seca 101

Administrator's Manual

from software version 1.2.3

CONTENTS

1. SYSTEM DESCRIPTION

1.1 Intended use

The **seca 101** PC software is mainly used at hospitals, medical practices and inpatient care facilities in accordance with national regulations.

The **seca 101** PC software is for managing weight and height measurements and for automatically calculating parameters which can be deduced from them, for example body mass index (BMI).

Measured results can be transmitted to a patient data management system or printed out on a standard PC printer.

The results support the attending physician with the following medical issues:

- monitoring of growth processes and weight changes
- determining energy expenditure and energy reserves

The **seca 101** PC software is **not** diagnostic software.

1.2 Description of function

Transmission of data by seca scales and stadiometers

seca scales and stadiometers from the **seca 360° wireless** system enable wireless transmission of data to the **seca 101** PC software. The PC software must be installed on a PC for this purpose. The **seca 360° wireless USB adapter 456** must be connected to the same PC.

seca scales with an RS232 interface can transmit data to the **seca 101** PC software via the COM ports of the PC.

Printing

The **seca 101** PC software is supplied with a print module pre-installed. This module enables the **seca 101** PC software to compile detailed results reports and send them to a local or a network printer. Printing of the results reports is started directly from the connected **seca 360° wireless** devices. The print function can be activated and deactivated as required.

The print function is not available for scales with an RS232 interface.

Transmitting data to a PDMS

The following EMR modules (SEM = seca EMR Integration Module) for transmitting data to a patient data management system (PDMS) are available for download from www.seca.com:

- seca GDT module
- seca HL7 module
- seca keyboard module

EMR modules for other protocols are in preparation and will continuously be made available for download on the seca website.

Managing patient data

The **seca 101** PC software does not contain its own patient database. If data transmission to a PDMS is used instead of the print function, access can be had to the patient data in the PDMS. An interface to the **seca 101** PC software has to be set up in the PDMS for this purpose.

Access rights

The **seca 101** PC software does not administer user accounts. The primary functions are freely accessible. System settings can be protected with a password.

1.3 User qualification

Installation and administration The **seca 101** PC software may only be installed and administered by experienced administrators or hospital technicians.

Measuring mode The **seca 101** PC software may only be used by persons with sufficient expertise.

2. SAFETY INFORMATION

2.1 Safety rules in the instructions for use

⚠️ **DANGER!**
Identifies an exceptionally hazardous situation. If you fail to take note of this information, serious irreversible or fatal injury will result.

⚠️ **WARNING!**
Identifies an exceptionally hazardous situation. If you fail to take note of this information, serious irreversible or fatal injury may result.

⚠️ **CAUTION!**
Identifies a hazardous situation. If you fail to take note of this information, minor to moderate injury may result.

NOTICE!
Identifies possibility of incorrect operation of product. If you fail to take note of this information, the device may be damaged or the measured results may be incorrect.

NOTE:
Includes additional information about use of the product.

2.2 Basic safety information

Using the software ► Note the warnings in the instructions for use.

► Keep the instructions for use and the declaration of conformity they include in a safe place.

NOTICE!
Malfunction
If the PC used does not meet system requirements or is infected with malware, the software may crash or malfunction.
► Take note of the system requirements see "System requirements" on page **6**. Only install the **seca 101** PC software on PCs which satisfy the system requirements.
► Only install the **seca 101** PC software on PCs equipped with an antivirus program. Always keep your antivirus program up to date to protect your computer system from current and future malware. The **seca 101** PC software is protected from manipulation and was checked for malware at the time the software was created.

► Use the **seca 101** PC software only for the specified intended use.

► Use only seca scales and stadiometers in conjunction with the **seca 101** PC software.

► Keep HF devices such as cellphones and televisions a minimum distance of approx. 1 meter away in order to prevent faulty measurements or wireless transmission faults.

► The actual transmit power of HF devices can require minimum distances of more than 1 metre. For details, visit www.seca.com.

Using measured results

⚠ **WARNING!**
Hazard to patient
The **seca 101** PC software is **not** diagnostic software. The PC software assists the attending physician in producing a diagnosis.

► To produce an accurate diagnosis and instigate therapies, the attending physician must commission specific examinations and take account of their results in addition to using the **seca 101** PC software.

► The responsibility for diagnoses and the therapies derived from them lies with the attending physician.

⚠ **CAUTION!**
Hazard to patient
To prevent misinterpretations, measured results for medical purposes may only be displayed and used in SI units (weight: kilograms, height: meters). Some devices and this PC software, too, have the option of displaying measured results in different units. This is purely an additional function.

► Only use measured results in SI units.

► The user takes sole responsibility for the use of measured results in non-SI units.

NOTICE!
Inconsistent measuring results

► Before storing and using measurements acquired with the **seca 101** PC software (e. g. in a patient data management system), check that these measurements are plausible and correspond to the display on the measuring device.

► Once measurements have been transmitted from the **seca 101** PC software to a patient data management system, check that these measurements are plausible and have been assigned to the correct patient before using them.

3. INSTALLATION

3.1 System requirements

PC hardware and software
- Microsoft® operating systems:
  - Windows Vista® (SP1)
  - Windows® 7
  - Windows® 8
  - Windows® 10
- Processor: 1.2 GHz or higher
- Free hard disk storage: min. 1 GB
- Free system memory: min. 512 MB RAM
- Ports for use with seca devices: USB 2.0 or serial interface (RS232)
- Monitor: 1024x768 or higher, High Color 16 bit (32 bit recommended)
- .NET Framework 4.0 (automatic download on installation, condition: Internet access)
- Program for extracting zip archives
- Program for displaying pdf files (PDF version 1.6 or higher)

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seca components
The **seca 360° wireless USB adapter 456** is compatible with the seca directprint function from serial number 10000000041273.

> **NOTE:**
> - Older **seca 360° wireless USB adapter 456** devices can be updated. Go to www.seca.com and contact your local seca service partner.
> - The **seca 360° wireless USB adapter 456 WA** is **not** compatible with the **seca 101** PC software.

3.2   Installing the PC software

1. Check that you have administrator rights on the PC.

2. Prepare the installation.
   – Download the PC software from the seca website (www.seca.com). Proceed from Step 3.
   – Insert the DVD in the DVD drive. The **Document Print Service Installer** dialog window appears automatically. Proceed from Step 5.

   NOTE:
   If the DVD installation does not start automatically, open the directory on the DVD in Windows Explorer and double-click on "Setup". Proceed from Step 5.

3. Double-click on the downloaded file.

   The **seca direct print installation** dialog window appears.
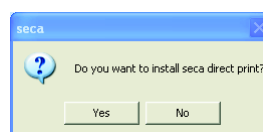
4. Click on **Yes**.

