

Barker Pacific Group

Technical Training Specialists

Course Catalog

Experience makes the best teachers.

June 18, 2002

Barker Pacific Group has a reputation for providing top quality training and consulting at a very low cost. All courses emphasize a hands-on approach and teachers are working professionals with years of practical experience. Our comprehensive course material favorably compares to that used by the large training companies who sub-contract to us.

As an international training and consulting firm since 1984, Barker Pacific Group has become a favorite of many companies. Our clients include both small businesses and large Fortune 500 companies in fields such as banking, telecommunications, and manufacturing.

We offer on-site and public classes in all areas of data processing, including systems programming, systems analysis, database design and support, testing, application development, and operations support. On-site class size varies to match your requirements.

To accommodate the changing world of data processing, our curriculum is constantly expanding and new classes added. If the current classes do not meet your needs, we will design a course to your specifications. This ability to customize classes continues to be an important factor in our success.

Whether training entry level personnel or upgrading the skills of experienced staff, Barker Pacific Group can meet your training and consulting needs with a combination of professional instructors, high quality course material, and low cost.

Contact us for more information.

Phone: (800) 235-8129

E-mail: sales@bpgtraining.com

Website: <http://www.bpgtraining.com>

Table of Contents

CICS Curriculum.....	5
Client Server Curriculum	7
COBOL Curriculum	9
DB2 Curriculum.....	11
File-AID/XPEDITER Curriculum.....	13
IMS Curriculum.....	15
IMSADF Curriculum	19
Internet/Web Curriculum	21
Java Curriculum	27
Linux Curriculum.....	31
Miscellaneous Courses	33
NOMAD Curriculum.....	35
Object-Oriented Curriculum	37
OS/390 JCL Curriculum	39
OS/390 Operations Curriculum	41
Testing Curriculum	43
Unix Curriculum	45
VSAM Curriculum.....	49
Instructors	51

CICS Curriculum

CICS Concepts

1 day

Prerequisite: none

Topics include: data communications features, CICS architecture, security, data recovery, application processing, interval control program, transient data queues, and the future of CICS.

CICS Command Level Coding

5 days

Prerequisite: TSO and COBOL

Topics include: command level and execution interfaces, exception conditions, basic mapping service, data access, data recovery, program flow, interval control program, transient data queues, temporary storage facility, and transaction testing.

Advanced CICS

3 days

Prerequisite: CICS Command Level Coding or equivalent experience

Topics include: storage control, file browsing, paging transactions, on-line printing, field-level help, system information, and abend handling.

CICS for System Analysts

4 days

Prerequisite: none, but some experience with CICS applications is preferred

Topics include: MVS Sysplex, CICS functions, CICS/TS new functions, CICSplex implementation, Client/Server design, and specialized functions.

CICS Application Debugging Workshop

3 days

Prerequisite: CICS Command Level Coding and Advanced CICS or equivalent experience

Topics include: introduction to debugging and CICS debugging, Application Programming Interface, error handling, testing, task execution, problem investigation, and Abend analysis.

CICS Program Debugging with Abend-Aid

1 day

Prerequisite: CICS Command Level Coding or equivalent experience with CICS and COBOL programming

Topics include: using AADF, TSO connection, reading an Abend-Aid dump, finding Abending statements, obtaining data addresses, locating fields in the WORKING-STORAGE SECTION, finding data in the LINKAGE SECTION, and solving Abends and problems.

Note: This course may be added to any of the CICS debugging courses.

CICS/TS Structure and Problem Analysis

5 days

Prerequisite: technical programming or CICS system programming

Topics include: CICS/ESA architecture review, CICS/ESA externals, CICS/ESA internals, CICS/ESA dumps and traces, and problem investigation.

CICS Transaction Server for OS/390 Overview and Migration

4 days

Prerequisite: some knowledge of the CICS/ESA 4.1 product - a technical background is preferred but not required

Topics include: SYSPLEX operations, architecture, control tables, new functions, interfaces, externals, programming interfaces, communication, traces and dumps, transition issues, Transaction Affinities Product, and CICSplex/SM facilities.

CICS/TS Web Server Implementation

4 1/2 days

Prerequisite: knowledge of the standard CICS/API and familiarity with the CICS/BMS generation process

Topics include: terminology, Websphere environment, TCP/IP concepts, HTML concepts, WEB3270, WEB Business Logic Interface (BLI), WEBSHERE Plugin, CICS WEB support, JAVA, IIOP, and security.

Client Server Curriculum

C Language for Business Applications

5 days

Prerequisite: experience with a structured programming language such as COBOL or PL/1

Topics include: built-in data types, conditional statements, loops, functions, arrays and pointers, file I/O, character strings and bits, and introduction to C++.

Introduction to Computer Programming Using C

10 days

Prerequisite: none

Topics include: problem solving, statement forms, functions, algorithms, program design, conditional statements, loops, designing interfaces, strings and characters, modular development, arrays, searching and sorting, pointers, file I/O, built-in data types, and introduction to C and C++.

Introduction to C++

5 days

Prerequisite: programming experience in any language, preferably C

Topics include: C++ extensions to C, object-oriented programming in C, classes, constructors, destructors, friend functions, operator overloading, inheritance and virtual functions, stream I/O, and other miscellaneous topics.

C Language

5 days

Prerequisite: programming experience in any procedural language

Topics include: C programming basics, user-defined types, operators, control structures and keywords, I/O functions, string functions, function calls, storage classes, and preprocessor directives.

Introduction to Visual Basic

4 days

Prerequisite: experience with Windows 95/98/NT and a programming language such as COBOL, BASIC, RPG, or SAS

Topics include: VB standard controls, variables, constants, arrays, decision statements, loops, ActiveX controls, menus, sub-procedures, sub-functions, multiple forms, data files, database programming, data access objects, drag and drop, graphics, Crystal reports, OLE, and object-oriented programming.

Advanced Visual Basic Programming

3 days

Prerequisite: Introduction to Visual Basic or equivalent experience

Topics include: Visual Basic clipboard, Dynamic Data Exchange (DDE), error handling, printing, DLL interface, multiple windows, controls, advanced functions, trim functions, I/O files, performance considerations, database access, data control, queries, DBCOMBO, and DBLIST.

