
Ghobdcalc Documentation

Release latest

August 20, 2015

| | | |
|----------|---|----------|
| 1 | Main Description | 3 |
| 1.1 | Ghobdcalc provide several calculator fonctionnalities: | 3 |

Ghobdcalc: An multibase calculator with several fonctionnalités.

Writing by Eddie Brüggemann

Language C

Writing start 31/10/2014

Writing end 13/12/2014

Revision None

Contact <mr cyberfighter@gmail.com>

Credits Thank's to my mother, my family and to the doctors.

Main Description

Ghobdcalc (for Graphical Hexadecimal Octal Binar Decimal Calculator), build on the developpment files from the [libHOBDCalc](#).

With **GTK+3** as HMI (Human Machine Interface):
an multibase calculator with several fonctionnalities...

- **Ghobdcalc** support 4 differents bases as entry values or converting output format:
 -) The **decimal base**.
 -) The **binar base**.
 -) The **octal base**.
 -) The **hexadecimal base**.

You can entry values in the wanted base and convert the value in any supported base by hitting the corresponding toggle button wich will set the current base andor converting the current value in the wanted base.

- Ghobdcalc support signed integer values limited from 9223372036854775807 to -9223372036854775808.
and signed floating-point values composed from 19 digits in decimal base.
The same limits are apply to values in the other supported bases.
What permit the computing for the most purpose.
So Ghobdcalc is limited to values encoded on 8 bytes.

1.1 Ghobdcalc provide several calculator fonctionnalities:

- The **ERASE** button erase one digit from the current value.
- The **DELETE** button erase all digits from the current value.
- The **REVERT** button set the result of an operation as first operand value. With which you can continue chain operations.
- The **ENTER** button compute the result from two operand and give the result in the current set base.

- The **RESET** button reset all fields.
- The basic operators buttons:
 - The **+** button set the operation to be an addition, by displaying an **+** sign in the operator field.
 - The **-** button set the operation to be an subtraction, by displaying an **-** sign in the operator field.
 - The **×** button set the operation to be an multiplication, by displaying an **×** sign in the operator field.
 - The **÷** button set the operation to be an division, by displaying an **÷** sign in the operator field.
 - The **%** button set the operation to be an Euclidian division, what perform the division from the two operands and give the rest of the entire values division, by displaying an **%** sign in the operator field.

You must press the **=** or **ENTER** button to perform the operation.

What permit to change the operator before result computing.

You can change the operator even after having hit the **=** or **ENTER** button and the second operand can be edit after hit an operator button.

1.1.1 The mathematic specific operators button:

- The **DEG** or **RAD** toggle buttons set the values to be take in charge as degrees if the **DEG** button is down or as radians if the **RAD** button is down.
- The **COS** button convert the current value in the cosine from the current value in relationship to the current metric (degrees or radians).
- The **SIN** button convert the current value in the sine from the current value in relationship to the current metric (degrees or radians).
- The **TAN** button convert the current value in the tangent from the current value in relationship to the current metric (degrees or radians).
- The **ACOS** button convert the current value in the arccosine from the current value in relationship to the current metric (degrees or radians).

- The **ASIN** button convert the current value in the arcsine from the current value in relationship to the current metric (degrees or radians).
- The **ATAN** button convert the current value in the arctangent from the current value in relationship to the current metric (degrees or radians).
- The **COSH** button convert the current value in the hyperbel cosine from the current value in relationship to the current metric (degrees or radians).
- The **SINH** button convert the current value in the hyperbel sine from the current value in relationship to the current metric (degrees or radians).
- The **TANH** button convert the current value in the hyperbel tangent from the current value in relationship to the current metric (degrees or radians).
- The **SQRT** button convert the current value in his square root value.
- The **ABS** button convert the current value in his absolute value.
- The **POW** button is different because it need 2 values to compute an power:

The base: the first operand. After define it press the **POW** button to set the exponent as the second operand and finally press the **POW** button again to compute the power.

1.1.2 The memory fonctionnalities:

Ghobdcalc provide an memory for registering specific values for resusing it later.

- The **MEM ADD** button add the current value to the memory.
- The **MEM DEL** button delete the memory entry pointed from the memory navigating curser.
- The **MEM GET** button set the memory entry pointed from the memory navigating curser as current operand.
- The **MEM NAV** button display the memory entry pointed from the memory navigating in the top bar.
- The **MEM NAV (+)** button increment the memory navigating pointer.
- The **MEM NAV (-)** button decrement the memory navigating pointer.

1.1.3 The saving & export fonctionnalités:

Ghobdcalc provide an mechanic to save the content of operations and export it as an computing datasheet in 3 differents files format.

- The **SAVING** button save the current operation for exporting it in the computing datasheet.
- The **Export as** button reachable throught the menu button will display an export settings windows where you can set how the datasheet will be generate.

You can export the saved operations as

- An formatted text file.
 - An simple csv (Comma Separated Value) file.
 - Chart with multiple columns.
 - An high configurable html file.
- where the operations are presented in an table.

This programm is under copyright from the GPL GNU GENERAL PUBLIC LICENSE

Ghobdcalc (for Graphical Hexadecimal Octal Binar Decimal Calculator)
an multibase calculator with several fonctionnalités...

Copyright (C) 2014 Brüggemann Eddie.

This file is part of **Ghobdcalc**.

Ghobdcalc is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

Ghobdcalc is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with **Ghobdcalc**. If not, see <<http://www.gnu.org/licenses/>>