   The **Document Print Service Installer** dialog window appears.
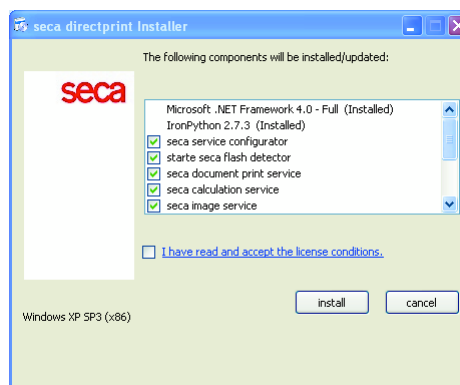
   NOTE:
   If Microsoft® components such as .NET Framework have to be installed, the installation program will access the Internet. The process may take a few minutes.

5. Accept the terms of the license to start the installation.

6. Click on **Install**.

   Following successful installation, the **seca 101** PC software starts automatically and appears in the notification area of the taskbar in the form of a program icon.

   The **seca configurator** opens.

7. Configure your system with the aid of the **seca configurator** as shown in the section entitled "Using the seca print configurator" from page 8.
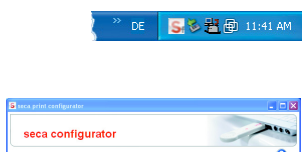
3.3 Using the seca print configurator

The **seca configurator** will help you configure your system so that results reports can be printed out directly. The **seca configurator** starts automatically following installation of the **seca 101** PC software.
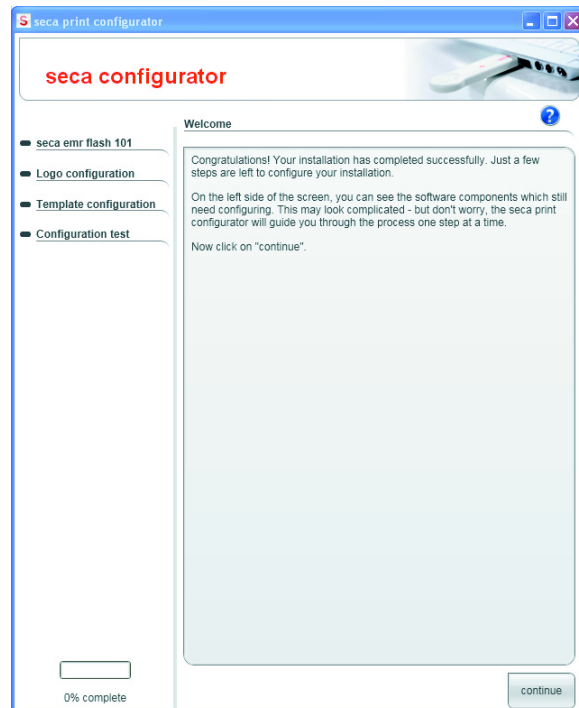
You can set up the following functions:

- set up **seca 360° wireless** network
    - connect **seca 360° wireless USB adapter 456**
    - connect **seca 360° wireless** devices
- set up logo for results reports
- configure results reports
    - select language
    - select units
    - select percentile reference
    - select printer
    - print recommendation for bioimpedance analysis
    - compile footer text
- test configured results report

> **NOTE:**
> If you subsequently wish to amend the configuration, you can make further settings using the **settings** key (see "Settings window" from page 11) or call up the **seca configurator** again via the Windows Start menu.

3.4 Obtaining version information

You can have information displayed about the version of the PC software installed and about the EMR module selected. To do so, proceed as outlined below.

1. Start the PC software.

2. Right-click in the header of the software window.
   A context menu appears.
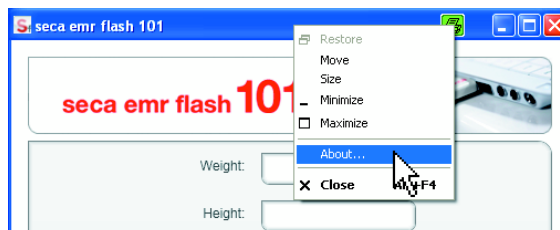
3. In the context menu, click on **About ...**.
   The **About ...** box appears.
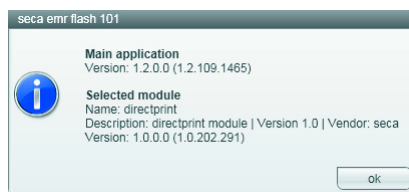
4. To close the **About ...** box, click on **ok**.

4. OVERVIEW

4.1 Main window

No.	Control	Function
1	Patient data	Values are entered on measurement: • **Weight** • **Height** Data are transmitted from the PDMS to the **seca 101** PC software: • **Patient ID** • **First name** • **Surname** • **Date of birth** • **Gender** Fields containing data transmitted by the PDMS can be displayed or hidden.
2	**devices**	Show/hide list of devices • **«** : hide list of devices • **»** : show list of devices
3	**Available stadiometers**	Shows which **seca 360° wireless** stadiometers are connected to the **seca 101** PC software.
4	Selection bar	Shows which devices are selected for measurements.
5	**settings**	Configuration options for administrators; freely accessible the first time the PC software is started; after that, they can be password-protected
6	**cancel**	• Clears patient data from measuring window • Minimizes the software window

No.	Control	Function
7	**send to EMR**	Transmit measured results to an Electronic Medical Record (EMR) in PDMS
8	**help**	Access to: • Administrator's manual • Instructions for use for doctors and assistants
9	**Available scales**	Shows which **seca 360° wireless** scales are connected to the **seca 101** PC software.

4.2 Settings window
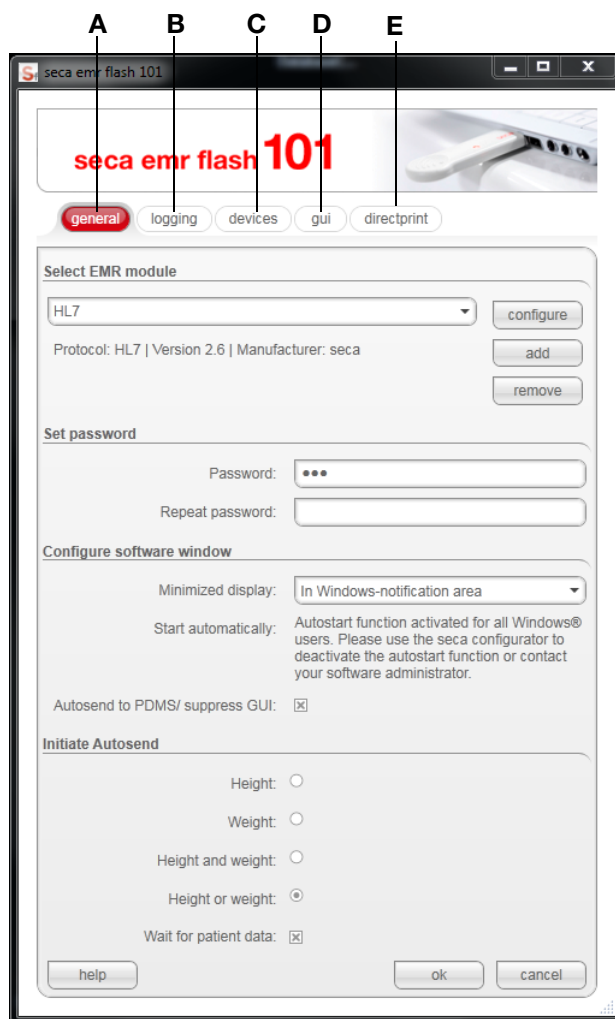
No.	Control	Function
A	**general** tab	• Configure EMR modules • Assign password • Specify the behavior of the software window • Configure Autosend
B	**logging** tab	• Specify which events are logged • Configure logfile
C	**devices** tab	• Configure wireless network • Configure RS232 devices
D	**gui** tab	• Show/hide patient data fields • Specify weight and height units
E	**direcptrint** tab	• Activate and deactivate seca directprint • Configure results report • Specify printer