Visual Basic Intensive

10 days

Prerequisite: familiarity with Windows 95/98/NT

Topics include: programming languages, VB environment, controls, variables, constants, calculations, accumulations, formatting, IF statements, input validation, message boxes, financial functions, multiple forms, common dialog boxes, Combo boxes, for/next loops, printing, arrays, list boxes, data files, sequential file organization, databases, validation strategies, drag and drop, graphics, OLE, and DLLs.

Structured Query Language (SQL)

2 days

Prerequisite: familiarity with the operating system being used

Topics include: SQL syntax, keywords, data types and value expressions, tables, commands, views and joins, sub-queries, performance considerations, date functions, string functions, security, and referential integrity.

MS-SQL Server

2 days

Prerequisite: familiarity with Windows 95/98/NT

Topics include: relational databases, language syntax, coding conventions, ISQL, common commands, relational and logical operators, aggregate operators, table creation and modification, multiple tables, sub-queries, string manipulation, date functions, and access rights.

Crystal Reports

1 day

Prerequisite: familiarity with Windows 95/98/NT

Topics include: Create Report Expert, Smart Menu, custom reports, report creation, sub-reports, and cross-tab objects.

COBOL Curriculum

Beginning OS/390 COBOL

10 days

Prerequisite: TSO/ISPF and OS/390 JCL

Topics include: program divisions, internal data representation, arithmetic functions, conditional functions, file handling, report generation, control totals, validation of test results, debugging, structured programming concepts, program design, and use of pseudo-code.

Advanced OS/390 COBOL

5 days

Prerequisite: Beginning OS/390 COBOL or equivalent experience

Topics include: table handling, index vs. subscript, PERFORM VARYING, external subroutines, parameter passing, and internal sort.

Converting to OS/390 AND IBM COBOL

2 days

Prerequisite: COBOL programming experience

Topics include: scope terminators, class definitions, case sensitivity, embedded subroutines, in-line perform, pointers, hex notation, addressing, global and external storage, intrinsic functions, IBM callable services, recursive subroutines, local storage, call by value, compiler options, run-time options, 24-bit vs. 31-bit addressing, impact to CICS and IMS applications, COBOL differences, and migration strategies.

Program Design

4 days

Prerequisite: None

Topics include: course introduction, review of today's design methods, solutions for today's problems, top-down design, three design steps, benefits of structured design, structure charts, structured coding, pseudo-code, structured conventions, structured benefits, top-down development, benefits of this technology, putting it in practice, specifications, list of functions, structure chart, proper subordination, levels of abstraction, principles of parsimony, value of consistency, verb list, three module types, module rules, analyzing program designs, the blank page syndrome, structured walkthroughs, HIPO charts, designing module interfaces, and sound coding techniques.

DB2 Curriculum

DB2 Concepts

1 day

Prerequisite: none

Topics include: relational concepts, DB2 structure, introduction to SQL, joins and view concepts, embedded SQL, packages, plans, locking, stored procedures, and DDF.

DB2 Application Development

4 days

Prerequisite: Beginning COBOL or equivalent experience

Topics include: relational concepts, DB2 structure, SQL, joins, sub-queries, nested queries, DB2I, SPUFI, embedded SQL, program preparation, explain, performance and tuning considerations, locking, and program isolation.

DB2 Advanced SQL Topics

2 days

Prerequisite: Six months experience using DB2 SQL

Topics include: introduction to DB2, Structured Query Language (SQL), SELECT statement, Database 2 Interactive, ORDER BY, GROUP BY, HAVING, JOIN, SUB-SELECT, UNION, Data Definition Language, INSERT, UPDATE, DELETE, Data Control Language, other programming considerations, performance considerations, catalog, Runstats, DB2 efficiency, EXPLAIN, Visual Explain, user-defined data types, user-defined functions, triggers, large objects, recursive SQL, GROUP By_CUBE, and ROLLUP.

DB2 Application Performance Tuning

2 days

Prerequisite: Six months experience using DB2 SQL

Topics include: performance guidelines, SQL guidelines, rewriting SQL, Stage 1/Stage 2 indexable predicates, PLAN_TABLE, EXPLAIN SQL statement, improving SQL statements using EXPLAIN results, database design issues, EXPLAIN_TABLE, DSN_STATEMENT_TABLE, RUNSTATS, and predicting performance.

DB2 UDB for OS/390 Data Sharing Implementation

2 days

Prerequisite: A strong DB2 background with production DB2 experience preferred

Topics include: OS/390 Parallel Sysplex overview, Data Sharing introduction, planning for Data Sharing, mechanics of Data Sharing, installation and migration, Data Sharing commands, DB2 Data Sharing enhancements, Data Sharing considerations for Distributed, and introduction to Data Sharing performance.

Query Management Facility

2 days

Prerequisite: DB2 Concepts and Structured Query Language or equivalent experience

Topics include: QBE, Prompted Query Language, QMF commands, dynamic areas, queries, forms, reports, procedures, QMF menus, and SHOW.

Query Management Facility with SQL

4 days

Prerequisite: DB2 Concepts or equivalent experience

Topics include: DB2 relational concepts, SQL statements, use of SELECT to access tables, selection criteria, aggregates, report sequencing, multiple table joins, manipulation of report forms, and saving queries and forms.

IMS with DB2

2 days

Prerequisite: COBOL, TSO, JCL, and working knowledge of IMS and DB2

Topics include: synchronization, commit processing, coding for improved performance, PSBs, package and plan use, scrolling and paging through tables, BMP, MPP, IFP, IMS batch processing with DB2, enqueue, deadlock, DB2 operator commands, and checkpoint/restart.

IMSADF with DB2

4 days

Prerequisite: COBOL, IMSADF, and DB2 Concepts or equivalent experience

Topics include: DB2 table generation, bind plan, table and column statements, standard and non-standard IMSADF SQL statements, SQL with High Level Audit Language, secondary key selection, audit exits and special processing routines with SQLHNDLR and native SQL, transaction and driver generation, and conversion of IMS transactions to DB2.

