

RedCrab *PLUS*

The Calculator

User Manual for the extended functions of RedCrab *Plus*

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<http://www.redchillicrab.com>

RedCrab The Calculator

Version 5.1.3

This program can be used indefinitely as freeware. By purchasing a limited shareware license, additional features are enabled. This manual describes the extended features available in ***RedCrab^{PLUS}*** mode.

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System requirement

*Operating system: Microsoft Windows Vista, W7, W8.x, W10
Framework 4.5 or higher*

Calculation range and accuracy:

Floating point

Accuracy: 15 – 16 digits
Calculation range: $\pm 5 \times 10^{-324}$ to $\pm 1.7 \times 10^{308}$

Hexadecimal: 12 digits

Floating point is due to the large range of values suitable for engineering and scientific calculations.

Decimal

Accuracy: 28-29 digits
Calculation range: from -79,228,162,514,264,337,593,543,950,335
to 79,228,162,514,264,337,593,543,950,335

Is approximate -7.9×10^{28} to 7.9×10^{28}

Hexadecimal: 16 digits

Decimal is suitable due to the small rounding error for financial and monetary calculations.

**Windows ist eingetragenes Warenzeichen der Microsoft Corporation*

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1.1 Units of Measurement

A feature of RedCrab Math is the ability to calculate with units of measurement. Any numbers can be allocated to a unit. RedCrab has a number of predefined units, which are allocated in groups.

Units of a group and the same dimension can be added and subtracted. Multiplication and division is unrestricted, as long as a meaningful result is calculated.

Not meaningful is hectares * hectares or if a dimension <1 is to be calculated (3km / 2km). Correct is 3 km / 2 = 1.5 km.

Example:

$3\text{km} + 2\text{km} = 5\text{km}$	(kilometre + kilometre)
$3\text{km} + 245\text{m} = 3245\text{m}$	(kilometre + metre)
$12\text{m} + 5\text{yd} = 18.123\text{yd}$	(metre + yard)
$5\text{yd} + 12\text{m} = 16.572\text{m}$	(metre + yard)
$4\text{m} * 5\text{m} = 20\text{m}^2$	(metre * metre)
$2\text{ha} + 950\text{m}^2 = 20950\text{m}^2$	(hectare + square metre)
$650\text{km} / 5.5\text{h} = 118.18\text{km/h}$	(kilometre / hour)

The result is displayed in the unit of measurement of the right operand. In the unit input box on the math menu band, you can input a preferred unit of measurement, which will be shown instead. The preferred unit of measure is ignored if the result is incompatible.

New units can be derived from the predefined units of measurement.

Example: $\text{dm} = 0.1\text{m}$
 $3\text{dm} + 25\text{cm} = 55\text{cm}$

The names of the units can be overloaded by assigning a value to them.

Example: $\text{m} = 15$

In the example above, m is defined as a normal variable which represents a value of 15. In this case the name m cannot be used as a unit of measurement.

1.2 List of Units of Measurement

Group Dimensions

Length

µm	Micrometre	0.000001
mm	Millimetre	0.001
cm	Centimetre	0.01
m	Metre	1
km	Kilometre	1000
mil	Thou	0.0000254
in	Inches	0.0254
ft	Feet	0.3048
yd	Yards	0.9144
ftm	Fathom	1.8288
mi	Miles	1609.344
nmi	Nautical mile	1852
au	Astronomical unit	149598550000

Area

ac	Acres	4046.8564224
ha	Hectares	10000

Volume

L	Litre	0.001
Impgal	ImperialGallon	0.00454609
USliqgal	USLiquidGallon	0.003785411784
USdrygal	USDryGallon	0.00440488377086

Group Weight

mg	Milligram	0.001
g	Gram	1
kg	Kilogram	1000
t	Tonne	1000000
kt	Kilotonne	1000000000
Mt	Megatonne	1000000000000
Gt	Gigatonne	1000000000000000
oz	Ounce	28.349523
lb	Pound	453.59237
tnsh	Short tonne	907184.74
tnlts	Long tonne	1016046.909

Group Temperature

K	Kelvin	-273.15
---	--------	---------

Group Pressure

Bar	Bar	100000
Pa	Pascal	1
kPa	Kilopascal	1000
mmHg	Millimetre of Mercury	133.322387415
atm	Atmospheres	101325
psi	Pound Per Square Inch,	6894.757

Group Energie

J	Joules,	1
kJ	Kilojoules,	1000
cal	Calories	4.1868
kcal	Kilocalories	4186.8
BTU	British thermal unit	1055.056
eV	Electron Volts	$1.60217653 \times 10^{-19}$

Group Power

W	Watts	1
kW	Kilowatts	1000
hp	Horse Power	745.699872
PS	Pferde Staerke	735.49875

Group Time

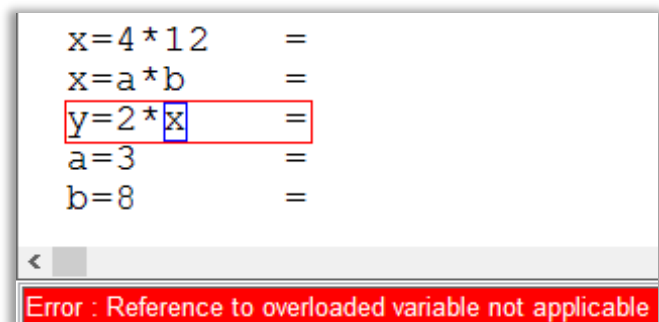
ps	Pico Second	0.000000000001
ns	Nano Second	0.000000001
µs	Micro Second	0.000001
ms	Milli Second	0.001
s	Second	1
h	Hour	3600
d	Day	86400

