

seca Help Documentation

Technical Documentation

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1 GLOSSARY

EMR

Electronic medical record

seca emr flash 101

An application designed for the reception of results from weight and height measurements and their storage in a patient data management system.

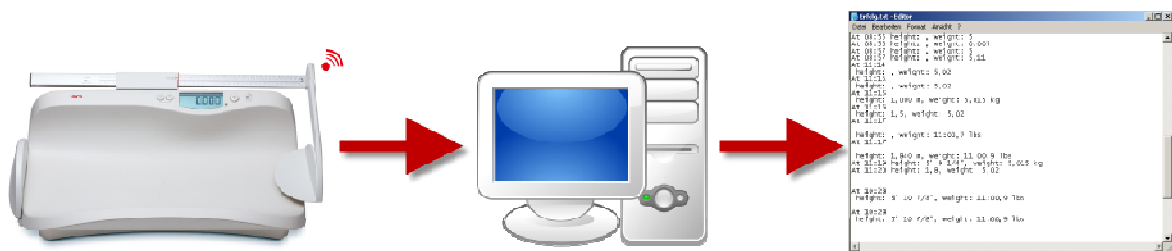
seca EMR integration module (SEM)

A plugin for **seca emr flash 101** that exchanges data between **seca emr flash 101** and an **EMR**.


2 SECA EMR KEYBOARD MODULE

The **seca emr Keyboard Module** is a plugin for **seca emr flash 101** that converts measurement data into simulated keystrokes at the cursor position in the currently focused application window. This can be useful in situations where a specific EMR is otherwise unsupported or the data should be stored in text files.

The basic idea of this module is that the end-user specifies a basic text and format structure (the master format) that contains a number of placeholders which are filled with data from a measurement. The completed text is then converted into keystrokes and sent to the focused application window.



Important: This module will only work properly when the “Autosend to PDMS / suppress GUI” option is **activated** in the **seca emr flash 101** settings, so that any incoming measurement is directly transferred to the focused application of choice. Clicking the “send to EMR” button causes the keystrokes to be sent to **seca emr flash 101** itself, as it is the focused application at that time. This will result in unexpected behavior and **has to be avoided!** Some applications may have hotkeys or options that can be triggered by key combinations, so **custom output formats** have to be chosen with **care!**

Also, since this module simulates keystrokes, but keyboard layouts differ throughout the world, the **keyboard layout configuration** (usually chosen through Windows’ language bar, i.e. the symbol for English in a Windows XP environment: ) has to be **the same** in both **seca emr flash 101** and the focused application. Otherwise, incorrect characters will be output. The easiest way to compare the configurations is activating the language bar, focusing an application and checking whether the two-character language code is the desired one.

3 DEPLOYMENT INSTRUCTIONS

3.1 Installation

The **seca emr Keyboard Module** is designed to function as a native plugin for the **seca emr flash 101** software. As such, it does not require any additional installed content to work.

The end-user loads the module into **seca emr flash 101** and configures it to match his needs. To include the module, the first step is to open the settings window and then click on “add”:



Figure 1: The settings window of *seca emr flash 101* without any EMR module loaded.

The “open file” dialogue will appear. After navigating to the folder the module package is saved to, a double click will load it into **seca emr flash 101**:

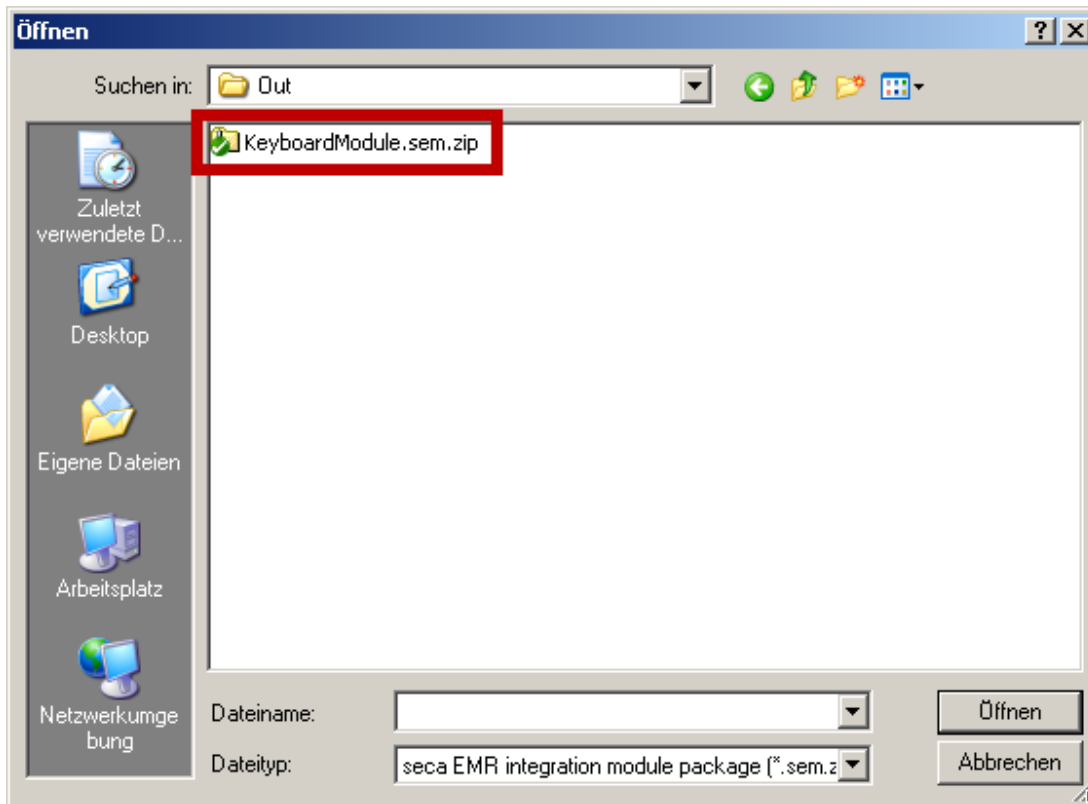


Figure 2: The “open file” dialogue.

From then on, the user can send a measurement from any seca product connected to **seca emr flash 101** and have the data converted into keystrokes at the cursor position of the currently focused application window. Again, it is important that the “**send to EMR**” button on the main window is **never pushed** and the **seca emr flash 101** is **not the focused window**.

3.2 Configuration

The final output of the module is highly configurable to cover a broad spectrum of possible applications.

Important: The “**Autosend to EMR / suppress GUI**” option must be **activated**! Otherwise the module cannot work. A click on “configure” opens the **seca emr Keyboard Module** configuration window.



Figure 3: The configuration screen of *seca emr flash 101* with *seca emr Keyboard Module* loaded.

The configuration window looks as follows:

