

Event Driven Programming

Traditional Programming:

- Start at beginning
- Execute statements until the program ends

Event Driven Programming:

- Start at beginning
- Draw page and setup Graphical Controls
- Attach “Event Handlers” (functions) to the controls
- Sit back and wait...
- And wait...
- If an Event is triggered, run the handler
- Now go back to waiting for another event...

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Recall: Example of “Event”

Mouse clicks can trigger function calls:

```
<p onclick=“...”> Click this </p>
```

Example: [SimpleClickEvent.html](#)

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Mouse Events

- onclick** – user clicks element
- ondblclick** – user double-clicks element
- onmousedown** – mouse button has been pressed (but not released)
- onmouseup** – mouse button has been released
- onmouseover** – mouse cursor passes over element
- onmousemove** – mouse cursor has moved while over element
- onmouseout** – mouse cursor has been moved off element

Example: [MouseEvents.html](#)

Page Loading/Unloading

- **onload** – triggered when page is loaded
- **onunload** – triggered when page is unloaded
(Some browsers may disable this.)

Example: [LoadEvents.html](#)

Events we will use with “Forms”

onkeypress – key has been pressed and released

onkeydown – key is held down

onkeyup – key is released

onchange – the state of a “control” has been changed (like a checkbox or radio button)

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Dynamic Updates to Elements

We can modify an existing element, as long as it has an identifier.

Assume the following element already appears on the page:

```

```

We can use Javascript to modify ANY attribute of the element
dynamically!

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Dynamic Updates to Elements

```

```

Old method:

```
var x = document.getElementById("Joe");
x.src="dog.jpg";
x.height="100";
```

New method*:

```
Joe.src="dog.jpg";
Joe.height="100";
```

***May not work on all browsers (yet)!**

Example: [DynamicUpdates1.html](#)

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Dynamic Updates to Style

```
<p id="Bozo">Hello!</p>
```

In Javascript, we can change the style at will:

```
Bozo.style.color = "green";
Bozo.style.fontFamily = "arial";
Bozo.style.textAlign = "center";
```

Caution: Property names don't always match with CSS names!

For example: fontFamily vs. font-family

Example: [DynamicStyleUpdates.html](#)

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Dynamic Updates to “Inner HTML”

```
<p id="Bozo">Hello!</p>
```

In Javascript, we can change what's between the tags at will:

```
Bozo.innerHTML = "Goodbye!";
```

Example: [DynamicInnerHTMLUpdates.html](#)
[BetterRouletteWheel.html](#)