Groupe Force

N	Newton	1
lbf	Pound Force	4.4482216152606

1.3 Calculate Selected Formulas

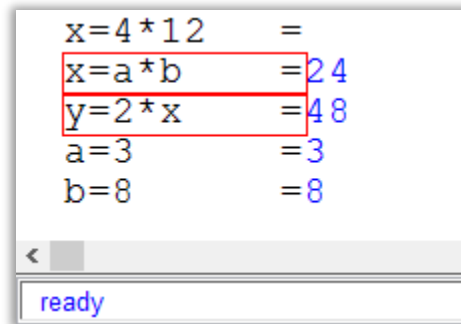
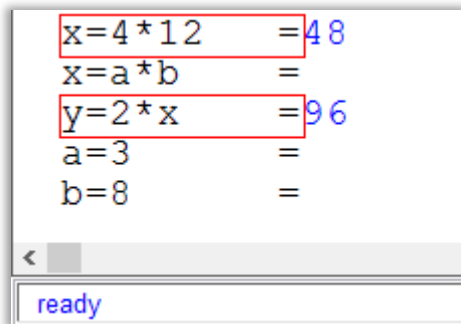
On worksheets which contain a collection of formulas, you can select one or more of them. The following calculation considers the selected formulas only. This can be useful when a worksheet contains different formulas for the same result.



Select the formulas with a click of the right mouse button. The selected formulas are marked with a red frame.

The example on the right shows an error message because the reference variable x has two different definitions.

In the examples below, the variable y is calculated with one of the values of x , controlled by the selection.



The selection is available for the imminent calculation and will be reset when the calculation terminates.

Result boxes work with selected formulas as well. When in the example above the variable x has a reference to a result box, the result box displays the result of the selected formula.

When a slider is inserted in the worksheet, the slider works only imminently after a calculation which was executed with the **Enter** key or button. After a change on the worksheet, the selection is invalid.

Tutor video: http://www.redchillicrab.com/en/redcrab/tutor/selected_range.html

1.4 Define a Function

In **RedCrab** you can define your own functions. The function definition begins with the name on the left, like a definition of a variable. The function symbol and the formal parameter list are in the middle, and the expression is on the right. To get the function symbol, press the keys **Ctrl + 5**.

Example:

$$P = f(x, y) = \sqrt{x^2 + y^2}$$

The example below shows how to call a function that returns the result of an expression. A call of a self-defined function must be marked with the function symbol left of the function name.

$$P = f(x, y) = \sqrt{x^2 + y^2}$$

$$fP(3, 4) = 5$$

$$fP(a, b) = 10$$

$$a=6 \quad b=8$$

The arguments can be values, variable names, another function or any expressions.

$$P = f(x, y) = \sqrt{x^2 + y^2}$$

$$fP\left(\frac{144}{a*4}, f_t(4)\right) = 10$$

$$a=6 \quad t=f(x)=2*x$$

1.4.1 Scope of Function Parameters

The variables, defined as formal parameter, have own scope inside the function. They can be referenced in the function only and not outside their function. It is allowed and makes no difference, if the same names in the argument list are defined and used

elsewhere in the worksheet.

Inside the function you can use in addition to the parameter all other variables, which are defined elsewhere in the worksheet.

2.0 Functions

The following section describes the RedCrab financial functions. All the functions can be entered per mouse click on the function panel or via the keyboard. The function panel includes tool tips with short description and examples for all functions.

2.1 Financial Functions

Fddb returns a value specifying the depreciation of an asset for a specific time period using the double-declining balance method or some other method you specify.

Syntax: fddb (Cost, Salvage, Life, Period)

Optional: fddb (Cost, Salvage, Life, Period, Factor)

Parameter:

Cost specifying initial cost of the asset.

Salvage specifying value of the asset at the end of its useful life.

Life specifying length of useful life of the asset.

Period specifying period for which asset depreciation is calculated.

Factor specifying rate at which the balance declines. If omitted, 2 (double-declining method) is assumed.

FFV returns the future value of an annuity based on periodic, fixed payments and a fixed interest rate.

Syntax: `ffv (Rate, NPer, Pmt)`

Optional: `ffv (Rate, NPer, Pmt, PV)`
 `ffv (Rate, NPer, Pmt, PV, Due)`

Parameters:

Rate is the interest rate per period. For example, if you get an annual percentage rate (APR) of 6 percent and make monthly payments, the rate per period is $6/12$, or 0.5.

NPer specifies the total number of payment periods in the annuity. For example, if you make monthly payments, you have a total of 4×12 (or 48) payment periods.

Pmt specifying payment to be made each period. Payments usually contain principal and interest that doesn't change over the life of the annuity.

PV optional specifying present value (start value) of a series of future payments. If omitted, 0 is assumed.

Due optional specifying when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed.

FIPmt specifying the interest payment for a given period of an annuity based on periodic fixed payments and a fixed interest rate.

