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BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

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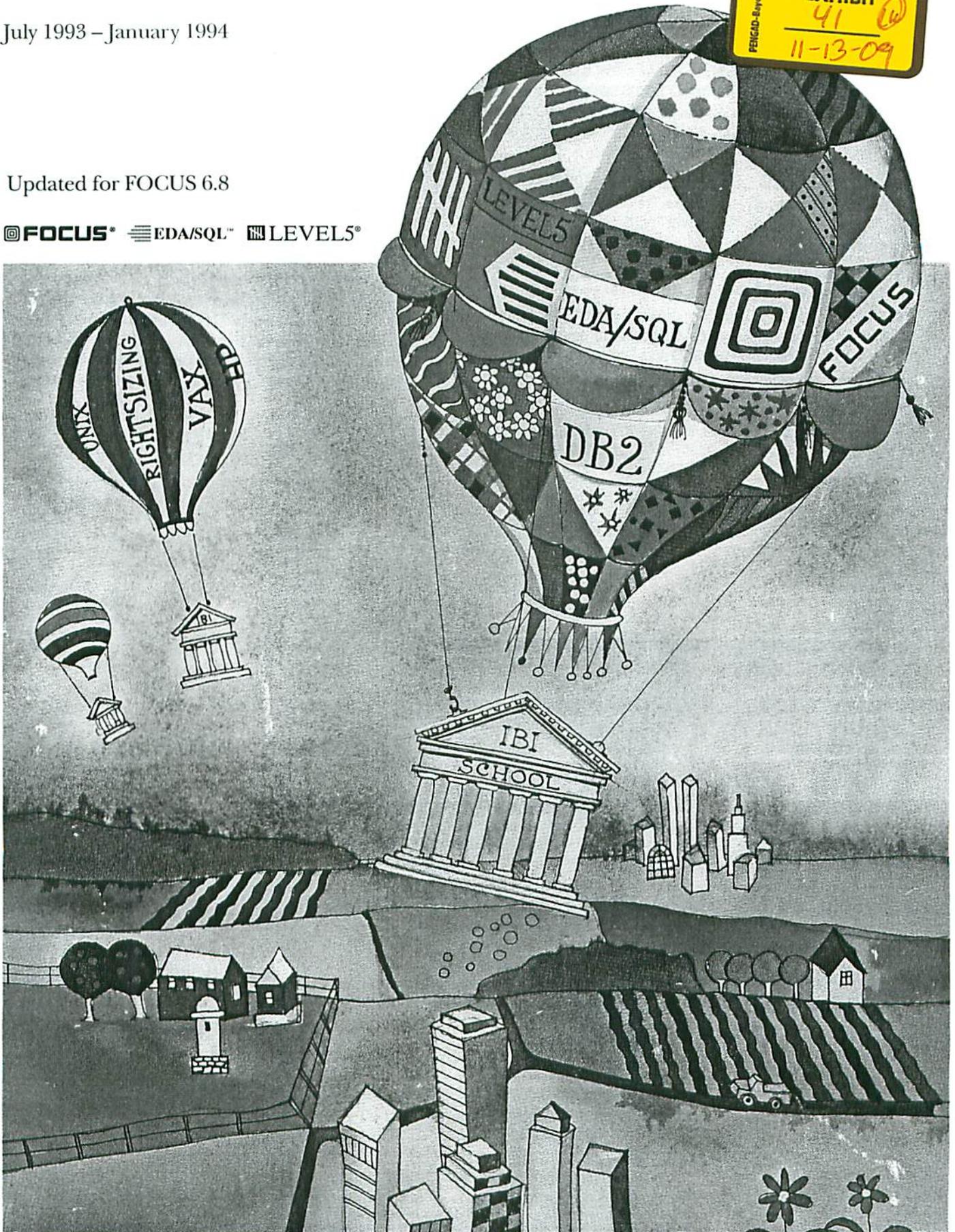
Education Curriculum and Calendar Information Builders

July 1993 – January 1994

Updated for FOCUS 6.8

FOCUS® EDA/SQL™ LEVEL5®

PERIGAD-Bayonne, N. J.
PLAINTIFF'S
EXHIBIT
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11-13-09



Guide to the FOCUS Masters Curriculums

IBI has organized its FOCUS course offerings into FOCUS Masters Curriculums. The curriculums feature both core and elective courses that have been carefully selected to provide individuals with the FOCUS expertise they need. Individuals can receive a 15% discount off their curriculum courses by enrolling in IBI's FOCUS Masters Program. Upon curriculum completion, students receive a FOCUS Masters Certificate, ready for display, plus other discounts and premiums available only to FOCUS Masters graduates.

We offer curriculums for two types of users new to FOCUS: DP (Data Processing) Professionals and Business Professionals. Here are the guidelines to help you identify the best FOCUS Masters Curriculum to meet your job needs:

DP Professional

You are a person with programming experience in a third or fourth generation language who develops applications for organizational use. Select one of the following FOCUS Masters Curriculums:

- FOCUS Reporting for DP Professionals. See pages 16 and 17.
- FOCUS Reporting for Relational Database Users. See pages 22 and 23.
- FOCUS Application Development for DP Professionals. See pages 26 and 27.

Business Professional

You are a person with some or no programming experience who uses a computer to obtain business information for your own use. You should know basic computer terminology and have hands-on familiarity with a computer keyboard. Knowledge of an operating system and a system editor is helpful. Select one of the following FOCUS Masters Curriculums:

- FOCUS Reporting for Business Professionals. See pages 6 and 7.
- FOCUS Reporting for Relational Database Users. See pages 22 and 23.
- FOCUS Application Development for Business Professionals. See pages 40 and 41.

Receive a free personalized FOCUS Masters Consultation and get your own FOCUS mug. Call the Education Account Representative or Consulting Manager at your local IBI office or call IBI's Education Department in New York (see inside back cover for phone numbers). If you have recently taken IBI FOCUS courses, your record of attendance can be applied to the FOCUS Masters Program and you can continue your training as a FOCUS Masters student. Call us for details, and ask about arranging a FOCUS Masters Curriculum on site for a group of users.

Our Success Depends on Your Success!

To ensure your success with FOCUS, EDA/SQL, and LEVEL5, IBI provides you with a wide range of educational support services. This vendor's dedication to the products is your guarantee of training effectiveness. Services include:

- Curriculum Planning and Support – Our Education Account Representatives will assist you in selecting the right courses and will help you develop a curriculum plan. We will answer any questions you have about our curriculums, and can tailor an on-site course to your exact specifications. We are always available to answer any questions you have after completing a course.
- Curriculum Development From the Authors of FOCUS and EDA/SQL – Our curriculum developers work hand in hand with our product developers and product managers to provide accurate courses that reflect the latest release information.
- Instruction from the Experts – Our instructors are professional FOCUS, EDA/SQL, and LEVEL5 consultants who regularly develop full-scale customer applications. At IBI, our education philosophy is, "If you can't do it, you can't teach it."

Cover art, *IBI in the Sky*, artwork by Sergey Goryansky. All reproduction rights are reserved by the artist.

What's New

New Courses to Meet Today's Business Needs

At Information Builders, we are continuously developing new training to meet the latest needs of our users. In this *Education Curriculum and Calendar*, we introduce a variety of new courses, a new curriculum, and an improved course discount program to speed you on your path to success.

■ New FOCUS Courses

Our new *FOCUS Advanced Reporting* completes the FOCUS Masters Reporting curriculum. This course teaches users to solve complex reporting situations by applying the most sophisticated and practical FOCUS reporting techniques. Anyone who has completed *FOCUS Intermediate Reporting* will want to acquire the expertise available with this new course. See page 12 for details.

With our new *FOCUS Reporting Efficiencies for DB2, SQL/DS, Oracle, and Teradata*, users learn how to create the most efficient report requests from these mainframe relational databases. A careful analysis of internal processing, coupled with numerous new coding techniques, enables users to achieve maximum performance from both their existing and future FOCUS reporting applications. See page 25 for details.

■ New Rightsizing to UNIX Course

Today's trend toward downsizing applications demands a host of new skills. *Rightsizing FOCUS Applications to the UNIX Environment*

introduces students to the powerful UNIX operating system and helps them work comfortably within it. Case studies show how to migrate and tune FOCUS applications to UNIX. See pages 54 and 55 for details.

■ New EDA/SQL Course

If you work in Lotus 1-2-3, but need data stored in other databases, then *EDA/SQL and Lotus 1-2-3 DataLens* is for you. Learn everything from installing the EDA/SQL DataLens Extender for Lotus 1-2-3 to sophisticated querying of databases. After completing this course, students are able to access over 50 external databases from within their Lotus spreadsheets. See page 52 for details.

■ New LEVEL5 OBJECT Course

Advanced LEVEL5 users who want to access a wide range of data from a variety of sources will be interested in our new course, *LEVEL5 OBJECT: The Intelligent Client*. Learn about the role of LEVEL5 OBJECT in the client/server world and how you can unleash the power of EDA/SQL to meet your data communications needs. Numerous hands-on examples give you practical experience in using LEVEL5 OBJECT in an advanced data communications environment. See page 61 for details.

New FOCUS Masters Curriculum

IBI is pleased to introduce our fifth **FOCUS Masters Curriculum: Reporting for Relational Database Users** that concentrates on showing how to use FOCUS to write efficient reporting applications that run against relational databases. This curriculum features the new *FOCUS Reporting Efficiencies for DB2, SQL/DS, Oracle, and Teradata*. See page 23 for details.

The Best of Top Gun Comes to You

Since 1988, IBI's Top Gun Program has provided advanced education for experienced FOCUS users. Taught by IBI's course developers, high-level

consultants, and most experienced technicians, the Top Gun courses have consistently been rated "excellent" by over 99% of students. This high-caliber training is now being delivered in a format that makes the best of Top Gun accessible to you. We've structured our Top Gun Program into four two-day curriculums that are being presented at IBI branch offices throughout North America. The curriculums are *FOCUS Reporting*, *FOCUS Internals for Efficiencies*, *EDA/SQL*, and *PC/FOCUS and LAN*. These curriculums feature the very best Top Gun courses taught by the leading Top Gun instructors. See page 62 for upcoming dates.

Bigger Discounts

EDPACK

Our popular EDPACK program now offers an even better discount with a graduated savings of up to 18% on all IBI education products and services, including IBI site and on-site courses, Top Gun Technology Days, FOCUS CBT, and student education kits. See page 81 for details.

More Ways to Register

For your convenience, you can now enroll in a course by phone, FAX, or mail. As an added convenience, you can pay by credit card. See page 84 for the registration form.

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Top Gun

Dates

Tuition

Choosing Your Curriculum

Choosing Your Curriculum

Whether you are a first-time computer user or a seasoned data processing professional, IBI has a series of courses to make you immediately productive with FOCUS, EDA/SQL, LEVEL5, DB2 and SQL/DS, and UNIX.

■ Course 126

FOCUS Intermediate Reporting

"The course was well presented and it's a great tool for users. It allows them to do their own programming. FOCUS is a wonderful product."

— **Becky H. Peaks**
Pitt County Memorial Hospital

■ Course 801/802

Two Day UNIX Rightsizing Class

"The online demonstration was great. It was very helpful for understanding UNIX and its tools."

— **Gina Rush**
Emory University System of Healthcare

■ Course 102

FOCUS Basic Reporting for Business Professionals

"I've enjoyed this course, and I look forward to applying the knowledge to applications to make my job easier, as well as the jobs of my co-workers. This makes me more valuable to my employer."

— **Mary Allen**
Baker & Taylor Books

■ Course 210

FOCUS Advanced Reporting

"The course was really great. I learned many techniques and tools that I can use in my reporting. The instructor was excellent and very patient."

— **Rosemarie Reyes**
Sharp Healthcare

FOCUS Masters Curriculums

The FOCUS Masters Curriculums have been created to simplify your educational choices while ensuring the effectiveness of the training you receive. Each of the curriculums consists of core courses and electives that give you the skills you need to gain maximum expertise in your use of FOCUS. There are five curriculums:

■ Reporting for Business Professionals

Designed for people whose expertise is in a professional area other than data processing, but who need to produce their own reports. This curriculum takes you from creating simple ad hoc reports to developing very sophisticated business reports. The three core courses (*Basic, Intermediate, and Advanced Reporting*) emphasize building practical business reporting applications and reinforcing skills with many hands-on exercises. The elective courses (*FOCUS Windows, Extended Matrix Reporting, and Menu Management*) round out the curriculums with specialized reporting techniques. See pages 6 and 7 for the curriculum chart and information on the FOCUS Masters Program.

