

# SiDiary

For Windows, iPhone, Android and Online

www.sidiary.org

## Instructions to build print- & export-templates for SiDiary

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## 1 General information

Our intention with SiDiary was that you don't just have a few fixed printout alternatives, but that you can design your printouts completely according to your own ideas.

Right now, it's possible, by replacing and adapting the templates, to create txt, csv, rtf, html, xml, MS Excel and OpenOffice Calc files.

The schema is simple: The templates are containing fields ("placeholders") which are replaced with the corresponding information during the print or export function. There are supported lists, which are enclosed by a start- and end identification field. Everything from between these fields is going to be repeated, if there are records in the list. Additionally, there are some expressions, which only take place, if some criteria are fulfilled (**if-construct**). There are also some special placeholders, which are replaced with complete graphics.

Reading all these descriptions here might sound quite complicated to you. Therefore, we recommend, that you simply look at an existing template from the program folder at the same time.

Hint

This one, for example: C:\Program Files (x86)\SINOVO\SiDiary6\Template\Print\ There are three files for each template: an .rtf file (this is the actual template), an .xml

file (which contains the name of the template and the description displayed in SiDiary), and an image file (this is the small graphic preview for this template).



Sometimes it is not even necessary to build a print or export template from scratch. Often you can modify or extend an already existing template from the program or from the website (https://www.sidiary.de/download-vorlagen-211.asp?IDSprache=1) according to your wishes.

Just have a look which template comes closest to your requirements and edit it according to your needs.

In Microsoft Word it can happen that if you have copied a placeholder and pasted it elsewhere, or have simply changed something in it, it does not show the desired result in the printout/preview, but only the placeholder itself.

& Hint This is because Word inserts formatting characters that make the placeholder "invalid". You can avoid this, if you insert the placeholder with the insert option "Adopt text only": right click where you want to insert the placeholder and then select the board with the "A" under "Insert options". Or click with the right mouse button on the desired location

"A" under "Insert options". Or click with the right mouse button on the desired location and then press the letter "t" on your keyboard.

You can also do this with a non-functioning placeholder: mark it, cut it out with Ctrl+x and insert it again at the same place as described above in "Text only".

And if there are any problems: at info@sinovo.de we will be happy to help you.

## 2 List-output with SiDiary

SiDiary supports 5 list outputs:

• List 1 generates a list for all days of the chosen period,

• List 2 generates a data list for all tracked values of the period.

I.e. in the first list you'll get 14 list entries for a period of 14 days, with the second one e.g. 70 entries (by 5 average values a day).

The following example for a list section in a SiDiary template

```
[LIST_START_2]
[DATE] [TIME]: [BLOOD_GLUCOSE], carbintake: [BE_KHE] gr. carbs
[LIST_END_2]
```

would produce a result from below:

```
08/07/2004 07:15: 107, carbintake: 72 gr. carbs
08/07/2004 10:35: 89, carbintake: 0 gr. carbs
08/07/2004 12:45: 131, carbintake: 60 gr. carbs
08/07/2004 04:05p: 99, carbintake: 24 gr. carbs
08/07/2004 11:00p: 108, carbintake: 0 gr. carbs
```

SiDiary repeats the complete section, if there are values for the type of the list. Within this list section, only the placeholders are filled with information's, the rest is not modified (as you can see at the terms "carbintake" and "gr. carbs"!

By using **list type 3** you can create a list of all saved basal profiles of an insulin pump patient, **list 4** will create a weekly output like the simple logbook for conventional therapy in the application user interface. With **list 5** you can create a list of all tracked laboratory results.

## 3 If statements

SiDiary supports a few if constructs. Analogue to the list detail, it is enclosed in a block with an "If" and "End If"

Those expressions will only be visible in the result document, if the appropriate condition has been true.

The "If" statement for remarks is supported so far and also the check-up, if Microsoft Word is available on the system.

An example for a list of all the days entered with remarks in SiDiary. The other days wouldn't be displayed:

[LIST_START_1]	(=Starts a list for all days of the chosen period)
[IF_REMARK]	(=Start the check to see if comments exist)
Remark on [DATE]: [REMARK]	(=Definition of what to output)
[ENDIF_REMARK]	(=End of check to see if comments exist)
[LIST_END_1]	(=End of the list with all days of the selected period)

#### The result could look like:

Remark on 08/01/ 2004: tennis training in the evening. Remark on 08/05/2004: tennis competition. Remark on 08/08/2004: maybe forgot the bolus for breakfast?!

