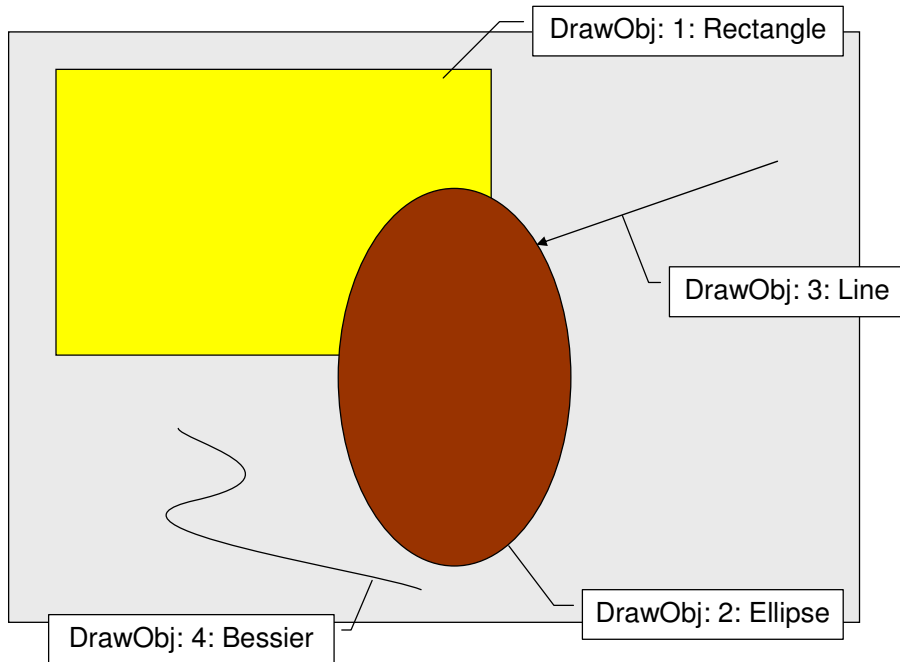


Object-Oriented Programming in C++ Virtual Functions: Introduction

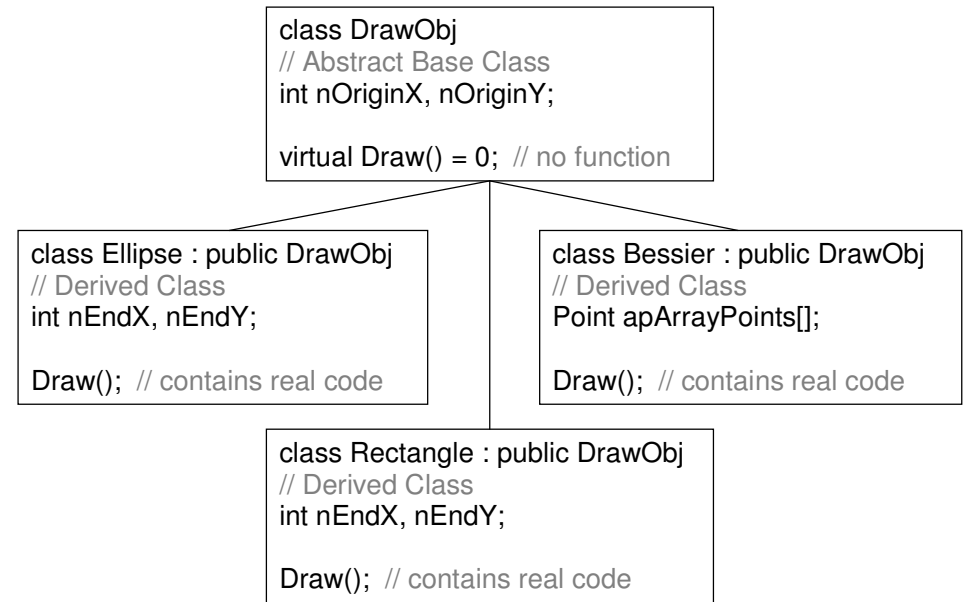
Vectored Drawing Programs

- CorelDraw
- Adobe Illustrator

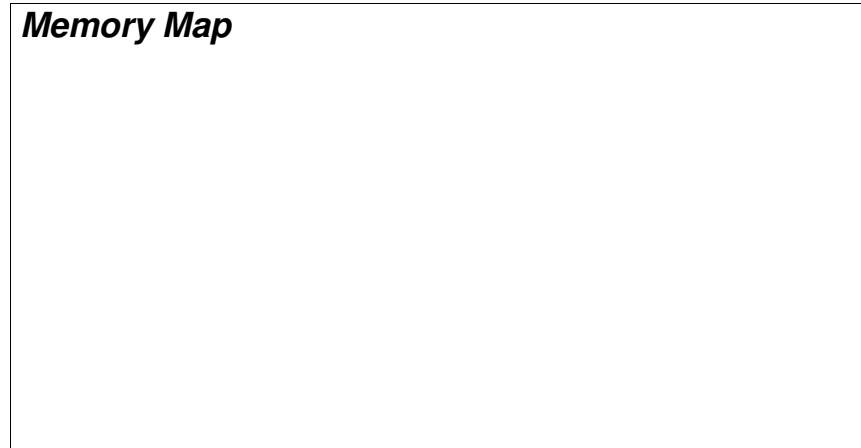


- drawing items stored as objects
- specific object types derived from fundamental base class

Class Hierarchy



Memory Map



Non-Object-Oriented Code to Draw (The Old Way of Doing Things)

```

// Assume array of pointers to objects exists
DrawObject** papActiveObjects = new DrawObject*[1000];

// Function to Draw Objects to Screen
void DrawScreen()
{
for (int i = 0; i < nNumObjects; i++) {
switch (paActiveObjects[i]->GetType()) {
case ELLIPSE:
papActiveObjects[i]->DrawEllipse();
break;
case BESSIER:
papActiveObjects[i]->DrawBessier();
break;
case RECTANGLE:
papActiveObjects[i]->DrawRectangle();
break;
:
: // hundreds of additional cases !!!!!
:
} // end switch
} // end for
} // end function DrawScreen

```

Object-Oriented Code to Draw (The New Way of Doing Things)

```

// Assume array of pointers to objects exists
DrawObject** papActiveObjects = new DrawObject*[1000];

// Function to Draw Objects to Screen
void DrawScreen()
{
for (int i = 0; i < nNumObjects; i++)
papActiveObjects[i]->Draw ();
} // end function DrawScreen

```