■ Reporting for DP Professionals

Designed for people with a programming background who need to create sophisticated FOCUS reports. The initial course in this curriculum, *FOCUS Basic Reporting for DP Professionals (101)*, emphasizes practical business reporting applications with a pace and terminology appropriate for individuals with a programming background. See pages 16 and 17 for the curriculum chart and information on the FOCUS Masters Program.

■ Reporting for Relational Database Users

Designed for students who use FOCUS primarily to report against relational databases, this curriculum features our three standard core reporting courses (*Basic, Intermediate, and Advanced*) and a specialized core addition, the new *FOCUS Reporting Efficiencies for DB2, SQL/DS, Oracle, and Teradata*. Students round out their curriculum with selected elective courses. Those who are first beginning to work with DB2 or SQL/DS, for example, can obtain essential introductory skills by starting their curriculum with *Introduction to DB2 and SQL/DS*. See pages 22 and 23 for details.

■ Application Development for DP Professionals

Designed for experienced Data Processing Professionals who will use FOCUS to produce and maintain information systems, regardless of the business area in which the application will be used. Participants learn to use FOCUS as a tool for producing and maintaining information systems throughout their organizations. See pages 26 and 27 for the curriculum chart and information on the FOCUS Masters Program.

■ Application Development for Business Professionals

Designed for Business Professionals who need to use FOCUS to produce and maintain information systems. Participants start by producing reports and building simple FOCUS databases. They then learn to create more sophisticated reporting and database maintenance applications. See pages 40 and 41 for the curriculum chart and information on the FOCUS Masters Program.

FOCUS Computer Based Training

IBI's Computer Based Training is a set of four interactive, computer-driven courses that are equivalent to the *Basic FOCUS Series* taught in IBI classrooms. The set includes *Basic Report Preparation*, *Describing Files to FOCUS*, *Maintaining FOCUS Files*, and *FOCUS Menu Management*. See pages 48 and 49 for more details, including a description of our new *FOCUS Menu Management* course. IBI's CBT provides self-paced and standardized instruction. The courses run on the PC.

EDA/SQL Courses

IBI offers a full suite of EDA/SQL courses that cover every aspect of the EDA/SQL product. These courses answer the questions that those responsible for EDA/SQL in their organizations will have in planning, implementing, and using EDA/SQL. Anyone interested in EDA/SQL should start off with *EDA/SQL Concepts and Facilities*, IBI's introductory course that provides the background knowledge needed to understand EDA's essential components and capabilities. Follow-up courses include *EDA/SQL Data Access Implementation Workshop*, *EDA API/SQL Interface*, *Interfacing EDA/SQL Data Structures*, and the new *EDA/SQL and Lotus 1-2-3 DataLens*. Course descriptions start on page 51.

UNIX

IBI has developed *Rightsizing FOCUS Applications to the UNIX Environment* for FOCUS developers who are considering, or have to consider, migrating their FOCUS applications to the UNIX environment. Students are introduced to UNIX and how to use it. Hands-on practice ensures student comfort with FOCUS on any UNIX system. Case studies teach students how to take existing FOCUS applications and make them run on a UNIX machine. See pages 54 and 55.

OpenVMS Courses

The one-day *FOCUS for OpenVMS* course covers how to implement FOCUS applications in the OpenVMS environment effectively. See page 56.

Train-the-Trainer Programs

IBI's integrated programs provide you with everything needed to conduct FOCUS training successfully at your company using your own instructor. The programs feature training for the instructor, attendance at IBI's specialized Train-the-Trainer Workshops, and a supply of Student Education Kits that are updated to the current FOCUS release. See pages 58 and 59 for details.

LEVEL5 Courses

Our LEVEL5 courses provide the hands-on skills needed to develop and maintain LEVEL5 applications. Attend *Smart Application Development Using LEVEL5 OBJECT* if you have Release 2. Advanced users can learn to access external data with our new *LEVEL5 OBJECT: The Intelligent Client*. See pages 60 and 61.

Top Gun Technology Days

Advanced users should consider attending Top Gun Technology Days, featuring the best Top Gun classes taught by the best Top Gun instructors. These two-day curriculums enable experienced users to augment their education with high-level study in FOCUS Reporting and FOCUS Internals and to explore topics such as EDA/SQL. See page 62 for more details.

Course Customization Services

IBI's course materials can be customized to incorporate your applications and your environment as a basis for course materials and hands-on exercises. Customized courses can be taught at your site by IBI instructors or by your own instructor. See page 63 for details.

Enrollment and Tuition

IBI's courses are regularly scheduled in 53 cities around the United States and can be taught at your site. We will help you select the right courses and can tailor an on-site class to your exact specifications. In addition, many of our course offerings are available at a special discount.

Volume Discounts

The IBI EDPACK program offers a graduated savings of up to 18% on all IBI education products and services. These include IBI site and on-site courses, Top Gun Technology Days, FOCUS CBT, and Student Education Kits. See page 81.

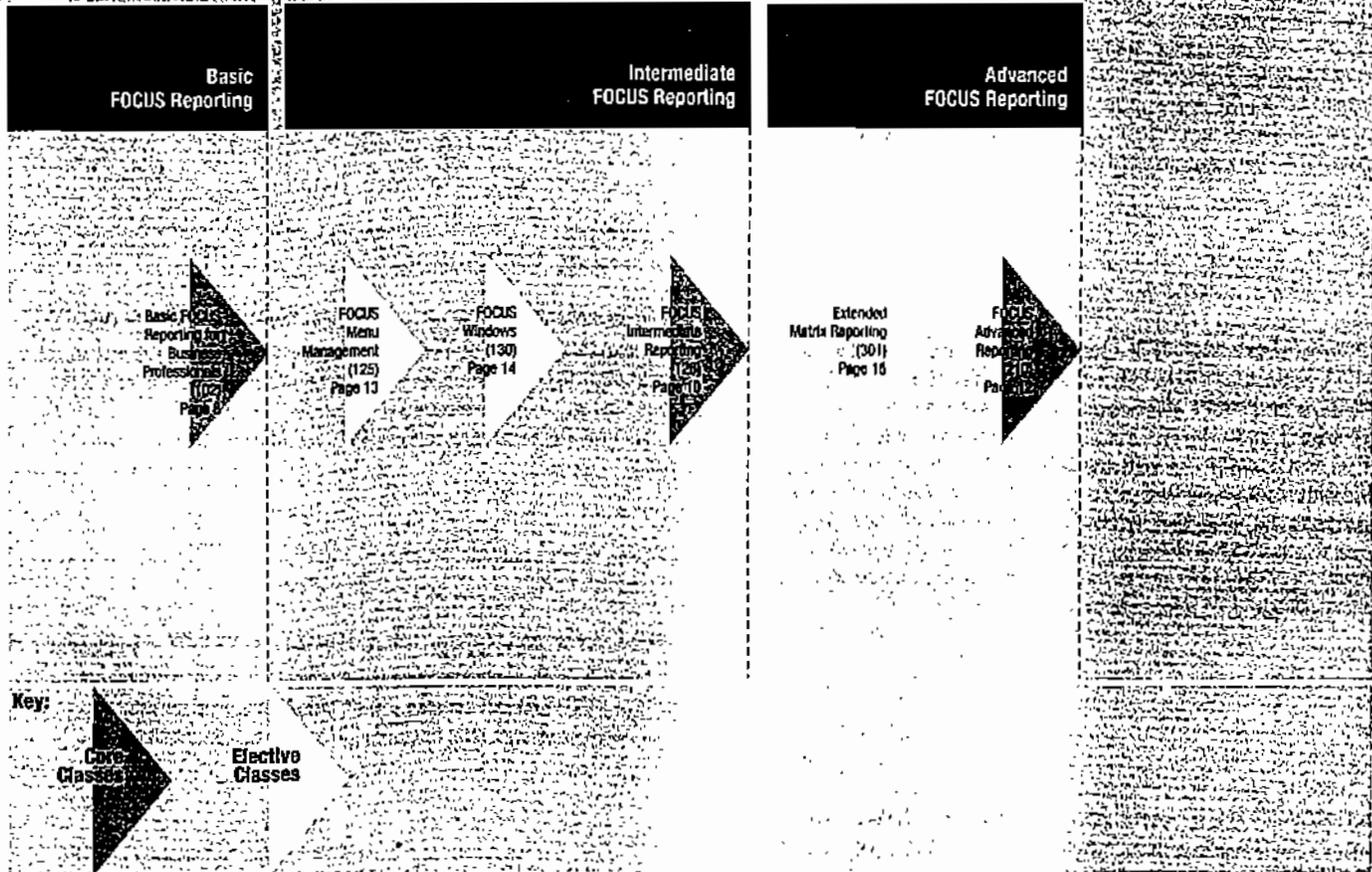
Tuition Discounts for Individual Students

Through the FOCUS Masters Program, IBI offers individual students a savings of 15% on courses taken at IBI sites. If you are following any one of our recommended curriculums, you should take advantage of these discounts. See page 87 for details.

FOCUS Masters Curriculum: Reporting for Business Professionals*

FOCUS Masters Curriculum: Reporting for Business Professionals

Skill Level to Be Achieved



*This curriculum is the result of our course developers working closely with IBI's Education Client Advisory Boards to establish new concepts and course designs for Business Professionals. The courses reflect a completely new approach to course design, content, and user-support materials. Learning is reinforced by extensive hands-on exercises, case studies, and group discussions.

Introducing the FOCUS Reporting Masters Program*

IBI has created the FOCUS Reporting Masters Program for Business Professionals who need to learn how to create sophisticated FOCUS reports. This cost-saving program is designed to provide all the training and support services necessary to help you become a master at FOCUS reporting. The FOCUS Masters Program features:

- 15% discount off the then-current list price for FOCUS Reporting core and elective courses taken at IBI sites for each person who enrolls in the program
- 15% discount off the then-current list price for all other IBI site education courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses
- Special recognition by IBI Support Services
- Individual curriculum planning with your IBI Education Account Representative or Consulting Manager
- FOCUS courses taught by highly trained FOCUS consultants who regularly develop large-scale reporting applications for major organizations

How do you become a FOCUS Reporting Master?

1. Enroll in the program through the Education Account Representative or Consulting Manager at your local IBI office.
2. Conveniently pay up front with only a single purchase order.
3. Within 12 months of enrollment, attend the three FOCUS Reporting core courses: *FOCUS Basic Reporting for Business Professionals* (102), *FOCUS Intermediate Reporting* (126), and *FOCUS Advanced Reporting* (210). You will receive a 15% discount on all these courses.
4. Within 12 months of enrollment, attend at least one of the three FOCUS Reporting elective courses, either *FOCUS Menu Management* (125), *FOCUS Windows* (130), or *Extended Matrix Reporting* (301). You will receive a 15% discount on these courses. During this 12-month period, you are eligible to receive a 15% discount on all IBI site courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses.

Note: If you have taken *FOCUS Basic Reporting for Business Professionals* (102, formerly "for End Users") since July 1991, your record of attendance can be transferred to the FOCUS Masters Program, and you can continue your training in *FOCUS Intermediate Reporting* (126) as a FOCUS Masters student. No other discounts apply, and previously taken courses provide no retroactive discount.

Upon completing your FOCUS Masters coursework, you will receive:

- FOCUS Reporting Masters Certificate, ready for display
- Special recognition by IBI Support Services
- Complimentary copy of the new PC-based *FOCUS Menu Management* CBT course to reinforce skills learned in class
- FOCUS Masters gift premium
- 15% discount off the then-current list price for Top Gun Technology Days for use within 12 months after receiving your FOCUS Masters Certificate

Note: The discounted courses, services, and premiums are for the exclusive use of the individual enrolling in the FOCUS Masters Program and are non-transferrable to another student. Classes must be taken at an IBI location. In the event that the FOCUS Masters student should leave an organization before completing the FOCUS Masters Curriculum, any prepaid funds will be credited to the organization and applied to the then-current list price of IBI site and on-site courses. The new organization can complete the individual's program at a 15% discount by providing a purchase order for the remainder of the FOCUS Masters courses.