If-Fields	Condition
[IF_WINWORD_AVAILABLE]	If MS Word is installed and available.
[IF_REMARK]	If there's a remark for the current day.
[IF_EXERCISES]	If there's an exercise item for the current day.
[IF_PUMPER]	If the patient is pumper.
[IF_NOT_PUMPER]	If the patient is <u>no</u> pumper.
[IF_QUESTION]	If the patient has tracked a question/comment for the current day.
[IF_WEIGHT]	If the patient has tracked a body weight value for the current day.
[TYPE_INS]	If the patient has configured his profile with the use of insulin.

## 4 Supported fields/ "placeholder "

## 4.1 Fields outside the list section

Following fields are supported for export and print-outs. These fields can also be applied within list sections:

Fieldname	The placeholder will be replaced by
[CREATED_ON]	The date of creation.
[START_DATE]	The 1st day of the selected period
[END_DATE]	The last day of the selected period.
[NAME]	The name of the patient from the profile data.
[MGDL OR MMOLL]	The adjusted unit from the profile data (i.e. ether mg/dl or mmol/l).
[DIAB_TYPE]	Diabetes type 1 or 2, depending on the patient profile.
[REMARK]	Remark of the actual day (within list sections).
[STAT_HIGHEST]	The highest blood glucose value of the selected period.
[STAT_LOWEST]	The lowest blood glucose value of the selected period.
[STAT_AVERAGE]	The average of the saved blood glucose values in the selected period.
[STAT_NUMBER_OF_VALUES]	The number of the saved blood glucose values in the selected period.
[STAT_A1C]	The calculated A1C (in %) of the selected output period.
[STAT_A1C_MMOL]	The calculated A1C (in mmol/mol) of the selected output period.
[STAT_STD_DEV]	The standard deviation of the selected output period.
[STAT_AVG_CARBS]	The daily average of carb intakes.
[STAT_AVG_BOLUS]	The daily average of bolus insulin (or pills). Only the 1 <sup>st</sup> selected insulin or pill.
[STAT_AVG_BOLUS2]	Like before, but for the 2 <sup>nd</sup> bolus insulin or 2 <sup>nd</sup> type of pill.
[STAT_AVG_BASAL]	The daily average of injected basal insulin (or pills). Only the 1 <sup>st</sup> selected insulin or pill.
[STAT_AVG_BASAL2]	Like before, but for the 2 <sup>nd</sup> basal insulin or 2 <sup>nd</sup> type of pill.
[STAT_AVG_BOLUS_TOTAL]	The daily average of bolus insulin or pills (sum of cells bolus and bolus 2).
[STAT_AVG_BASAL_TOTAL]	The daily average of basal insulin or pills (sum of cells basal and basal 2).
[STAT_DS_INS_TOTAL]	The daily average of all insulin.
[STAT_AVG_INS_TOTAL]	
[STAT_AVG_WEIGHT]	The average body weight from the print time range.
[STAT_HYPO1]	Number of blood glucose readings which are below from the defined hypo limit (patient profile).
[STAT_HYPO2]	Number of blood glucose readings which are tracked by using the minus character (Slight Hypo symptoms)
[STAT_HYPO3]	Number of blood glucose readings which are tracked by using the double minus character (Strong Hypo symptoms)
[STAT_HYPER]	Number of blood glucose readings which are higher than the defined hyper limit (patient profile)
[INS_KGKG]	The ratio of insulin per kg bodyweight. Please find more details about this parameter in SiDiary's manual.
[STAT_AVG_NUMBER_OF_VALUES]	The average number of readings per day.
[TARGET_MIN]	The lower-bound of the entered target range.
[TARGET_MAX]	The upper bound of the entered target range.