Syntax: `fipmt (Rate, Per, NPer, PV,)`

Optional: `fipmt (Rate, Per, NPer, PV, FV)`
 `fipmt (Rate, Per, NPer, PV, FV, Due)`

Parameters:

- Rate*** is the interest rate per period. For example, if you get a car loan at an annual percentage rate (APR) of 6 percent and make monthly payments, the rate per period is 6/12, or 0.5.
- Per*** specifies the payment period in the range 1 through NPer.
- NPer*** specifies the total number of payment periods in the annuity. For example, if you make monthly payments on a four-year car loan, your loan has a total of 4×12 (or 48) payment periods.
- PV*** is the present value (or lump sum). For example, when you borrow money to buy a car, the loan amount is the present value.
- FV*** optional specifying future value or cash balance you want after you have made the final payment. For example, the future value of a loan is \$0 because that is its value after the final payment. However, if you want to save \$50,000 during 18 years for your child's education, then \$50,000 is the future value. If omitted, 0 is assumed.
- Due*** optional specifies when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed

FIRR returns the internal rate of return for a series of periodic cash flows (payments and receipts).

Syntax: `firr (ValueArray)`

Optional: `firr (ValueArray, Guess)`

Parameter:

ValueArray is an array of cash flow values. The array must contain at least one negative value (a payment) and one positive value (a receipt).

Guess optional specifying value you estimate will be returned by FIRR. If omitted, Guess is 10 percent

FMIRR returns the modified internal rate of return for a series of periodic cash flows (payments and receipts).

Syntax: fmirr (ValueArray, FinanceRate, ReinvestRate)

Parameter:

ValueArray is an array of cash flow values. The array must contain at least one negative value (a payment) and one positive value (a receipt).

FinanceRate specifying interest rate paid as the cost of financing.

ReinvestRate specifying interest rate received on gains from cash reinvestment

FNPer returns the number of periods for an annuity based on periodic fixed payments and a fixed interest rate.

Syntax: fnper (Rate, Pmt, PV)

Optional: fnper (Rate, Pmt, PV, FV)
 fnper (Rate, Pmt, PV, FV, Due)

Parameters:

- Rate*** is the interest rate per period. For example, if you get a car loan at an annual percentage rate (APR) of 6 percent and make monthly payments, the rate per period is 6/12, or 0.5.
- Pmt*** specifying payment to be made each period. Payments usually contain principal and interest that does not change over the life of the annuity.
- PV*** is the present value (or lump sum). For example, when you borrow money to buy a car, the loan amount is the present value.
- FV*** optional specifying future value or cash balance you want after you have made the final payment. For example, the future value of a loan is \$0 because that is its value after the final payment. However, if you want to save \$50,000 during 18 years for your child's education, then \$50,000 is the future value. If omitted, 0 is assumed.
- Due*** optional specifies when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed

FNPV returns the net present value of an investment based on a series of periodic cash flows (payments and receipts) and a discount rate.

Syntax: fnpv (Rate, ValueArray)

Parameter:

Rate the discount rate over the length of the period.

ValueArray is an array of specifying cash flow values. The array must contain at least one negative value (a payment) and one positive value (a receipt)

FPmt specifying the payment for an annuity based on periodic, fixed payments and a fixed interest rate.

Syntax: fpmt (Rate, NPer, PV)

Optional: fpmt (Rate, NPer, PV, FV)
fpmt (Rate, NPer, PV, FV, Due)

Parameters:

Rate is the interest rate per period. For example, if you get a car loan at an annual percentage rate (APR) of 6 percent and make monthly payments, the rate per period is $6/12$, or 0.5.

NPer specifies the total number of payment periods in the annuity. For example, if you make monthly payments on a four-year car loan, your loan has a total of 4×12 (or 48) payment periods

PV specifies the present value (or lump sum). For example, when you borrow money to buy a car, the loan amount is the present value

FV optional specifying future value or cash balance after final payment is made. For example, the future value of a loan is \$0 because that is its value after the final payment. However, if you want to save \$50,000 during 18 years for your child's education, then \$50,000 is the future value. If omitted, 0 is assumed.

Due optional specifies when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed.

FPPmt specifying the principal payment for a given period of an annuity based on periodic fixed payments and a fixed interest rate.

Syntax: `fppmt (Rate, Per, NPer, PV,)`

Optional: `fppmt (Rate, Per, NPer, PV, FV)`
`fppmt (Rate, Per, NPer, PV, FV, Due)`

Parameters:

Rate is the interest rate per period. For example, if you get a car loan at an annual percentage rate (APR) of 6 percent and make monthly payments, the rate per period is $6/12$, or 0.5

Per specifies the payment period in the range 1 through ***NPer***.

NPer specifies the total number of payment periods in the annuity. For example, if you make monthly payments on a four-year car loan, your loan has a total of 4×12 (or 48) payment periods.

PV is the present value (or lump sum). For example, when you borrow money to buy a car, the loan amount is the present value.

FV optional specifying future value or cash balance you want after you have made the final payment. For example, the future value of a loan is \$0 because that is its value after the final payment. However, if you want to save \$50,000 during 18 years for your child's education, then \$50,000 is the future value. If omitted, 0 is assumed.

Due optional specifies when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed.

FPV returns the present value of an annuity based on periodic, fixed payments to be paid in the future and a fixed interest rate.

Syntax: fpv (Rate, NPer, Pmt)

Optional: fpv (Rate, NPer, Pmt, FV)
 fpv (Rate, NPer, Pmt, FV, Due)

Parameters:

Rate is the interest rate per period. For example, if you get a car loan at an annual percentage rate (APR) of 6 percent and make monthly payments, the rate per period is 6/12, or 0.5.

NPer specifies the total number of payment periods in the annuity. For example, if you make monthly payments on a four-year car loan, your loan has a total of 4×12 (or 48) payment periods.

Pmt specifying payment to be made each period. Payments usually contain principal and interest that does not change over the life of the annuity.