FOCUS Masters Curriculum Price

Prices are 15% below the then-current IBI list prices for education courses and products if the individual student enrolls in three or more FOCUS Masters courses. Price ranges are indicated below because the price for a curriculum varies, depending on the number of core courses and electives chosen by an individual.

Reporting for Business Professionals: From \$1,845 to \$2,295.

* No other discounts apply.

FOCUS Basic Reporting for Business Professionals*

Course 102

Core FOCUS Course

Objective:

Using case studies and extensive hands-on exercises, acquire the skills you need to create useful business reports with both ad hoc and stored report requests.

Prerequisite:

None.

Knowledge of basic computer terminology and hands-on familiarity with a computer keyboard is helpful, as is knowledge of an operating system and a system editor.

Duration:

Three days.

Description:

The course describes FOCUS file structures and presents techniques for selecting and organizing data in reports. It illustrates how to format reports, report from multiple files, and use IBI's automated report generator - TableTalk. Participants acquire reporting skills through extensive practice with business-oriented exercises. The class also features a complimentary reporting manual designed as a reference tool for use back on the job.

Topics Include:

- Overview of FOCUS
- Creating Reports With TableTalk
- Storing Report Requests
- Sorting Data
- Formatting Reports
- Performing Calculations
- Selectively Retrieving Data
- Creating New Fields
- Reporting From Multiple Files
- Creating Extract Files

CEU:

1.7 awarded.

Tuition:

IBI Site: \$625 per student.
 On Site: \$3,750. See page 86 for details.

Next Recommended Courses:

- Course 125**
FOCUS Menu Management
- Course 126**
FOCUS Intermediate Reporting
- Course 130**
FOCUS Windows

Featuring
 Basic Reporting Manual

To Help Ensure Your Success:

This comprehensive, 200-page reference source:

- Is designed for use in class and back on the job
- Puts all the Basic Reporting topics at your fingertips
- Provides fully explained and diagrammed coverage of topics and information

* IBI is using the term "Business Professional" instead of "End User" for individuals whose expertise lies in their business area instead of data processing.

Dates Offered:

Anchorage: August 9-11

Atlanta: July 19-21; August 16-18; September 20-22; October 25-27; December 6-8; January 10-12

Baltimore: August 16-18

Birmingham: September 13-15

Boise: October 18-20

Boston: July 12-14; August 16-18; September 20-22; October 25-27; November 15-17; December 13-15; January 24-26

Charlotte: July 12-14; September 20-22; November 16-18; January 24-26

Chicago: July 7-9, 26-28; August 23-25; September 15-17; October 18-20; November 17-19; December 13-15; January 24-26

Cincinnati: August 16-18; October 18-20

Cleveland: July 12-14; September 20-22; October 20-22; November 15-17; January 19-21

Columbus: October 13-15

Dallas: July 19-21; August 16-18; September 13-15; October 12-14; November 8-10; December 6-8; January 10-12

Denver: July 26-28; September 20-22; November 8-10; January 10-12

Detroit: July 19-21; August 18-20; September 13-15; October 4-6; November 10-12; December 13-15; January 24-26

Hartford: August 2-4; December 13-15

Houston: July 26-28; August 23-25; September 20-22; October 18-20; November 15-17; December 1-3; January 24-26

Indianapolis: September 20-22

Kansas City, MO: August 16-18; October 18-20; January 19-21

Knoxville: September 13-15

Las Vegas: September 23-25

Los Angeles: July 12-14; September 13-15; October 4-6; November 8-10; December 6-8; January 24-26

Louisville: August 16-18

Memphis: August 9-11; October 18-20

Miami: August 9-11

Milwaukee: July 12-14; August 23-25; September 29 - October 1; October 25-27; December 13-15; January 19-21

Minneapolis/St. Paul: July 12-14; August 25-27; September 27-29; October 18-20; November 17-19; December 13-15; January 19-21

New Jersey: July 26-28; September 8-10; November 8-10; January 19-21

New Orleans: September 8-10

New York City: July 7-9, 19-21; August 9-11, 23-25; September 1-3, 13-15, 27-29; October 13-15, 25-27; November 8-10; November 29 - December 1; December 13-15; January 10-12, 26-28

Orlando: September 13-15; November 8-10; January 19-21

Philadelphia: July 28-30; August 23-25; September 20-22; October 18-20; November 15-17; December 13-15; January 24-26

Phoenix: July 7-9; September 20-22; November 1-3; January 24-26

Pittsburgh: July 28-30; August 23-25; October 25-27; November 15-17; January 24-26

Portland, OR: July 19-21; December 6-8

Rochester, NY: September 13-15; November 15-17; January 26-28

Sacramento: July 19-21; September 20-22; December 1-3

St. Louis: August 9-11; November 8-10; January 19-21

Salt Lake City: October 13-15

San Antonio: September 20-22

San Francisco: August 16-18; September 20-22; November 8-10; December 6-8

San Jose: July 7-9; August 9-11; September 13-15; October 18-20; November 1-3; January 10-12

Seattle: July 12-14; November 3-5; January 10-12

Spokane: October 4-6

Tallahassee: October 18-20

Tampa: October 4-6

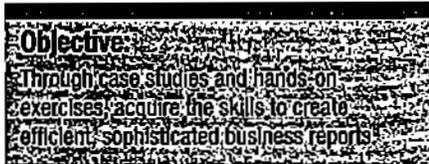
Washington, DC: July 12-14; August 9-11; September 13-15; October 13-15; November 15-17; December 13-15; January 10-12

White Plains/Stamford: August 25-27; November 8-10; January 19-21

FOCUS Intermediate Reporting

Course 126

Core FOCUS Course



Prerequisite:

Course 101 or 102.

Duration:

Three days.

Description:

Participants analyze over 20 business reporting examples based on the project experience of IBI's consulting staff. These reports illustrate reporting efficiencies, sophisticated formatting, data analysis, DEFINE techniques, and the MATCH FILE command. Attendees also learn the internals of report generation. This knowledge will prepare attendees to enhance the efficiency of reporting procedures. Skills are reinforced through actual report writing and testing in hands-on terminal sessions. Both relational and FOCUS files will be referenced throughout the course.

Topics Include:

- Screening Techniques
 - Screening for Exceptions
 - Selecting Records Based on Values in Segment Chains
 - Selecting the First and Last Instances in a Segment or Segment Chain
 - Limiting Records by Specifying Rows and Columns
 - Creating Flags for Complex Screening
- Working With New Values
 - Using a DEFINED Field in the Host File as the JOIN Field
 - Creating a New Value Based on the Preceding Value of the Field
 - Setting Up and Using Counters
 - Using Column Position in Calculating New Fields
 - Using Summary Values in the Creation of New Values
 - Determining the Percentage of a Value Within Sort Group
 - Converting Conventional Dates to Smart Dates
- Customizing Your FOCUS Environment
 - Specifying the Files to Be Used
 - Building User Profiles
 - Controlling Settings With SET
 - Altering Syntax With LET
- Sorting
 - Ranking and Grouping Data
 - Specifying the Different Levels for Summary Data
 - Stacking Lines
- Formatting
 - Changing Default Paging
 - Generating a Cumulative Total
 - Using Direct Operators in Headings and Footings
 - Limiting the Printing of Summary Lines

- Alternate File Views
 - Taking Indexed and Non-Indexed Views of Files
- With Hot Screen, Using the Output of One Report to Determine the Criteria for a Subsequent Report
- FOCUS Reporting Internals
 - MATCH FILE Internals
 - Internal Processing of a Table Request
 - Using TABLEF to Accelerate Report Processing

CEU:

1.7 awarded.

Tuition:

IBI Site: \$705 per student.
 On Site: \$4,650. See page 86 for details.

Next Recommended Courses:

Course 125
FOCUS Menu Management

Course 130
FOCUS Windows

Course 210
Advanced Reporting

Course 301
Extended Matrix Reporting

Dates Offered:

Anchorage: October 13-15
Atlanta: August 23-25; October 12-14; January 18-20
Austin: July 28-30
Baltimore: October 6-8
Birmingham: December 15-17
Boise: November 17-19
Boston: July 28-30; August 30 - September 1; September 27-29; November 8-10; December 6-8; January 10-12
Charlotte: August 25-27; November 10-12; January 19-21
Chicago: August 9-11; October 25-27; December 6-8; January 26-28
Cincinnati: August 4-6; November 10-12; January 10-12
Cleveland: August 11-13; November 1-3; January 31 - February 2
Columbus: July 12-14
Dallas: July 6-8; August 9-11; September 13-15; October 12-14; November 15-17; December 13-15; January 19-21
Denver: July 21-23; August 16-18; October 12-14; December 6-8

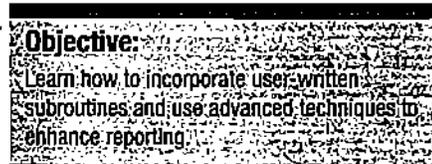
Detroit: July 28-30; September 27-29; November 29 - December 1; January 19-21
Hartford: September 1-3; December 8-10
Houston: July 6-8; September 27-29; October 25-27; December 15-17
Indianapolis: July 7-9; November 10-12
Kansas City, MO: September 15-17; November 17-19
Las Vegas: September 13-15
Los Angeles: July 7-9; September 27-29; November 22-24
Louisville: October 6-8
Memphis: September 13-15
Miami: August 18-20
Milwaukee: July 6-8; September 1-3; November 8-10; January 10-12
Minneapolis/St. Paul: August 9-11; October 13-15; December 1-3; January 26-28
New Jersey: September 1-3; December 8-10
New Orleans: November 3-5
New York City: July 27-29; August 25-27; September 20-22; October 6-8, 20-22; November 15-17; December 8-10; January 19-21
Omaha: August 16-18
Orlando: July 21-23; October 27-29; January 26-28
Philadelphia: August 18-20; October 13-15; December 1-3; January 19-21
Phoenix: October 25-27

Pittsburgh: September 15-17; November 10-12; January 19-21
Portland, OR: November 16-18
Rochester, NY: October 13-15
Sacramento: October 6-8; January 12-14
St. Louis: July 7-9; August 18-20; November 17-19
Salt Lake City: December 8-10
San Antonio: November 10-12
San Francisco: August 25-27; October 25-27; December 1-3; January 19-21
San Jose: July 21-23; September 21-23; November 8-10; January 10-12
Seattle: September 20-22; January 19-21
Spokane: December 1-3
Tallahassee: December 8-10
Tampa: November 17-19
Washington, DC: July 6-8; September 1-3; November 3-5; January 26-28
White Plains/Stamford: July 7-9; October 13-15; January 26-28

FOCUS Advanced Reporting

Course 210 New!

Core FOCUS Course



Prerequisite:

Course 126 followed by a minimum of three months of FOCUS reporting experience.

Duration:

Two days.

Description:

Designed to make a reporting "pro" of FOCUS reporting specialists. In this course, students will be using case studies along with over 50 examples. This truly advanced course completes IBI's reporting curriculum.

Topics Include:

- Enhancing Reporting With User-Written Subroutines
- Prototyping a Reporting Application
- Mastering Diagnostic Techniques
- Use of Variables in Reporting
- Determining When to Use a Dynamic JOIN Versus a Static Cross-Reference
- Reporting From FOCUS-Generated External Files
- Working With Hold Files and Hold File Options
- Label Routines
- Printing a Record More Than Once in a Report
- Combining Two Reports Into One
- Printing PAGE n OF x
- Suppressing Blank Lines in a Report
- Finding the Median Value of a Field
- Creating Random Numbers and Using Them as Selection Criteria

CEU:

1.1 awarded.

Tuition:

IBI Site: \$575 per student.
On Site: \$3,900. See page 88 for details.

