

Advanced Techniques in JavaScript and jQuery

Event Handling

Kevin Murray

murmeister@hotmail.com



jQuery Event Handling

- Create a simple web page for demonstration
- Attach event handlers using shorthand methods
- Propagation
- Browser differences

Shorthand Methods

- Handling standard events
 - Usually use an anonymous function
 - For common events, shorthand method can be used
 - .blur()
 - .change()
 - .click()
 - .dblclick()
 - .focus(), focusin(), .focusout()
 - .hover()
 - .keydown(), .keypress(), .keyup()
 - .load()
 - .mousedown(), .mouseenter(), .mouseleave(), .mousemove(), .mouseout(), mouseover(), .mouseup()

Message Function

- Centralize message handling
- Use an object parameter
- Explicitly set what “this” references

More Elements

- Add clickable to more elements
- Add more event handlers
- Preventing default behavior
- Internet Explorer is different

Propagation

- Events bubble up the DOM until handled
- Ways to cancel event processing
 - Return false from event handler
 - Call preventDefault() on the event
 - Call stopPropagation() on the event
 - Call stopImmediatePropagation() on the event
- Multiple event listeners can be attached to the same element
- jQuery provides methods to check if the event has been cancelled
 - .isPropagationStopped()
 - .isImmediatePropagationStopped()
 - .isDefaultPrevented()

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Event Handlers Without Shorthand

- jQuery event handling methods

- .bind()
- .unbind()
- .live()
- .die()
- .delegate()
- .undelegate()
- .on()
- .off()
- .one()

```
.on('click', 'selector',  
function(event)  
{ // Process click event  
})
```

Using jQuery Event Handlers

- Change shorthand methods to use `.on()` method
- Consolidate event handler functions
- Pay attention when using `.off()`

Named Functions

- **Use a named function as the event handler**
 - Easy to remove
 - Can be centralized in a library
 - Updating one handler function has global impact
- **Be aware of the order handler functions are added and removed**
- **Be careful of process order assumptions**

Summary

- Shorthand methods ultimately reference the `.on()` method
- Events bubble up the DOM from the innermost elements
- `.bind()`, `.live()`, and `.on()` are other ways to attach events
- `.on()` is the preferred attachment method