4.3   Identification on the packaging

Text/symbol	Meaning
▄▄▙	Name and address of manufacturer, date of manufacture
REF	Model number
SN	Serial number, consecutive
GAL	Value in m/s² (verified models) • Gravitational acceleration on earth • Depends on the intended location
ProdID	Product identification number, consecutive
Approval Type	Type designation of design approval
📖	Follow instructions for use
CE	Device complies with EU directives
▄▄▙	Manufacturer's address
♻	Packaging material can be disposed of through recycling programs

5. MANAGING THE SYSTEM

5.1 Starting/exiting the PC software

Opening a software window

Following installation, the **seca 101** PC software starts automatically and appears in the form of a program icon in the notification area of the taskbar.

► Right-click on the program icon in the notification area of the taskbar and select the item **Open**.

Exiting the PC software

► Click on the cross symbol at the top right.
The PC software will close.

Starting the PC software

► Click on "start\[....]\seca software\seca emr flash 101".
The PC software starts.
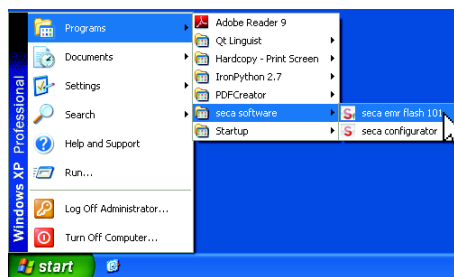
NOTE:

• The **seca 101** PC software can be set up so that it starts automatically whenever a user logs on in Windows.

• Some PDMS can be set up to start the **seca 101** PC software automatically as soon as patient data is transmitted to the **seca 101** interface of the PDMS.

5.2 Making default settings

In the **general** tab, you can assign a password, specify the behavior of the software window and configure seca EMR modules and the **Autosend** function.
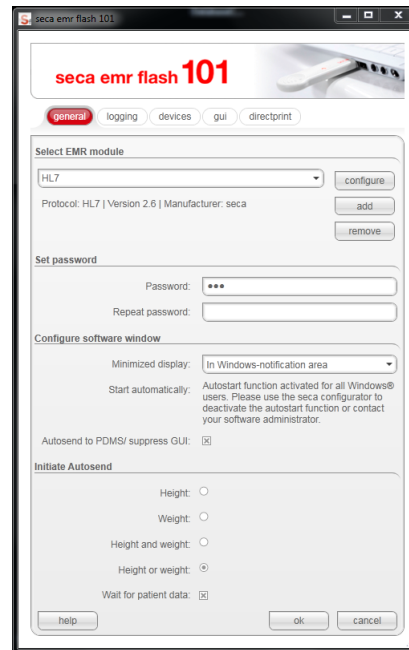
NOTE:
An interface has to be configured on the PDMS for connecting the **seca 101** PC software. You can find the configuration instructions for some PDMS on the seca website. Additional configuration instructions are in preparation and will continuously be made available on the seca website. If your PDMS is not there yet, contact its manufacturer for information about connection options.

Assigning a password

Users of the software can be allocated two different roles.

- **Administrator**
- **User**

The **Administrator** role is assigned by means of a password. Every user who knows the password can access **settings** and manage the system.

The roles include the following rights (• = possible, - = not possible):

Function	Administrator	User
Manage software	•	-
Assign/change password	•	-
Receive patient data from PDMS	•	•
Perform measurement	•	•
Enter measured results	•	•
Send patient data to PDMS	•	•

NOTICE!
Malfunction due to incorrect configuration
When the program is started for the first time after installation, there is no password protection. The **settings** window is freely accessible.
► Assign a password to prevent access by persons without sufficient expertise.
► Only give the password to persons with sufficient expertise.

1. In the main window of the **seca 101** software, click on **settings**.
   The **general** tab is active.

Set password	
Password:	•••
Repeat password:	

2. Enter a password in the **Password** field.
3. Re-enter the password in the **Repeat password** field.
4. Click on **ok**.
   The settings will be saved.
   Whenever the **settings** window is opened again, the system will ask for the password.

Specifying software window behavior

You can use the **Configure software window** field of the **general** tab to make the settings below for the software window.

- Behavior with software window minimized
- Behavior when a user logs on in Windows
- Behavior when measured results are received but there are no patient data from the PDMS

Configure software window	
Minimized display:	In Windows-notification area ▾
Start automatically:	Autostart function activated for all Windows® users. Please use the seca configurator to deactivate the autostart function or contact your software administrator.
Autosend to PDMS/ suppress GUI:	☒

► Specify how the PC software is to behave when the software window is minimized by the user:

   – **In the Windows taskbar**: the PC software appears as a button on the taskbar.
   – **In the Windows notification area**: the PC software appears in the notification area of the taskbar in the form of an icon.

   NOTE:
   Some PDMS can be set up to start the **seca 101** PC software automatically as soon as patient data is transmitted to the **seca 101** interface of the PDMS.

► Specify how the PC software is to behave when a user logs on in Windows:

   – **Start automatically** activated: **seca 101** PC software starts automatically whenever a user logs on in Windows.
   – **Start automatically** deactivated: start **seca 101** PC software manually once a user has logged on in Windows.

► Specify whether the graphical user interface of the **seca 101** PC software is to be started when measured results are received but there are no patient data from the PDMS:

   – **Autosend to PDMS/suppress GUI** activated: the GUI is not started when measuring results are being received. Measured results are automatically sent to the PDMS and have to be assigned to a patient there.
   – **Autosend to PDMS/suppress GUI** deactivated: the GUI is started when measured results are received. Patient data have to be supplemented manually and the dataset sent to the PDMS.

NOTICE!
Loss of data
If you activate the **Autosend to PDMS/suppress GUI** function, it is not possible to assign measured results to a patient record in the **seca 101** PC software. Assignment can only be performed in your PDMS.
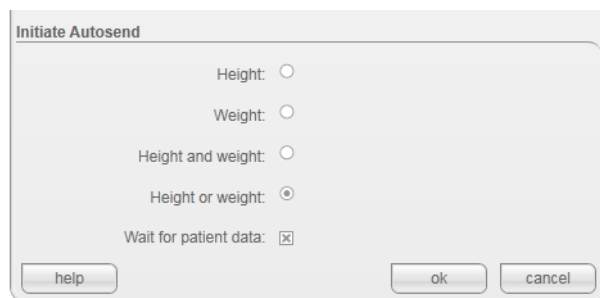
► Immediately measurement is complete, ensure that the measured results are assigned to the correct patient in your PDMS.