Dates Offered:

Anchorage: November 1-2
Atlanta: July 26-27; September 27-28; November 17-18
Baltimore: December 6-7
Boston: July 8-9; September 7-8; October 12-13; December 20-21; January 18-19
Charlotte: September 8-9; December 2-3
Chicago: July 19-20; September 27-28; November 11-12; January 10-11
Cincinnati: July 20-21; November 18-19; January 13-14
Cleveland: September 9-10; December 6-7
Columbus: July 15-16; December 16-17
Dallas: July 19-20; August 26-27; September 27-28; October 25-26; November 29-30; January 31 - February 1

Denver: July 6-7; August 30-31; October 26-27; January 6-7
Detroit: July 8-9; August 23-24; October 28-29; December 2-3
Hartford: October 14-15
Houston: August 10-11; November 29-30; January 18-19
Indianapolis: January 13-14
Kansas City, MO: August 12-13; October 14-15; December 6-7
Las Vegas: October 21-22
Los Angeles: September 30 - October 1; December 9-10
Memphis: September 16-17
Milwaukee: August 2-3
Minneapolis/St. Paul: July 26-27; September 20-21; November 15-16; January 6-7
New Jersey: October 7-8; January 13-14
New Orleans: December 2-3
New York City: August 12-13; October 12-13; December 2-3
Omaha: August 19-20
Orlando: October 12-13
Philadelphia: September 23-24; December 20-21
Phoenix: September 28-29; January 31 - February 1
Pittsburgh: November 8-9
Rochester, NY: July 26-27; December 9-10
Sacramento: July 12-13; January 27-28
St. Louis: September 9-10; December 9-10
San Francisco: July 21-22; September 23-24; November 18-19; January 10-11
San Jose: August 17-18; October 7-8; December 9-10
Seattle: July 26-27; October 25-26
Shreveport, LA: July 12-13
Tampa: December 13-14
Washington, DC: August 17-18; October 18-19; December 20-21
White Plains/Stamford: November 17-18

FOCUS Menu Management

Course 125

Elective FOCUS Course

Objective:

Through case studies and hands-on exercises, learn the menu management techniques needed to run multiple reports with one procedure, and to create and link menus. Learn how to customize reports easily by making it possible to enter different selection values.

Prerequisite:

Course 101 or 102, or IBI's *Basic Report Preparation* CBT course and six weeks of working with FOCUS.

Duration:

One day.

Description:

Participants use menu management techniques to execute related reports from one procedure. They then learn how to link the procedure to interactive menu screens and to customize reports to accept variable information. Skills are reinforced through a workshop-style course.

Topics Include:

- Creating Menu-Driven Systems
 - Integrating Multiple TABLE Requests Into a Single Procedure
 - Prompting for User-Supplied Variables in an Interactive Reporting Dialogue
- Creating Menus
- Implementing Menu Selection Methods (Specifying Selection Numbers, Positioning of the Cursor, Linking PF Keys to Selections)

CEU:

.6 awarded.

Tuition:

IBI Site: \$265 per student.
On Site: \$1,585. See page 86 for details.

Next Recommended Courses:

Course 130
FOCUS Windows

Course 301
Extended Matrix Reporting

Course 126
Intermediate Reporting

Dates Offered:

Anchorage: October 12
Atlanta: August 19; November 15
Austin: July 26
Baltimore: October 4
Birmingham: December 13
Boston: July 26; September 23; October 28; November 18; January 6
Charlotte: August 23; November 8
Chicago: August 2; September 30; November 15; January 3
Cincinnati: August 2; November 8
Cleveland: September 30; January 27
Columbus: October 21
Dallas: July 9; August 30; October 25; December 9; January 31

Denver: July 19; August 12; October 4; December 2
Detroit: July 26; September 16; November 22; January 13
Hartford: August 30
Houston: September 1; October 28; December 13
Indianapolis: November 8
Kansas City, MO: September 13; November 15
Los Angeles: August 12; October 28; January 20
Louisville: September 15
Memphis: August 12
Miami: August 16
Milwaukee: July 9; August 30; November 1
Minneapolis/St. Paul: July 19; August 2; October 4; January 24
New Jersey: August 23; November 15
New Orleans: November 1
New York City: July 30; August 16; October 18; December 6
Omaha: September 20
Orlando: July 19; October 25; January 24
Philadelphia: August 16; November 29
Phoenix: August 19; November 15
Pittsburgh: July 7; September 13
Portland, OR: November 15
Rochester, NY: September 28
Sacramento: October 4
St. Louis: August 16; November 15
Salt Lake City: December 7
San Antonio: November 8
San Francisco: August 23; November 29
San Jose: July 19; October 21
Seattle: August 12; December 16
Tallahassee: December 6
Tampa: November 15
Washington, DC: July 9; August 30; November 1; January 24
White Plains/Stamford: September 23; December 9

FOCUS Windows

Course 130

Elective FOCUS Course

Objective:

Learn how to use FOCUS Windows to control procedure flow and improve user-friendliness and application functionality through the use of case studies and hands-on exercises.

Prerequisite:

A working knowledge of Dialogue Manager acquired through Course 111, or 125.

Duration:

One day.

Description:

This course examines the various types of FOCUS Windows and how they interact with each other. Students learn how to build FOCUS Windows applications and how to use them within procedures.

Anyone Who Develops FOCUS Applications Can Benefit From This FOCUS Windows Course

With FOCUS Windows, you can build applications and enhance existing ones so that they:

- Automatically validate data entry
- Are easier for your staff to use
- Run faster because FOCUS Windows applications compile automatically
- Have more attractive menu screens
- Are easier for you to code

Topics Include:

- Role of FOCUS Windows in FOCUS Applications
- Capabilities of Windowing Technology
- Hardware Requirements
- Syntax and Use of FOCUS Windows
- Improving User Interface and Systems Control
- Impact of Integrating FOCUS Windows In Existing Applications
- FOCUS Windows Utilities

CEU:

.6 awarded.

Tuition:

IBI Site: \$265 per student.

On Site: \$1,585. See page 86 for details.

Next Recommended Course:

Course 111

Application Integration Techniques

Dates Offered:

Atlanta: August 20; November 16
 Austin: July 27
 Baltimore: October 5
 Birmingham: December 14
 Boston: July 27; September 24; October 29; November 19; January 7
 Charlotte: August 24; November 9
 Chicago: August 3; October 1; November 16; January 4
 Cincinnati: August 3; November 9
 Cleveland: October 1; January 28
 Columbus: October 22
 Dallas: July 12; August 31; October 26; December 10
 Denver: July 20; August 13; October 5; December 3
 Detroit: July 27; November 23; January 14
 Hartford: August 31
 Houston: September 2; October 29; December 14
 Indianapolis: November 9
 Kansas City, MO: September 14; November 16
 Los Angeles: August 13; October 29; January 21
 Louisville: September 16
 Memphis: August 13
 Miami: August 17
 Milwaukee: July 15; August 31; November 2
 Minneapolis/St. Paul: August 3; October 5; January 25
 New Jersey: August 24; November 16
 New Orleans: November 2
 New York City: August 17; October 19; December 7
 Omaha: September 21
 Orlando: July 20; October 26; January 25
 Philadelphia: August 17; November 30
 Phoenix: August 20; November 16
 Pittsburgh: September 14
 Rochester, NY: September 29
 Sacramento: October 5
 St. Louis: August 17; November 16
 San Antonio: November 9
 San Francisco: August 24; November 30
 San Jose: July 20; October 22
 Seattle: August 13; December 17
 Tallahassee: December 7
 Tampa: November 16
 Washington, DC: July 12; August 31; November 2; January 25
 White Plains/Stamford: September 24; December 10

Extended Matrix Reporting (EMR) for Decision Support Systems

Course 301

Elective FOCUS Course

Objective

Using EMR, learn to create specialized matrix reports in which calculations are performed between rows. Learn to implement "What If" scenarios, balance sheets, budget reports, and decision support systems.

Prerequisite:

Thorough understanding of the TABLE command and Dialogue Manager acquired through Courses 111, or 125 and 126.

Duration:

One day.

Description:

Designed to give FOCUS reporting specialists and programmers the skills needed to use Extended Matrix Reporting (formerly called FRL), this course describes reporting capabilities that provide greater flexibility in forms design and specialized reporting formats. Those attending will also gain competence in creating models for projections within the FOCUS TABLE environment.

Topics Include:

- Overview of Matrix Reporting
- RECAP for Interrow Calculations
- Supplying Row Titles
- Formatting Control
- "What If?" Capabilities
- Forecasting

CEU:

.6 awarded.

Tuition:

IBI Site: \$265 per student.

On Site: \$1,585. See page 86 for details.

Dates Offered:

Atlanta: October 15; January 21

Boston: December 10

Chicago: August 27; October 18; December 10

Cincinnati: October 15

Cleveland: July 9; September 1; January 24

Dallas: September 20; November 22; January 18

Denver: July 23; October 25

Detroit: July 30; October 27; December 10

Hartford: August 18

Houston: August 9; January 31

Kansas City, MO: December 8

Los Angeles: December 3

Milwaukee: August 4; November 3

Minneapolis/St. Paul: August 13; November 11

New York City: August 30; October 28;

January 24

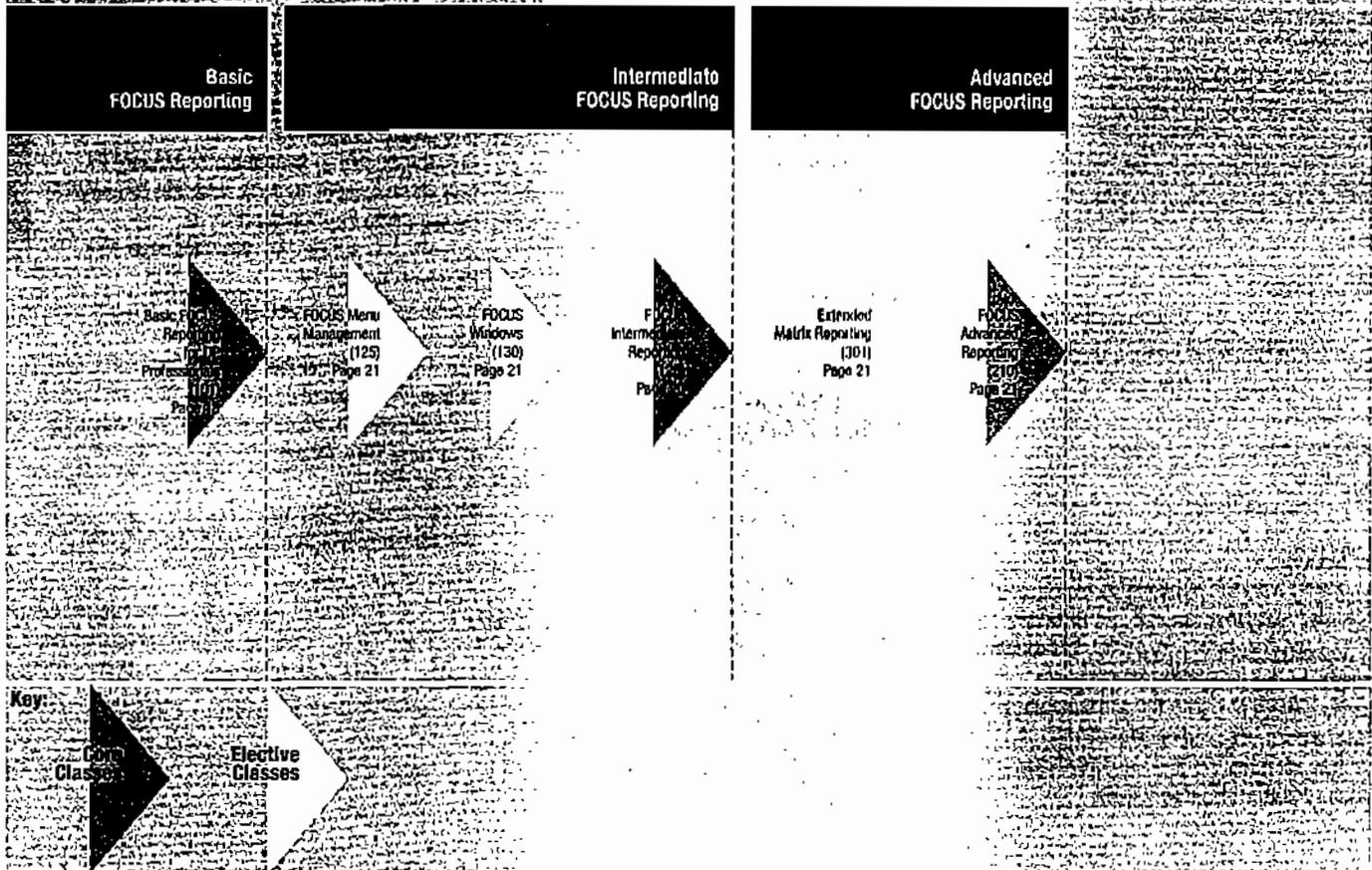
Phoenix: December 13

Washington, DC: September 7; January 14

FOCUS Masters Curriculum: Reporting for DP Professionals

FOCUS Masters Curriculum: Reporting for DP Professionals

Skill Level to Be Achieved



The first course in this curriculum, *FOCUS Basic Reporting for DP Professionals* (101), emphasizes practical business applications. The pace and terminology are geared toward individuals with a programming background.

