Reacting to the Mouse and Keyboard

Mike Bailey
mjb@cs.oregonstate.edu

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

The mousePressed, mouseX, and mouseY Variables

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 `mousePressed, mouseX, and mouseY` Variables

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

The keyPressed and key Variables

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 keyPressed and key Variables

void draw() {
  // 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);
  }
}
You can also define your own functions to handle the mouse and keyboard explicitly, but we don’t need these yet

```java
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 );
}
```