

# Create a custom means of managing the event invocation list

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/*
C#: The Complete Reference
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```
// Create a custom means of managing the event invocation
list.
```

```
using System;
```

```
// Declare a delegate for an event.
```

```
delegate void MyEventHandler();
```

```
// Declare an event class that holds up to 3 events.
```

```
class MyEvent {
```

```
MyEventHandler[] evnt = new MyEventHandler[3];
```

```
public event MyEventHandler SomeEvent {
```

```
// Add an event to the list.
```

```
add {
```

```
int i;
```

```
for(i=0; i < 3; i++) if(evnt[i] == null) { evnt[i] = value;
break; } if (i == 3) Console.WriteLine("Event list full."); }
```

```
// Remove an event from the list. remove { int i; for(i=0; i <
3; i++) if(evnt[i] == value) { evnt[i] = null; break; } if (i
== 3) Console.WriteLine("Event handler not found."); } } //
```

```
This is called to fire the events. public void OnSomeEvent() {
for(int i=0; i < 3; i++) if(evnt[i] != null) evnt[i](); } } //
```

Create some classes that use MyEventHandler.

```
class W { public void Whandler() { Console.WriteLine("Event received by W object"); } } class X { public void Xhandler() { Console.WriteLine("Event received by X object"); } } class Y { public void Yhandler() { Console.WriteLine("Event received by Y object"); } } class Z { public void Zhandler() { Console.WriteLine("Event received by Z object"); } }
```

public class EventDemo4 { public static void Main() { MyEvent evt = new MyEvent(); W w0b = new W(); X x0b = new X(); Y y0b = new Y(); Z z0b = new Z(); // Add handlers to the event list.

```
Console.WriteLine("Adding events."); evt.SomeEvent += new MyEventHandler(w0b.Whandler); evt.SomeEvent += new MyEventHandler(x0b.Xhandler); evt.SomeEvent += new MyEventHandler(y0b.Yhandler); // Can't store this one -- full.
```

evt.SomeEvent += new MyEventHandler(z0b.Zhandler);

```
Console.WriteLine(); // Fire the events. evt.OnSomeEvent();
```

Console.WriteLine(); // Remove a handler.

```
Console.WriteLine("Remove x0b.Xhandler."); evt.SomeEvent -= new MyEventHandler(x0b.Xhandler); evt.OnSomeEvent();
```

Console.WriteLine(); // Try to remove it again.

```
Console.WriteLine("Try to remove x0b.Xhandler again."); evt.SomeEvent -= new MyEventHandler(x0b.Xhandler);
```

evt.OnSomeEvent(); Console.WriteLine(); // Now, add Zhandler.

```
Console.WriteLine("Add z0b.Zhandler."); evt.SomeEvent += new MyEventHandler(z0b.Zhandler); evt.OnSomeEvent(); } }
```

[/csharp]