Fieldname	The placeholder will be replaced by
	The patient's hypo limit from the profile tab.
[TARGET_HYPO]	
[TARGET_HYPER]	The patient's hyper limit from the profile tab.
[BD_SYS_TARGET_MIN]	The lower-bound of blood pressure target range (Systole)
[BD_SYS_TARGET_MAX]	The upper-bound of blood pressure target range (Systole)
[BD_DIA_TARGET_MIN]	The lower-bound of blood pressure target range (Diastole)
[BD_DIA_TARGET_MAX]	The upper-bound of blood pressure target range (Diastole)
	The limiting value, as a value is categorized in "very high" (current
	200 mg/dl).
[BASIS_MED_1]	The name of the 1 <sup>st</sup> chosen basal insulin/pill.
[BASIS MED 2]	The name of the 2 <sup>nd</sup> chosen basal insulin/pill.
[BOLUS_MED_1]	The name of the 1 <sup>st</sup> chosen bolus insulin/pill.
[BOLUS_MED_2]	The name of the 2 <sup>nd</sup> chosen bolus insulin/pill.
[RECORDCOUNT]	The number of records, which were added to the list section, e.g.
	the number of days of the selected period.
[LANGTEXT_xxx]	Will be replaced with a text from the language file, where xxx must
	be a valid text id.
[CONTROL_TIME_xx]	Gives the control type: xx=1: before breakfast, xx=2: after
	breakfast, xx=3: before lunch,, xx=6: all values.
[PUMP_NAME]	The pump type that has been entered on the basal profile
	maintenance screen.
[CARB_RATIO_1]	The breakfast carb ratio.
[CARB_RATIO_2]	The lunch carb ratio.
[CARB_RATIO_3]	The dinner carb ratio.
[CORR_RATIO_1]	The breakfast correction ratio.
[CORR_RATIO_2]	The lunch correction ratio.
[CORR_RATIO_3]	The dinner correction ratio.
[CARB_EX]	References the configured carb exchange unit from the settings.
[TEMPLATE_NAME]	Refers to the template file name.
[LABVALUE_SELECT]	
[LABVALUE_SELECT]	If a template contains this placeholder SiDiary will show a lab parameter selection screen. The user can pick one of the existing
	lab parameters and SiDiary will create the lab value report (line
	graph) for the selected parameter.
[LAB_TARGET_MIN]	Returns the lower reference range of the laboratory value for
	which the history graph is generated.
[LAB TARGET MAX]	The lower-bound of the reference range of the lab parameter.
[LAB_UNIT]	The upper-bound of the reference range of the lab parameter.
[BIRTHDATE]	
	The patient's birthdate.
[PAT_DEVICES] [UDTVALUE_SELECT]	A list of devices which the patient has selected in his profile. If this placeholder is included in a template, SiDiary displays a
	UDT parameter selection before printing. The user then selects
	the parameter for which the history graphic is generated. See the
	template "UDTDatenverlauf.rtf" for example.
[UDT_TARGET_MIN]	
	Returns the lower reference range of the UDT parameter for which the graph is generated.
[UDT_TARGET_MAX]	Returns the upper reference range of the UDT parameter for which the graph is generated
	which the graph is generated.
[UDT_UNIT]	Returns the unit of the UDT parameter for which the graph is
	generated.
[TREND_DATE_START]	The starting date of the comparison time range of the trend
	analysis
[TREND_DATE_END]	The end date of the comparison time range of the trend analysis.
[NAME_FULL]	Will insert the complete patient name including the birth date like
	"Last name, First name (Birthdate)"
[WEIGHT_UNIT]	The configured bodyweight unit.
[CARB_UNIT]	The configured carb unit.

## 4.2 Fields inside a daily list (LIST\_1)

Following fieldnames are supported in sections which are bracket in [LIST\_START\_1] and [LIST\_END\_1]:

Fieldname	The placeholder will be replaced by
[TAG] [DAY]	Date of the actual list element.
[GW1]	The 1 <sup>st</sup> limiting value for categorization of the blood glucose level (=the
[]	lower bound of the BG target range).
[GW2]	The 2 <sup>nd</sup> limiting value for categorization of the blood glucose level (=the
[]	middle of the BG target range)
[GW3]	The 3 <sup>rd</sup> limiting value for categorization of the blood glucose level (=the
	upper bound of the BG target range)
[GW4]	The 4 <sup>th</sup> limiting value for categorization of the blood glucose level
	(=currently 200 mg/dl. The limit for blood glucose levels to be categorized
	as "very high").
[GW5]	The 5 <sup>th</sup> limiting value for categorization of the blood glucose levels (limiting
	value 4 + 50 mg/dl).
[GW6]	The 6 <sup>th</sup> limiting value for categorization of the blood glucose level (limiting
	value 5 + 50 mg/dl).
[UHRx]	The entered time of the actual day. X can be 1-8, each for the 1 <sup>st</sup> -8 <sup>th</sup>
	column.
[Brc]	Each blood glucose level according to the grid cell, whereas c needs to be
	replaced by column and r needs to be replaced by a row number, e.g. B14
	for a blood glucose value in the first column and the 4 <sup>th</sup> row.
[BLOOD_GLUCOSEx]	The entered blood glucose level of each column (x=18).
[Uax]	The entered ketone value of each column (x=18)-
[Bex]	The entered number of carbs or exchanges of each column (x=18)-
[Box]	The entered bolus value of each column (x=18)-
[Bax]	The entered basal value of each column (x=18)-
[BDx]	The entered blood pressure of each column (x=18)-
[Rax]	The carb ratio that has been used in the column $(x=18)$ .
[REMARK]	Remark text of the actual day of the list.
[SUM_BOLUS_1]	The daily sum of the 1. Bolus drug.
[SUM_BOLUS_2]	The daily sum of the 2. Bolus drug.
[SUM_BOLUS]	The daily sum of both bolus drugs.
[SUM_BASIS_1]	The daily sum of the 1. Basal drug.
[SUM_BASIS_2]	The daily sum of the 2. Basal drug.
[SUM_BASIS]	The daily sum of both basal drugs.
[SUM_CARB]	The daily sum of carbs or carb exchanges.
[WEIGHT]	The weight of the current day.
[EXERCISES]	A comment line containing all exercises of the day, concatenated with a
	timestamp.
[ROW]	The number of the current list element (day). This can be of interest for
	export, for example, with a unique counter for the data record
[PAGE_BREAK_AFTER_SUNDAY]	This parameter can be used in RTF templates only. It will insert a RTF
	"Page break" mark if the current day of the loop was a Sunday. By using
	this mechanism, you can ensure that the new week will start on a new
	page.
[24H]	Please see chapter 4.2.1
[CONTROL_TIME_X]	Refers to the time range specified in the control times screen: 0-before
	breakfast, 1-After breakfast, 2-Before lunch,, 5-after dinner, 6-Night, 7-
	All times.
[CARB_RATIO_DET_X]	The extended carb ratio from the profile. X can be 023 (hour).
[CORR_RATIO_DET_X]	The extended correction ratio from the profile. X can be 023.
[QUESTION]	Will insert the question/remark which the patient has tracked for a logbook
	day.

Example of a list section for all days for a chosen period of time:

#### [LIST\_START\_1][TAG]

[MGDL_ OR_MM OLL]	[Uhr1 ]	[Uhr2 ]	[Uhr3 ]	[Uhr4 ]	[Uhr5 ]	[Uhr6 ]	[Uhr7 ]	[Uhr8 ]
[GW6]	[B71]	[B72]	[B73]	[B74]	[B75]	[B76]	[B77]	[B78]
[GW5]	[B61]	[B62]	[B63]	[B64]	[B65]	[B66]	[B67]	[B68]
[GW4]	[B51]	[B52]	[B53]	[B54]	[B55]	[B56]	[B57]	[B58]
[GW3]	[B41]	[B42]	[B43]	[B44]	[B45]	[B46]	[B47]	[B48]
[GW2]	[B31]	[B32]	[B33]	[B34]	[B35]	[B36]	[B37]	[B38]
[GW1]	[B21]	[B22]	[B23]	[B24]	[B25]	[B26]	[B27]	[B28]
	[B11]	[B12]	[B13]	[B14]	[B15]	[B16]	[B17]	[B18]
[LANGT EXT_43]	[UA1]	[UA2]	[UA3]	[UA4]	[UA5]	[UA6]	[UA7]	[UA8]
[LANGT EXT_44]	[BE1]	[BE2]	[BE3]	[BE4]	[BE5]	[BE6]	[BE7]	[BE8]
[LANGT EXT_144 ]	[BO1]	[BO2]	[BO3]	[BO4]	[BO5]	[BO6]	[BO7]	[BO8]
[LANGT EXT_143 ]	[BA1]	[BA2]	[BA3]	[BA4]	[BA5]	[BA6]	[BA7]	[BA8]
[LANGTE XT_47]	[BD1]	[BD2]	[BD3]	[BD4]	[BD5]	[BD6]	[BD7]	[BD8]

