**St. Xavier’s College**

**(Affiliated to Tribhuvan University)**

**Maitighar, Kathmandu**



**COMPUTER GRAPHICS**

**LAB ASSIGNMENT #8**

**TO IMPLEMENT REFLECTION**

**Submitted By**

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**Submitted To**

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**STATEMENT:**

**WRITE A PROGRAM TO IMPLEMENT REFLECTION USING C++ BUILDER.**

**SOURCE CODE**

//---------------------------------------------------------------------------

#include <vcl\vcl.h>

#pragma hdrstop

#include "rot.h"

#include "math.h"

//---------------------------------------------------------------------------

#pragma resource "\*.dfm"

int a, b, i, j, x, y;

TForm1 \*Form1;

//---------------------------------------------------------------------------

\_\_fastcall TForm1::TForm1(TComponent\* Owner)

: TForm(Owner)

{

}

//---------------------------------------------------------------------------

void \_\_fastcall TForm1::RefOriginClick(TObject \*Sender)

{

x = Image1->Height;

y = Image1->Width;

for(i=0;i<=x;i++)

{

for(j=0;j<=y;j++)

{

a = -i;

b = -j;

a=a+x;

b=b+y;

Image2->Canvas->Pixels[a][b] = Image1->Canvas->Pixels[i][j];

}

}

}

//---------------------------------------------------------------------------

void \_\_fastcall TForm1::RefXClick(TObject \*Sender)

{

x = Image1->Height;

y = Image1->Width;

for(i=0;i<=x;i++)

{

for(j=0;j<=y;j++)

{

a = i;

b = -j;

b=b+y;

Image2->Canvas->Pixels[a][b] = Image1->Canvas->Pixels[i][j];

}

}

}

//---------------------------------------------------------------------------

void \_\_fastcall TForm1::RefYClick(TObject \*Sender)

{

x = Image1->Height;

y = Image1->Width;

for(i=0;i<=x;i++)

{

for(j=0;j<=y;j++)

{

a = -i;

b = j;

a=a+x;

Image2->Canvas->Pixels[a][b] = Image1->Canvas->Pixels[i][j];