Setting up Autosend   If the **seca 101** PC software receives measured results, these can be passed straight on to a PDMS without opening the PC software.

You can set up automatic transmission of measured results to a PDMS in the **Initiate Autosend** field:

- Select which type of measured result has to be received in order for all measured results to be transmitted automatically.
- Specify whether patient data have to be present in the **seca 101** PC software.

► Specify which measured results are to trigger automatic transmission to a PDMS as soon as they are received from the **seca 101** PC software:
  - **Height**: As soon as the height result is received, measured results are transmitted to the PDMS.
  - **Weight**: As soon as the weight result is received, measured results are transmitted to the PDMS.
  - **Height and weight**: Only once both measured results have been received are they transmitted to the PDMS.
  - **Height or weight**: As soon as one of the two measured results is received, it is transmitted to the PDMS.

► Specify whether patient data have to be present in the **seca 101** PC software in order for measured results to be transmitted to the PDMS automatically.
  - **Wait for patient data** activated: Measured results are only sent to the PDMS automatically if patient data are present in the **seca 101** PC software.
  - **Wait for patient data** deactivated: Measured results are sent to the PDMS automatically. Patient data do not have to be present in **seca 101**.

Transmitting measured results automatically

Example:
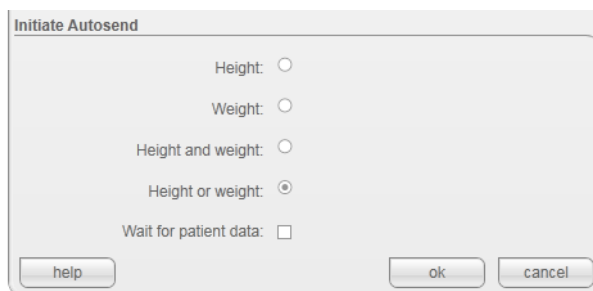
Activate the **Initiate Autosend** function with the following settings:

- Before measured results are transmitted automatically, patient data from the PDMS must be present in the **seca 101** PC software.
- The measured result is to be transmitted as soon as **Height or weight** are received by the **seca 101** PC software.

Make the following settings:
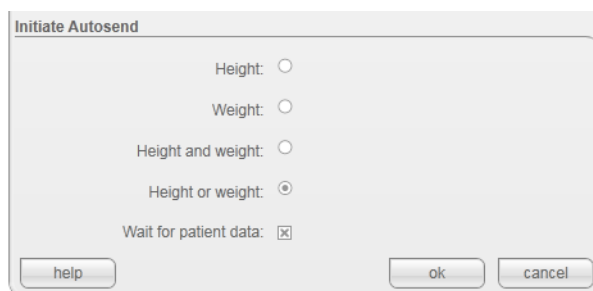
1. In the **general** tab, click on the **Height or weight** button in **Initiate Autosend**.

    The **Initiate Autosend** function is activated.

2. Click the **Wait for patient data** checkbox.

    The **Wait for patient data** function is activated. Measured results are only transmitted if patient data from the PDMS are present in the **seca 101** PC software.

5.3 Configuring modules

Selecting a module In order to be able to transmit measured results to a PDMS using the **seca 101** PC software, you need to download and install the relevant integration modules from the seca website. To do so, proceed as outlined below.

1. Download the desired seca EMR integration module package ("*sem.zip") from the seca website.

2. Click on **settings** in the main window of the **seca 101** PC software.

The **general** tab is active.

3. In the **Select EMR module** field, click on **add** (in this case, HL7).
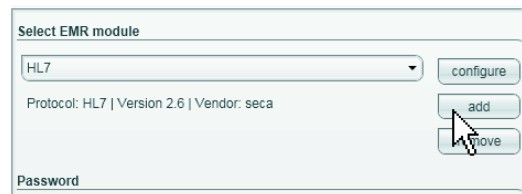
The **Open** dialog window opens.
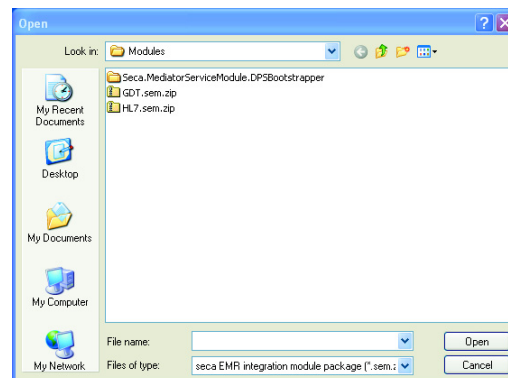
4. Select the downloaded seca EMR integration module package ("*sem.zip").

5. Click on **Open**.
    The package selected is displayed in the **Select EMR module** field (in this case, HL7).

NOTE:
As an alternative to steps 3. to 5., you can drag the desired file straight from a Windows Explorer window into the **Select EMR module** field (drag & drop function).
To configure the selected module, proceed as described in the sections below.

Configuring the seca directprint module

seca directprint module allows detailed results reports to be printed out directly from a **seca 360° wireless** measuring device. You can use this function on its own and in addition to transmitting data to a PDMS.

The seca directprint is installed automatically when the **seca 101** PC software is installed and can be configured with the aid of the **seca configurator** ("Using the seca print configurator" from page 8).

The results report can be configured in the **direcptrint** tab. Among other things, you can select the language in which the results report will be displayed, the unit of measurement used and the reference for percentiles.

If further settings should be required or the configuration subsequently needs adapting, proceed as outlined below.

1. Click on the **direcptrint** tab.
   The current settings for the EMR module are displayed.

Configure directprint module	
Active:	☒
Connect via UDP:	☒
Mediator IP:port:	
Broadcast port:	20001
Target port:	20005
Language:	Deutsch (de-DE) ▼
Height:	meters ▼
Recommend analysis (BIA) with mBCA?:	Print recommendation ▼
Weight:	kilograms ▼
Energy:	kilocalories ▼
Percentile ref.:	WHO ▼
Individual text:	KLINIK Krankenhaus
Printer:	▼
help	ok cancel

The settings below can only be made in this dialog window.

Line	Default setting
Active	Activated
Connect via UDP	Deactivated
seca mediator service [IP] : [port]:[a]	No entry
Broadcast port[b]	20001
Target port [b.]	20005
Language	Here: German
Height unit	Here: meters
Recommend analysis (BIA) with mBCA?	Here: print recommendation
Weight unit	Here: kilograms
Energy unit	Here: megajoules
Percentile ref.	Here: WHO
Individual text	Freely selectable
Printer	Here: PDF Creator

a. Line reserved for future function expansion
b. Change only if standard ports are blocked.

ATTENTION!
Software malfunction
If your firewall is not configured properly, the services of the seca directprint module cannot communicate properly.
► Make sure that all required ports are open (see "Ports required for seca directprint module" on page 37)

The settings below are adopted from the **seca configurator**.