Introducing the FOCUS Reporting Masters Program*

IBI has created the FOCUS Reporting Masters Program for DP Professionals who need to learn how to create sophisticated FOCUS reports. This cost-saving program is designed to provide all the training and support services necessary to help you become a master at FOCUS reporting. The FOCUS Masters Program features:

- 15% discount off the then-current list price for FOCUS Reporting core and elective courses taken at IBI sites for each person who enrolls in the program
- 15% discount off the then-current list price for all other IBI site education courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses
- Special recognition by IBI Support Services
- Individual curriculum planning with your IBI Education Account Representative or Consulting Manager
- FOCUS courses taught by highly trained FOCUS consultants who regularly develop large-scale reporting applications for major organizations

How do you become a FOCUS Reporting Master?

1. Enroll in the program through the Education Account Representative or Consulting Manager at your local IBI office.
2. Conveniently pay up front with only a single purchase order.
3. Within 12 months of enrollment, attend the three FOCUS Reporting core courses: *FOCUS Basic Reporting for DP Professionals* (101), *FOCUS Intermediate Reporting* (120), and *FOCUS Advanced Reporting* (210). You will receive a 15% discount on all these courses.
4. Within 12 months of enrollment, attend at least one of the three FOCUS Reporting elective courses, either *FOCUS Menu Management* (125), *FOCUS Windows* (130), or *Extended Matrix Reporting* (301). You will receive a 15% discount on those courses. During this 12-month period, you are eligible to receive a 15% discount on all IBI site courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses.

Upon completing your FOCUS Masters coursework, you will receive:

- FOCUS Reporting Masters Certificate, ready for display
- Special recognition by IBI Support Services
- Complimentary copy of the new PC-based *FOCUS Menu Management* CBT course to reinforce skills learned in class
- FOCUS Masters gift premium
- 15% discount off the then-current list price for Top Gun Technology Days for use within 12 months after receiving your FOCUS Masters Certificate

Note: The discounted courses, services, and premiums are for the exclusive use of the individual enrolling in the FOCUS Masters Program and are non-transferrable to another student. Classes must be taken at an IBI location. In the event that the FOCUS Masters student should leave an organization before completing the FOCUS Masters Curriculum, any prepaid funds will be credited to the organization and applied to the then-current list price of IBI site and on-site courses. The new organization can complete the individual's program by providing a purchase order for the remainder of the FOCUS Masters courses at a 15% discount.

FOCUS Masters Curriculum Price

Prices are 15% below the then-current IBI list prices for education courses and products if the individual student enrolls in three or more FOCUS Masters courses. Price ranges are indicated below because the price for a curriculum varies, depending on the number of core courses and electives chosen by an individual.

Reporting for DP Professionals: From \$1,845 to \$2,295.

* No other discounts apply.

FOCUS Basic Reporting for DP Professionals

Course 101

Core FOCUS Course

Objective:
 Using case studies and extensive hands-on exercises, learn how to develop informative business reports and store report requests. This course is designed for 3GL or 4GL programmers who develop applications for organizational use.

Prerequisite:

None.

This course is designed for those with programming experience in a 3GL or 4GL. Anyone else should refer to *FOCUS Basic Reporting for Business Professionals* (102) on page 8.

Duration:

Three days.

Description:

In this course, participants acquire the basic skills for producing sorted, formatted reports. Techniques for selecting and organizing data in reports are presented. The course illustrates how to format reports and how to report from multiple files. Course terminology and pace of instruction are geared toward data processing professionals.

Students gain reporting skills through extensive practice with business-oriented exercises. The class also features a complimentary reporting manual designed as a reference tool for use back on the job.

Topics include:

- Overview of FOCUS
- Storing Report Requests
- Sorting Data
- Formatting Reports
- Performing Calculations
- Selectively Retrieving Data
- Creating New Fields
- Reporting From Multiple Files
- Creating Extract Files

CEU:

1.7 awarded.

Tuition:

IBI Site: \$625 per student.
 On Site: \$3,750. See page 86 for details.

Next Recommended Courses:

Course 125
FOCUS Menu Management

Course 126
FOCUS Intermediate Reporting

Course 130
FOCUS Windows



To Help Ensure Your Success:
 This comprehensive 200-page reference source:

- Is designed for use in class and back on the job
- Puts all the Basic Reporting topics at your fingertips
- Provides fully explained and diagrammed coverage of topics and information

Dates Offered:

Atlanta: July 12-14; September 13-15; October 18-20; December 13-15; January 24-26
Baltimore: July 12-14; January 10-12
Birmingham: November 15-17
Boston: August 2-4; September 13-15; October 4-6; November 29 - December 1; January 3-5
Charlotte: August 9-11; October 4-6; December 6-8
Chicago: July 12-14; August 18-20; September 20-22; October 13-15; November 29 - December 1; January 19-21
Cincinnati: July 12-14; September 13-15; December 6-8
Cleveland: August 16-18; October 13-15; December 13-15
Columbus: August 9-11; January 24-26
Dallas: July 26-28; August 23-25; September 20-22; October 18-20; November 15-17; December 13-15; January 24-26
Denver: July 12-14; September 13-15; November 15-17; January 24-26

Detroit: July 12-14; August 11-13; September 20-22; October 18-20; November 17-19; December 6-8; January 10-12
Hartford: September 20-22; January 3-5
Houston: July 12-14; August 16-18; September 13-15; October 4-6; November 1-3; December 6-8; January 10-12
Indianapolis: December 6-8
Kansas City, MO: September 20-22; December 13-15
Los Angeles: July 19-21; September 20-22; November 1-3; January 10-12
Milwaukee: July 19-21; September 20-22; November 15-17; January 24-26
Minneapolis/St. Paul: July 7-9; September 1-3; October 27-29; December 6-8; January 31 - February 2
New Jersey: September 27-29; January 24-26
New Orleans: October 18-20
New York City: July 19-21; August 2-4, 16-18; September 20-22; October 4-6, 18-20; November 1-3, 15-17; December 6-8; January 24-26

Orlando: July 12-14; October 18-20; January 10-12
Philadelphia: July 12-14; September 13-15; October 4-6; November 8-10; January 10-12
Phoenix: September 13-15; December 6-8
Pittsburgh: September 20-22; December 13-15
Portland, OR: September 8-10
Rochester, NY: August 9-11; October 25-27
Sacramento: August 16-18; November 10-12
St. Louis: September 13-15; December 13-15
San Antonio: August 9-11
San Francisco: July 12-14; September 13-15; November 1-3; January 24-26
San Jose: August 9-11; October 4-6; December 6-8
Seattle: August 23-25; October 18-20; December 13-15
Tallahassee: August 16-18
Washington, DC: July 26-28; August 23-25; September 20-22; October 25-27; November 29 - December 1; January 3-5
White Plains/Stamford: July 12-14; November 1-3

FOCUS Intermediate Reporting

Course 126

Core FOCUS Course

Objective:

Through case studies and hands-on exercises, acquire the skills to create efficient, sophisticated business reports.

Prerequisite:

Course 101 or 102.

Duration:

Three days.

Description:

Participants analyze over 20 business reporting examples based on the project experience of IBI's consulting staff. These reports illustrate reporting efficiencies, sophisticated formatting, data analysis, DEFINE techniques, and the MATCH FILE command. Attendees also learn the internals of report generation. This knowledge will prepare attendees to enhance the efficiency of reporting procedures. Skills are reinforced through actual report writing and testing in hands-on terminal sessions. Both relational and FOCUS files will be referenced throughout the course.

Topics Include:

- Screening Techniques
 - Screening for Exceptions
 - Selecting Records Based on Values in Segment Chains
 - Selecting the First and Last Instances in a Segment or Segment Chain
 - Limiting Records by Specifying Rows and Columns
 - Creating Flags for Complex Screening
- Working With New Values
 - Using a DEFINED Field in the Host File as the JOIN Field
 - Creating a New Value Based on the Preceding Value of the Field
 - Setting Up and Using Counters
 - Using Column Position in Calculating New Fields
 - Using Summary Values in the Creation of New Values
 - Determining the Percentage of a Value Within Sort Group
 - Converting Conventional Dates to Smart Dates
- Customizing Your FOCUS Environment
 - Specifying the Files to Be Used
 - Building User Profiles
 - Controlling Settings With SET
 - Altering Syntax With LET
- Sorting
 - Ranking and Grouping Data
 - Specifying the Different Levels for Summary Data
 - Stacking Lines
- Formatting
 - Changing Default Paging
 - Generating a Cumulative Total
 - Using Direct Operators in Headings and Footings
 - Limiting the Printing of Summary Lines

- Alternate File Views
 - Taking Indexed and Non-Indexed Views of Files
- With Hot Screen, Use the Output of One Report to Determine the Criteria for a Subsequent Report
- FOCUS Reporting Internals
 - MATCH FILE Internals
 - Internal Processing of a Table Request
 - Using TABLEF to Accelerate Report Processing

CEU:

1.7 awarded.

Tuition:

IBI Site: \$705 per student.

On Site: \$4,650. See page 86 for details.

Next Recommended Courses:

Course 125

FOCUS Menu Management

Course 130

FOCUS Windows

Course 301

Extended Matrix Reporting

Course 210

Advanced Reporting

Dates Offered:

See page 11 for dates and locations.

Reporting for DP Professionals

FOCUS Masters Curriculum

Here is a brief description of the remaining core and elective courses in your curriculum. For a full description and dates the courses are offered, please refer to pages 12 through 15.

FOCUS Advanced Reporting (Core FOCUS Course) Course 210 New!

Objective:

Learn how to incorporate user-written subroutines and use advanced techniques to enhance reporting.

FOCUS Menu Management (Elective Course) Course 125

Objective:

Learn the menu management techniques needed to run multiple reports with one procedure, and to create and link menus. Learn how to customize reports easily by making it possible to enter different selection values.

FOCUS Windows (Elective FOCUS Course) Course 130

Objective:

Learn how to use FOCUS Windows to control procedure flow, and to improve user-friendliness and application functionality through the use of case studies and hands-on exercises.