FV optional specifying future value or cash balance you want after you have made the final payment. For example, the future value of a loan is \$0 because that is its value after the final payment. However, if you want to save \$50,000 during 18 years for your child's education, then \$50,000 is the future value. If omitted, 0 is assumed.

Due optional specifies when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed

FRate returns the interest rate per period for an annuity.

Syntax: frate (NPer, Pmt, PV)

Optional: frate (NPer, Pmt, PV, FV)
 frate (NPer, Pmt, PV, FV, Due)
 frate (NPer, Pmt, PV, FV, Due, Guess)

Parameters:

NPer specifies the total number of payment periods in the annuity. For example, if you make monthly payments on a four-year car loan, your loan has a total of 4×12 (or 48) payment periods.

Pmt specifying payment to be made each period. Payments usually contain principal and interest that does not change over the life of the annuity.

PV is the present value (or lump sum). For example, when you borrow money to buy a car, the loan amount is the present value.

- FV*** optional specifying future value or cash balance you want after you have made the final payment. For example, the future value of a loan is \$0 because that is its value after the final payment. However, if you want to save \$50,000 during 18 years for your child's education, then \$50,000 is the future value. If omitted, 0 is assumed.
- Due*** optional specifies when payments are due. This argument must be either 0, if payments are due at the end of the payment period, or 1, if payments are due at the beginning of the period. If omitted, 0 assumed.
- Guess*** optional specifying value you estimate will be returned by IRR. If omitted, Guess is 10 percent

FSLN returns a value specifying the depreciation of an asset for a specific time period using the double-declining balance method or some other method you specify.

Syntax: `fsln (Cost, Salvage, Life, Period)`

Parameter:

Cost Specifying initial cost of the asset.

Salvage Specifying value of the asset at the end of its useful life.

Life Specifying length of useful life of the asset

FSYD returns the sum-of-years digits depreciation of an asset for a specified period.

Syntax: `fsyd (Cost, Salvage, Life, Period)`

Parameter:

Cost specifying initial cost of the asset.

Salvage specifying value of the asset at the end of its useful life.

Life specifying length of useful life of the asset.

Period specifying period for which asset depreciation is calculated.

3.0 Programming

RedCrab supports programming of functions with its own program language.

Worksheet formulas have access to all functions of ***RedCrab*** programs. From ***RedCrab*** program, you can call all functions in other ***RedCrab*** program modules.

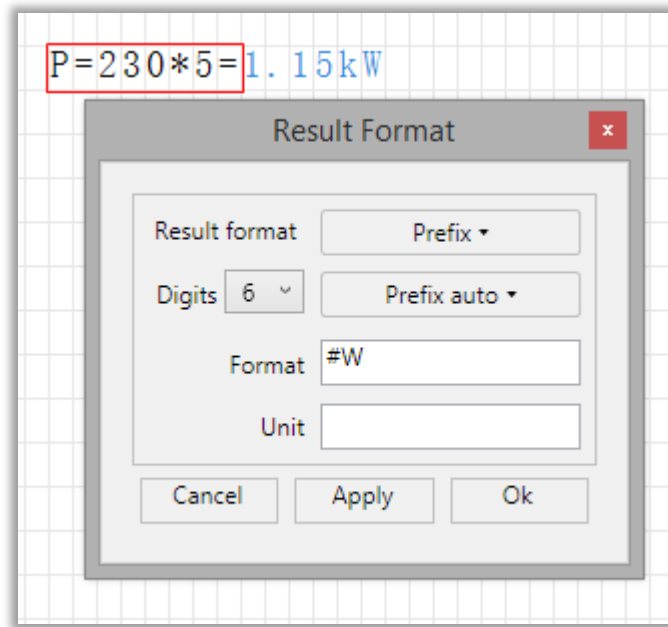
The command language is easy to learn, especially for users without programming experience. The syntax of the interpreter is an extension of the worksheets syntax. That means, all the mathematical functions of the worksheet are also available. Likewise, the definition of variables and data fields is identical with the worksheet.

In addition, the editor contains commands for programming functions, conditional branching (***If***, ***Elseif***, ***Else***) and loops (***While***).

For more information about programming read the separate ***programmer manual***.

4.0 Formatting of Results

The toolbox result format settings are identical for all results. **RedCrab^{PLUS}** can format the results individually for any formula. For this, open the dialog box with double click on the formula symbol (The **P** in the example below).



The menu button on the top sets the main format like the worksheet formatting. The second button changed the prefix, if the main format **Prefix** is selected. The combo box next to the left changed the decimal places.

In the edit line **Format** you can input extended result symbols or text. In the example above (#W) the rhombus (#) is the space for the result, the W represent the unit Watt. The chosen main format is **Prefix**. The display shows: 1.15kW.

Text extensions can be left or right of the rhombus. The following table shows few examples in main mode **Prefix**.

Example:

Result	Format text	Result format
0.012		12m
0.012	#W	12mW
0.012	Power: # W	Power: 12 mW
125	US\$ #	US\$ 125

The format is bounded to the formula symbol.

4.1 Display of Units of Measurement

If you use units of measurement in your calculation, the result is displayed in the unit that was entered on the right in the expression.

Example:

$$2\text{km} + 2\text{mi} = 3.24\text{mi}$$
$$2\text{mi} + 2\text{km} = 5.22\text{km}$$

In the editor line **Unit** you can specify a different unit of measurement that is always displayed when this unit is compatible with the result. The specification is ignored by incompatible results.