[IF\_REMARK]Remark: [REMARK][ENDIF\_REMARK]

[LIST\_END\_1]

#### Example of a 24-hour grid display of the logbook:

[\$CONST\_OneSheetPerDay=1]

LIST_START	_1]																								
[WTAG] [DATE\$FORMAT DAT(DD.MM.)]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Summe
[GW6]																									
[GW5]																									
[GW4]																									ø
[GW3]																									[24HSBZ]
[GW2]																									[240362]
[GW1]																									
																									[24HSBE]
Bolus	[24H [24H																								
Basal	[24H NS]																								
Bemerkung: [24H	IREN	/AR	(]																						

[PAGE\_BREAK\_AFTER\_SUNDAY] [LIST\_END\_1

### 4.2.1 24H-Placeholders within list type 1 (LIST\_1)

Beside of the placeholders from the previous chapter you can use these special placeholders which are scaling the tracked data into a 24-hour scheme. Those fields are all starting with "24H" following by the hour (01 until 24). After this prefix you can use the type of information, like BE for carbs or BZ for blood glucose levels.

Examples:

[24H07BE] Refers to a carb value from between 6am and 6:59am

[24H16BZ]

A blood glucose level from between 3pm and 3:59pm

Fieldname	The placeholder will be replaced by
[24H	Starting prefix to show that a 24-h placeholder is referred. Must
	be followed by the hour information and the information type from
	below
…01… bis …24…	Hour information of the referred data type
BE]	Carbs value
BZ]	Blood glucose value
UA]	Event information
BO]	Bolus value
BA]	Basal value
PR]	Only for Pump users: Outputs the basal rate for the respective
	hour from the basal profile management.
[24HSBZ]	Blood glucose average of this day.
[24HSBE]	Daily sum of carbs.
[24HSBO]	Daily sum of bolus
[24HSBA]	Daily sum of basal
[24HINS]	Daily sum of all insulin
[\$CONST_OneSheetPerDay=1]	You must include this placeholder in a template which you want
	to use for a 24H-presentation of your data. This constant will tell
	SiDiary to only show 1 table per day.
[24HREMARK]	Special placeholder for the remarks of the day, which, in addition
	to the logged remarks, also contains suppressed values if more
	than one input was contained within an hour. Example: 07:10 is
	measured BZ, 07:50 again. The second measurement is then
	displayed in the remarks if necessary, since the 07:00 o'clock
	column is already occupied. (First, the second measurement is
	tried to be placed in one of the two neighbouring columns.
	However, if this neighbouring column is already occupied by
	something else, then this cannot work).
[Used_Events]	If one or more events are entered for the respective day, you can
	use this placeholder to insert a list of the event abbreviations
	used and their meaning.

#### 4.2.2 Pictures of the day

Since version 6.1.1309 it is possible to add up to 5 pictures to the diary, e.g. photos of the meal or to document the healing process of wounds.

In order to be able to print out these pictures there are certain placeholders, in their place then the respective pictures from the logbook are inserted.

These placeholders should also be within the space between [LIST\_START\_1] and [LIST\_END\_1]. They look like this:

[GRAPHIC\_LOGPIC\_DATE\_1\_200\_200] [GRAPHIC\_LOGPIC\_DATE\_2\_200\_200] [GRAPHIC\_LOGPIC\_DATE\_3\_200\_200] [GRAPHIC\_LOGPIC\_DATE\_4\_200\_200] [GRAPHIC\_LOGPIC\_DATE\_5\_200\_200]

With this example the images 1 to 5 are inserted in a size of 200x200 pixels.