Extended Matrix Reporting (Elective FOCUS Course) Course 301

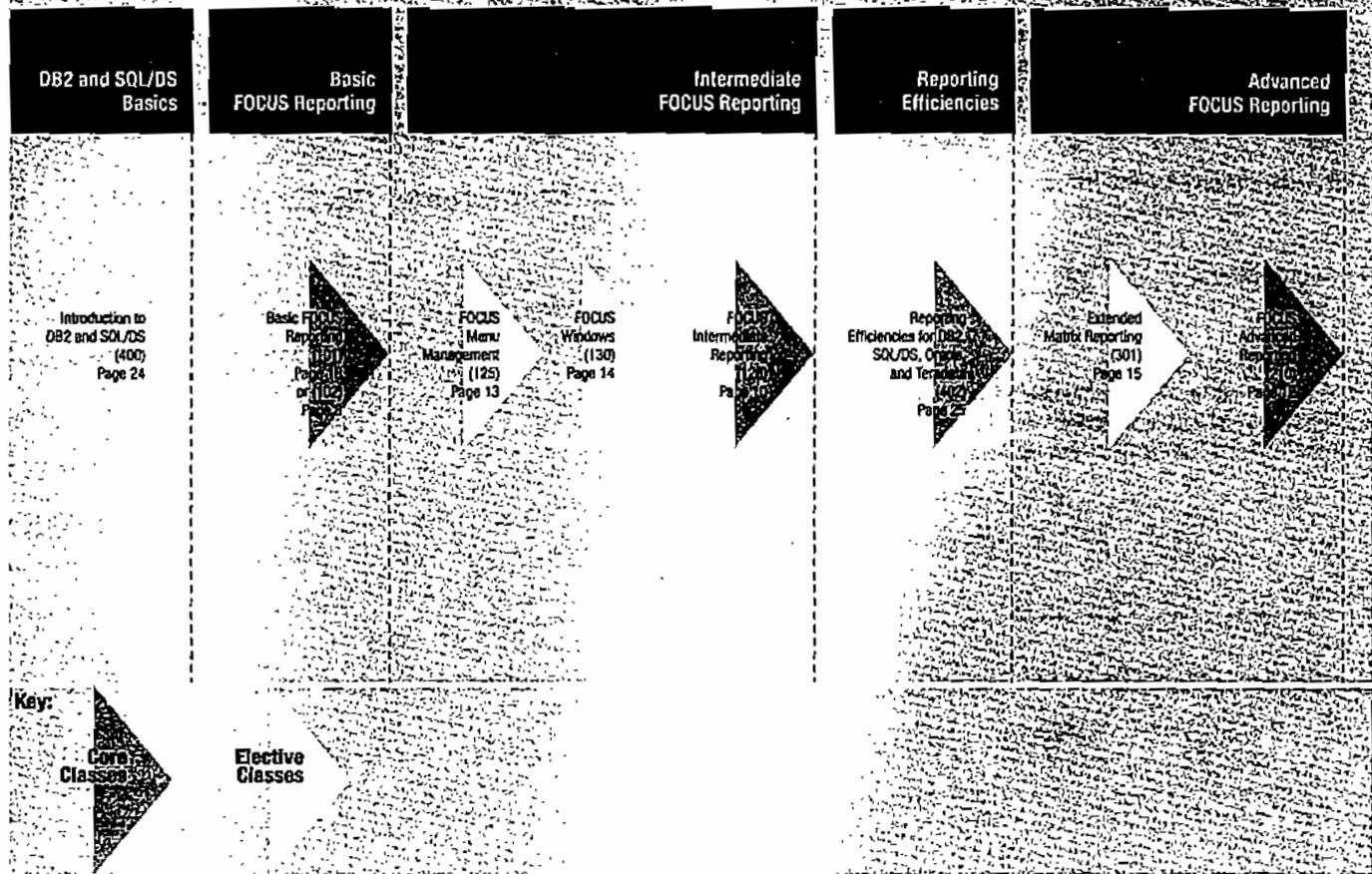
Objective:

Learn how to create specialized "matrix" reports in which calculations are performed between rows. Learn to implement "What if" scenarios, balance sheets, budget reports, and decision support systems.

FOCUS Masters Curriculum: Reporting for Relational Database Users

FOCUS Masters Curriculum: Reporting for Relational Database Users

Skill Level to Be Achieved



Introducing the FOCUS Reporting Masters Program for DB2, SQL/DS*

This cost-saving program is designed to provide all the training and support services necessary to help you become a master at FOCUS reporting. The FOCUS Masters Program features:

- 15% discount off the then-current list price for FOCUS Reporting core and elective courses taken at IBI sites for each person who enrolls in the program
- 15% discount off the then-current list price for all other IBI site education courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses
- Special recognition by IBI Support Services
- Individual curriculum planning with your IBI Education Account Representative or Consulting Manager
- FOCUS courses taught by highly trained FOCUS consultants who regularly develop large-scale reporting applications for major organizations

How do you become a FOCUS Reporting Master?

1. Enroll in the program through the Education Account Representative or Consulting Manager at your local IBI office.
2. Conveniently pay up front with only a single purchase order.
3. Within 18 months of enrollment, **attend the four FOCUS Reporting core courses:** *FOCUS Basic Reporting* (Course 101 or 102), *FOCUS Intermediate Reporting* (126), *Reporting Efficiencies for DB2, SQL/DS, Oracle, and Teradata* (402), and *FOCUS Advanced Reporting* (210). You will receive a 15% discount on all these courses.
4. Within 18 months of enrollment, **attend at least one of the four FOCUS Reporting elective courses**, either *Introduction to DB2 and SQL/DS* (400) or *FOCUS Menu Management* (125), *FOCUS Windows* (130), or *Extended Matrix Reporting* (301). You will receive a 15% discount on these courses. During this 18-month period, you are eligible to receive a 15% discount on all IBI site courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses.

Upon completing your FOCUS Masters coursework, you will receive:

- FOCUS Reporting Masters Certificate, ready for display
- Special recognition by IBI Support Services
- Complimentary copy of the new PC-based *FOCUS Menu Management* CBT course to reinforce skills learned in class
- FOCUS Masters gift premium
- 15% discount off the then-current list price for Top Gun Technology Days for use within 12 months after receiving your FOCUS Masters Certificate

Note: The discounted courses, services, and premiums are for the exclusive use of the individual enrolling in the FOCUS Masters Program and are non-transferrable to another student. Classes must be taken at an IBI location. In the event that the FOCUS Masters student should leave an organization before completing the FOCUS Masters Curriculum, any prepaid funds will be credited to the organization and applied to the then-current list price of IBI site and on-site courses. The new organization can complete the individual's program at a 15% discount by providing a purchase order for the remainder of the FOCUS Masters courses.

FOCUS Masters Curriculum Price

Prices are 15% below the then-current IBI list prices for education courses and products if the individual student enrolls in three or more FOCUS Masters courses. Price ranges are indicated below because the price for a curriculum varies, depending on the number of core courses and electives chosen by an individual.

Reporting for DB2, SQL/DS, Oracle, and Teradata Professionals: From \$2,330 to \$3,515.

* No other discounts apply.

Introduction to DB2 and SQL/DS

100% DB2 and SQL/DS Hands-On Course

Course 400

Elective FOCUS Course

Objective

Learn about DB2 and SQL/DS concepts and SQL coding. Obtain the introductory skills needed to design, create, maintain, and report from a DB2 or SQL/DS database.

Prerequisite:

One year of programming and use of a system editor in MVS/TSO or VM/CMS.

Duration:

Three days.

Description:

This course provides DP Professionals with the vocabulary and knowledge to implement efficient relational database designs and SQL applications with their Database Administrator.

Topics Include:

- Relational and SQL Terminology
- Normalization of Data
- Referential Integrity
- Definition of Tables, Indexes, and Views
- User-Created and System-Generated Tables
- Using SQL Views for Data Security
- Basics of DBA-Oriented DCL
- Logical Unit of Work, Concurrency, and Locking
- Static Embedded SQL for Cursor Operations
- Clustering Indexes
- SQL Optimizer and EXPLAIN Facility

CEU:

1.7 awarded.

Tuition:

IBI Site: \$865 per student.
On Site: \$5,850. See page 86 for details.

Dates Offered:

Boston: September 13-15
Charlotte: October 13-15
Detroit: October 13-15
Houston: August 25-27; December 8-10
New York City: October 25-27
San Jose: July 7-9
Washington, DC: October 20-22

FOCUS Reporting Efficiencies

for DB2, SQL/DS, Oracle, and Teradata

Course 402 New!

Core FOCUS Course

Objective:

Understand the FOCUS Interface Internal processing and learn to write efficient FOCUS requests for DB2, SQL/DS, Oracle, and Teradata tables.

Prerequisite:

Course 400 (or equivalent) and either Course 101 or 102, and Course 126.

Course 125 is recommended.

Duration:

Two days.

Description:

This course explains how the FOCUS Interface translates and optimizes FOCUS requests for DB2, SQL/DS, Oracle, and Teradata. It provides the skills needed to efficiently produce FOCUS reports and covers how column and row selection, DEFINE, JOIN, sort, and aggregation statements can be passed to the RDBMS. This course discusses the latest enhancements to the FOCUS Interface, including the use of "Direct SQL Passthru." Efficient coding techniques are acquired through extensive examples and exercises (using DB2).

Topics Include:

- Why and How to Use FOCUS as a Reporting Tool for DB2, SQL/DS, Oracle, and Teradata
- FOCUS Interface Internal Processing
- FOCUS Interface Optimization Logic
- Effects of Database Structure and RDBMS Processing on Reporting Efficiencies
- Automatic Generation of MFDs and AFDs Using AUTOxxx
- Use of the RDBMS Catalog to Get Information on Data
- Efficient Selection, Sort, Aggregation, and DEFINES on Single Tables or SQL View
- Multi-Table Efficient Requests Using RDBMS Views, FOCUS Views, JOIN, MATCH FILE, and HOLD Files
- Execution Performance Analysis Using Trace Tools (FSTRACEx, EXPxxx)
- SQL Language Support and Reporting With "Direct SQL Passthru"

CEU:

1.1 awarded.

Tuition:

IBI Site: \$575 per student.
On Site: \$3,900. See page 86 for details.

Next Recommended Courses:

Course 210

Advanced Reporting

Course 301

Extended Matrix Reporting

Dates Offered:

Atlanta: September 9-10

Boston: August 10-11

Charlotte: January 12-13

Cincinnati: September 9-10

Cleveland: November 8-9

Dallas: August 5-6; October 7-8; December 9-10

Denver: August 5-6; October 7-8; January 20-21

Detroit: September 9-10

Houston: September 9-10; January 20-21

Kansas City, MO: August 26-27

Los Angeles: October 14-15

New Jersey: November 18-19

New York City: August 19-20; November 18-19;
January 6-7

Philadelphia: October 28-29

Pittsburgh: October 5-6

St. Louis: October 14-15

Washington, DC: November 9-10

FOCUS Masters Curriculum: Application Development for DP Professionals

FOCUS Masters Curriculum: Application Development for DP Professionals

Skill Level to Be Achieved



This curriculum is designed to give DP Professionals the on-the-job skills needed to produce and maintain FOCUS information systems throughout their organizations. As you can see from the curriculum chart above, all DP Professionals should attend the "Application Quickstart" courses: *Basic FOCUS Series for DP Professionals* (101/103) and *Application Integration Techniques* (111). For the remaining courses, see the individual course descriptions on the following pages.

Introducing the FOCUS Application Development Masters Program*

IBI has created the FOCUS Application Development Masters Program for DP Professionals who need to create sophisticated FOCUS information systems. This cost-saving program is designed to provide all the training and support services necessary to help you become a master at FOCUS Application Development. The FOCUS Masters Program features:

- 15% discount off the then-current list price for FOCUS Application Development core and elective courses taken at IBI sites for each person who enrolls in the program
- 15% discount off the then-current list price for all other IBI site education courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses
- Special recognition by IBI Support Services
- Individual curriculum planning with your IBI Education Account Representative or Consulting Manager
- FOCUS courses taught by highly trained FOCUS consultants who regularly develop full-scale applications for major organizations

How do you become a FOCUS Application Development Master?

1. Enroll in the program through the Education Account Representative or Consulting Manager at your local IBI office.
2. Conveniently pay up front with only a single purchase order.
3. Within 18 months of enrollment, attend at least four FOCUS Application Development core courses: *Basic FOCUS for DP Professionals* (101/103), *Application Integration Techniques* (111), then *FOCUS Intermediate Reporting* (126) and/or *Advanced Techniques* (201), followed by *FOCUS Internals* (203). You will receive a 15% discount on all these courses.
4. Within 18 months of enrollment, attend at least one of the four FOCUS Application Development elective courses, either *Database Design* (200), *FOCUS Windows* (130), *Extended Matrix Reporting* (301), or *Advanced Reporting* (210). You will receive a 15% discount on all these courses. During this 18-month period, you are eligible to receive a 15% discount on all IBI site courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses.

Note: If you have already taken *Basic FOCUS Series for DP Professionals* (101/103) and *Application Integration Techniques* (111), your record of attendance can be transferred to the FOCUS Masters Program, and you can continue your training as a FOCUS Masters student. No other discounts apply, and previously taken courses provide no retroactive discount.

