

Practical

# WEB SITE DEVELOPMENT & E-COMMERCE SYSTEMS

for Industry



## YOU WILL LEARN HOW TO:

- Set up, configure and maintain a robust and effective Industrial Web Site
- Build dynamic Web pages that communicate brilliantly
- Secure your Open Architecture web site against attacks and viruses
- Connect your web site to a database and your SCADA and Process Control systems

## WHO SHOULD ATTEND:

Anyone who will be working with, designing and troubleshooting web based systems ranging from industrial systems to E-Commerce will benefit including:

- Instrumentation and Control Engineers/Technicians
- Electrical Technicians and Engineers
- Design Engineers
- System Integrators
- Network Support Staff
- Systems Engineers
- IT Support Managers and Personnel
- Network Technicians
- Data Communications Managers
- Programmers
- IT and MIS Managers



*Technology Training that Works*

## THE WORKSHOP

Web Technologies provide you with unprecedented opportunities in building Human Machine Interfaces (HMI's) using these new technologies together with high speed Open Communications links to tie your industrial hardware on the shop floor to your SCADA system. This allows you to view real time process and plant data quickly and effectively in a total open manner using a freely available browser. This also allows you to access information from your plant system anywhere and make it available to anyone in your organization. Unfortunately this incredible Open architecture can create a security nightmare if not correctly configured and managed.

This workshop will give you the hands-on skills to implement professional web based engineering and SCADA systems and to avoid the typical problems that can occur in developing real time applications with a totally open architecture.

## WORKSHOP OBJECTIVES

On successful completion of this workshop you will be able to:

- set up, configure and maintain a Robust effective industrial web site
- build powerful Web Pages that communicate superbly
- enhance Web pages with Special effects
- use Style sheets to best effect
- configure a Web Server
- connect a database to the Web Site
- secure your site and data against attacks and viruses
- create dynamic Web Pages using Server and client side scripts
- troubleshoot Web Based Industrial Systems (eg SCADA)
- understand XML and how it will change the way the web works
- understand webDAV, Java and messaging technologies
- set up your browser to work the way you want, handle security issues and which browser is best for you

## ON-SITE TRAINING

- ✓ **SAVE** over 50% by having an IDC workshop presented at your premises.
- ✓ Customise the training to **YOUR** workplace.
- ✓ Have the training delivered when and where you need it.

Contact us for a **FREE** proposal.

## THE PROGRAM

### DAY ONE

#### INTRODUCTION

- The World Wide Web and its Infrastructure
- URLs and Domain Names

#### FUNDAMENTALS OF WEB DESIGN

- Head and Body Elements, Hypertext links, Stylesheets, the new standard: XHTML
- Overview of HTML and Editors/Tools
- Creating a basic page using Notepad and FirstPage 2000

#### GRAPHICS & MULTIMEDIA

- Web Graphics and Images, Animations and Multimedia
- Creating Web buttons, GIF animations and Vector animations

#### INTERNET SERVERS AND SERVICES

- Overview of Internet Technology:
  - TCP/IP, HTTP and DNS
- Setting up and testing a basic network

#### INTERNET SERVERS

- Configuration, deployment, and maintenance of:
  - Web Servers, Mail Servers, FTP Servers and other servers
- Setting up an FTP server, using an FTP client and setting up a Web server

#### OVERVIEW OF BROWSERS

- DOM, Security and making your pages work
- Setting up a basic site with graphics & links

#### SCRIPTING LANGUAGES

- Overview of Scripting Languages
- Client Side Scripting
  - Javascript, Jscript and ECMAScript
  - Handling Cookies
  - Scripting and DHTML
- Basic JavaScript Exercises
- Server Side Scripting
  - Client- server interaction and CGI
  - CGI Programming Languages
- Hypertext pre-processors
  - PHP, ASP & JSP
- Using ASP and VBScript

#### DATABASES AND SQL

- Database Overview
  - Uses of Databases
  - Common Internet Databases
  - Relational databases and the web
- Introduction to SQL
- Connecting Web Pages to databases
- Data Driven Web Sites
- Using SQL and MySQL
- Using ASP, VBScript and SQL together

### DAY TWO

#### SECURITY

- Security overview
- Internet security
- Data Security
- Server security
- Cryptography
  - Digital signatures, certificates and SSL
- Security and viruses
- Encryption methods
- Password protection

#### E-COMMERCE

- Example Website
- Using IIS, and VP-ASP shopping cart
- E-commerce site design
- Dreamweaver Overview
- Building an order form in Dreamweaver
- Form validation
- Building the site database
- Integrating the shopping cart
- Testing the complete application
- Hardware and software considerations
- The e-commerce site and process
  - Building the site with appropriate tools
  - Online resources
  - Hosting your site
  - Taking orders: the shopping cart
  - Payment gateways versus in-house transactions
  - Handling orders
  - Integration with existing systems
  - Managing fulfillment issues

#### INDUSTRIAL APPLICATIONS

- Application service providers
- XML
- Introduction to Java and XML integration
- Web Based SCADA
- OPC (OLE for Process Control) and the Web
- Real time Systems and Web based Systems

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*The pace of the workshop is excellent.*

D. Thompson

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## PRACTICAL SESSIONS

Two people are allocated a PC to perform the **16 practical sessions** throughout the workshop. You will get **hands-on** training to take advantage of the material covered in the class in a practical way:

- Planning your site
- Using the Xitami Web Server
- Creating a simple HTML Page
- Using FirstPage to create Web Pages
- Creating Web Graphics using PSP
- Creating the Site Database in Access
- Integrating the Shopping Cart into the Web Site
- Creating a simple SCADA Web site with graphics and links
- Creating Animated Graphics using Animation Shop
- Set up Simple Network and Web Server
- Creating an order form
- Basic JavaScript Exercises
- Form Validation in Dreamweaver
- Installing the VP ASP Shopping Cart
- Creating Vector Graphics using Swish
- An E-Commerce Case Study