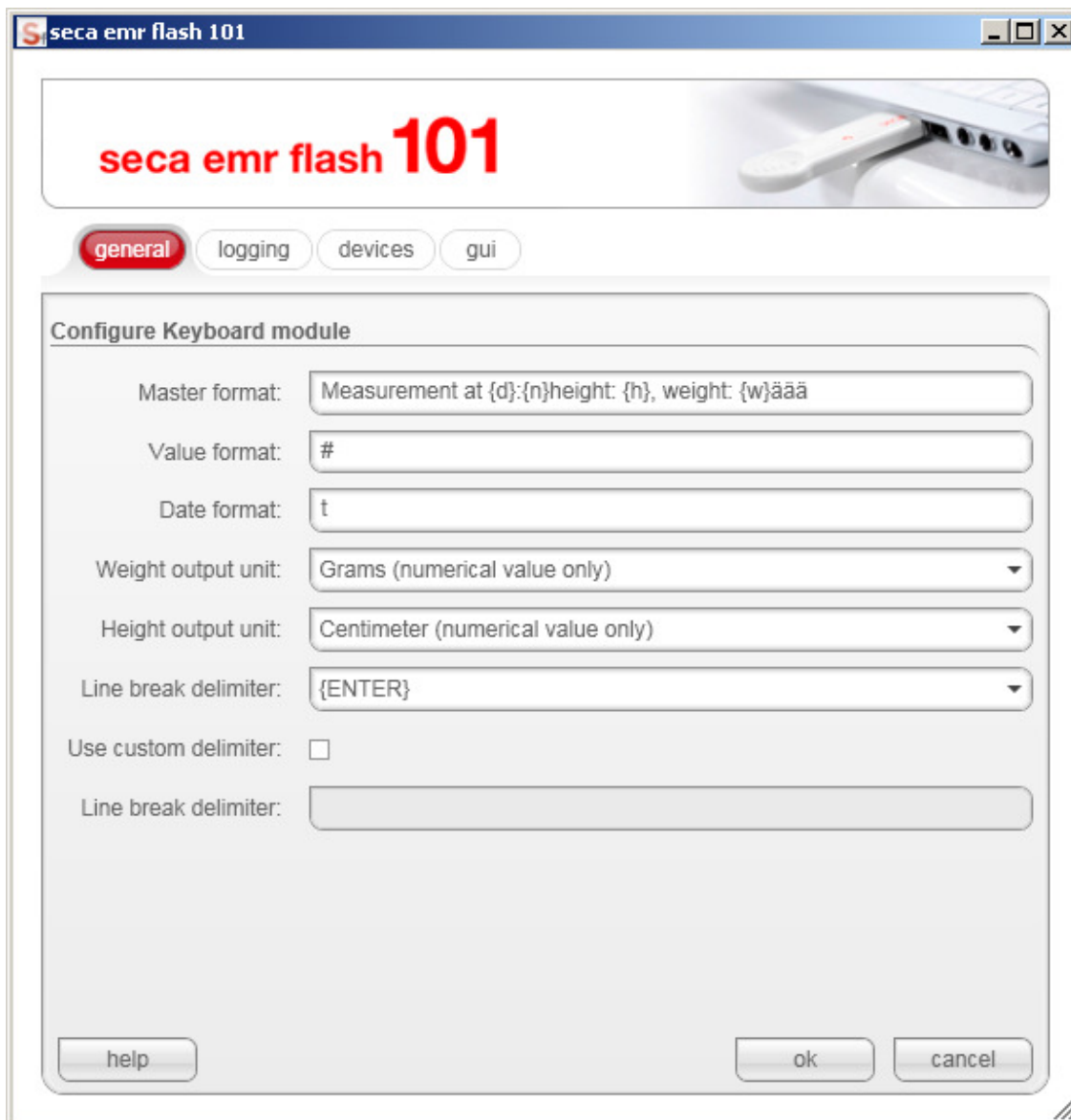


Figure 4: The configuration window of the *seca emr Keyboard Module*.

Through this screen the user configures the output of the module, i.e. the text that is going to be converted to keystrokes. The most important option is the “Master format” at the top, with further formatting and customization choices underneath. Each of these is explained in detail below.

3.2.1 Master format

The text that is going to be output. It will usually contain placeholders (discussed in detail in the following sections) that are filled with data when a measurement is being received. Placeholders are marked by curly brackets and can be the following:

Placeholder	Meaning
{w}	Measurement's weight
{h}	Measurement's height
{d}	Current date (NOT the measurement's date, but the date of the operating system running seca emr flash 101)
{n}	Line break delimiter

Note that all placeholders are purely optional and can be left out. Conversely, they may be repeated several times.

3.2.2 Value format

The output format of the height and weight values (placeholders {h} and {w} respectively) specified by character symbols. Note that this will take effect only when the data is configured to be output as SI value without unit. Possible symbols are described in the table below.

(Measurement value = 1000000)

Symbol	Meaning	Example	Output result
0	0 placeholder	00.0000	1000000.0000
#	Number placeholder	(#).##	(1000000)
.	Decimal separator	0.0	1000000.0
,	Thousands separator	0,0	1,000,000
'	Integer multiple of 1,000	0,'	1000
%	Percent value	0%	100000000%
e	Exponent placeholder	00e+0	10e+5

3.2.3 Date format

The output format of the date (placeholder {d}) specified by a character symbol:

Symbol	Type	Output example
d	Short date	8/27/2012
D	Long date	Monday, August 27, 2012
t	Short time	2:38 PM