Upon completing your FOCUS Masters coursework, you will receive:

- FOCUS Application Development Masters Certificate, ready for display
- Special recognition by IBI Support Services
- Complimentary copy of the new PC-based *FOCUS Menu Management* CBT course to reinforce skills learned in class
- FOCUS Masters gift premium
- 15% discount off the then-current list price for Top Gun Technology Days for use within 12 months after receiving your FOCUS Masters Certificate

Note: The discounted courses, services, and premiums are for the exclusive use of the individual enrolling in the FOCUS Masters Program and are non-transferrable to another student. Classes must be taken at an IBI location. In the event that the FOCUS Masters student should leave an organization before completing the FOCUS Masters Curriculum, any prepaid funds will be credited to the organization and applied to the then-current list price of IBI site and on-site courses. The new organization can complete the individual's program by providing a purchase order for the remainder of the FOCUS Masters courses at the 15% discount.

Application Quickstart for DP Professionals

Your time is valuable. The faster you learn FOCUS, the more quickly you can start doing what counts: developing FOCUS applications faster and more efficiently. This will result in significant time savings to you and, thus, cost savings to your organization.

To get started, take the "Application Quickstart" courses of *Basic FOCUS Series for DP Professionals* (101/103) and *Application Integration Techniques* (111). Save 15% on both courses by taking them as part of the FOCUS Masters Program (see above) or save 10% by taking the courses in the Application Quickstart Program. See pages 29 and 37.

FOCUS Masters Curriculum Price

Prices are 15% below the then-current IBI list prices for education courses and products if the individual student enrolls in three or more FOCUS Masters courses. Price ranges are indicated below because the price for a curriculum varies, depending on the number of core courses and electives chosen by an individual.

Application Development for DP Professionals: From \$2,830 to \$4,690.

* No other discounts apply.

Basic FOCUS Series for DP Professionals

FOCUS Basic Reporting, Database Creation and Maintenance

Course 101/103

Core FOCUS Course

Objective:

Learn to take a data processing approach to FOCUS reporting and file maintenance. Using case studies and extensive hands-on exercises, learn to develop informative business reports and database maintenance applications. This course is designed for 3GL or 4GL programmers who develop applications for organizational use.

Prerequisite:

Course 101: None.
Course 103: Course 101.

This course is designed for those with programming experience in a 3GL or 4GL. Anyone else should refer to the *Basic FOCUS Series for Business Professionals* (Course 102/104) on page 42.

Duration:

Five days.

Description:

In this course, participants acquire the basic skills needed to produce sorted, formatted reports and to organize and maintain data in FOCUS. It describes FOCUS file structures and presents techniques for selecting and organizing data in reports. It illustrates how to format reports and how to report from multiple files. Course terminology and pace of instruction are geared toward data processing professionals.

Students gain reporting skills through extensive practice with business-oriented exercises. The class also features a complimentary reporting manual designed as a reference tool for use back on the job.

After reporting from existing files, participants learn how to develop procedures to maintain information in a FOCUS file and how to develop an online database maintenance application.

FOCUS Basic Reporting (101) Topics Include:

- Overview of FOCUS
- Storing Report Requests
- Sorting Data
- Formatting Reports
- Performing Calculations
- Selectively Retrieving Data
- Creating New Fields
- Reporting From Multiple Files
- Creating Extract Files

FOCUS Database Creation (103) Topics Include:

- FOCUS File Structures (Relational-like, Hierarchical)
- Components and Attributes of the Master File Description
- Segment Relationships
- Accessing Segment Instances to Maintain a FOCUS File (Database Levels and Access Paths)

FOCUS Database Maintenance (103) Topics Include:

- Creating Data Entry Screens
- Providing Customized System Messages
- Validating Transactions
- Calculating Field Values
- Maintaining a FOCUS File
- Developing a Database Maintenance Application
- Rebuilding a FOCUS File
- Reading Data From a Sequential File to Maintain a FOCUS File

CEU:

2.8 awarded.

Tuition:

IBI Site: \$1,020 per student.
On Site: \$6,250. See page 86 for details.

Next Recommended Course:

Course 111
Application Integration Techniques

For the convenience of participants whose schedule does not permit five consecutive days of training, we offer the option of taking *FOCUS Basic Reporting* (101) and *FOCUS Database Creation and Maintenance* (103) separately.

FOCUS Basic Reporting for DP Professionals (Course 101) – First Three Days of Class

CEU:

1.7 awarded.

Tuition:

IBI Site: \$625 per student.
On Site: \$3,750. See page 86 for details.

For dates and additional information on attending *Basic Reporting* (Course 101), please refer to pages 18 and 19.

FOCUS Database Creation and Maintenance for DP Professionals (Course 103) – Last Two Days of Class

CEU:

1.1 awarded.

Tuition:

IBI Site: \$395 per student.
On Site: \$2,500. See page 86 for details.

**Featuring
Basic Reporting Manual**

To Help Ensure Your Success

This comprehensive, 200-page reference source

- Is designed for use in class and back on the job
- Puts all the Basic Reporting topics at your fingertips
- Provides fully explained and diagrammed coverage of topics and information

Dates Offered:

	101	103
Atlanta:	July 12-14 Sept 13-15 Oct 18-20 Dec 13-15 Jan 24-26	15-16 16-17 21-22 16-17 27-28
Baltimore:	July 12-14 Jan 10-12	15-16 13-14
Birmingham:	Nov 15-17	18-19
Boston:	Aug 2-4 Oct 4-6 Nov 29 - Dec 1	5-6 7-8 Dec 2-3
Charlotte:	Aug 9-11 Oct 4-6 Dec 6-8	12-13 7-8 9-10
Chicago:	July 12-14 Sept 20-22 Nov 29 - Dec 1	15-16 23-24 Dec 2-3
Cincinnati:	July 12-14 Sept 13-15 Dec 6-8	15-16 16-17 9-10
Cleveland	Aug 18-18	19-20
Columbus	Aug 9-11 Jan 24-26	12-13 27-28
Dallas:	July 28-28 Aug 23-25 Sept 20-22 Oct 18-20 Nov 15-17 Jan 24-26	29-30 26-27 23-24 21-22 18-19 27-28
Denver:	July 12-14 Sept 13-15 Nov 15-17 Jan 24-26	15-16 16-17 18-19 27-28

	101	103
Detroit:	July 12-14 Sept 20-22 Oct 18-20 Dec 6-8	15-16 23-24 21-22 9-10
Hartford:	Sept 20-22 Jan 3-5	23-24 6-7
Houston:	July 12-14 Aug 16-18 Oct 4-6 Dec 6-8	15-16 19-20 7-8 9-10
Indianapolis:	Dec 6-8	9-10
Kansas City:	Sept 20-22 Dec 13-15	23-24 16-17
Los Angeles:	July 19-21 Sept 20-22 Nov 1-3 Jan 10-12	22-23 23-24 4-5 13-14
Milwaukee:	July 19-21 Sept 20-22 Jan 24-26	22-23 23-24 27-28
Minneapolis/ St. Paul:	Dec 6-8	9-10
New Jersey:	Sept 27-29 Jan 24-26	30 - Oct 1 27-28
New Orleans:	Oct 18-20	21-22
New York:	July 19-21 Aug 2-4 Aug 16-18 Sept 20-22 Oct 4-6 Oct 18-20 Nov 1-3 Nov 15-17 Dec 6-8 Jan 24-26	22-23 5-6 19-20 23-24 7-8 21-22 4-5 18-19 9-10 27-28

	101	103
Orlando:	July 12-14 Oct 18-20 Jan 10-12	15-16 21-22 13-14
Philadelphia:	July 12-14 Sept 13-15 Oct 4-6 Nov 8-10 Jan 10-12	15-16 16-17 7-8 11-12 13-14
Phoenix:	Sept 13-15 Dec 6-8	16-17 9-10
Pittsburgh:	Sept 20-22 Dec 13-15	23-24 16-17
Rochester:	Aug 9-11 Oct 25-27	12-13 28-29
Sacramento:	Aug 16-18	19-20
St. Louis:	Sept 13-15 Dec 13-15	16-17 16-17
San Antonio:	Aug 9-11	12-13
San Francisco:	July 12-14 Jan 24-26	15-16 27-28
San Jose:	Aug 9-11 Dec 6-8	12-13 9-10
Seattle:	Aug 23-25 Oct 18-20	26-27 21-22
Tallahassee:	Aug 16-18	19-20
Washington, DC:	July 26-28 Aug 23-25 Sept 20-22 Oct 25-27 Nov 29 - Dec 1 Jan 3-5	29-30 26-27 23-24 28-29 Dec 2-3 6-7
White Plains/ Stamford:	July 12-14 Nov 1-3	15-16 4-5

**Discounted Application Quickstart for DP Professionals
Provides Hands-On Skills to Build Complete FOCUS Applications**

Location	Basic FOCUS Series	Application Integration Techniques	Requirements	SAVE 10% on Both 101/103 and 111 Cost*
IBI Site	Course 101/103 Duration: five days	Course 111 Duration: two days	Must take Course 111 within six weeks of Course 101/103 and sign up for 111 within four days of having completed 101/103.	Regularly \$1,495 Now \$1,345

* No other discounts apply.

Call your local IBI office to inquire about an *Application Quickstart* discount on site.

Application Integration Techniques

Course 111

Core FOCUS Course

Objective:

Through case studies and hands-on exercises manage the execution of business reports and maintenance requests. Acquire the skills to create efficient, sophisticated business reports and maintenance requests with one procedure and to create and link menus. Learn how to customize reports easily by entering different selection values.

Prerequisite:

Courses 101/103 or 102/104.

Duration:

Two days.

Description:

Participants use menu management techniques to execute related reports and maintenance requests from one procedure. They then learn how to link reports and maintenance requests in an interactive, menu-driven system and to customize reports to accept variable information. Skills are reinforced through a workshop-style course. In these exercises, a menu-driven system will be developed to provide a prototype of an application.

Topics Include:

- Creating Menu-Driven Systems
 - Controlling Execution
 - Branching Within an Application
 - Creating Menus
 - Integrating Multiple TABLE Requests and MODIFY Requests Into an Application
 - Prompting for User-Supplied Variables in an Interactive Reporting Dialogue
 - Implementing Menu Selection Methods (Specifying Selection Numbers, Positioning of the Cursor, Linking PF Keys to Selections)

CEU:

1.1 awarded.

Tuition:

IBI Site: \$475 per student.

On Site: \$2,850. See page 86 for details.

Next Recommended Courses:

For FOCUS Professionals:

Course 126

FOCUS Intermediate Reporting

or Course 200

Database Design

For anyone who wants to develop FOCUS Window-driven applications:

Course 130

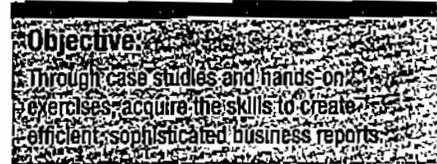
FOCUS Windows

Dates Offered:**Atlanta:** September 30 - October 1; November 22-23; January 13-14**Baltimore:** September 9-10**Boston:** July 22-23; September 2-3; November 11-12; January 13-14**Charlotte:** September 14-15; November 2-3**Chicago:** July 29-30; August 30-31; October 7-8; December 16-17; January 31 - February 1**Cincinnati:** July 22-23; December 16-17**Cleveland:** August 26-27; October 28-29; December 2-3**Columbus:** September 13-14**Dallas:** August 12-13; October 21-22; January 6-7**Denver:** July 29-30; September 27-28; November 22-23; January 13-14**Detroit:** August 16-17; September 30 - October 1; November 25-26; December 16-17; January 13-14**Hartford:** October 12-13**Houston:** July 26-27; September 16-17; November 4-5; January 20-21**Kansas City, MO:** July 1-2; October 7-8**Los Angeles:** August 9-10; October 21-22; December 13-14**Milwaukee:** August 9-10; October 4-5; December 2-3**Minneapolis/St. Paul:** August 5-6; October 7-8; December 20-21**New Jersey:** October 21-22**New York City:** July 26-27; August 26-27; September 13-14; October 14-15; November 8-9; December 13-14; January 13-14**Orlando:** October 14-15; December 13-14**Philadelphia:** July 22-23; August 26-27; September 30 - October 1; December 16-17**Phoenix:** October 18-19; January 20-21**Pittsburgh:** October 7-8**Rochester:** November 11-12**St. Louis:** September 23-24; January 13-14**San Antonio:** October 7-8**San Francisco:** September 16-17; November 4-5**San Jose:** August 19-20; October 7-8; January 20-21**Seattle:** August 4-5; November 10-11**Washington, DC:** July 8-9; August 19-20; October 7-8; December 9-10; January 20-21**White Plains/Stamford:** October 21-22

FOCUS Intermediate Reporting

Course 126

Core FOCUS Course



Prerequisite:

Course 101 or 102.

