

# Лабораторная работа №13

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# Создание каталога

Создаем необходимые файлы.

```
ukmorofova@dk6n50 ~/work $ cd
ukmorofova@dk6n50 ~ $ cd work
ukmorofova@dk6n50 ~/work $ cd os
ukmorofova@dk6n50 ~/work/os $ mkdir lab_prog
ukmorofova@dk6n50 ~/work/os $ cd lab_prog/
ukmorofova@dk6n50 ~/work/os/lab_prog $ touch calculate.h calculate.c main.c
ukmorofova@dk6n50 ~/work/os/lab_prog $ ls
calculate.c  calculate.h  main.c
ukmorofova@dk6n50 ~/work/os/lab_prog $
```

Рис.1

# Программа

Записываем текст программы в файлы.

```
main.c [-----] 1 L:[ 1+16 17/ 17] *(317 / 317b) <
#include <stdio.h>
#include "calculate.h"

int
main (void)
{
float Numeral;
char Operation[4];
float Result;
printf("Число: ");
scanf("%f",&Numeral);
printf("Операция (+,-,*,/,pow,sqrt,sin,cos,tan): ");
scanf("%s",&Operation);
Result = Calculate(Numeral, Operation);
printf("%6.2f\n",Result);
return 0;
}
```

Рис.2

# Makefile

Создаем makefile и с помощью него компилируем необходимые файлы.

```
Makefile [-M--] 13 L:[ 1+15 16/ 20] *(224 / 286b
#
# Makefile
#

CC = gcc
CFLAGS = -g
LIBS = -lm

calcul: calculate.o main.o
<----->$(CC) calculate.o main.o -o calcul $(LIBS)

calculate.o: calculate.c calculate.h
<----->$(CC) -c calculate.c $(CFLAGS)

main.o: main.c calculate.h
<----->$(CC) -c main.c $(CFLAGS)
clean:
<----->-rm calcul *.o *~

# End Makefile
```

Рис.3

# Отладка

С помощью gdb производим отладку.



```
ukmorozova@dk6n50 ~/work/os/lab_prog $ gdb ./calcul
GNU gdb (Gentoo 10.2 vanilla) 10.2
Copyright (C) 2021 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
Type "show copying" and "show warranty" for details.
This GDB was configured as "x86_64-pc-linux-gnu".
Type "show configuration" for configuration details.
For bug reporting instructions, please see:
<https://bugs.gentoo.org/>.
Find the GDB manual and other documentation resources online at:
    <http://www.gnu.org/software/gdb/documentation/>.

For help, type "help".
Type "apropos word" to search for commands related to "word"...
Reading symbols from ./calcul...
(No debugging symbols found in ./calcul)
(gdb) █
```

Рис.4