

Delegates and Events

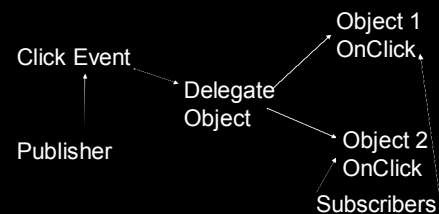
Events

- Mouse move
- Button click
- Menu selection
- All are events
- Usually trigger a call to a method to respond to the event

Events

- Control class – base class for all GUI components
- Events Method Responding
- Click OnClick
- DoubleClick OnDoubleClick
- KeyUp OnKeyUp

Publisher/Subscriber Model



Delegates

- `public delegate void MyString(string msg);`
- sealed class created by compiler
- Same name (MyString) as delegate
- Constructor accepts:
 - Object to be called
 - Method to execute
- Also has methods to keep a list of objects

Delegates

```
• public delegate void MyString(string msg)

public class MyString : System.MulticastDelegate
{
    public MyString(object target, int method); //constructor

    //method with same prototype as specified by source
    public virtual void Invoke(string msg);
    // method allowing callback to be called asynchronously
    public virtual IAsyncResult BeginInvoke(string msg,
        AsyncCallback callback,
        Object object);
    public virtual void EndInvoke(IAsyncResult result);
}
```