File-AID/XPEDITER

Curriculum

File-AID/ISPF

3 days

Prerequisite: TSO/ISPF

Topics include: selecting parameters, using copy layouts, browsing and editing files, selection criteria, records with multiple layouts, File-AID utilities, and reformat and compare features.

File-AID for IMS

1 day

Prerequisite: TSO/ISPF and IMS Concepts

Topics include: dynamic PSBs, selecting DBDs, cross reference files with copy layouts, browsing and editing databases, and unloading and reloading databases.

XPEDITER

1 day

Prerequisite: TSO and COBOL

Topics include: XPEDITER log file, use of JCL, file allocation tables, DDIOs for a test session, primary and line commands, test scripts, ABEND-AID, and set up for IMS programs.

IMS Curriculum

IMS Concepts

1 day

Prerequisite: none

Topics include: database concepts, data communication, database terminology, DBDs, PSBs, ACBs, message processing, MFS, transaction scheduling, Fast Path transactions and databases, and checkpoint/recovery.

IMS DB Coding

5 days

Prerequisite: COBOL or PL/1, TSO, JCL, and IMS Concepts or equivalent experience

Topics include: hierarchical data structures, database terminology, call functions, sequential vs. random processing, parentage, command codes, Boolean SSAs, database positioning, secondary indexes, IMS access methods, JCL requirements, and checkpoint/restart.

IMS DC Coding with MFS

5 days

Prerequisite: prior programming experience

Topics include: DL/I calls, code for simple and complex screens, testing with BTS, error handling, sync point and rollback, design of complex on-line transactions, transaction flow, message scheduling, control and message regions, conversational, non-conversational, and pseudo-conversational programming, and physical and logical paging.

Physical Organization of IMS Databases

4 days

Prerequisite: working knowledge of the IMS database environment

Topics include: sequential and direct access methods, MSDB, DEDB, data cascading, pointers, data set groups, unkeyed segments, secondary indexing, and tuning considerations and tools.

IMS Management Overview

3 days

Prerequisite: none

Topics include: introduction to Fast Path, IMS DC, IMS DB, and IMSADF, DB2 concepts, comparison of IMS DB and DB2, installation planning, performance issues, overview of tools and productivity aids, and communication requirements between systems and technical support.

IMS Checkpoint/Restart Seminar

1 day

Prerequisite: COBOL and IMS experience

Topics include: GSAM databases, design criteria, testing procedures, and validation of test results.

IMS Database Utilities

4 days

Prerequisite: TSO/ISPF, OS/390 JCL, and an understanding of IMS databases

Topics include: DBD/PSB/ACB generation, HISAM and HD reorganization, prefix resolution, image copy, batch backout, database tools, and IMS log utilities.

IMS with DB2

2 days

Prerequisite: COBOL, TSO, JCL, and working knowledge of IMS and DB2

Topics include: synchronization, commit processing, coding for improved performance, PSBs, package and plan use, scrolling and paging through tables, BMP, MPP, IFP, IMS batch processing with DB2, enqueue, deadlock, DB2 operator commands, and checkpoint/restart.

IMS Database Recovery Control (DBRC)

5 days

Prerequisite: TSO/ISPF, OS/390 JCL, and an understanding of IMS databases

Topics include: Recon data sets, generating JCL, log control, recovery and share control, reorganization and image copies, change accumulation, data base recovery, and batch backout.

N-WAY Data Sharing

4 days

Prerequisite: IMS Concepts or IMS database support experience

Topics include: parallel sysplex overview and definitions, IRLM Lock Management, buffer invalidate, event notification, OSAM caching, DEDB VSO data sharing, DEDB SDEP data sharing, installation, utility considerations, normal operations, failure and recovery, batch considerations, performance considerations, monitoring and diagnostics, and migration plans.

IMS Fast Path

5 days

Prerequisite: IMS application experience

Topics include: commit point processing, DEDB areas, Fast Path status codes, subset pointers, use of POS call, sequential dependent and direct dependent segments, unit of work, dependent/independent overflow, database and PSB definition, and Fast Path utilities.

IMS Fast Path Implementation

5 days

Prerequisite: IMS experience in designing, using, or supporting full function databases

Topics include: data entry databases, DEDB features, system control functions, DEDB utilities, DEDB operations, and expedited message handler.

IMS for Operators

2 days

Prerequisite: none

Topics include: IMS terminology, IMS DB and IMS DC, IMS operator commands, DBRC implications, logging, simple problem resolution, and Fast Path.

File-AID for IMS

1 day

Prerequisite: TSO/ISPF and IMS Concepts

Topics include: dynamic PSBs, selecting DBDs, cross-reference files with copy layouts, browsing and editing databases, and unloading and reloading databases.

IMSADF Curriculum

IMSADF

5 days

Prerequisite: TSO and some programming experience

Topics include: system and segment definition, rules generation, library and component naming conventions, application logic definition, screen development, message definition, transaction definition, security, audit exits, and special processing routines.

Advanced IMSADF

5 days

Prerequisite: IMSADF or equivalent experience

Topics include: audit exits, special processing routines (SPRs), sign-on/sign-off exits, common area usage, and secondary transactions.

IMSADF with DB2

4 days

Prerequisite: COBOL, IMSADF, and DB2 Concepts or equivalent experience

Topics include: DB2 table generation, bind plan, table and column statements, standard and non-standard IMSADF SQL statements, SQL with High Level Audit Language, secondary key selection with DB2, audit exits and special processing routines with SQLHNDLR and native SQL, transaction and driver generation, and conversion of IMS transactions to DB2.

Internet/Web Curriculum

HTML

3 days

Prerequisite: Experience with Microsoft Windows 95/98/NT

Topics include: HTML authoring, images and graphics, hypertext links, lists, HTML standards, forms, tables, image processing, client-side image maps, testing and validation, frames, style sheets, Active X, Java Applets, intranet publishing issues, and internet publishing sites.

