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| **Name:** | Yash Ravindra Kerkar |
| **Roll No:** |  |
| **Class/Sem:** | SE/III |
| **Experiment No.:** | 10 |
| **Title:** | Program to implement Simple Animation |
| **Date of Performance:** |  |
| **Date of Submission:** |  |
| **Marks:** |  |
| **Sign of Faculty:** |  |

# Experiment No. 10

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| **Aim** | Program to implement Simple Animation (Perform Animation (such as Rising Sun, Moving Vehicle, Smileys, Screen saver etc.) in C |
| **Objective** | To perform a simple animation using graphics.h header file |
| **Theory** | C graphics using graphics.h functions can be used to draw different shapes, display text in different fonts, change colors and many more. Using functions of graphics.h in turbo c compiler you can make graphics programs, animations, projects and games. You can draw circles, lines, rectangles, bars and many other geometrical figures.  You can change their colors using the available functions and fill them. Following is a list of functions of graphics.h header file. The functions used in this program are discussed below:  **1. settextstyle settextstyle function in c**  Settextstyle function is used to change the way in which text appears,  using it we can modify the size of text, change direction of text and change the font oftext.  Declaration :- void settextstyle( int font, int direction, int charsize); font argument specifies the font of text, Direction can be HORIZ\_DIR(Left to right) or VERT\_DIR (Bottom to top).  **Different fonts**  enum font\_names  { DEFAULT\_FONT, TRIPLEX\_FONT, SMALL\_FONT,  SANS\_SERIF\_FONT,  GOTHIC\_FONT, SCRIPT\_FONT, |



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|  | SIMPLEX\_FONT, TRIPLEX\_SCR\_FONT, COMPLEX\_FONT, EUROPEAN\_FONT, BOLD\_FONT  };  **2. outtextxy outtextxy function in c**  outtextxy function display text or string at a specified point(x,y) on the screen.  Declaration :- void outtextxy(int x, int y, char \*string);  x, y are coordinates of the point and third argument contains the address of string to be displayed.  **Code:**  #include <graphics.h>  #include <stdlib.h>  #include <stdio.h>  #include <conio.h>  void drawCar(int x, int y) {      rectangle(x, y, x + 150, y + 50);      rectangle(x + 10, y + 10, x + 30, y + 40);      rectangle(x + 120, y + 10, x + 140, y + 40);      line(x + 10, y + 10, x + 30, y + 10);      line(x + 30, y + 10, x + 40, y);      line(x + 40, y, x + 110, y);      line(x + 110, y, x + 120, y + 10);      line(x + 120, y + 10, x + 140, y + 10);      line(x, y + 50, x + 150, y + 50);  }  int main() {      int gd = DETECT, gm;      initgraph(&gd, &gm, "C:\\Turboc3\\BGI");      int x = 0, y = 200;      for (int i = 0; i <= getmaxx() - 150; i += 5) {          cleardevice();          drawCar(x + i, y);          delay(50);      }      getch();      closegraph();      return 0;  } |
| **Output** |  |
| **Conclusion:**  This C program demonstrates a simple animation of a car moving horizontally across the screen using the Turbo C graphics library. Here's a summary of the program's key components and functionality:   1. Header Inclusions: The program includes several header files, including **graphics.h** for graphics functions, **stdlib.h** for standard library functions, **stdio.h** for input and output, and **conio.h** for console input/output functions. 2. **drawCar** Function: This function is responsible for drawing a car at a specified location (x, y) on the screen. It uses various **rectangle** and **line** functions to create the car's shape. 3. **main** Function:    * It initializes the graphics system using the **initgraph** function.    * Sets the initial position of the car (x = 0, y = 200).    * Enters a loop to move the car from left to right:    * After the animation is completed, the program waits for a keypress using **getch()**.    * Finally, it closes the graphics system using **closegraph()** and returns 0.   This program is a basic example of graphics programming in C, using the Turbo C  Top of Form | |