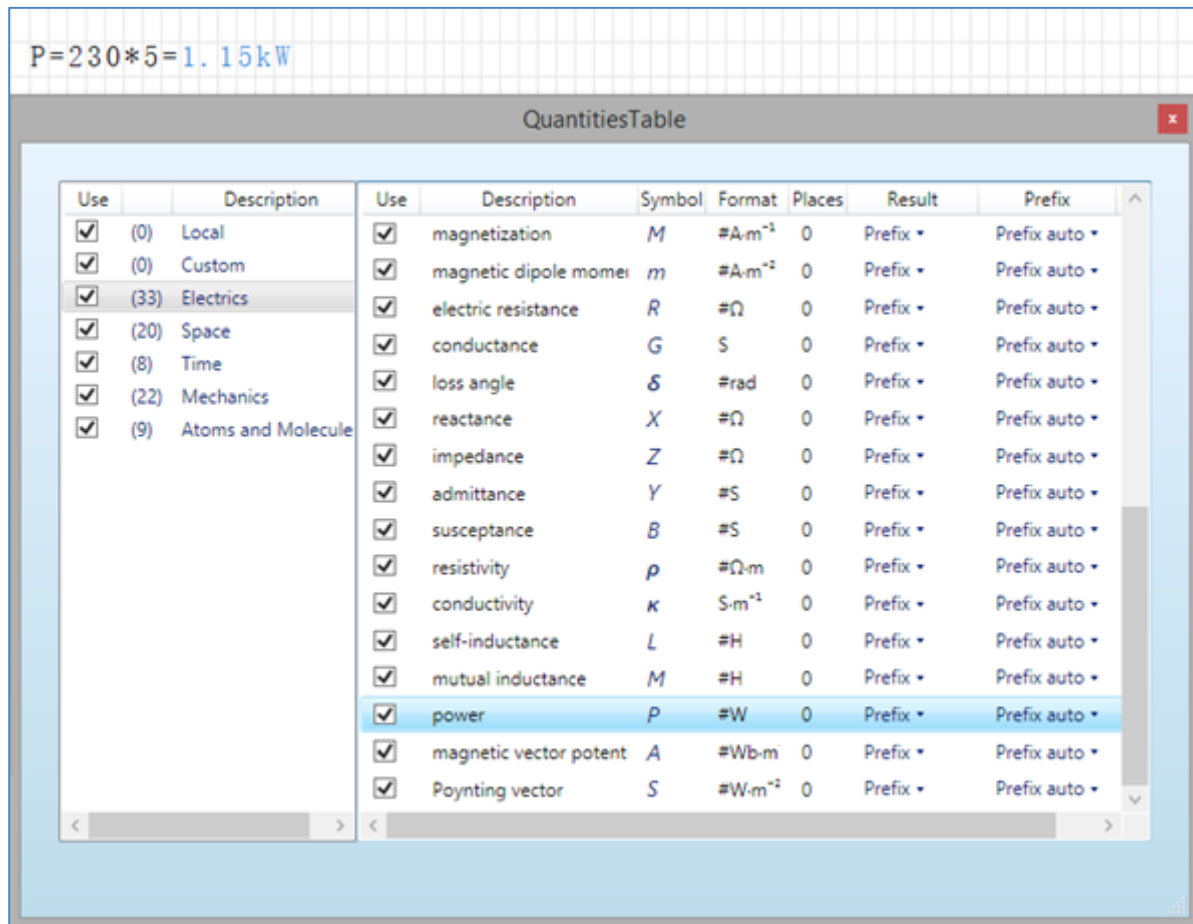
4.2 Formatting Tables

RedCrab contains a number of predefined formattings of the commonly used symbols. Use the menu / button **Formatting table** to open a window which displays the tables of all formattings.

The table **Local** contains formattings, defined by yourself in this worksheet. These formats are saved with the document and are only in this document available.

In the **Custom** table you can compose a personal list of defined formats, by copying them from the **Local** or the predefined tables. The **Custom** table is saved with the default settings of the programme and is available on each worksheet.

The formats can be individually or in groups enabled or disabled with check boxes.



4.3 Edit Formattings

A click with the right mouse button on the formula symbol opens a popup menu. With this you can delete an entry or copy them to the **Custom** table. You cannot delete the predefined table entries permanently; they are available again after the next restart.

The column **description**, **format** and **places** can be edited. Double-click on the text that you want to change to open the editor. Terminate the input with **Enter**.

Result and Prefix can be changed using pull down menus.

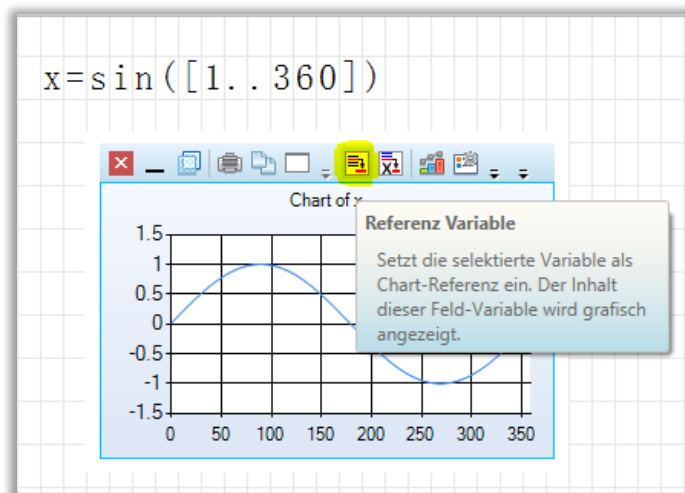
The formats are saved as *.xml files in the subdirectory/tools/symbols by the RedCrab startup directory.

