

JavaScript Web Page Programming

CDT755

This course makes extensive use of hands-on examples and exercises in order to teach web page developers how to create more robust and dynamic web pages using the JavaScript programming language. Participants will learn how to write functions, how to respond to user initiated events, how to validate user input to web pages, and how to provide feedback via dialog boxes and alert controls

Audience

- Web page developers
- Beginning JavaScript Programmers

Prerequisites

- CDT750, HTML/XHTML Web Page Development with CSS (or equivalent)

Course Length

- Three Days

Teaching Methods

- Lecture
- Hands-on examples
- Supplemental exercises

Learning Objectives

- Create interactive Web pages
- Add an image rollover to a Web page
- Open and close browser windows under program control
- Add form controls to web pages
- Validate, format and navigate using form data
- Respond to events that occur on windows, forms, mouse and keyboard
- Create, read and delete browser cookies
- Create pull down and sliding menus
- Manipulate the HTML/XHTML document directly by adding, deleting, inserting and replacing nodes

Course Outline

TG5

Introduction

- What JavaScript Is
- Where to Put Your Scripts
- Hiding Scripts from Old Browsers
- Putting Comments in Scripts
- Alerting the User
- Confirming the User's Choice
- Prompting the User
- Redirecting the User
- Browser Detection

Language Essentials

- Plug-In Detection
- Using For/In Loops
- Using Do/While Loops
- Functions
- Multi-Level Conditionals
- Functions That Return Values
- Handling Errors
- Putting More Than One Script on a Page
- Status Bar Messages

Image Manipulation

- Creating Rollovers
- Creating More Effective Rollovers
- Putting Multiple Rollovers on a Page
- Displaying a Random Image

Working with Browser Windows

- Opening a New Window
- Closing a Window
- Loading Different Contents into a Window
- Updating One Window from Another
- Creating New Pages with JavaScript

Form Handling

- Verifying Passwords
- Select and Go Navigation
- Selecting Menu Items
- Working with Radio Buttons

Forms and Regular Expressions

- Validating Email Addresses
- Validating a File Name
- Formatting and Validating Strings

Making Your Pages Dynamic

- Putting the Current Date into a Web Page
- Writing Text into a Document on the Fly

Handling Events

- Window Event Handling
- Mouse Event Handling
- Form Event Handling
- Key Event Handling

JavaScript and Cookies

- Baking Your First Cookie
- Reading a Cookie
- Showing Your Cookies
- Deleting Cookies
- Handling Multiple Cookies

User Interface Design with JavaScript

- Pull Down Menus
- Sliding Menus

Manipulating Nodes

- Adding Nodes
- Deleting Nodes
- Inserting Nodes
- Replacing Nodes