

Working with events

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jQuery events: overview

- Provide mechanism for working with events that is simpler than relying on the DOM
- Abstracts away the differences between browser implementations
- Makes it easy to assign event handlers to groups of elements by using selectors and filters

Binding/Unbinding

Allows events to be wired up and torn down in a cross-browser way

Unified Event Object

Provides an event object that exposes the most common properties in a cross-browser way

Convenience Features

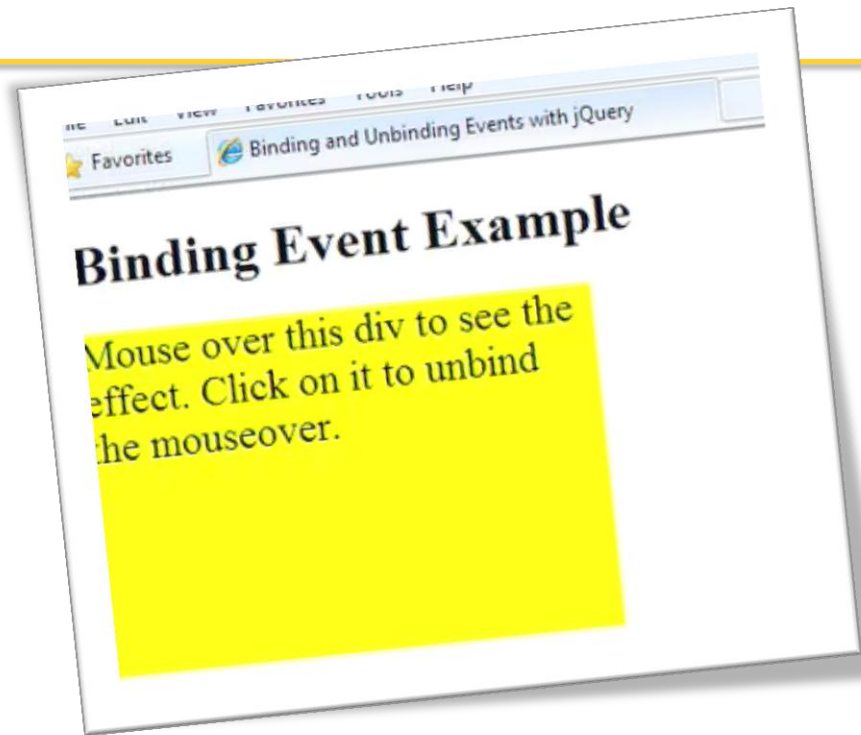
Provides functions that encapsulate common event features and cross-browser helper routines

jQuery event functions

- Events are connected to and disconnected from elements using the `bind()` and `unbind()` functions

```
$(selector).bind(event,data,handler)
$(selector).unbind(event,handler)
```

BIND() PARAMETER	PURPOSE
event	Defines the event that you want to be bound to for each element in the <i>selector's</i> result set. Possible values are blur, focus, load, resize, scroll, unload, beforeunload, click, dblclick, mousedown, mouseup, mousemove, mouseover, mouseout, mouseenter, mouseleave, change, select, submit, keydown, keypress, keyup, error
data	Optional. Defines a piece of data that will be passed to the handler function when the event happens and the handler function is called
handler	Specifies the function that will handle the event
UNBIND() PARAMETER	PURPOSE
event	Defines the event that you want to be disconnected for each element in the <i>selector's</i> result set
handler	Specifies the handler function that was defined to handle the event



DEMO

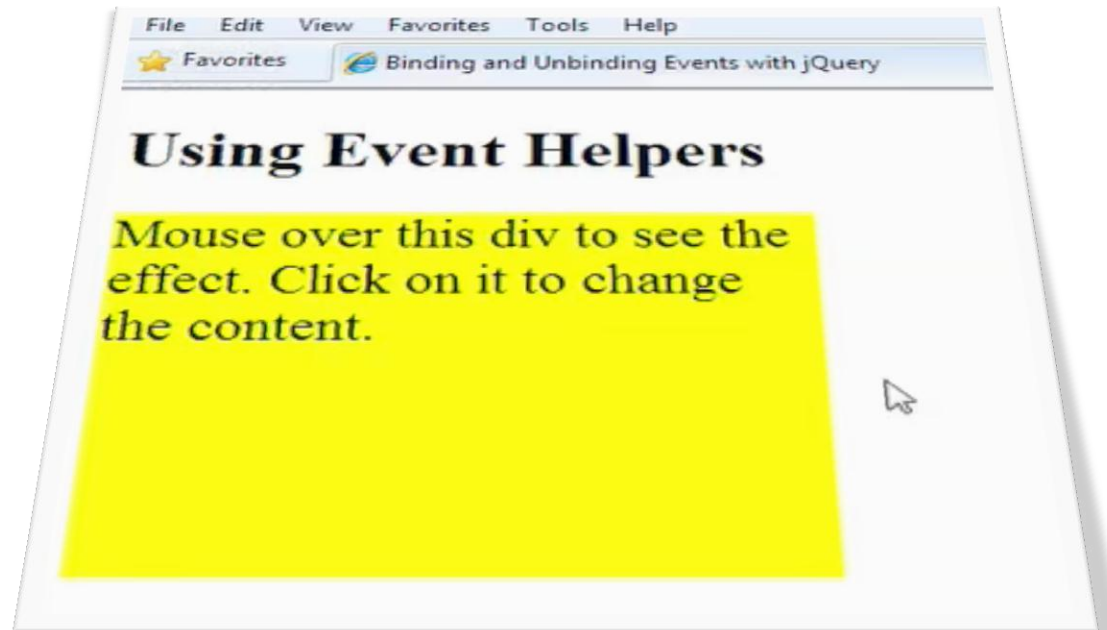
Convenient jQuery event helper functions