If no pictures are available for the respective day, however, a certain place is kept free by these placeholders. You can avoid this space either by deleting this placeholder in the template (if you never want to add and print images), or by opening the template as a preview and then manually deleting the space.

## 4.3 Fields inside a data list of type (LIST\_2)

Following fields are supported in sections which are enclosed with [LIST\_START\_2] and [LIST\_END\_2]:

Fieldname	Information inserted the placeholder
[MGDL_OR_MMOLL]	The selected unit from the profile tab.
[DATE]	The date of the actual measuring point.
[TIME]	The time of the actual measuring point.
[REMARK]	The remark of the day from of the measuring point.
[BG]	The blood glucose level of the actual measuring point.
[EVENT]	The event value of the actual measuring point.
[BE_KHE]	The 10rams of carbs of the actual measuring point.
[BE_KHE_NUM]	Like before, but the entries like e.g. 6-7 are resolved like a formula so that there are just numeric outputs (6-7 will be replaced with 6,5).

Fieldname	Information inserted the placeholder
[BOLUS]	The injected units of the bolus insulin of the actual measuring point.
[BOLUS_NUM]	Like before, but there are just numeric values as described for the numeric BE-field, e.g. 2+12 as 14 (2 I.E correction, + 12 I.E. bolus).
[BASAL]	The injected units of basal insulin of the actual measuring point.
[BASAL_NUM]	Analogue to BOLUS_NUM.
[BLOOD_PRESSURE]	The blood pressure of the actual measuring point.
[BASALPROFIL_RATES]	Internal token string representing the internal curve of the basal profile from the logbook day.
[BASALPROFIL_NAME]	The name of the basal profile which is assigned to the weekday.
[UDT_XXX]	By using this field, you can export UDT data. The placeholder will just work for exports but not for print templates! XXX must be replaced by the UDT code which you assigned, e.g. if you added a user-defined-datatype "Steps", you can export the tracked data with placeholder [UDT_STEPS]
[\$CONST_UsingUDT=1]	Must be inserted in an export template if UDT (user-defined data types) should be output.
[\$CONST_UsingCGMS=1]	Must be inserted in an export template if CGMS or Libre data should be output. (In addition to [\$CONST_UsingUDT=1])

Example for a list section for measuring points:

```
[LIST_START_2][DATE];[TIME];[ACETON];[BLOOD_GLUCOSE];[BE_KHE];[BOLUS];[BASA
L];[BLOOD_PRESSURE];[REMARK]
[LIST_END_2]
```

## 4.4 Fields inside a data list of type (LIST\_3)

By using list type 3 you can create a list of all saved basal profiles of a patient using an insulin pump. The following fields are supported in sections which are enclosed with [LIST\_START\_3] and [LIST\_END\_3]:

Fieldname	Information inserted the placeholder
[PROFILE_NAME]	The name of the pump basal profile.
[PUMP_NAME]	Name of the pump model (i.e. Deltec Cozmo)
[GRAPHIC_BASALPROFILE_{a}x{b}]	The basal profile graphs. Please see chapter 4.8
	Type of graphic <b>fields</b> . {a} indicates the desired width in pixels, {b} the height of the image to be inserted

## 4.5 Fields inside a data list of type (LIST\_4)

This list type will create an output like the simple logbook of the user interface. You will get a compact weekly view of your data just like paper logbooks of a conventional therapy. The following fields are supported in sections which are enclosed with [LIST\_START\_4] and [LIST\_END\_4]:

Fieldname	Information inserted the placeholder
[CT_DAT_y]	The date of the day of the current week. Possible values for y are
	between 1 and 7. CT_DAT_1 will give you the date of the first
	day in the current week, CT_DAT_2 the second etc.
[CT_BG_xy]	A blood glucose level from this week: X specifies the column of
	the ct-logbook (1-Breakfast, 2-Lunch, 3-Dinner, 4-Late) and y the
	day of the week (1-7)
[CT_MED_xy]	Will be replaced by the tracked medication. Xy identical to the
	blood glucose placeholder.
[CT_REM]	The tracked remarks of this week
[CT_WEIGHT]	The body weight tracked in the simple logbook.

