.

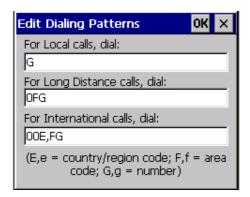
 Dialing



Example: If you are in your office, the dialing patterns ensures that the number you will call is preceded by a zero. If you are at home, no preceding zero will be dialed.

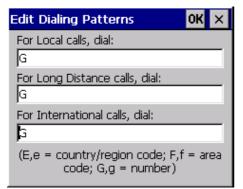
Use the [New] button to define new locations, use the [Remove] button to delete them.

3. Select either **Office** or **Private** and then tap [**Edit**].



• If you only enter a "G" in all 3 rows, the telephone number you entered in the **Telephone number** field of the **Make New Dial Up Connection** window will be dialed exactly. In this case, the remaining fields for the country and area are of

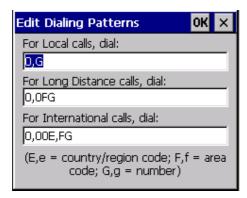
no significance.



This is the simplest way of adjusting.

Fig. 57: Edit Dialing Patterns

If you enter additional entries, the telephone number will be composed of the additional entries for country code and area code.



The example shows dialing via outside line access. Here, the preceeding zero must be entered (0,G).

Fig. 58: Dialing pattern | Further settings

Here, the **Country code** and **Area code** fields are compared to the local settings (e.g. Office) and will only be dialed when the number of the location and the number of the destination are different.



If you are at a different location as entered in your local settings dialing problems might occur as the program always compares the number to be dialed with the local settings.

11.2 Taskbar / Symbol Description

The following symbols may appear in the taskbar:

Symbol	Meaning
	The storage battery is charged (see chapter 4.2)
	Less than 30% storage battery capacity
4	Storage battery needs recharging
	Show keyboard
	Hide keyboard
	Call desktop (see chapter 3.2.10)
Ø	ClickRight function (See chapter 3.2.7)
	Indicates an online connection
•	Network connection established (see chapter 5.6).
	No network connection
	ActiveSync connection established (see chapter 8.2).

11.3 **Special Commands**

The table below contains the special commands not part of the default Windows CE command set:

Launch via the **Start** menu:

Start → Run → <Enter call command> or

Start → Programs → System

Special command	Result
Reset	resets the MDE. Terminates all running programs and restarts the MDE. RAM data is maintained.
Suspend	Switch off: RAM content is maintained (storage battery remains on)
SysBackup	Backs up all programs and data present in RAM to the flash disk or restores programs and data from the flash disk. This is recommended prior to a total shutdown.
SysInfo	Displays the operating system version and the device number

11.4 Glossary

Bluetooth Industrial standard according to IEEE 802.15.1 for a wireless network

of devices over a short distance.

COM Communication Port

Communication ports are the serial interfaces COM1 and COM2.

DECT Digital Enhanced Cordless Telecommunications

A cordless phone standard widely used in Europe with a range of up

to 300 m.

DRAM Data Random Access Memory

dynamic, volatile direct access memory (working memory)

Flash The flash-memory is a non-volatile memory type with a block-

memory orientated way of work.

GPRS Short for General Packet Radio Service.

Packet-oriented radio service used for mobile communication.

GSM Global System for Mobile Communications

Technology of D-Net- and E-Net-mobile telephones widely spread in

Europe and other parts of the world.

Calibration Optimisation/fine adjustment of the touch

LED Light Emitting Diode

RAM Random Access Memory

volatile (working) memory with random access

Registry A central hierarchical database storing important information on

system configuration, user, applications, and hardware devices.

Reset Resets the computer to a defined state.

SDRAM Synchronous Data Random Access Memory

SSID Service Set Identifier

SVGA Super Video Graphics Array

Graphics standard with a resolution of 800 x 600 pixel

VPN Virtual Private Network

defines the construction of a secure communication channel (also called tunnel) via the Internet. VPN encrypts data packages of any

protocol and transmits them via the Internet.

USB Universal Serial Bus

A bus system to connect a computer to external USB peripheral

devices for exchanging data.

WEP Wired Equivalent Privacy

Encryption type used in wireless local area networks according to

IEEE standard 802.11.

WLAN Wireless Local Area Network;

describes a wireless local area radio network, usually according to a

standard of the IEEE 802.11 family.

WPA [Short for WiFi (Wireless Fidelity) Protected Access]

a specification for standardised compatible security improvements

improving data protection (encryption) and access control

(authentication) for existing and future wireless WiFi LAN systems.

11.5 **Manufacturer's Address**

Höft & Wessel AG Rotenburger Str. 20 30659 Hannover

Tel. +49 511 6102-0 Fax. +49 511 6102-411

Web. www.hoeft-wessel.de Mail. info@hoeft-wessel.de Service Line. +49 1803 23 28 29 (nationwide 0.09 EUR/min) from abroad: +49 511 6102-600

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