JavaScript Programming

3 days

Prerequisite: HTML or equivalent experience

Topics include: variables, data types, events, JavaScript objects, strings, math objects, date and array objects, interactive HTML objects, advanced HTML objects, window objects, manipulating images, using frames, and controlling web page appearance.

ColdFusion Web Application Development

3 days

Prerequisite: experience with web pages, WWW terminology, web servers, HTML, forms in web applications, SQL, and at least one programming language

Topics include: set up of the development environment, Cold Fusion tags, program flow controls, dynamic queries, full-featured web applications, variables, client-side validation using JavaScript, server-side validation, session variables, and retrieving and updating databases.

Advanced ColdFusion

3 days

Prerequisite: ColdFusion Web Application Development and 6 months experience developing web applications using Cold Fusion

Topics include: managing client state, writing intelligent agents, scripting, structured error handling, caching queries, custom tags, using WDDX to create distributed applications, lists, and structures.

Microsoft Visual InterDev

5 days

Prerequisite: Introduction to Visual Basic and HTML

Topics include: web-related technologies, web site development, security issues, creating a web site, Visual InterDev Tools, HTML pages and forms, Dynamic HTML, client script, Document Object Model, browser Objects, handling events, DHTML scriptlets, Active Server Pages, accessing databases, universal data access, ActiveX data objects, Com components, Microsoft Transaction Server, and other server-side technologies.

Microsoft Active Server Pages Fundamentals (ASP) 3 days

Prerequisite: basic familiarity with the web, HTTP, and a high level programming language

Topics include: architecture of web applications, IIS web server operating environment, concepts and principles of ASP technology, request and response objects, Active Data Object, Collaboration Data Object, programming the IIS web server.

Programming in PERL for UNIX or Windows 2 days (Basic/Intermediate)

Prerequisite: Windows 95/98/NT or UNIX Utilities and Commands - knowledge of awk is useful but not mandatory

Topics include: PERL scripts, programming constructs, expressions, file I/O, interfacing PERL with UNIX or Windows, and subroutines.

Programming in PERL for UNIX or Windows 1 day (Advanced)

Prerequisite: Programming in PERL (Basic/Intermediate) or equivalent experience

Topics include: PERL references, PERL typeglobs, modules and packages, object-oriented PERL programming, and scripts for networking with sockets.

Programming in PERL for UNIX or Windows- 2 days Tk and CGI Extensions

Prerequisite: Programming in PERL (Basic/Intermediate) or equivalent experience

Topics include: Tk extension to TCL, launching Tk applications, interfacing Tk applications with PERL, web communications, CGI introductions with PERL scripts, and forms and functions.

BusinessObjects 5.0 Reporting 2 days

Prerequisite: working knowledge of Windows 95/98/NT and familiarity with your Data Warehouse structure

Topics include: data warehousing overview, data manipulation, filtering, grouping and sorting, report formatting, and drill down.

BusinessObjects 5.0 Designer 3 days

Prerequisite: working knowledge of Windows 95/98/NT and familiarity with your Data Warehouse structure

Topics include: Universe concept, fundamental design, hierarchies, distribution, and maintenance.

BusinessObjects WebIntelligence

1 day

Prerequisite: working knowledge of Windows 95/98/NT, with or without an understanding of SQL

Topics include: product role, basic reporting, conditions, grouping and sorting, report formatting, and summary.

BusinessObjectsT Explorer

1 day

Prerequisite: BusinessObjects 5.0 Reporting

Topics include: data synchronization, slice and dice panel, filtering and ranking data, single dimension drilling, multiple dimension drilling, and drilling on different types of block and data.

WebSphere Administration v3.5

3 days

Prerequisite: a good understanding of web technology and Java, operational skills for Window NT, and administration skills for a web server such as Apache or IBM HTTP server.

Topics include: WebSphere product family introduction, WebSphere Application Server v3.5 AE installation and configuration, WebSphere Application Server administration, Enterprise Java application deployment with WebSphere, application workload management, application security management, WebSphere application tracing and troubleshooting, WebSphere performance monitoring and tuning, and WebSphere application content analysis and usage analysis.

WebSphere Server v4.0 Administration

3 days

Prerequisite: a good understanding of web technology and Java, operational skills for Window NT, and administration skills for a web server such as Apache or IBM HTTP server.

Topics include: WebSphere product family introduction, WebSphere Application Server v4.0 AE installation and configuration, WebSphere Application Server administration, Enterprise Java application deployment with WebSphere, application workload management, application security management, WebSphere application tracing and troubleshooting, WebSphere performance monitoring and tuning, and WebSphere application content analysis and usage analysis.

WebSphere MQ Technical Introduction

1 day

Prerequisite: none

Topics include: Overview, messaging examples, system administration overview, API overview, cross-platform design considerations, typical implementation overview, data integrity and disaster recovery, security and change management, tools and application support, and related topics discussion.

WebSphere MQ System Administration for Sun Solaris

3 days

Prerequisite: WebSphere MQ Technical Introduction or equivalent experience and a general understanding of Unix (AIX, Sun Solaris or HP-UX) operations and systems administration concepts

Topics include: WebSphere MQ Overview, distributed WebSphere MQ system administration overview, MQI API calls overview, queue definitions, triggering and recovery, common topologies, channels, clustering, performance and problem determinations, security, PCF and exits.

WebSphere MQ System Administration for OS/390 **4 days**

Prerequisite: WebSphere MQ Technical Introduction or equivalent experience and a general understanding of OS/390 operations and systems programming concepts

Topics include: WebSphere MQ overview, system administration overview, MQI introduction and structure overview, operations and control utilities details, queue definition details, channel definition details, remote queuing and triggering, data integrity and data conversion, clustering, Version 5 features, security, channel exits, problem determination and performance, and common QMGR topologies.

XML Fundamentals (Extensible Markup Language) **5 days**

Prerequisite: HTML Scripting and JavaScript (IE Browser) or equivalent Java programming experience

Topics include: origins of XML, creating well-formed XML documents, document markup, elements, attributes, entities, processing instructions, character data, comments, XML and HTML, creating valid XML documents, Document Type Definition (DTD), validating XML against a DTD, XML parser technology, event vs. tree-oriented parsers, validating vs. non-validating parsers, incorporating parsers into your application, displaying XML documents in IE5, style sheets and cascading style sheets, XSL, XML linking, XLink and XPointer, XML tools, using XML pages to store and retrieve structured data.