T	Long time	2:38:08 PM
f	Complete date & time (short)	Monday, August 27, 2012 2:38 PM
F	Complete date & time (long)	Monday, August 27, 2012 2:38:08 PM
g	Standard date (short)	8/27/2012 2:38 PM
G	Standard date (long)	8/27/2012 2:38:08 PM
M	Day of month	August 27
r	RFC1123 date	Mon, 27 Aug 2012 14:38:08 GMT
s	Sortable date	2012-08-27T14:38:08
u	Universal sortable date	2012-08-27 14:38:08Z
U	Universal sortable GMT date	Monday, August 27, 2012 12:38:08 PM
Y	Year/month pattern	August, 2012

Alternatively, the following combination of symbols can be used to configure date output even further:

Symbol	Type	Output example
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 hours)	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
yyyy	Year (4 digits)	2012
zz	Time zone (short)	+02
zzz	Time zone (long)	+02:00

3.2.4 Weight output unit

The unit to output the measurement's weight value in. If this differs from the native unit (the unit the measurements was originally taken in), a conversion will be performed. The options are:

Option	Meaning	Output example
Kilograms	SI system	5.015 kg
Grams	SI system	5015 g
Pounds	US customary system	11:01.1 lbs
Stones	Imperial system	15:04.8 sts
Native unit	Unit used by the measuring device	5.015 kg
Kilograms (numerical value only)	SI value without unit denominator (value format applies)	5.015
Grams (numerical value only)	SI value without unit denominator (value format applies)	5015

3.2.5 Height output unit

The unit to output the measurement's height value in. If this differs from the native unit (the unit the measurement was originally taken in), a conversion will be performed. The options are:

Option	Meaning	Output example
Meter	SI system	1.800 m
Centimeter	SI system	180 cm
Feet and inches	US customary system	5' 10 7/8"
Native unit	Unit used by the measuring device	1.800 m
Meter (numerical value only)	SI value without unit denominator (value format applies)	1.800
Centimeter (numerical value only)	SI value without unit denominator (value format applies)	180

3.2.6 Line break delimiter

The character or expression used to denote a line break (placeholder {n}) in the data-receiving application. The most common line breaks are selectable in a dropdown, containing the following options:

Option	Meaning
{ENTER}	Simulates the enter key
{TAB}	Simulates the tabulator key
\n	Inserts a newline character (used in most Unix environments)

<code>\r\n</code>	Inserts a newline character (used in Windows)
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Note that the expressions in curly brackets simulate actual keystrokes, while the ones starting with a backslash insert control characters into the text that tell the receiving application to end the line. This can be required in some applications that do not support manual line breaks, but may lead to unexpected results. It is highly recommended to test these options thoroughly with the receiving application before using it productively.

If the pre-selected options do not meet the requirements, the line break delimiter can be specified manually by choosing the “Use custom delimiter” option and entering a value in the lower field. The keystroke values include:

Symbol	Meaning
{BACKSPACE}	Backspace key
{BREAK}	Break key
{CAPSLOCK}	Caps lock key
{DELETE}	Delete key
{UP}	Up cursor key
{DOWN}	Down cursor key
{RIGHT}	Right cursor key
{LEFT}	Left cursor key
{HOME}	Home key
{INSERT}	Insert key
{END}	End key
{NUMLOCK}	Num lock key
{HELP}	Help key
{PGUP}	Page up key
{PGDN}	Page down key
{SCROLLLOCK}	Scroll lock key
{ESC}	Escape key
{F1} – {F16}	F keys 1 to 16
{ADD}	Add key (keypad)
{SUBTRACT}	Subtract key (keypad)
{MULTIPLY}	Multiply key (keypad)
{DIVIDE}	Divide key (keypad)

To combine any of these characters with the Shift, Control or Alt keys, the symbols may be preceded with one or more of the following:

Symbol	Meaning
+	Shift key
^	Control key
%	Alt key

Additionally, these control characters can be used:

Symbol	Meaning
\t	Horizontal tabulator
\v	Vertical tabulator
\r	Newline (used in Mac OS up to version 9)
\b	Backspace
\f	Form feed (printer page break, mostly obsolete)