2. Adapt the settings as required for your system.

3. Click on **ok**.
   The module is configured and can be used.

   NOTE:
   Details on using seca directprint in measuring mode can be found in the "Instructions for use for doctors and assistants".
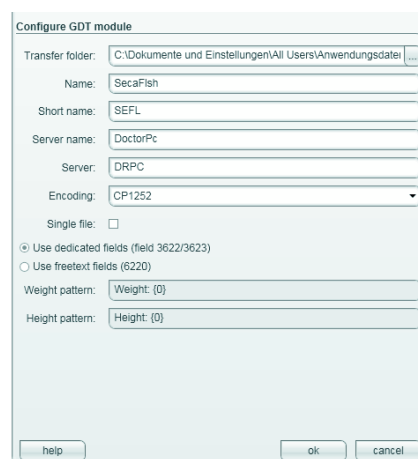
Configuring an EMR module (GDT)   If your PDMS uses the GDT protocol, proceed as outlined below.

1. Check that the GDT module has been selected as described in the section entitled "Selecting a module" on page 18.

```
Select EMR module

GDT                                    ▼    configure
                                           add
Protocol: GDT | Version 2.1 | Vendor: seca
                                           remove
Password
```

2. In the **Select EMR module** field, click on **configure**.
   The default settings for the EMR module are displayed.

```
Configure GDT module

Transfer folder:   C:\Dokumente und Einstellungen\All Users\Anwendungsdatei  ...
Name:              SecaFlsh
Short name:        SEFL
Server name:       DoctorPc
Server:            DRPC
Encoding:          CP1252                                              ▼
Single file:       ☐
⦿ Use dedicated fields (field 3622/3623)
○ Use freetext fields (6220)
Weight pattern:    Weight: {0}
Height pattern:    Height: {0}

   help                                           ok      cancel
```

Line	Default setting
Transfer folder	C:\%COMMONAP-PDATA%\seca\Flash\ GDT-Transfer
Name	SecaFlsh
Short name	SEFL
Server name	DoctorPC
Server	DRPC

3. Check whether you can adopt the default settings for the interface for your PDMS (recommended).

4. If necessary, change the default settings listed under 2. according to your system.

5. Specify whether the measured results are to be transmitted to the PDMS individually or one immediately after the other using **send to EMR**.
   – **Single file** activated: one measured result must be first processed by the PDMS before another result can be transmitted.
   – **Single file** deactivated: several measured results can be transmitted to the PDMS one immediately after the other. There is no wait for the PDMS to process a measured result.

6. Specify which fields of the GDT protocol are to be used for weight and height.
   – **Use dedicated fields**: fields 3622 and 3623 are used.
   – **Use freetext fields**: fields 6220 are used.

   NOTE:
   If you select **Use freetext fields**, edit the text preceding the measurements if you wish (in this case: "weight" and "height").

7. Click on **ok**.
   The module is configured.

8. Configure an interface in your PDMS according to the settings in this section.

NOTE:
- For more information on configuring your EMR module, click on **help**.
- You can find configuration instructions for some PDMS at www.seca.com.
- Take note of the user documentation for the PDMS used.

Configuring an EMR module (HL7)   If your PDMS uses the HL7 protocol, proceed as outlined below.

1. Check that the HL7 module has been selected as described in the section entitled "Selecting a module" on page 18.

> **Select EMR module**
>
> HL7 ▾   configure
>
> Protocol: HL7 | Version 2.6 | Vendor: seca   add
>
> remove
>
> **Password**

2. In the **Select EMR module** field, click on **configure**.
The default settings for the EMR module are displayed.

> **Configure HL7 module**
>
> IP address: 127.0.0.1
> Out port: 5000
> In port: 5001
> Header: 0b
> Footer: 1c 0d
> Encoding: UNICODE UTF-8 ▾
>
> help   ok   cancel

Line	Default setting
IP address	127.0.0.1
Out port	5000
In port	5001
Header	0b
Footer	1c 0d
Encoding	UNICODE UTF-8

3. Check whether you can adopt the default settings for the interface for your PDMS (recommended).

4. If necessary, change the default settings listed under 1. according to your system.

5. Click on **ok**.

6. The module is configured.

7. Configure an interface in your PDMS according to the settings in this section.

> **NOTE:**
> - For more information on configuring your EMR module, click on **help**.
> - You can find configuration instructions for some PDMS at www.seca.com.
> - Take note of the user documentation for the PDMS used.

Configuring the keyboard module

The keyboard module converts measured results into simulated keyboard input. This allows measured results to be inserted directly at the cursor position in any target software, e.g. a word-processing program or a PDMS, which does not support common transmission protocols (HL7, GDT).

> **NOTICE!**
> **Faulty data transmission**
> Individual configurations may lead to unexpected results. Data may be transmitted with faults or not be transmitted at all.
> ► Carry out thorough tests with each configuration before using that configuration in measuring mode.

To configure the keyboard module for your system, proceed as outlined below.

1. In the **general** tab, activate the **Autosend to PDMS/suppress GUI** option.

2. In the **Select EMR module** field, click on **configure**.
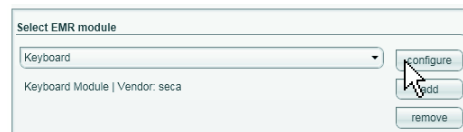
The default settings for the EMR module are displayed:

Line	Default setting
Master format	Measurement at {d}:{n}height: {h}, weight: {w}
Value format	#
Date format	t
Weight unit	Measuring device unit
Height unit	Measuring device unit
Line break delimiter	{Enter}
Use custom delimiter?	Deactivated
Custom delimiter	No entry

> **NOTE:**
> A summary of wildcards and control symbols which you can use for configuration can be found in the section "Wildcards and control symbols" from page 38.

3. Check whether you can adopt the default settings (recommended).

4. Adapt the settings as required for your system.

5. Click on **ok**.
   The module is configured and can be used.

NOTICE!
Software malfunction in measuring mode
Transmitted data are converted into keyboard input, so in measuring mode, this may cause the **seca 101** PC software or the target software to behave unexpectedly.

► Check at the start of measuring that the target software, **not** the **seca 101** PC software is the active window.

► Ensure when the keyboard module is activated that the **send to EMR** key is **never** pressed.

► Follow the instructions in the "Instructions for Use for Doctors and Assistants".

5.4   Setting up logging

You can use the **logging** tab to specify the results to be logged. You can also configure the logfile.

Specifying log events

You can use the **Minimum severity** field to specify the level of severity for logging events.

1. Click on the **logging** tab.
   The **logging** tab is active.

2. In the **Minimum severity** field, click on the drop-down triangle.
   The selection menu appears.

3. Click on the event type which you wish to specify as the minimum level of severity.

4. Click on **ok**.
   The settings will be saved.

Configuring a logfile

You can use the **Logfile** field to specify whether one or more logfiles are to be created and configure them.

1. Make the following settings in the text fields of the **Logfile** field:
   – **Storage location**
   – **Max. file size**
   – **Max. logfiles**

2. Specify whether to overwrite an existing logfile or create a new one.
   – **Create new file**: new logfiles will be created until the number specified under **Max. logfiles** is reached. After this, the oldest logfiles will be overwritten.
   – **Overwrite file**: the existing logfile will be overwritten.