Java Curriculum

Introduction to Java Programming

5 days

Prerequisite: programming language experience in C, C++, Visual Basic or Smalltalk, and familiarity with object-oriented concepts

Topics include: data types, control flow constructs, object-oriented programming, program structure, exceptions, I/O in Java, threads, applets, graphics, layout managers, components, event handling, swing components, and network programming.

Introduction to Object-Oriented and Java Programming

5 days

Prerequisite: programming in any language

Topics include: Java language fundamentals, classes and objects, compilation units, packages, Import Directive, interfaces, exceptions, and AWT. Note: the lab work may use VisualAge.

Advanced Java Programming

5 days

Prerequisite: Introduction to Java Programming and three to six months experience

Topics include: advanced features, performance and tuning, virtual machine (.Lang) features, Abstract Windows Toolkit, applets, Java Beans, Java Database Connectivity (JDBC), Java connections to other languages and architectures, Remote Method Invocation (RMI), and servlets.

Java Beans Using VisualAge

4 days

Prerequisite: Introduction to Java Programming or equivalent experience

Topics include: discussion of properties, events and methods within a Java Bean, visual vs. non-visual beans, testing and debugging beans, using advanced AWT interface beans, morphing and editing beans, deployment, incorporating Java Swing classes, JDBC and data access beans, Enterprise Java Beans architecture, session vs. entity beans and the use of EJB server within VisualAge.

Java Swing Programming

2 days

Prerequisite: basic understanding of the Windows environment and fundamental knowledge of Java - some knowledge of event-based programming is helpful

Topics include: AWT to Swing, overview of JFC, use of JFrame, layout managers, graphics, menus and toolbars, dialogs, tree/table controls, and multiple documents.

Introduction to VisualAge for Java

3 days

Prerequisite: background in programming

Topics include: overview of Java, Java programming, VisualAge for Java, Java syntax, Java classes, Java objects, and advanced classes.

Application Programming Using VisualAge for Java

2 days

Prerequisite: basic knowledge of Java and object-oriented programming

Topics include: graphics, multithreading, Abstract Window Toolkit, file I/O, TCP/IP client/server applications, stand-alone Java applications, and Java applets.

Advanced Programming Using VisualAge for Java

2 days

Prerequisite: Application Programming Using VisualAge for Java or equivalent experience

Topics include: a customized class that may include Java Beans, AWT enhancements, JAR-Java Archive, JDBC, JDK security API, and communications.

Developing Java Server Side Applications

5 days

Prerequisite: Introduction to Java Programming and Introduction to VisualAge for Java

Topics include: Elements used in programming server side applications using VisualAge for Java and WebSphere; web server to web application server interaction; role of Java Beans, Java Server Pages and servlets; use of VisualAge tools to develop Java Beans, servlets, Java Server Pages, VisualAge for Java Debugger, and Data Access Beans; role of Enterprise Java Beans in server side applications.

Java Server pages (JSP) for Web Application Development

5 days

Prerequisite: HTML, Java, JavaScript, and basic knowledge of the Internet development

Topics include: Web application development, Servlets, Java Servlet API, Web-based forms for user input, Servlets with Java Database Connectivity (JDBC), formatting database results, JSP fundamentals, state management with JSP, integrating JSP and JavaBeans, Tag Extension Mechanism, custom tags, basics of XML, and manipulating XML with XSL.

Introduction to WebSphere Studio

4 days

Prerequisite: basic understanding of the WWW and the role of HTML with experience writing HTML applications. Experience with Java applets and a relational database is helpful.

Topics include: WWW overview, WebSphere components, page designer, applet designer, dynamic content, Java Server pages, Java Beans, Website management, deployment, and java-script.

Linux Curriculum

Introduction to Linux

3 days

Prerequisite: none

Topics include: basic commands, Linux files, file security, the vi editor, introduction to the shell, Linux processes, Bash Shell, data manipulation, and the FIND command.

Linux Utilities and Commands

3 days

Prerequisite: experience with any interactive system and Introduction to Linux

Topics include: user environment, command language, file management, text editors, the user interface, shell script procedures, and print and batch mechanisms.

Shell Programming and Report Generation

4 days

Prerequisite: Linux Utilities and Commands or equivalent experience

Topics include: the Bash shell, the pdksh (public domain Korn shell), user-defined variables, looping statement constructs, decision statements, export and expr, "Here Documents" in scripts, logical tests constructs, functions, pipes, scripts with special parameters and variable substitutions, Korn Shell parent-child process, arrays, the gawk utility, and formatted output using printf.

Miscellaneous Courses

REXX

3 days

Prerequisite: VM/CMS or OS/390/TSO

Topics include: information retrieval, data string parsing, variable definition, use of DO groups, IF-THEN statements, conditional options, PUSH/PULL, QUEUE, file handling, execution of CMS commands, and REXX subroutines.

Advanced REXX

3 days

Prerequisite: OS/390 REXX, TSO/E, ISPF, ISPF Edit, and some experience with JCL and the ISPF Dialog Manager

Topics include: REXX interpreter, coding techniques, templates, tracing, interpreting, data conversion, TSO/E search order, ISPF panels as front-end programs, built-in functions, terminal output, program stack, OS/390 file I/O, ISPF edit macros, and the time sharing environment.

Dialog Manager

3 days

Prerequisite: TSO/ISPF and OS/390 JCL

Topics include: panel definition, dialog execution, table handling, function keys, skeleton definitions, pull-down menus, and message definitions.

Structured Query Language (SQL)

2 days

Prerequisite: familiarity with the operating system being used

Topics include: SQL syntax, keywords, data types and value expressions, tables, commands, views and joins, sub-queries, performance considerations, date functions, string functions, security, and referential integrity.

Basic Assembler Programming

5 days

Prerequisite: TSO/ISPF and OS/390 JCL

Topics include: numbering systems, data representation, storage areas, constants, programs for business problems, move statements, program listing, use of the IBM Reference Card, compare instructions for character data, and decimal arithmetic.