5.1 Display Results Graphically with Charts



RedCrab provides chart boxes to display results graphically. To open a chart box, select a range on the worksheet with the mouse pointer and click the ***Insert Chart box*** button. Later you can change the size and the position of the box with the mouse pointer.

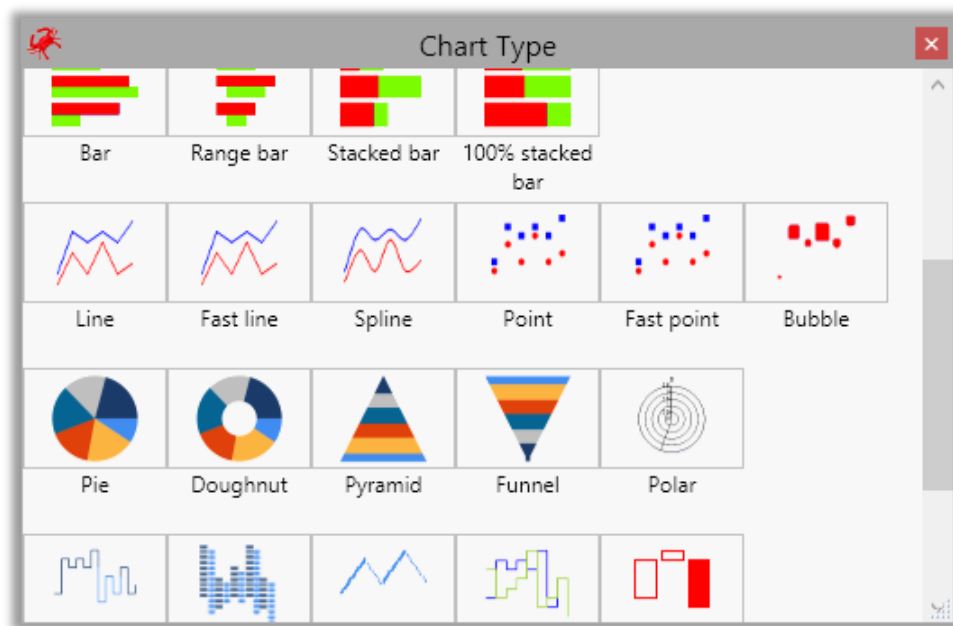
To make a reference to a variable, position the cursor per mouse click on the variable; then click the button ***Reference variable*** or click the item on the chart popup menu.



5.1.1 Chart Type

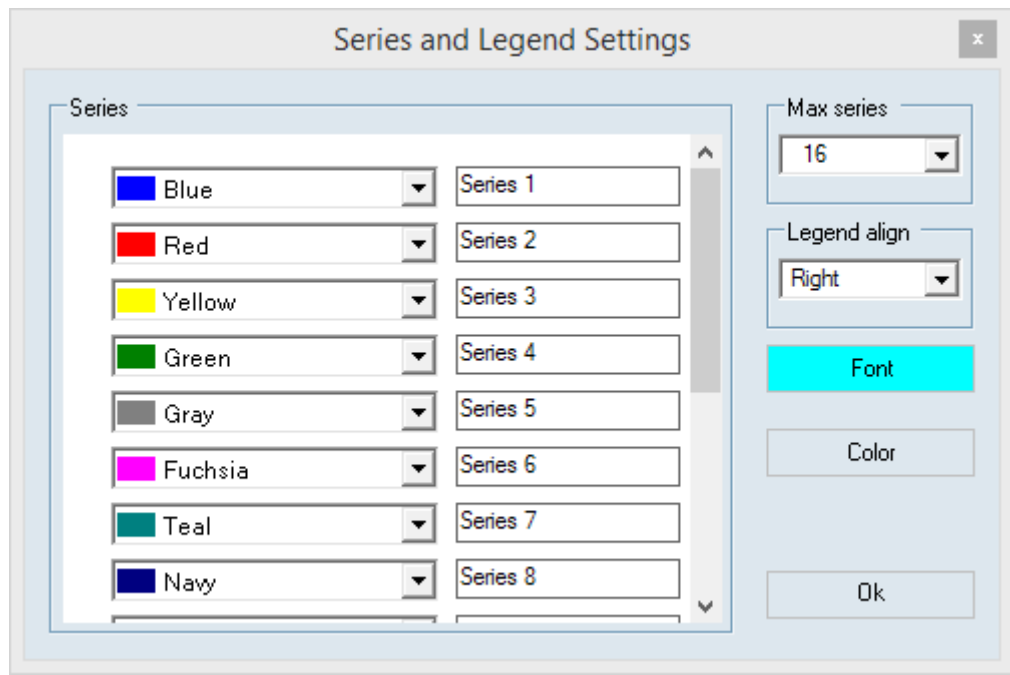


The button **Chart types** opens a dialog box to choose between different chart types. To choose a chart type, first click on the chart box. Then click the chart icon. Do note that different chart types need different data format. All icons show tool tips with notes if the mouse is moved over them.



5.1.2 Legend Settings

Legend settings open a dialog window to change the series names, colours and the legend position.



In **RedCrab** 16 different colours for drawing of series are presented. If you use more than 16 series in a chart, beginning with series 17, the colours will repeat. The series name is displayed with the word **Series** and a current number.