3. Specify under **Generate new logfile** at what times a logfile is to be created.
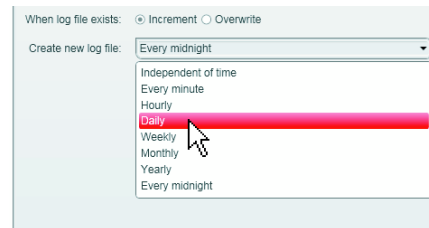
Setting	New logfile
Independent of time	Logfiles not created as a function of time
Every minute	After one minute
Hourly	After one hour
Daily	Every 24 hours
Weekly	After one week
Monthly	After one month
Annually	After one year
At midnight	At midnight

4. Click on **ok**.
   The settings will be saved.

5.5 Connecting measuring devices to the PC software

In the **devices** tab, you can connect measuring devices to the **seca 101** PC software.

- Wirelessly: measuring devices from the **seca 360° wireless** system (see "Configuring a seca 360° wireless network" from page 27)
- Wired: seca scales with RS232 interface (see "Configuring RS232 devices" from page 30)

Configuring a seca 360° wireless network

You can use the **devices** tab to make a wireless connection between **seca 360° wireless** devices and the **seca 101** PC software. To do so, you need a **seca 360° wireless USB adapter 456**.

> **NOTE:**
> This section describes how to use the PC software. Technical information about the **seca 360° wireless** network can be found in the section entitled "The seca 360° wireless network" from page 37.

With a single **seca 101** PC workstation and a **seca 360° wireless USB adapter 456**, it is possible to set up a maximum of three wireless groups.

To do so, proceed as outlined below.

1. Insert the **seca 360° wireless USB adapter 456** in a USB port of the PC. The LED on the USB adapter goes red.

2. In the **devices** tab, click on **Wireless devices** in the field **configure**. The configuration window for the wireless network appears.

3. Check that the devices you wish to incorporate in a wireless group are switched off.

4. In the one of the three wireless groups you want (in this case: wireless group "0"), click on **Set up wireless group**.
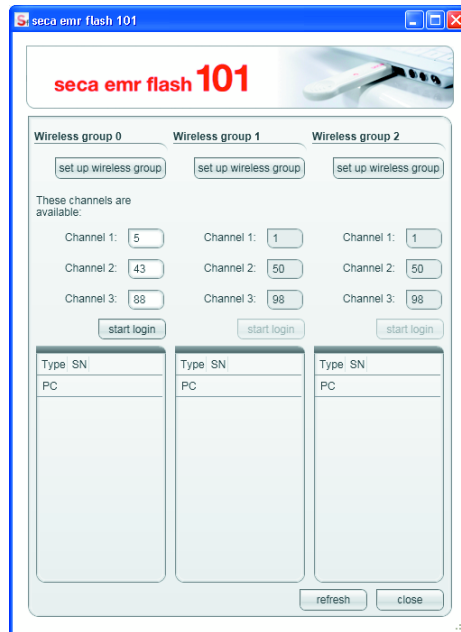
The PC software proposes three channels.

NOTICE!

Incorrect device assignment and faulty data transfer
You can select channel numbers other than those suggested by the system. This may cause devices to be assigned to incorrect wireless groups and result in unreliable data transfer.

► Check that the channel numbers are not being used for the other two wireless groups.

► Check that in each group, the channel numbers are spaced apart by a value of 30.

5. Click on **Start registration**.
The PC software waits for signals from other wireless-capable seca devices in range.

6. Switch on all devices (e. g.one scale and one stadiometer) you wish to incorporate in a wireless group.
   When the PC software detects the devices, a beep will be heard.
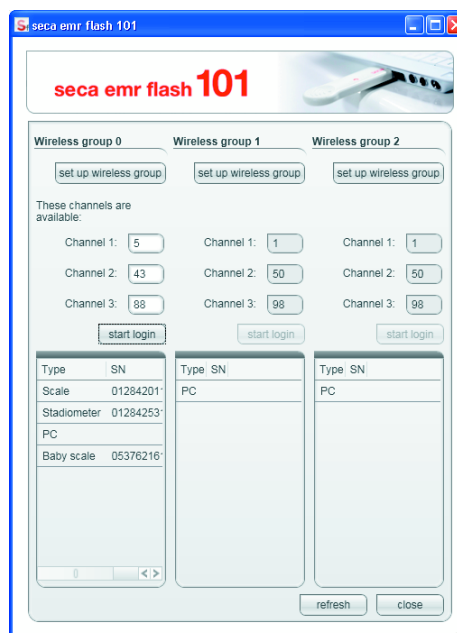   Detected devices are stored on the **seca 360° wireless USB adapter 456** and displayed in the PC software.
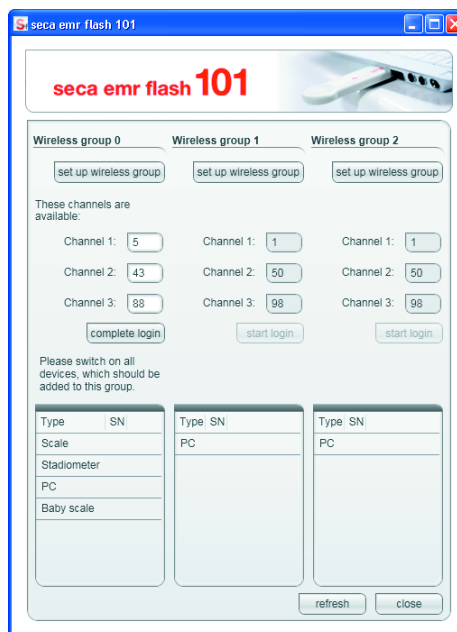
7. Click on **Complete registration**.
   The serial numbers of the devices detected are displayed under **SN**.

8. If desired, repeat steps 4. to 7. for the other two wireless groups.

9. Click on **close**.
   The configuration window for the wireless network closes.

10. Switch off all devices which have been successfully registered if you do not immediately need them for measurements.

Configuring RS232 devices   To use seca scales with an RS232 interface, proceed as outlined below.
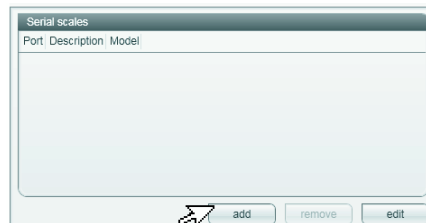
1. Connect the device to the PC.

    NOTE:
    - The maximum number of scales with an RS232 interface depends on the number of COM ports of the PC used.

    - Follow the instructions for use for the device in question.

2. In the **devices** tab, click on **add** in the **Scales with a serial interface** field.
    The configuration line for port COM1 appears.

3. Click on **edit**.
    The configuration line is activated. It can be edited.
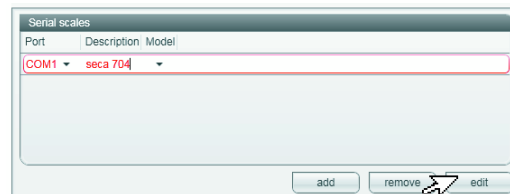
4. In the configuration line, click on the **Description** column.