Intermediate Assembler Programming

4 days

Prerequisite: Basic Assembler Programming, TSO/ISPF, and OS/390 JCL

Topics include: the assembly process, register and binary operations, binary operations using RX format instructions, register to register instructions, branching, looping, and debugging.

Assembler for COBOL Programmers

3 days

Prerequisite: TSO/ISPF, OS/390 JCL, and COBOL programming experience

Topics include: number systems, internal data representation, MVC and overlapping storage, decimal arithmetic, binary data, base register, displacement, external subroutines, branch, link, and perform.

CLIST

2 days

Prerequisite: TSO/ISPF and OS/390 JCL or equivalent experience

Topics include: LISTALC, FREE, ALLOCATE, symbolic and positional parameters, set, DO groups, operators, called subroutines, IF-THEN-ELSE logic, prompting for information, nesting CLISTs, TSO edit functions, submitting JCL, control statements, error handling, and function usage.

Introduction to PL/1

5 days

Prerequisite: COBOL or C, TSO or CMS, and an on-line source editor

Topics include: program components, DECLARE statements, scalar identifiers, structures, arrays, expression evaluation, control statements, file processing, built-in functions, pseudo-variables, and compiler options.

Teradata SQL

2 days

Prerequisite: none

Topics include: relational database concepts, data warehouses, syntax, keywords, data types, value expressions, system architecture, performance, tables, indexes, commands, VIEW, subqueries, aggregations, JOIN, ITEQ and BTEQ, reporting capabilities, and date calculations.

TCP/IP for OS/390 Implementation

3 days

Prerequisite: basic knowledge of TCP/IP, TSO, and ISPF

Topics include: installation, customization, configuration of FTP and Telnet servers, commands, problem determination, and network management.

NOMAD Curriculum

Introduction to NOMAD Reporting

3 days

Prerequisite: none

Topics include: NOMAD databases, syntax, report screening, NOMAD windows, calculation and format options, arrays, relational operators, and CREATE command.

Introduction to NOMAD Databases

2 days

Prerequisite: Introduction to NOMAD Reporting or equivalent experience

Topics include: NOMAD windows, NOMAD databases and terminology, creating and editing databases, loading databases, specific and relative positioning commands, and executing NOMAD procedures.

Object-Oriented Curriculum

Introduction to Object-Oriented and Java Programming **5 days**

Prerequisite: programming in any language

Topics include: Java language fundamentals, classes and objects, compilation units, packages, Import Directive, interfaces, exceptions, and AWT. Note: the lab work may use VisualAge.

Introduction to Object-Oriented Design **1 day**

Prerequisite: none

Topics include: features, object modeling, terms, concepts, and process management.

Object-Oriented Overview for Mainframe Developers **2 days**

Prerequisite: basic understanding of the Windows environment and a fundamental knowledge of any structured application-programming language

Topics include: object-oriented overview, environment, major object-oriented components, encapsulation/abstraction, inheritance, polymorphism, class definitions, Windows event handling, and JDBC.

Object-Oriented Analysis and Design **4 days**

Prerequisite: Introduction to Object-Oriented Design or equivalent experience

Topics include: overview of object-oriented design, terms, concepts, process management, analysis, design, and advanced issues.

Object-Oriented Analysis and Design Using UML (Unified Modeling Language) **5 days**

Prerequisite: experience in analysis, design, or development is desirable, but not required.

Topics include: Unified Modeling Language, requirements definition, discovering objects from requirements, static modeling, dynamic modeling, object relationships, quality characteristics, principles of software architecture, and advanced techniques.

Introduction to C++ **5 days**

Prerequisite: programming in any language, preferably C

Topics include: C++ extensions to C, object-oriented programming in C, classes, constructors, destructors, friend functions, operator overloading, inheritance and virtual functions, stream I/O, and miscellaneous topics.

C Language

5 days

Prerequisite: programming experience in any procedural language

Topics include: C Programming Basics, user defined types, operators, control structures and keywords, I/O functions, string functions, function calls, storage classes, and preprocessor directives.

OS/390 JCL Curriculum

OS/390 Concepts

2 days

Prerequisite: none

Topics include: features of OS/390, ESA and its evolution, libraries, compilers, linkage editors, tape and DASD, jobs, steps, tasks, job execution, sequential, direct, and partitioned data sets, and program storage.

OS/390 JCL

4 days

Prerequisite: TSO/ISPF

Topics include: JCL statements, dataset concatenation, dummy datasets, SMS, condition codes, catalogued and in stream procedures, symbolic parameters, execution overrides, DD statement overrides, generation data groups, partitioned datasets, IEBGENER, SORT, IDCAMS, and IEFBR14.

MVS Concepts

2 days

Prerequisite: None

Topics include: features of MVS; ESA and its evolution; libraries, compilers, and linkage editors; tape and DASD; jobs, steps, and tasks; job execution; sequential, direct, and partitioned organizations; and program storage.

OS/390 Operations Curriculum

IMS for Operators

2 days

Prerequisite: none

Topics include: IMS terminology, IMS DB and IMS DC, IMS operator commands, DBRC implications, logging, simple problem resolution, and IMS fast path.

IMS with DB2

2 days

Prerequisite: COBOL, TSO, JCL, and working knowledge of IMS and DB2

Topics include: synchronization, commit processing, coding for performance, PSBs, package and plan use, scrolling and paging through tables, BMP, MPP, IFP, IMS batch processing with DB2, enqueue, deadlock, DB2 operator commands, and checkpoint/restart.

DBRC (Database Recovery Control)

5 days

Prerequisite: TSO/ISPF, OS/390 JCL, and an understanding of IMS databases

Topics include: RECON data sets, generating JCL, log control, recovery and share control, reorganization and image copies, change accumulation, database recovery, and batch backout.

Physical Organization of IMS Databases

4 days

Prerequisite: working knowledge of the IMS database environment

Topics include: sequential and direct access methods, MSDB, DEDB, data cascading, pointers, data set groups, unkeyed segments, secondary indexing, and tuning considerations.