}

}

}

//---------------------------------------------------------------------------

**OUTPUT SCREEN**

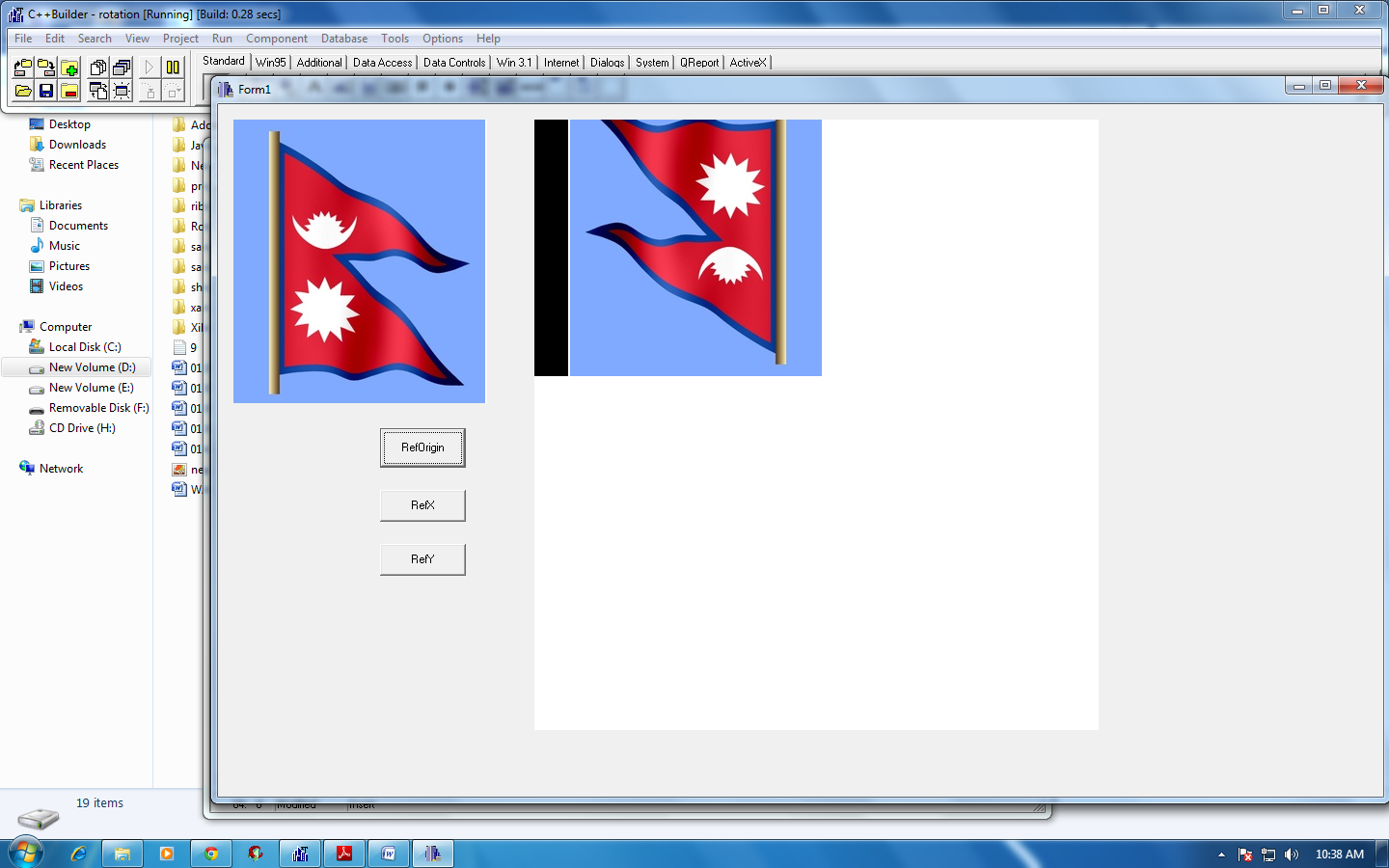


Fig: Reflection about Origin.