5. In the **Description** column, enter a description of the scale (recommended: model and setup location).

6. In the **Model** column, click on the selection triangle.

A drop-down menu appears.

7. Click on the desired menu item:
    – seca model: if seca model known
    – **Weight only**: scale has no BMI function, seca model unknown
    – **Weight and height:** scale has BMI function, seca model unknown
    Setting appears in the **Model** column.
    The drop-down menu closes.

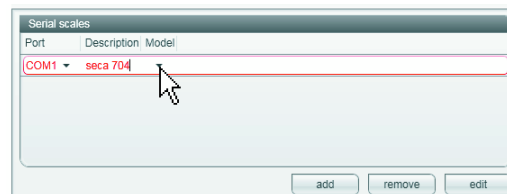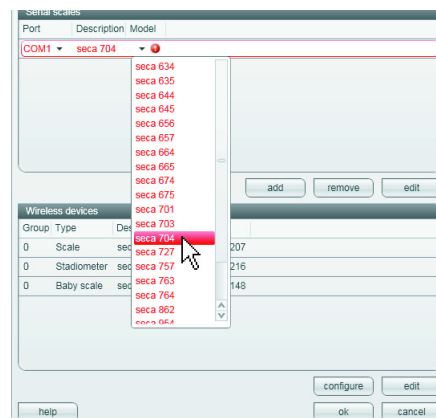8. If desired, repeat steps 1. to 7. for other seca scales with RS232 interface.

9. Click on **ok**.
    The dialog window closes.
    The scale is shown in the main window (see "Main window" from page 10) in line with the table below.

Setting in devices tab in Model column	Available scales	Available stadiometers
seca scale without BMI function	•	-
seca scale with BMI function	•	•
Weight only	•	-
Weight and height	•	•

NOTICE!
Malfunction in measuring mode
Measured data can only be transmitted to the **seca 101** PC software if the PC to which the measuring device in question is connected is switched on.
► Before each measuring step, check that the PC to which the measuring device is connected is switched on.

NOTICE!
Loss of data
If there is no input for approx. 10 minutes, partial results are discarded.
► Measure one patient's weight and height immediately consecutively.

Managing measuring devices

You can view which scales and stadiometers are connected to your PC. As an administrator, you can edit the configuration. Devices are differentiated according to weight or height measurement.

The information below is displayed for the individual components.

- **Interface**: COM port (RS232 devices)/wireless group (**seca 360° wireless** devices)
- Device type e. g. personal scale (completed automatically when the **seca 360° wireless** system is configured).
- **Description**: can be edited, seca recommends in this case entering the model number of the device, e. g. **seca 285**, and the setup location.
- Serial number (completed automatically when the **seca 360° wireless** system is configured).

To edit the device configuration, proceed as outlined below.

1. In the **settings** window, click on the device you wish to edit.
   The selection bar is positioned on the device selected.
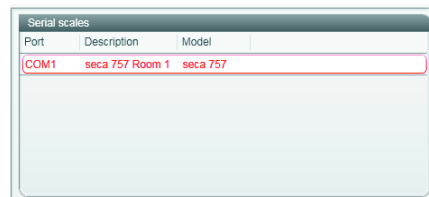
2. Click on **edit**.
   An insertion point will appear in the **Description** field.
3. Enter a device description (e. g. device name and setup location).
4. Click on **ok**.
   The settings will be saved.

5.6 Setting up the user interface

You can make the following settings in the **gui** tab:

- specify font size for displaying measured results
- specify entry fields visible to the user
- specify the units for displaying measured results

Specifying font size for measurements

You can specify the font size for displaying measured results in the main window. To do so, proceed as outlined below.

1. Click on the **gui** tab.

2. Click in the **Font for measurements** field.
3. Enter the desired font size (8 - 120 pt).

> **NOTE:**
> If imperial units are set, fractions will be shown in the form "$^3/_8$" only from a minimum font size of 11 pt. At smaller font sizes, fractions will be displayed in the form "3/8".

4. Click on **ok**.
   The settings will be saved.
   The deactivated entry fields will no longer be displayed in the main window.

Showing/hiding entry fields for patient data

With some PDMS it is not possible to add patient data to all entry fields visible in the **seca 101** PC software. You have the option in the **seca 101** PC software of hiding all entry fields your PDMS cannot complete.

Following initial installation of the PC software, all entry fields are activated for patient data in the **gui** tab and displayed in the main window of the **seca 101** software:

- **ID**
- **First name**
- **Surname**
- **Date of birth**
- **Gender**

To hide individual entry fields, proceed as outlined below.

1. Click on the **gui** tab.
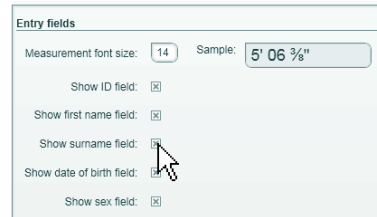
2. Deactivate the checkbox of the entry field you wish to hide.

3. Repeat step 2. for all other entry fields you wish to hide.

4. Click on **ok**.
The settings will be saved.
The deactivated entry fields will no longer be displayed in the main window.
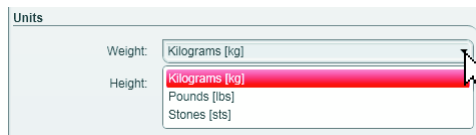
Specifying units for measurements   The units below are available for selection.

- **Weight**:
    – kilograms (kg)
    – pounds (lbs)
    – stones (sts)
- **Height**:
    – meters (m)
    – feet (ft)

1. Click on the **gui** tab.

2. Click on the selection triangle next to the measuring unit you wish to change.
The selection menu appears.

⚠ **CAUTION!**
Misinterpretation of measured results
Settings in the **Units** field apply exclusively to the **seca 101** PC software.
Some PDMS automatically convert measured results to the units set in the PDMS.
► Ensure that the unit set in the **seca 101** PC software matches the settings in your PDMS.

3. Click on the unit you wish to use.

4. Repeat steps 2. and 3. for the other measuring unit.

5. Click on **ok**.
The settings will be saved.

5.7 Working in the software window

Adjusting window size

As you are used to from other graphical software interfaces, you can also set window size for the **seca 101** PC software. To do so, proceed as outlined below.
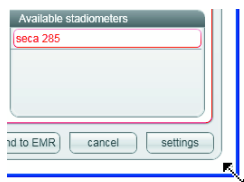
► To adjust the size of the window individually, "drag" on one corner of the software window.

► To maximize the software window to fill the screen, click on the **Maximize** icon.

► To reduce the software window to the window size individually set, click on the **Down-size** icon.

Navigating in a down-sized window

If you have significantly down-sized the software window, it will no longer be possible to show all the patient data in the software window. A scroll bar will be shown instead. To view all patient data, proceed as outlined below.