IMS Database Utilities

4 days

Prerequisite: TSO/ISPF, OS/390 JCL, and an understanding of IMS databases

Topics include: DBD/PSB/ACB generation, HISAM and HD reorganization, prefix resolution, image copy, batch backout, database tools, and IMS log utilities.

TCP/IP for OS/390 Implementation

3 days

Prerequisite: basic knowledge of TCP/IP, TSO, and ISPF

Topics include: installation, customization, configuration of FTP and Telnet servers, commands, problem determination, and network management.

MVS Concepts

2 days

Prerequisite: None

Topics include: features of MVS; ESA and its evolution; libraries, compilers, and linkage editors; tape and DASD; jobs, steps, and tasks; job execution; sequential, direct, and partitioned organizations; and program storage.

WebSphere Administration v3.5

3 days

Prerequisite: a good understanding of web technology and Java, operational skills for Window NT, and administration skills for a web server such as Apache or IBM HTTP server.

Topics include: WebSphere product family introduction, WebSphere Application Server v3.5 AE installation and configuration, WebSphere Application Server administration, Enterprise Java application deployment with WebSphere, application workload management, application security management, WebSphere application tracing and troubleshooting, WebSphere performance monitoring and tuning, and WebSphere application content analysis and usage analysis.

WebSphere Server v4.0 Administration

3 days

Prerequisite: a good understanding of web technology and Java, operational skills for Window NT, and administration skills for a web server such as Apache or IBM HTTP server.

Topics include: WebSphere product family introduction, WebSphere Application Server v4.0 AE installation and configuration, WebSphere Application Server administration, Enterprise Java application deployment with WebSphere, application workload management, application security management, WebSphere application tracing and troubleshooting, WebSphere performance monitoring and tuning, and WebSphere application content analysis and usage analysis.

WebSphere MQ Technical Introduction

1 day

Prerequisite: none

Topics include: Overview, messaging examples, system administration overview, API overview, cross-platform design considerations, typical implementation overview, data integrity and disaster recovery, security and change management, tools and application support, and related topics discussion.

WebSphere MQ System Administration for OS/390

4 days

Prerequisite: WebSphere MQ Technical Introduction or equivalent experience and a general understanding of OS/390 operations and systems programming concepts

Topics include: WebSphere MQ overview, system administration overview, MQI introduction and structure overview, operations and control utilities details, queue definition details, channel definition details, remote queuing and triggering, data integrity and data conversion, clustering, Version 5 features, security, channel exits, problem determination and performance, and common QMGR topologies.

Testing Curriculum

Regression Testing

1 day

Prerequisite: prior software testing experience

Topics include: maintenance testing, regression test sets, problem identification, and automated regression testing tools.

Unix Curriculum

Unix Basics

3 days

Prerequisite: none

Topics include: file permission modes, viewing, creating, and editing commands, Unix philosophy, Unix variants, unified command set, use of regular statements in editing, customization of the shell environment, special symbols, wildcards, background job control, and vi editor.

Unix Utilities

2 days

Prerequisite: Unix Basics or equivalent experience

Topics include: columns and fields, sorting tools, comparing files, tools for mathematical calculations, date and time tools, tools for working with compressed files, and introduction to AWK.

Unix Shell Programming

3 days

Prerequisite: Unix Basics and Unix Utilities or equivalent experience

Topics include: shell functionality, basics of shell programming, control structure commands, sub-shells, control of the shell environment, and additional Korn shell topics.

Unix Advanced Shell Programming

3 days

Prerequisite: Unix Shell Programming, Unix Utilities, and experience using the basic command and programming language features of the Shell

Topics include: shell functionality, command line evaluation, parameters, variables, file descriptors, file redirection, execution flags, built-in statements, readability, maintainability, reliability, and efficiency.

Unix Shell Programming and Report Generation

4 days

Prerequisite: Unix Basics and Unix Utilities or equivalent experience

Topics include: writing Bourne shell scripts, writing Korn shell scripts, using the awk utility to generate reports, and special features of the nawk utility.

Programming in PERL (Basic/Intermediate)

2 days

Prerequisite: Unix Basics or equivalent experience

Topics include: writing PERL scripts, operators, programming constructs, expressions, file I/O, interfacing PERL with Unix, and subroutines.

Programming in PERL (Advanced)

1 day

Prerequisite: Programming in PERL (Basic/Intermediate) or equivalent experience

Topics include: PERL references, PERL typeglobs, modules and packages, object-oriented PERL programming, and scripts for networking with sockets.

Programming in PERL - Tk and CGI Extensions **2 days**

Prerequisite: Programming in PERL (Basic/Intermediate) or equivalent experience
Topics include: the Tk extension to TCL, launching Tk applications, interfacing Tk applications with PERL, web communications, CGI introductions with PERL scripts, and forms and functions.

Unix Essential Operations **4 days**

Prerequisite: Unix Basics or equivalent experience
Topics include: advanced system concepts, system installation and updating, startup and shutdown, managing system users, managing printer queues, managing disk and tape volumes, monitoring system activity, maintaining system integrity, and network setup and configuration.

Unix Networking Features **3 days**

Prerequisite: Unix Basics and Unix Essential Operations or equivalent experience
Topics include: review of system concepts, advanced network features, file transfer capabilities, advanced Network File System (NFS) features, using the Network Information Service (NIS), Name Services, configuring remote printers, tape device access through TCP/IP, and maintaining system integrity.

Unix Security Issues **2 days**

Prerequisite: Unix Basics and Unix Essential Operations or equivalent experience
Topics include: advanced system concepts, system security features, managing system users, file security system, UNIX log files, and network security.

Unix System V Administration **5 days**

Prerequisite: Unix Basics and Unix Shell Programming or equivalent experience
Topics include: role of administrator, hardware, software, file systems, boot procedure, backups, logins, memory management, Cron administration, AT and batch commands, system monitoring, system accounting, intra and inter communications, printer connections, and security.

Motif and CDE Administration **2 days**

Prerequisite: UNIX Shell Programming and Unix Essential Operations or equivalent experience
Topics include: the X Window system, system startup, applications, xterm application, X Window Manager setup and control, security issues, font management, X Resources, and Keysym mappings.