- Several “helper” functions can perform common event-related tasks

```
$(selector).click(fn)
$(selector).hover(fnOver, fnOut)
$(selector).toggle(fn1, fn2, fn3, fn4...)
```

FUNCTION	PURPOSE
<code>click(fn)</code>	A shortcut for defining a click function handler. There are also shortcuts for: blur, change, dblclick, error, focus, keydown, keypress, keyup, load, mousedown, mouseenter, mouseleave, mousemove, mouseout, mouseover, mouseup, resize, scroll, select, submit, unload
<code>hover(fnOver, fnOut)</code>	Helper function for hover behavior. fnOver is the function to call when the mouse enters, fnOut for when the mouse leaves
<code>toggle(fn1, fn2, fn3, fn4, ...)</code>	Helper function for implementing toggling behavior. jQuery will call each function on every other click, starting with fn1 , then fn2 , then fn3 , etc.

DEMO

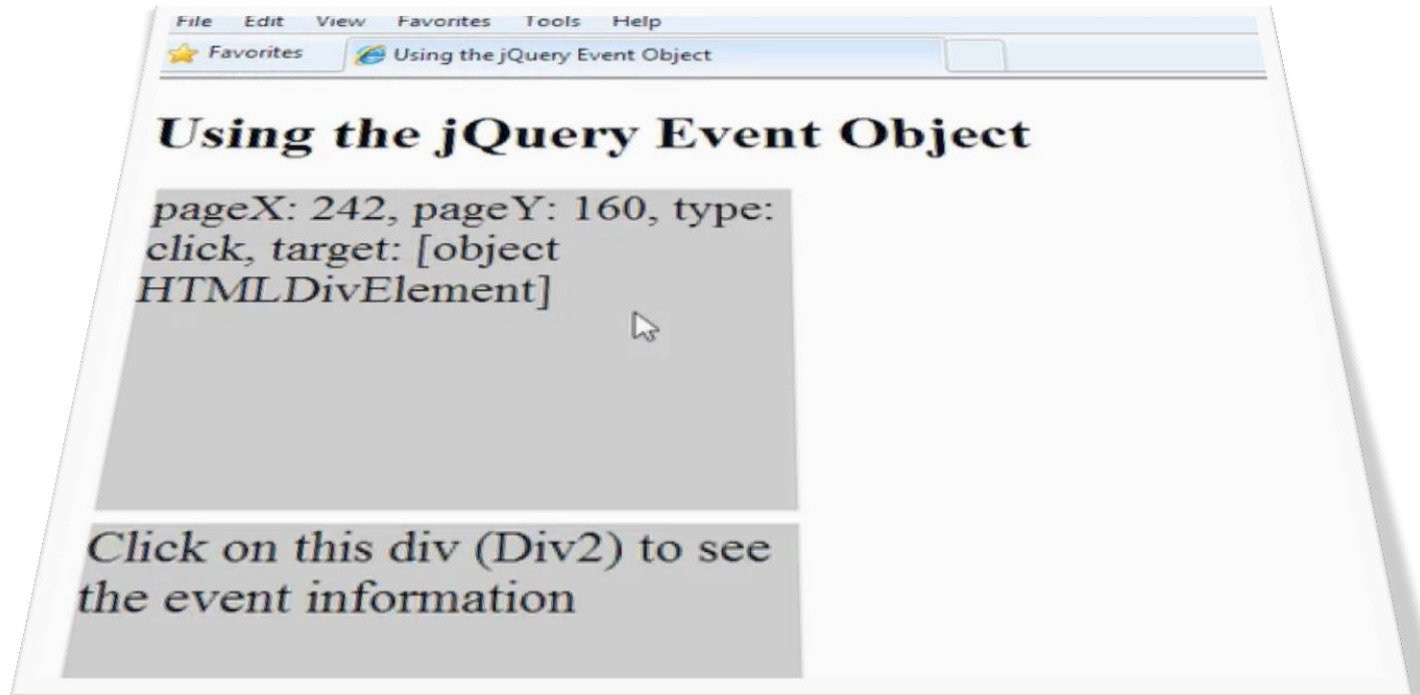


jQuery event object

- Writing event-handling code is frustrating when it differs across browsers
- The jQuery event object smoothens these differences and provides a single object with the most important properties

