



Programming
Simplified



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C graphics tutorial

This tutorial is for all those who wish to learn c graphics programming, no knowledge of graphics concepts is required. C Graphics programming is very easy and interesting. You can use graphics programming for developing your own games, in making projects, for animation etc. It's not like traditional C programming in which you have to apply complex logic in your program and then you end up with a lot of errors and warnings in your program. In C graphics programming you have to use standard library functions (need not worry if you don't know functions) to get your task done. Just you pass arguments to the functions and it's done. On this website you will find almost all functions with detailed explanation and a sample program showing the usage of a function. To make things easy you are provided with executable files which you can download and execute. Firstly you should know the function `initgraph` which is used to initialize the graphics mode . To initialize graphics mode we use `initgraph` function in our program. `initgraph` function is present in "graphics.h" header file, so your every graphics program should include "graphics.h" header file. We will discuss `initgraph` with the help of following sample program:-

Sample graphics code

```
#include<graphics.h>
#include<conio.h>

int main()
{
    int gd = DETECT, gm;

    initgraph(&gd, &gm, "C:\\TC\\BGI");

    getch();
    closegraph();
    return 0;
}
```

Firstly let me tell you what is the output of this program, this program initializes graphics mode and then closes it after a key is pressed. To begin with we have declared two variables of int type `gd` and `gm` for graphics driver and graphics mode respectively, you can choose any other variable name as you wish. `DETECT` is a macro defined in "graphics.h" header file, then we have passed three arguments to `initgraph` function first is the address of `gd`, second is the address of `gm` and third is the path where your BGI files are present (you have to adjust this accordingly where you turbo compiler is installed). `initgraph` function automatically decides an appropriate graphics driver and mode such that maximum screen resolution is set, `getch` helps us to wait until a key is pressed, `closegraph` function closes the graphics mode and finally `return` statement returns a value 0 to main indicating successful execution of your program. After you have understood `initgraph` function then you can use functions to draw shapes such as circle, line , rectangle etc, then you can learn how to change colors and fonts using suitable functions, then you can go for functions such as `getimage`, `putimage` etc for doing animation.

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These codes show how to use functions of graphics library and simple applications to learn programming. For more advanced applications you can use OpenGL which offer API for 2d and 3d graphics. Many games and application have been developed using it and there are many resources available on the web.