Unix Performance Concepts and Analysis

1 day

Prerequisite: UNIX Shell Programming and Unix Essential Operations or equivalent experience

Topics include: performance basics, memory management, CPU management, I/O management, network management, NFS performance, X Window basics and implementation, and modification of performance parameters.

C Language

5 days

Prerequisite: programming experience in any procedural language

Topics include: C Programming Basics, user defined types, operators, control structures and keywords, I/O functions, string functions, function calls, storage classes, and preprocessor directives.

WebSphere MQ System Administration for Sun Solaris

3 days

Prerequisite: WebSphere MQ Technical Introduction or equivalent experience and a general understanding of Unix (AIX, Sun Solaris or HP-UX) operations and systems administration concepts

Topics include: WebSphere MQ Overview, distributed WebSphere MQ system administration overview, MQI API calls overview, queue definitions, triggering and recovery, common topologies, channels, clustering, performance and problem determinations, security, PCF and exits.

VSAM Curriculum

VSAM

3 days

Prerequisite: OS/390, JCL, TSO, COBOL or PL/1

Topics include: KSDS, ESDS, RRDS, ICF catalog structure, access method services, COBOL command formats for VSAM access, control intervals, areas, splits, alternate index and path usage, and VSAM space calculations.

IDCAMS

2 days

Prerequisite: OS/390, JCL, and TSO

Topics include: KSDS, ESDS, RRDS, ICF catalog structure, control intervals, areas, splits, Generation Data Groups (GDGs), alternate indexes, and VSAM space calculations.

Instructors

Linda Barker

Linda specializes in training for the development of business-to-business applications in all phases of technology, from high-volume mainframe applications to web-based application servers. Her extensive development experience in a broad range of technologies brings in-depth practical experience to the classroom. Her training specialties include Cold Fusion, SQL Server, JavaScript, and HTML for the web, entry level training, IMS and DB2 for the mainframe, and all aspects of relational databases.

Jeremy Bell

Jeremy brings to the classroom 20 years experience gained “in the trenches” developing on-line and batch applications. He specializes in high-performance, high transaction volume systems using CICS, DB2, IMS, and VSAM. He also teaches all aspects of mainframe software development and testing, and associated tools.

Paul Cerio

Paul has worked as an IMS application programmer, system programmer, and DBA since the 1970s. He has been an independent contractor since 1994, teaching and developing courses in all areas of IMS. His vast knowledge, in IMS as well as other areas, and his teaching skills, combine to make him an outstanding instructor.

Peter Chang

Peter has been working in the mainframe and personal computer environment since the early 80s. He has installed an IMS DBCTL environment and implemented IMS DBRC and has provided IMS release to release consulting services. Peter has provided team leadership for IMS, CICS, OS/390/ESA, and OS/390 technical support and has been providing training in these areas as well.

Chuck Filteau

Chuck is an independent consultant specializing in DB/DC information systems education. Chuck spent 30 years at IBM, 20 of them in the IMS area and more than 10 years in IMS education. Chuck also has an excellent knowledge of DB2 and CICS. His publication, *Summary of CICS-DB2 Attachments*, received international recognition. He has also presented at GUIDE.

Jack Frater

Jack is an ex-seventh grade school teacher. Since the 1980's, Jack has worked in application development holding various positions from programmer through project manager. Currently an independent consultant, Jack teaches the COBOL curriculum at Golden Gate University and Visual Basic in their Masters Degree program. Jack's teaching experience and practical background are an excellent mix in the training field.

John Frykland

John is an independent consultant specializing in relational database applications and technical training. His background includes a four-year stint as a software engineer for Ansa Software and Borland International where he worked on the development of the original versions of Paradox. In the training area, John has taught at the University of California Berkeley Extension where he led the classes "C Language Programming for Business" and "Introduction to Computer Programming Using C." Since 1995, John has also taught an Entry Level Training Program where he readies new hires for a mainframe career in COBOL, JCL, TSO/ISPF, and related tools. John's wide range of experiences and relaxed teaching style provide an excellent background in the training arena.

Deepak Kohli

Deepak is an independent instructor, course developer, and consultant specializing in IMS. He has taught as an independent instructor for IBM and Amdahl, was involved in teaching IMS/ESA Version 4 Early Support Program education, and has taught Version 5 and Version 6 courses in the U.S. and internationally. Deepak has been a presenter at IMS Technical Conferences since 1991 and is a regular speaker at Nordic GUIDEs. His product knowledge and presentation techniques have won him consistently outstanding reviews and have resulted in a first-rate, well-deserved reputation.

Ron McIntosh

Ron brings to the classroom over two decades of extensive mainframe experience from applications to database administration to systems, in not only IMS, but also DB2 and OS/390. He has been involved in monitoring and tuning, disaster recovery, new release installation, and operations support.

John Miller

John is an independent computer consultant specializing in web page design, hardware installation, and technical training. He is retired from the Navy with 21 years of active duty where many of his assignments were in training and program instruction. His job titles included: Data Systems Specialist, Senior Instructor for the NATO Data Center, Production Support Officer, and Systems Test Officer. After retirement, John spent 8 years at Randtron Systems where he served as Test Manager and was involved in the installation of the company's first LAN. Concurrently, John has managed CYBeRGEM, his own web development company for the last fifteen years. John's wide range of experience and relaxed teaching style provide an excellent background in the training area.

Tony Sabo

Tony has been involved with all aspects of IMS since the mid-70s. His teaching style builds on this experience and his presentations stress the practical, day-to-day responsibilities of his students. Since the mid-1980s, Tony divides his time between IMS education and a consulting practice specializing in IMS performance.

Karen Tischer

Karen is an independent consultant and IMS instructor and course developer. Her areas of expertise include database and transaction manager performance, DBRC, Fast Path, and data sharing. She spent 25 years with IBM as a systems engineer and IMS instructor and course developer. Karen's teaching skills result in notable comments, such as "one of the best instructors I've ever had." Karen has presented at IMS Technical Conferences since 1992.