

How to Drag and Drop

```
//To Drop an object from one panel to another.
//Set the panel you want to drop onto to be allowed to do so.
//Also, create the event handlers.

panel11.AllowDrop = true;
panel11.DragEnter += panel_DragEnter;
panel11.DragDrop += panel_DragDrop;

//This example is with a picture box
private void pictureBox1_MouseDown_1(object sender, MouseEventArgs e)
{
    //check to see if the parent is the panel
    if(pictureBox1.Parent == panel11)
    {
        if (e.Button == MouseButtons.Left)
        {
            isDragged = true;
            Point ptStartPosition = pictureBox1.PointToScreen(new Point(e.X, e.Y));

            ptOffset = new Point();
            ptOffset.X = pictureBox1.Location.X - ptStartPosition.X;
            ptOffset.Y = pictureBox1.Location.Y - ptStartPosition.Y;
        }
        else
        {
            isDragged = false;
        }
    }
    else
    {
        //drag and drop onto a new panel
        pictureBox1.DoDragDrop(pictureBox1, DragDropEffects.Move);
    }
}

//this allows the drop to be done on the panel
void panel_DragEnter(object sender, DragEventArgs e)
{
    e.Effect = DragDropEffects.Move;
}

//This updates the parent of the object
void panel_DragDrop(object sender, DragEventArgs e)
{
    ((PictureBox)e.Data.GetData(typeof(PictureBox))).Parent = (Panel)sender;
}

//This completes the drag
```

```
private void pictureBox1_MouseUp(object sender, MouseEventArgs e)
{
    isDragged = false;
    //This is to check to see if the picture is out of bounds
    //If it is, reset its location
    if(pictureBox1.Location.X < 0 || pictureBox1.Location.Y < 0 || pictureBox1.Location.X >
750 || pictureBox1.Location.Y > 640)
    {
        pictureBox1.Location = new Point(0, 0);
    }
}

//Move the object with the mouse
private void pictureBox1_MouseMove(object sender, MouseEventArgs e)
{
    if(isDragged)
    {
        Point newPoint = pictureBox1.PointToScreen(new Point(e.X, e.Y));
        newPoint.Offset(ptOffset);
        pictureBox1.Location = newPoint;
    }
}
```