## 4.6 Fields inside a data list of type (LIST\_5)

With this list type you can create a list of all tracked laboratory values. The following fields are supported in sections which are enclosed with [LIST\_START\_5] and [LIST\_END\_5]:

Fieldname	Information that is inserted into the placeholder
[DATE]	The date when the lab result was measured
[LAB_DEF]	The name of the lab parameter, i.e. A1C
[VALUE]	The lab result value
[UNIT]	The unit of the lab parameter
[REF_MIN]	The lower-bound of the lab parameter's target range
[REF_MAX]	The upper-bound of the lab parameter's target range
[RATING]	A rating of the current lab result: - if the result was below of the target range, + if the result was above from the target and a blank if it's inside the target range.

## 4.7 Fields inside a data list (LIST\_6)

With this list type you can create a list of all defined events. The following fields are supported in sections which are enclosed with [LIST\_START\_6] and [LIST\_END\_6]:

Fieldname	Information that is inserted into the placeholder
[EVENT]	The key (abbreviation) of the event
[GROUP]	The group name/category of the event
[DESC]	The full name of the event
[SEP]	Will be replaced for a comma separator to create an output of a enumeration.

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## 4.8 Type of graphic fields

The following special placeholder can only be used with Microsoft Word. The placeholders will be replaced by the appropriate graphics in defined sizes. The basic syntax of the graphic placeholder is:

[GRAPHIC\_TYPE{a}\_VAL{b}\_{c}x{d}\_BORDER{e}]

The values in the curly bracket have the meaning as following: {a} specifies the graphic type:

- 0 pie chart
- 1 dot graph
- 2 statistic value
- 3 line graph (since version 6 this type is identical to type 4)
- 4 line graph in presentation quality
- 5 Blood pressure (with or without weight curve)
- 6 Regime of weight
- 7 Insulin pie chart
- 8 Bar chart
- 9 Blood pressure pie chart
- 10 Line graph for lab results
- 11 Line Graph for (numeric) UDT (User defined data type)
- 12 TDD course (Total daily dose/the total amount of bolus and basal insulin)
- 13 Glucose profile
- 14 Glucose profile CGMS
- 15 AGP with Time-in-range plus Hypoglycemia evaluation
- 16 Calendar graph
- 17 Glucose profile for BG values

{b} specifies the control type, analogue to the option buttons of the statistic screen:

- 0 before breakfast
- 1 after breakfast
- 2 before lunch
- 3 after lunch
- 4 before dinner
- 5 after dinner
- 6 only night values
- 7 all values
- {c} specifies the width of the graphic in pixel
- {d} specifies the height of the graphic in pixel
- {e} specifies the border width of the frame
- 0->no frame ... 1->1-pixel border width and so on

Following this schema, the example from below shows a fully qualified placeholder:

[GRAPHIC\_TYPE0\_VAL7\_330x250\_BORDER1]

This placeholder outputs a pie chart for all values in the size 330x250 with a frame in the thickness 1 pixel.



The basal profiles can be referenced within a template too.

```
[GRAPHIC_BASALPROFILE_{a}x{b}]
i.e.:
[GRAPHIC BASALPROFILE 300x150]
```

If this field is used within list type 1 (for all days from the selected range), the basal profile that was used at this day will be printed. You can use this field also with list type 3, which will give you a collection of all saved basal profiles.

Also, the trend view can be included with a report by using this placeholder: [GRAPHIC\_TREND\_{a}] i.e. [GRAPHIC\_TREND\_500]

## 5 Excel templates

For Excel templates all the prementioned is valid. The definition of the list sections and placeholder are in a separate Excel sheet (ShE Parser). In this sheet you can specify the placeholders and on which sheet or which cell the placeholder's value should be inserted.