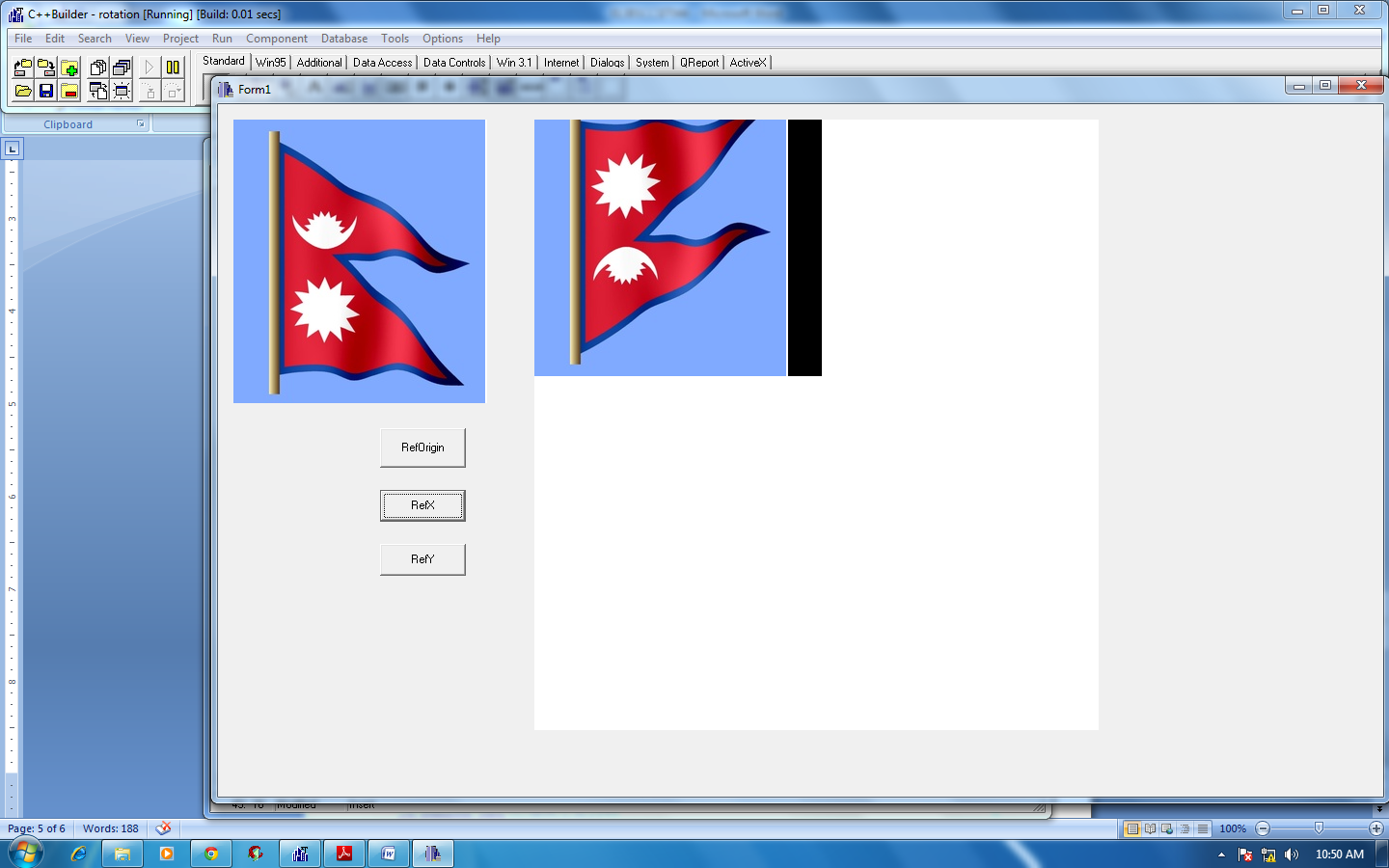


Fig: Reflection about X-axis.

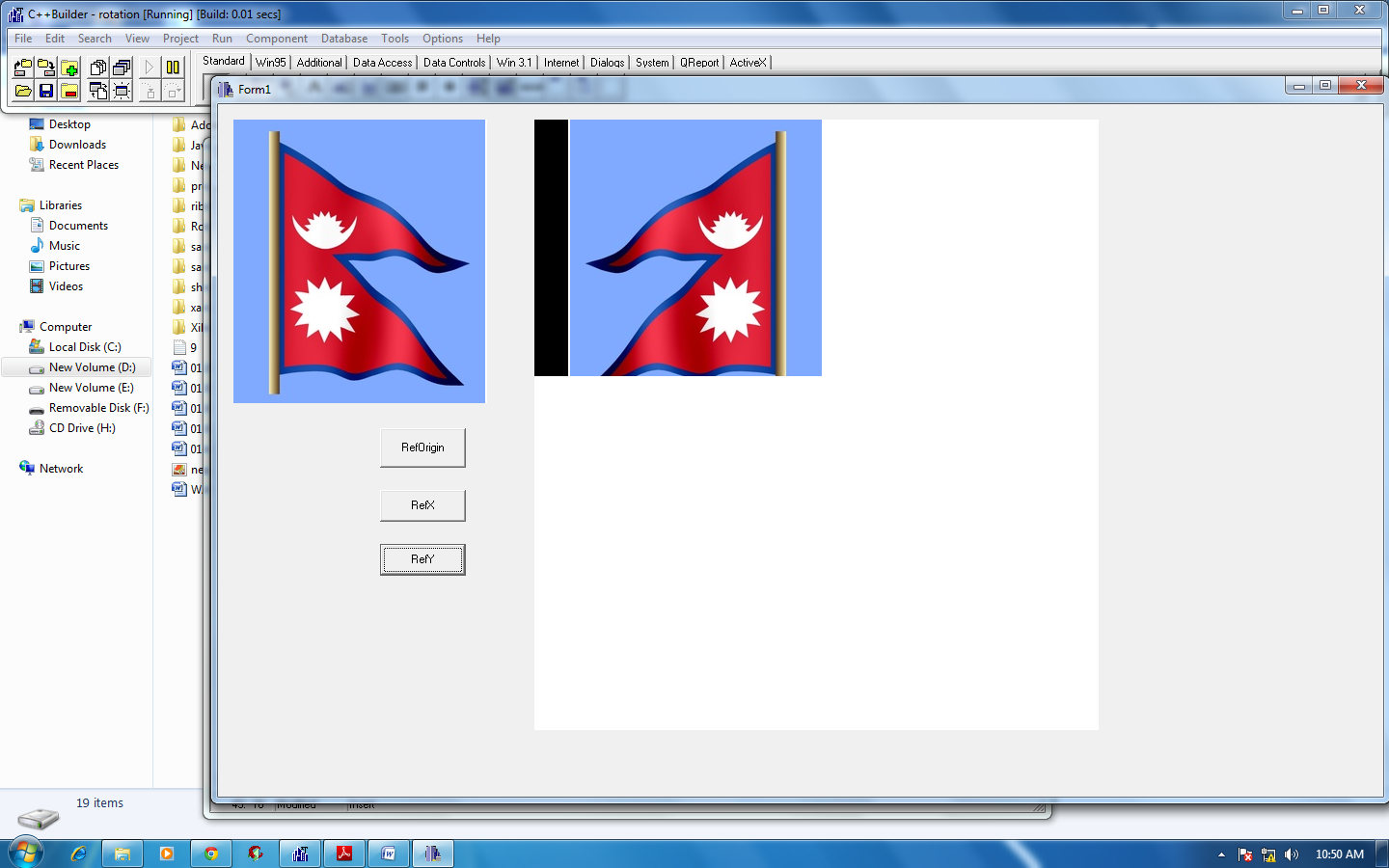


Fig: Reflection about Y-axis.