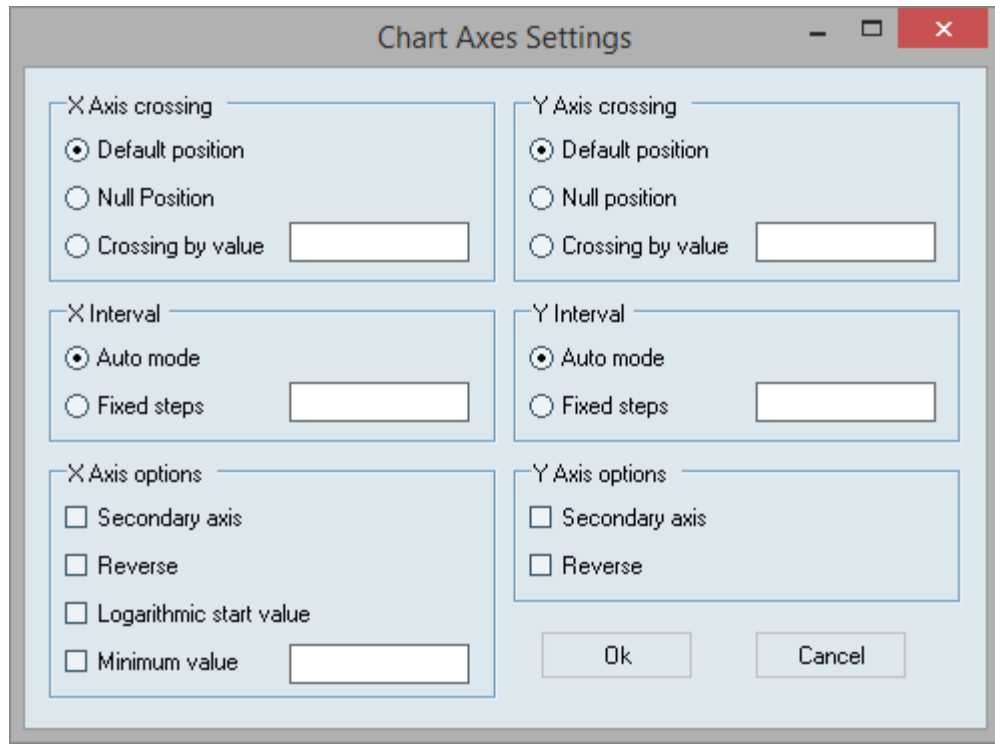
The dialog window contains 16 combo boxes to change the series colours and 16 editor boxes to assign the series name. If you need more than 16 series you can extend the list with the combo box **Max series**.

Max series does not limited the number of series of a chart box, it only specify the length of the list. If **Max series** is set to 16, and you use 20 series in the chart box, **RedCrab** uses for series 1 to 16, the dialog box colours and text. The series 17 to 20 uses the preset colour and the name **Series** with a current number.

Legend align sets the legend position.

5.1.3 Axis Settings

Axis settings open a dialog window for input of the axes properties. The picture below shows the Axis dialog window.

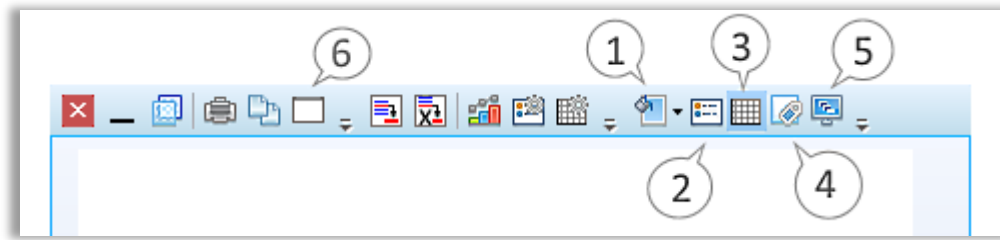


Axis crossing sets the axis position. By default setting, the Y axis is always left from the chart and the X axis at the bottom of the chart. Alternate you can position the axis on the null value of the scale or to a manual entered value.

Interval sets the scale steps on automatic or a manual entered value

Axis options displays with *Secondary axis* an additional axis on the top or on the right side. *Reverse* invert the axes scales. The values of the *X* axis increase from right to left instead from left to right. The values of the *Y* axis increase from top to bottom instead from bottom to top.

5.1.4 Chart Options



1) **Background** selects the chart box background.

- **Flat** displays the chart box with a white background without frame.
- **Single border** displays the chart box with a white background and a small frame.
- **Color** displays the chart box with a single-colored background and a small frame.
- **Default** displays the chart box with default color background and a small frame.

2) **Show legend** switches the legend to the state show or hide.

3) **Show axis** switches the axis in show or hide mode.

4) **Show labels** shows labels with decimal values.

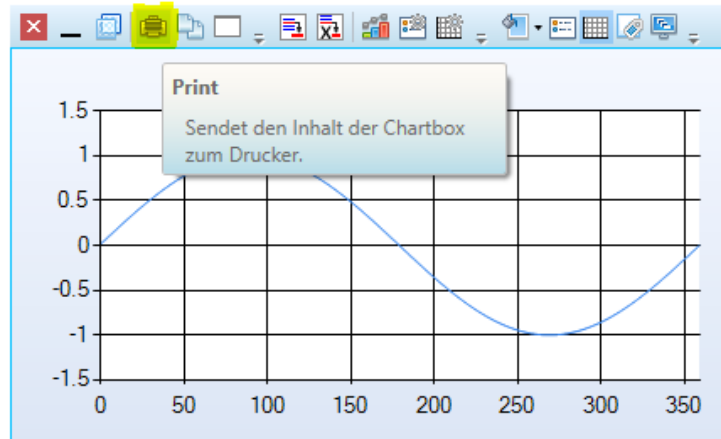
5) **3D chart area** displays the chart area in 3D-design.