Here an example:

Field	Sheet	Cell, column or row
[START_DATE]	SiDiary	C2
[END_DATE]	SiDiary	C2
[NAME]	SiDiary	C1
[CREATED_ON]	SiDiary	C3
[STAT_HIGHEST]	SiDiary	G2
[STAT_LOWEST]	SiDiary	G1
[STAT_AVERAGE]	SiDiary	G3
[STAT_A1C]	SiDiary	G4
[LANGTEXT_86]	SiDiary	E1
[LANGTEXT_87]	SiDiary	E2
[LANGTEXT_89]	SiDiary	E3
[LANGTEXT_90]	SiDiary	E4
[LANGTEXT_118]	SiDiary	H4
[LANGTEXT_510]	SiDiary	A1
[LIST_START_2]	SiDiary	7
[DATE\$FORMATDAT(DD.MM.YYYY)]	SiDiary	A
[TIME]	SiDiary	В
[BLOOD_GLUCOSE]	SiDiary	С
[BE_KHE]	SiDiary	D
[BOLUS]	SiDiary	E
[BASAL]	SiDiary	F
[LIST_END_2]	SiDiary	7
[\$CALLMAKRO(Table2.SiDiary_ToDo)]	SiDiary	

Single placeholders outside of a list section must have a fully qualified cell reference, i.e. there need to be a column- as well as the cell information's, e.g.: [NAME] SiDiary C1

In this example the patient name is written in the excel sheet named SiDiary into cell C1.

For the list section [LIST\_START\_2] you need to specify the row, which will take the first row of the list:

[LIST_START_2]	SiDiary	7
----------------	---------	---

All fields inside the list section specify the column only, e.g.: [BLOOD\_GLUCOSE] SiDiary

In this example for the 1st measuring point the blood glucose level is written into cell C7, the 2<sup>nd</sup> measuring point for the blood glucose in C8 and so on.

С

Additionally, you can save a macro to the excel template, which can be executed by SiDiary at the end of the report:

[\$CALLMAKRO(Table2.SiDiary\_ToDo)] SiDiary

In the example the macro "SiDiary ToDo" will be executed after inserting the values.

After the export is completed (all replacements and processing of any macros), the complete sheet SiDiary will be deleted. If you want to put a macro to a template, you should save it in the code window of the "SiDiary"-sheet, so that you make sure, that it is going to be deleted at the end of the export.

This way you won't get the message on opening an export result file, that the file contains any macros. The additional achieving of excel macro instructions at the end of an export opens extensible modifications for the SiDiary data.

By using cell references you can use the full power of Excel for creating graphics and statistic evaluations.

## 6 Formatting options for placeholders

All prementioned placeholders, whether inside or outside a list section, can be extended with format information inside the fieldname.

Format information's are preluded by the \$ character. After that char there can follow format information's for date values, substring orders or something like that.

E.g. the field [DATE] can be used as followed: [DATUM\$FORMATDAT(DD.MMMM.YY)] The printed date would have the format as followed: 12. February 2004 (from the value 02/12/2004)

A list of all valid format information's:

Notation of the format specification		Result (of the output)
<pre>\$FORMATNUM(#,##0)\$LFILL(30~w)</pre>		wwwwwwwwwwwwwwwwwwwwwwwwwww
\$FORMATNUM(#,##0.0)\$LFILL(30~w)		wwwwwwwwwwwwwwwwwwwwwwwwu.534,0
\$LFILL(30~w)		wwwwwwwwwwwwwwwwwwwwwww1534
\$LFILL(30~-)		1534
\$RFILL(30~-)		1534
\$RFILL(30~w)		1534wwwwwwwwwwwwwwwwwwwwww
<pre>\$FORMATDAT(dd.MMMM.yyyy)\$LFILL(30~)</pre>		01.Januar.2000
<pre>\$FORMATDAT(dd.MMM yyyy)\$LFILL(30~ )</pre>		01.Jan 2000
<pre>\$FORMATDAT(dd.MM.yyy)\$LFILL(30~)</pre>		01.01.00
<pre>\$UPPER\$LFILL(30~ )</pre>		SIDIARY
<pre>\$LOWER\$LFILL(30~ )</pre>		sidiary
\$LEFT(3)\$LFILL(30~)		SiD
<pre>\$RIGHT(5)\$LFILL(30~ )</pre>		Diary
\$SUBSTRING(0~5)\$LFILL(30~		SiDia
\$LEFT(3)\$RFILL(30~)		SiD
\$RIGHT(5)\$RFILL(30~)		Diary
<pre>\$SUBSTRING(3~2)\$RFILL(30~ )</pre>		ia
\$REPLACE (D~T)		SiTiary

## 7 Registered Trademark

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