Reacting to the Mouse and Keyboard

Mike Bailey
mjb@cs.oregonstate.edu

The mousePressed, mouseX, and mouseY Variables

```java
void draw() {
  stroke(0, 0, 0);
  fill(255, 50, 50);
  if(mousePressed) {
    Circle(mouseX, mouseY, 50, 20);
  }
}
```

mousePressed is a built-in variable that is always telling you if a mouse button is currently pressed.

mouseX and mouseY are built-in variables that are always telling you where the mouse cursor is.

The keyPressed and key Variables

```java
void draw() {
  if(keyPressed) {
    switch(key) {
      case 'r':
        fill(255, 50, 50);
        break;
      case 'g':
        fill(50, 255, 50);
        break;
      case 'b':
        fill(50, 50, 255);
        break;
    }
  }
  if(mousePressed) {
    Circle(mouseX, mouseY, 50, 20);
  }
}
```

keyPressed is a built-in variable that is always telling you if a keyboard key has been pressed.

key is a built-in variable that tells you what key has been hit.

The switch/case statements are Processing's way of checking many values without having a whole slew of if-statements.

The stroke() and fill() calls have been moved to setup().

// moved the stroke() and fill() calls to setup()
if(keyPressed) {
  switch(key) {
    case 'r':
      fill(255, 50, 50);
      break;
    case 'g':
      fill(50, 255, 50);
      break;
    case 'b':
      fill(50, 50, 255);
      break;
  }
}
if(mousePressed) {
  Circle(mouseX, mouseY, 50, 20);
}
void mousePressed( )
{
  if( Debug )
    println( "mouse button = "  +  mouseButton );
}

void mouseMoved( )
{
  if( Debug )
    println( "mouse has been moved: "  +  mouseX +  " , "  +  mouseY );
}

void mouseDragged( )
{
  if( Debug )
    println( "mouse has been dragged: "  +  mouseX +  " , "  +  mouseY );
}

You can also define your own functions to handle the mouse and keyboard explicitly, but we don’t need these yet