6) **Undocked** displays the chart box in a separate window.

5.1.5 Print Chartbox

With the Print button, you can print the chatbox content. A mouse click on the button

opens the printer dialog box.



5.2 Programm Box



The button ***Program box*** on the ***Insert*** tool bar opens an editor box for programming of your own functions. For more information read the ***Programmers Manual***.

5.3 Insert Pictures

For complex technical calculations, it might be useful to include pictures to mathematical formulas. **RedCrab** supports insert of images in any position on the worksheet.

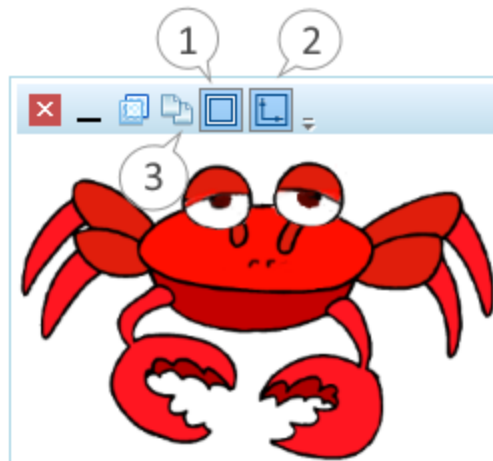
Click the button **Image from clipboard** on the **Insert** tool box to paste an image from the clipboard.



Alternate you can load image files into the worksheet. To do this, open the image file browser with a click on **Import image file** button. Then select the image file. **RedCrab** can import the image formats Windows Bitmap (*.bmp) *.jpg, *.gif, *.png and *.tif.



You change the image position or resize by dragging the image border.



The button **Aspect ratio** (2) locks the image width to height ratio. The button **Original size** (1) resets the size to the original.

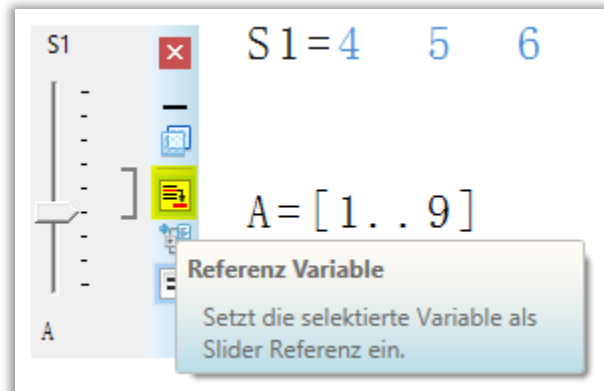
The button **Copy** (3) copies the picture to the clipboard.

5.4 Insert Slider

A slider can be used instead of a variable in a formula or as a parameter of a function. The slider returns the individual value of a series of numbers depending on the position of the slider button. The sequence of numbers is defined as a field variable.

To add the reference to the variable, place the cursor on the variable; then click the button **Referenz variable**. The name of the reference variable is displayed at the bottom in the slider

The name of the sliders is used in the formula instead of a variable, in the example above S1.



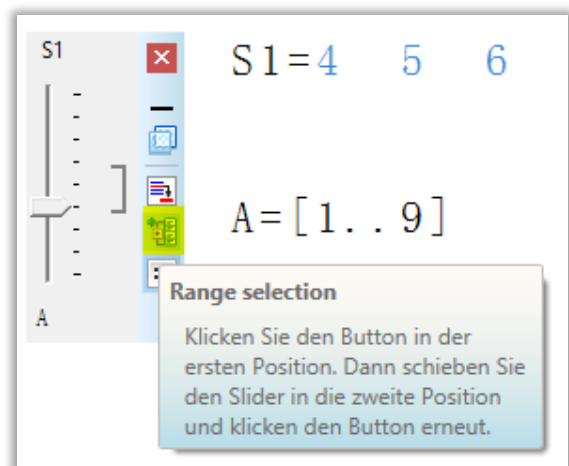
The name of the slider is automatically assigned. You can change the name by clicking on the name. A text box appears where you can change the name.

If the Autocalc function activated, a new calculation starts when the slider is moved.

5.4.1 Range Selection

The slider provides the selection of a data range. Instead of single value, the slider output value is a data field, which contains the values of the selected range.

To select a range, first mark the actual position with a click on **Range selection**. Then move the slider button to the second position and repeat **Range selection**. The image shows an example with the selected values 4 and 6.



6.0 View Menu (Toolbar)



Function panel	displays a window that contains the implemented functions.
Number pad	opens a virtual number pad on the display.
Symbol pad	displays a window with a symbol pad.
Virtual keyboard	opens a virtual keyboard.
Formating table	opens a window with all pre defined result formats.
Show grid	draws a grid on the worksheet.
Show border	draws a border line on all boxes.
Toolbox size	changes the size of the toolbox buttons.
Show boxes toolbars	change the boxes toolbars visibility visible or hide.

7.0 License Activation

This menu opens a dialog box to update the duration of the shareware. To do this, you must insert your registered email and registered key. This update is necessary if you have acquired an extension of the duration through the purchase of a license or participate in a promotion.

The acquired duration is stored in *RedCrab* setup. If you lost the information by reinstall of the operating system or by deleting the configuration data, you can reactivate it again.

For activating, an online connection is required.