IVS - project2

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2.1.1 Detailed Description

C-header file.

Date

22.4.2017

Author

Martin Minarik, Gabriel Quirschfeld, Tomas Svetlik, Jakub Zich

2.1.2 Function Documentation

2.1.2.1 ABSOL()

```
double ABSOL (
            double x )
```

Function for absolute value of a number of type double.

Parameters

x	real number

Returns

absolute value of x

2.1.2.2 ADD()

```
double ADD (
            double x,
            double y )
```

Function for addition of two numbers of type double.

Parameters

x	first summand
y	second summand

Returns

sum of x and y

2.1.2.3 DIV()

```
double DIV (
            double x,
            double y )
```

Function for division of two numbers of type double.

Parameters

x	dividend
y	divisor

Warning

y cannot equal zero

Returns

fraction of x and y or 0 if error

2.1.2.4 FCT()

```
unsigned long long int FCT (
            int n )
```

Function for factorial of an integer.

Parameters

n	natural number

Returns

factorial of n or NAN if error

2.1.2.5 MUL()

```
double MUL (
            double x,
            double y )
```

Function for multiplication of two numbers of type double.

Parameters

x	first factor
y	second factor

Returns

product of x and y

2.1.2.6 POW()

```
double POW (
            double x,
            int n )
```

Function for exponentiation count.

Parameters

x	base
n	exponent

Warning

n must be positive number

Returns

product of x^n or NAN if error

2.1.2.7 SQRT()

```
double SQRT (
            double x,
            int n )
```

Function for nth root.

Parameters

x	real number
n	index

Warning

n must be positive number

Returns

nth root of number x or 0 if error

2.1.2.8 SUB()

```
double SUB (
            double x,
            double y )
```

Function for subtraction of two numbers of type double.

Parameters

x	minuend
y	subtrahend

Returns

difference of x and y

2.2 callbacks.h File Reference

C-header file.

```
#include <gtk/gtk.h>
```

Macros

- #define **MAX_DIGITS** 9

Functions

- gchar * get_whole_text (GtkTextBuffer *buffer)

  loads the input of calculator
- void window1_destroy ()

  Function that closes the calculator if [x] is pressed.
- void one_clicked ()

  Function that writes 1 if 1 is pressed.
- void two_clicked ()

  Function that writes 2 if 2 is pressed.
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  Function that writes 3 if 3 is pressed.
- void four_clicked ()

  Function that writes 4 if 4 is pressed.
- void five_clicked ()

  Function that writes 5 if 5 is pressed.
- void six_clicked ()

  Function that writes 6 if 6 is pressed.
- void seven_clicked ()

  Function that writes 7 if 7 is pressed.
- void eight_clicked ()

  Function that writes 8 if 8 is pressed.
- void nine_clicked ()

  Function that writes 9 if 9 is pressed.
- void zero_clicked ()

  Function that writes 0 if 0 is pressed.
- void add_clicked ()

  Function that uses ADD function if + is pressed.
- void subtract_clicked ()

  Function that uses SUB function if - is pressed.
- void square_clicked ()

  Function that uses SQRT function if square button is pressed.
- void power_clicked ()

  Function that uses POW function if ^ is pressed.
- void **faktorial_clicked** ()
- void mod_clicked ()

  Function that uses DIV function if / is pressed.
- void multiply_clicked ()

  *Function that uses MUL function if * is pressed.*
- void dot_clicked ()

  Function that writes . if . is pressed.
- void clear_clicked ()

  Function that clears the window if the button clear is pressed.
- void equal_clicked ()

  Function that equals the result if = is pressed.
- void abs_clicked ()

  Function that counts absolute value if abs button is pressed.

Variables

- GtkTextView * **widg_2**
- GtkTextView * **widg_1**

2.2.1 Detailed Description

C-header file.

Date

22.4.2017

Author

Martin Minarik, Gabriel Quirschfeld, Tomas Svetlik, Jakub Zich

2.2.2 Function Documentation

2.2.2.1 get_whole_text()

```
gchar * get_whole_text (
            GtkTextBuffer * buffer )
```

loads the input of calculator

Parameters

buffer	pointer to the text in the window of calculator

Returns

string in the input of calculator

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