► Move the scroll bar thumb to the left or right.
The patient data will appear depending on the direction of movement.
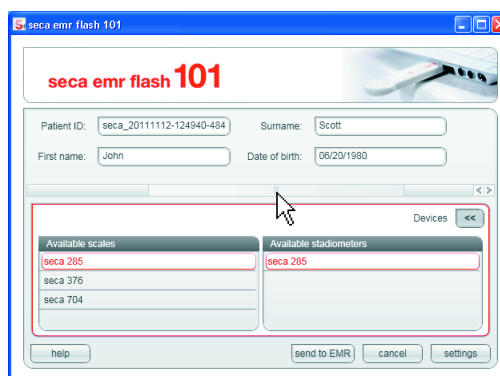
► Click on one of the arrow keys in the scroll bar.
The patient data will appear depending on the direction of the arrow.
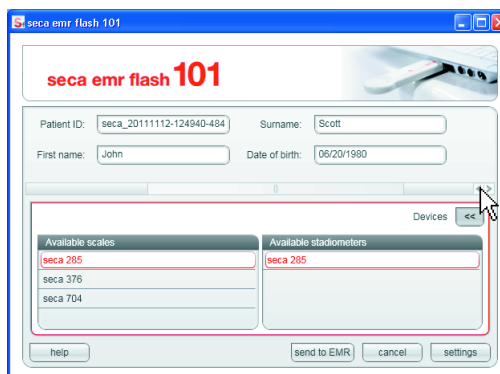
Minimizing/restoring window

If you wish to close the software window without exiting the program, proceed as outlined below.

► Click on the **Minimize** icon.
The PC software will behave differently depending on the default settings made by the administrator:

   – the PC software appears in the taskbar in the form of a button

   – the PC software appears in the notification area of the taskbar in the form of a program icon

To restore the software window, proceed as outlined below depending on the default setting.

► Click on the button in the taskbar.

► Right-click on the program icon in the notification area of the taskbar and select the item **Open**.

Adjusting column width

1. Position the mouse pointer in the title line on the line between two columns.
The pointer turns into a double arrow.
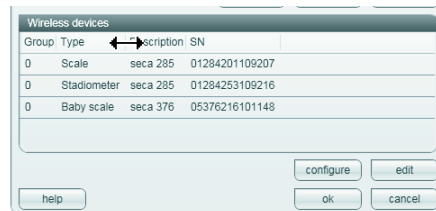
2. Hold down the left mouse button and drag the column to make it wider or narrower.

3. Release the left mouse button once the required column width is reached.

Editing data

As you are used to from other graphical software interfaces, you can also edit entries in the **seca 101** PC software. To do so, proceed as outlined below.

► Supplement data manually.

► Mark entries and use the functions **Cut**, **Copy** and **Paste**.

   NOTE:
   The functions **Cut**, **Copy** and **Paste** can be accessed as a context menu if you right-click.

6. TECHNICAL INFORMATION

6.1 The seca 360° wireless network
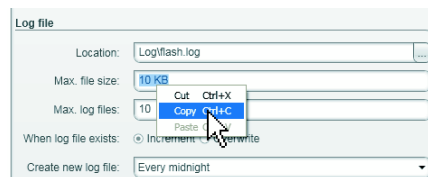
seca 360° wireless	
Maximum number of wireless groups per PC workstation and USB adapter	3
Maximum configuration per wireless group	1 baby scale 1 measuring station (or 1 personal scale and 1 length measuring device) 1 seca wireless printer (not in conjunction with this PC software) 1 PC with **seca 360° wireless USB adapter 456** and **seca 101** PC software
Number of channels per wireless group	3
Type of channel assignment	Automatic (recommended) Manual
Channel numbers	0 - 99
Minimum spacing of channel numbers	30
• Frequency band • Transmission power • Maximum range	2.433 GHz - 2.480 GHz < 10 mW 10 m

NOTICE!
Malfunction if USB adapters are confused
If USB adapters are inadvertently used on a PC workstation other than the original **seca 101** PC workstation, the data stored on the USB adapter and in the PC software will conflict. The PC software and the measuring devices will then be unable to communicate with each other.
– Make sure that USB adapters are always used on the same PC workstation.
– Secure the USB adapter from inadvertent removal from the USB port on the PC (see instructions for use of USB adapter).

6.2 Ports required for seca directprint module

The seca directprint module comprises a number of services. To enable communication between these services the following ports must be open in your system's firewall:

Protocol	Port	Service
TCP/UDP	20001	seca mediator service
TCP/UDP	20002	seca calculation service
TCP/UDP	20003	seca image service
TCP/UDP	20004	seca document print service

6.3 Wildcards and control symbols

This section contains wildcards and control symbols which you can use to configure data transmission via the keyboard module.

Master format Any free text can be entered in the **Master format** line. You can use the wildcards below in the free text.

Wildcard	Meaning
{w}	Measured weight
{h}	Measured height
{d}	Date according to operating system
{n}	Line break delimiter

Weight and height formats Formats for wildcards {w} and {h} in **Master format**:

Symbol	Meaning
0	Wildcard for 0
#	Wildcard for number
.	Thousands delimiter
,	Decimal delimiter
,.	Integral multiple of 1,000
%	Value in percent
e	Wildcard for exponent

Date formats Formats for date wildcards {d} in **Master format**

Symbol	Meaning
d	8/27/2012
D	Monday, August 27, 2012
t	2:38 PM
T	2:38:08 PM
f	Monday, August 27, 2012 2:38 PM
F	Monday, August 27, 2012 2:38:08 PM
g	8/27/2012 2:38 PM
G	8/27/2012 2:38:08 PM
M	August 27
r	Mon, 27 Aug 2012 14:38:08 GMT
s	2012-08-27T14:38:08
u	2012-08-27 14:38:08Z
U	Monday, August 27, 2012 12:38:08 PM
Y	August, 2012

Other formats for date wildcards {d} in **Master format**

Symbol	Meaning	Display
dd	Day	27
ddd	Day name (shortened)	Mon
dddd	Day name (full)	Monday
gg	Era	A.D.
hh	Hour (2 digits)	02
HH	Hour (2 digits, 24)	14
mm	Minute	38
MM	Month	08
MMM	Month name (shortened)	Aug
MMMM	Month name (full)	August
ss	Second	08
tt	AM or PM (if applicable)	PM
yy	Year (2 digits)	12

Symbol	Meaning	Display
yyyy	Year (4 digits)	2012
zz	Time zone (short)	+02
zzz	Time zone (long)	+02:00

Line breaks The line break delimiters below are available in the drop-down menu of seca directprint.

Wildcard	Meaning
{Enter}	Simulates the Enter key
{Tab}	Simulates the Tab key
\n	Line break (Unix environment)
\r\n	Line break (Windows)

If the wildcards offered in the drop-down menu do not work, you can use the wildcards below in the **Custom delimiter** line of seca directprint.

Other control symbols

Control symbol	Meaning
+	Shift key
^	Ctrl key
%	Alt key

Wildcard	Meaning
\t	Horizontal tab
\v	Vertical tab
\r	Line break (Mac OS up to version 9)
\b	Back key
\f	Paper feed (printer)

7. WARRANTY

Please note that this PC software is subject to restrictions on the warranty which may arise in conjunction with the license, for example. The warranty restrictions can be called up at www.seca.com.

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