FUNCTION	PURPOSE
type	Type of the event ("click", e.g.)
target	Element that issued the event
data	Data passed to bind function
pageX, pageY	Coordinates of mouse when event happened, relative to document
result	Value returned by the last handler function
timestamp	Time when event occurred
preventDefault()	Prevents the browser from executing the default action
isDefaultPrevented()	Returns whether preventDefault() was ever called on this object
stopPropagation()	Stops the bubbling of an event to parent elements
isPropagationStopped()	Returns whether stopPropagation() was ever called on this object

DEMO

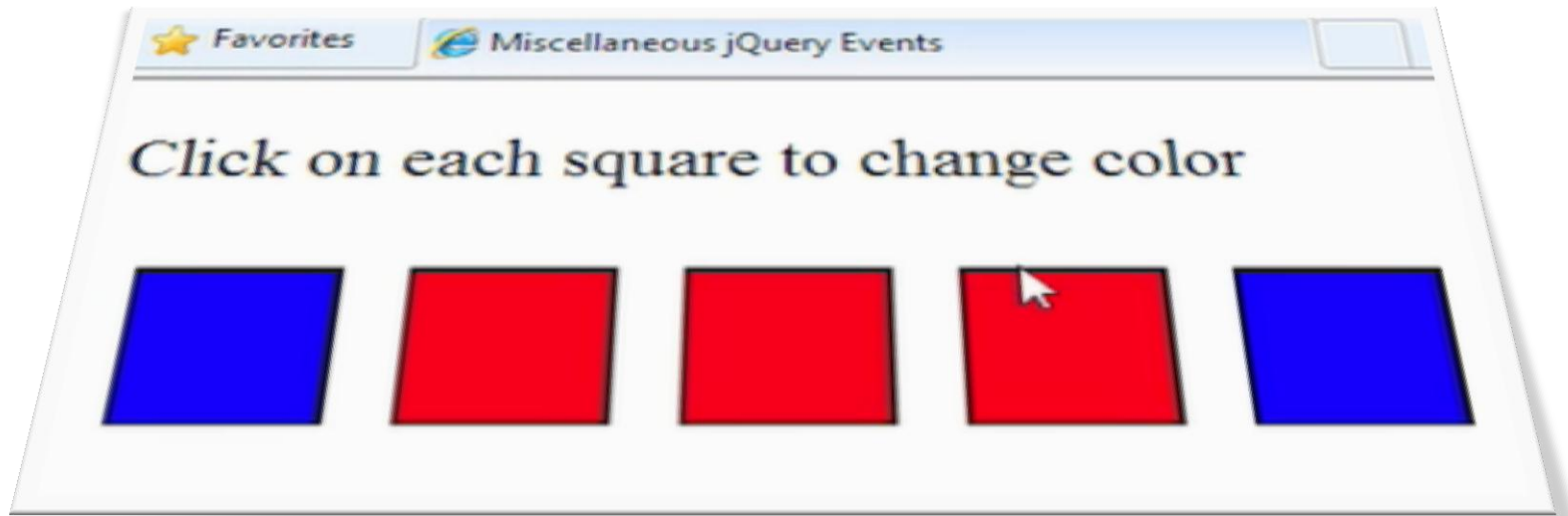


Miscellaneous event functions

- For a couple of specialized tasks, jQuery provides some miscellaneous functions

```
$(selector).one(type, data, handler)
$(selector).trigger(event, data)
$(selector).triggerHandler(event, data)
```

FUNCTION	PURPOSE
<code>one(type, data, handler)</code>	Works the same as bind() , but the event handler is only ever executed one time for each matched element
<code>trigger(event, data)</code>	Triggers an event on every matched element. This will also cause the default action of the browser to be executed. For example, passing 'click' to the trigger() function will also cause the browser to act as though the item were clicked
<code>triggerHandler(event, data)</code>	Triggers all bound event handlers on an element (for a specific event type) <i>without</i> executing the browser's default actions, bubbling, or live events. Only works on the first matched element in the result set for selector



DEMO

Using jQuery to stripe and hover-highlight a table

Item	Price
Milk	1.99
Eggs	2.29
Butter	3.49
Bread	0.99
Pasta	1.19
Honey	4.39
Cookies	2.99
Apples	0.59
Sugar	1.78
Pepper	1.56

DEMO