## **Borland Graphics Interface (BGI) for Windows**

void arc (int x, int y, int stangle, int endangle, int radius);

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The following functions are mostly from the original Borland Graphics Interface for DOS programs. The BGI graphics functions may also be used with Windows programs created by the Borland 5.0 compiler, the free GNU C++ compiler, and possibly other compilers. Extra Windows functions are also available, described in <a href="https://www.cs.colorado.edu/~main/cs1300/doc/bgi/bgi.html">www.cs.colorado.edu/~main/cs1300/doc/bgi/bgi.html</a>. These extra functions are indicated below by WIN. Also, any of the functions that use colors can use <a href="https://www.cs.colorado.edu/~main/cs1300/doc/bgi/bgi.html">RGB colors</a> in addition to the 16-color BGI palette.

## **Functions:**

```
void bar (int left, int top, int right, int bottom);
               void bar3d (int left, int top, int right, int bottom, int depth, int topflag);
      ostringstream <u>bgiout</u>; WIN
               void circle (int x, int y, int radius);
               void <u>cleardevice</u> (void);
               void clearmouseclick(int kind); WIN
               void <u>clearviewport</u> (void);
               void <a href="mailto:closegraph">closegraph</a> (int window=ALL_WINDOWS); WIN
                int converttorgb (int color); WIN
               void <u>delay</u> (int millisec); WIN
               void detectgraph (int *graphdriver, int *graphmode);
               void drawpoly (int numpoints, int *polypoints);
               void ellipse (int x, int y, int stangle, int endangle, int xradius, int yradius);
               void <u>fillellipse</u> (int x, int y, int xradius, int yradius);
               void <u>fillpoly</u> (int numpoints, int *polypoints);
               void floodfill (int x, int y, int border);
                int getactivepage (void); WIN
               void getarccoords (struct arccoordstype *arccoords);
               void getaspectratio (int *xasp, int *yasp);
                int getbkcolor (void);
                int getch (void); WIN
                int getcolor (void);
                int getcurrentwindow (void); WIN
struct palettetype* getdefaultpalette (void);
                int getdisplaycolor (int color); WIN
               char* getdrivername (void);
               void getfillpattern (char *pattern);
               void getfillsettings (struct fillsettingstype *fillinfo);
                int getgraphmode (void);
               void getimage (int left, int top, int right, int bottom, void *bitmap);
               void getlinesettings (struct linesettingstype *lineinfo);
                int getmaxcolor (void);
                int getmaxmode (void);
                int getmaxheight (void); WIN
                int getmaxwidth (void); WIN
                int getmaxx (void);
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```
int getmaxy (void);
   char* getmodename (int mode_number);
    void getmoderange (int graphdriver, int *lomode, int *himode);
    void getmouseclick(int kind, int& x, int& y);
    void getpalette (struct palettetype *palette);
     int getpalettesize (void);
     int getpixel (int x, int y);
    void gettextsettings (struct textsettingstype *texttypeinfo);
    void getviewsettings (struct viewporttype *viewport);
     int getvisualpage (void); WIN
     int getwindowheight (void); WIN
     int getwindowwidth (void); WIN
     int getx (void);
     int gety (void);
    void graphdefaults (void);
   char* grapherrormsg (int errorcode);
     int graphresult(void);
unsigned imagesize (int left, int top, int right, int bottom);
    void initgraph (int *graphdriver, int *graphmode, char *pathtodriver);
     int <u>initwindow</u> (int width, int height, const char* title="Windows BGI", int left=0, int top=0, bool dbflag=false, bool closeflag=true); 🚻
     int installuserdriver (char *name, int huge (*detect)(void));
     int <u>installuserfont</u> (char *name);
    bool <u>ismouseclick</u>(int kind); WIN
     int <a href="mailto:kbhit">kbhit</a> (void); WIN
    void line (int x1, int y1, int x2, int y2);
    void <u>linerel</u> (int dx, int dy);
    void <u>lineto</u> (int x, int y);
     int mousex (void); WIN
     int mousey (void); WIN
    void moverel (int dx, int dy);
    void moveto (int x, int y);
    void outtext (char *textstring);
    void <u>outtextxy</u> (int x, int y, char *textstring);
    void pieslice (int x, int y, int stangle, int endangle, int radius);
    void <u>printimage</u> (
             const char* title=NULL, double width_inches=7,
             double border_left_inches=0.75, double border_top_inches=0.75,
             int left=0, int right=0, int right=INT_MAX, int bottom=INT_MAX
             ); WIN
    void <u>putimage</u> (int left, int top, void *bitmap, int op);
    void <u>putpixel</u> (int x, int y, int color);
    void <u>readimagefile</u> (
             const char* filename=NULL,
             int left=0, int top=0, int right=INT_MAX, int bottom=INT_MAX
```

```
void rectangle (int left, int top, int right, int bottom);
     int registerbgidriver (void (*driver)(void));
     int registerbgifont (void (*font)(void));
    void registermousehandler (int kind, void h(int, int)); WIN
    void <u>restorecrtmode</u> (void);
         RGB functions: WIN
           COLOR(r,g,b),
           RED_VALUE(v), GREEN_VALUE(v), BLUE_VALUE(v),
           IS_BGI_COLOR(v), IS_RGB_COLOR(v)
    void sector (int x, int y, int stangle, int endangle, int xradius, int yradius);
    void <u>setactivepage</u> (int page);
    void <u>setallpalette</u> (struct palettetype *palette);
    void <u>setaspectratio</u> (int xasp, int yasp);
    void <u>setbkcolor</u> (int color);
    void <u>setcolor</u> (int color);
    void <u>setcurrentwindow</u> (int window); WIN
    void setmousequeuestatus(int kind, bool status=true); WIN
    void setfillpattern (char *upattern, int color);
    void setfillstyle (int pattern, int color);
unsigned setgraphbufsize (unsigned bufsize);
    void setgraphmode (int mode);
    void <u>setlinestyle</u> (int linestyle, unsigned upattern, int thickness);
    void <u>setpalette</u> (int colornum, int color);
    void <u>setrgbpalette</u> (int colornum, int red, int green, int blue);
    void settextjustify (int horiz, int vert);
    void <u>settextstyle</u> (int font, int direction, int charsize);
    void setusercharsize (int multx, int divx, int multy, int divy);
    void setviewport (int left, int top, int right, int bottom, int clip);
    void setvisualpage (int page);
    void <u>setwritemode</u> (int mode);
     int showerrorbox (const char *message); WIN
     int <u>swapbuffers</u> (void); WIN
     int textheight (char *textstring);
     int textwidth (char *textstring);
    void writeimagefile (
             const char* filename=NULL,
             double width_inches=7, double border_left_inches=0.75, double border_top_inches=0.75,
             int left=0, int top=0, int right=INT_MAX, int bottom=INT_MAX
             ); WIN
```