Duration:

Three days.

Description:

Participants analyze over 20 business reporting examples based on the project experience of IBI's consulting staff. These reports illustrate reporting efficiencies, sophisticated formatting, data analysis, DEFINE techniques, and the MATCH FILE command. Attendees also learn the internals of report generation. This knowledge will prepare attendees to enhance the efficiency of reporting procedures. Skills are reinforced through actual report writing and testing in hands-on terminal sessions. Both relational and FOCUS files will be referenced throughout the course.

Topics Include:

- Screening Techniques
 - Screening for Exceptions
 - Selecting Records Based on Values in Segment Chains
 - Selecting the First and Last Instances in a Segment or Segment Chain
 - Limiting Records by Specifying Rows and Columns
 - Creating Flags for Complex Screening
- Working With New Values
 - Using a DEFINED Field in the Host File as the JOIN Field
 - Creating a New Value Based on the Preceding Value of the Field
 - Setting Up and Using Counters
 - Using Column Position in Calculating New Fields
 - Using Summary Values in the Creation of New Values
 - Determining the Percentage of a Value Within Sort Group
 - Converting Conventional Dates to Smart Dates
- Customizing Your FOCUS Environment
 - Specifying the Files to Be Used
 - Building User Profiles
 - Controlling Settings With SET
 - Altering Syntax With LET
- Sorting
 - Ranking and Grouping Data
 - Specifying the Different Levels for Summary Data
 - Stacking Lines
- Formatting
 - Changing Default Paging
 - Generating a Cumulative Total
 - Using Direct Operators in Headings and Footings
 - Limiting the Printing of Summary Lines

- Alternate File Views
 - Taking Indexed and Non-Indexed Views of Files
- With Hot Screen, Use the Output of One Report to Determine the Criteria for a Subsequent Report
- FOCUS Reporting Internals
 - MATCH FILE Internals
 - Internal Processing of a Table Request
 - Using TABLEF to Accelerate Report Processing

CEU:

1.7 awarded.

Tuition:

IBI Site: \$705 per student.

On Site: \$4,650. See page 86 for details.

Next Recommended Courses:

Course 125

FOCUS Menu Management

Course 130

FOCUS Windows

Course 210

Advanced Reporting

Course 301

Extended Matrix Reporting

Dates Offered:

Anchorage: October 13-15

Atlanta: August 23-25; October 12-14;
January 18-20

Austin: July 28-30

Baltimore: October 6-8

Birmingham: December 15-17

Boise: November 17-19

Boston: July 28-30; August 30 - September 1;
September 27-29; November 8-10; December
6-8; January 10-12

Charlotte: August 25-27; November 10-12;
January 19-21

Chicago: August 9-11; October 25-27;
December 6-8; January 26-28

Cincinnati: August 4-6; November 10-12;
January 10-12

Cleveland: August 11-13; November 1-3;
January 31 - February 2

Columbus: July 12-14

Dallas: July 6-8; August 9-11; September 13-15;
October 12-14; November 15-17; December
13-15; January 19-21

Denver: July 21-23; August 16-18; October
12-14; December 6-8

Detroit: July 28-30; September 27-29;
November 29 - December 1; January 19-21

Hartford: September 1-3; December 8-10

Houston: July 6-8; September 27-29; October
25-27; December 15-17

Indianapolis: July 7-9; November 10-12

Kansas City, MO: September 15-17; November
17-19

Las Vegas: September 13-15

Los Angeles: July 7-9; September 27-29;
November 22-24

Louisville: October 6-8

Memphis: September 13-15

Miami: August 18-20

Milwaukee: July 6-8; September 1-3;
November 8-10; January 10-12

Minneapolis/St. Paul: August 9-11; October
13-15; December 1-3; January 26-28

New Jersey: September 1-3; December 8-10

New Orleans: November 3-5

New York City: July 27-29; August 25-27;
September 20-22; October 6-8, 20-22;
November 15-17; December 8-10;
January 19-21

Omaha: August 16-18

Orlando: July 21-23; October 27-29; January
26-28

Philadelphia: August 18-20; October 13-15;
December 1-3; January 19-21

Phoenix: October 25-27

Pittsburgh: September 15-17; November
10-12; January 19-21

Portland, OR: November 16-18

Rochester, NY: October 13-15

Sacramento: October 6-8; January 12-14

St. Louis: July 7-9; August 18-20; November
17-19

Salt Lake City: December 8-10

San Antonio: November 10-12

San Francisco: August 25-27; October 25-27;
December 1-3; January 19-21

San Jose: July 21-23; September 21-23;
November 8-10; January 10-12

Seattle: September 20-22; January 19-21

Spokane: December 1-3

Tallahassee: December 8-10

Tampa: November 17-19

Washington, DC: July 6-8; September 1-3;
November 3-5; January 26-28

White Plains/Stamford: July 7-9; October
13-15; January 26-28

Advanced Techniques

With 13 Hands-On Exercise Sets

Course 201

Core FOCUS Course

Objective:

Learn advanced MODIFY techniques and efficiencies needed to develop and maintain large, complex, and effective applications.

Prerequisite:

Course 111.

IBI recommends that DP Professionals who will be developing and/or improving FOCUS databases take Courses 111 and 200 before Course 201.

This course requires an in-depth knowledge and use of FOCUS for a minimum of six weeks, and a working knowledge of MODIFY, including FIDEL, MATCH, and NEXT logic. A knowledge of static cross-referencing and JOIN is helpful.

Duration:

Three days.

Description:

This is a course in FOCUS efficiencies. Efficiency techniques for large MODIFY routines with heavy throughput requirements are presented along with response-time optimization techniques. Techniques include: coding validations and security into the Master File Description; using PERFORM to optimize MODIFY procedures; utilizing alternate file views for efficient access to the database; and using COMPILE and LOAD procedures for maximum response. All techniques are reinforced through practical examples and case studies.

Topics Include:

- Efficiencies in MODIFY Execution:
 - Error Handling
 - Procedure to Support Rapid Throughput of Large Files
 - COMBINE
 - Indexed Views
 - COMPILE and LOAD
- Efficiencies in Coding MODIFY Procedures:
 - PERFORM
 - HOLD and GETHOLD
 - SORHOLD
 - REPEAT
 - ModifyTalk
- Simultaneous Usage (SU)
- Database Security
- Testing and Debugging
 - FOCUS Debugging Techniques
 - TYPE, TRACE, ECHO
 - CHECK FILE
- COMMIT and ROLLBACK

CEU:

1.7 awarded.

Tuition:

IBI Site: \$795 per student.

On Site: \$5,450. See page 86 for details.

Next Recommended Course:

Course 203

FOCUS Internals

Dates Offered:

Anchorage: December 15-17

Atlanta: October 6-8

Baltimore: November 17-19

Boston: August 25-27; October 20-22; December 15-17

Charlotte: July 28-30; October 20-22

Chicago: July 21-23; September 8-10;

November 29 - December 1; January 19-21

Cincinnati: September 22-24; January 26-28

Cleveland: July 21-23; October 6-8; January 10-12

Columbus: November 17-19

Dallas: July 14-16; September 29 - October 1; November 3-5; January 12-14

Denver: August 25-27; December 15-17

Detroit: July 21-23; September 22-24;

November 3-5; January 26-28

Hartford: December 1-3

Houston: July 21-23; September 15-17;

November 10-12; January 26-28

Indianapolis: July 21-23

Kansas City, MO: July 7-9; January 12-14

Los Angeles: August 18-20; November 17-19

Milwaukee: July 26-28; October 13-15

Minneapolis/St. Paul: July 21-23; September

22-24; January 12-14

New Jersey: September 22-24

New Orleans: July 14-16; January 12-14

New York City: July 14-16; September 22-24;

December 1-3; January 26-28

Orlando: September 22-24; December 8-10

Philadelphia: July 19-21; December 6-8

Phoenix: November 10-12

Rochester: September 22-24

Sacramento: November 17-19

St. Louis: July 14-16; October 20-22; January 26-28

San Antonio: December 8-10

San Francisco: December 15-17

San Jose: August 18-20

Seattle: October 6-8

Washington, DC: July 21-23; September

29 - October 1; December 1-3

White Plains/Stamford: October 27-29

Course 203

Core FOCUS Course

Objective:

Learn the essential internal operations of FOCUS retrieval and MODIFY processing. Learn to take advantage of this knowledge to speed application development and to produce more efficient systems.

Prerequisite:

Course 201 or 128 and at least three months of extensive FOCUS experience in designing, reporting from, and maintaining FOCUS databases.

Duration:

Three days.

Description:

In this course, FOCUS structures are discussed in terms of the relationship of segments, the way in which indexes are used and maintained, and efficiency considerations.

The retrieval process is delineated to show what happens and when, sorting versus not sorting, and the strategies for physical versus logical file traversals.

The internal processing logic of the MODIFY facility is discussed in detail.

This course is extremely useful to system designers who are responsible for developing, implementing, and supporting complex systems.

Database Topics Include:

- Physical Structure of a FOCUS Database: Pages, Segments, and Pointers
- Logical Structure
- LOCATION
- File Views

Retrieval Topics Include:

- Retrieval Overview
- DBA
- Missing Segments
- Internal Matrix
- Multi-Path Retrieval
- Core Utilization and Efficiency Considerations, Including Alternate File Views
- B-Tree Indexes
- Cache Memory

MODIFY Topics Include:

- Processing Overview
- Definition of a Transaction
- Processing Logic of the Extended Transaction Features (such as Repeating Groups, COMPUTE, VALIDATE, etc.)
- Extensive Details of the Subcommand Processing Logic
- Segment and Field Activation and Implications
- Search Techniques for All SEGYPES
- MATCH, NEXT, and REPOSITION Action Processing
- Special Considerations for Case Logic
- Processing Multiple Records Through REPEAT and HOLD
- Core Utilization and Efficiency Considerations
- Absolute File Integrity
- Simultaneous Usage (SU)
- Compiled MODIFY
- COMBINE
- COMMIT and ROLLBACK

CEU:

1.7 awarded.

Tuition:

On Site: \$805 per student.
Off Site: \$8,060. See page 86 for details.

Dates Offered:

- Anchorage: January 24-26
 Atlanta: August 11-13; November 15-17
 Boston: July 14-16; December 6-8
 Charlotte: September 1-3; November 29 - December 1
 Chicago: August 16-18; October 4-6; December 13-15; January 12-14
 Cincinnati: August 25-27
 Cleveland: July 28-30; November 10-12
 Dallas: August 2-4; October 4-6; December 1-3
 Denver: September 1-3; November 3-5; January 3-5
 Detroit: September 15-17; January 31 - February 2
 Hartford: July 26-28
 Houston: August 2-4; October 13-15; December 13-15
 Kansas City, MO: July 19-21; November 8-10
 Los Angeles: December 15-17
 Milwaukee: August 11-13; December 6-8
 Minneapolis/St. Paul: November 8-10; January 3-5
 New Jersey: November 3-5
 New Orleans: August 16-18
 New York City: July 12-14; October 4-6; January 18-20
 Orlando: August 23-25
 Philadelphia: September 27-29
 Rochester: December 1-3
 Sacramento: January 19-21
 St. Louis: July 28-30; December 6-8
 San Antonio: January 12-14
 San Francisco: August 11-13; January 12-14
 San Jose: October 13-15
 Seattle: December 8-10
 Washington, DC: August 4-6; October 4-6; December 6-8
 White Plains/Stamford: December 6-8

FOCUS Windows

Course 130

Elective FOCUS Course

Objective:

Learn how to use FOCUS Windows to control procedure flow and improve user-friendliness and application functionality through the use of case studies and hands-on exercises.

Prerequisite:

A working knowledge of Dialogue Manager acquired through Course 111, or 125.

Duration:

One day.

Description:

This course examines the various types of FOCUS Windows and how they interact with each other. Students learn how to build FOCUS Windows applications and how to use them within procedures.

Anyone Who Develops FOCUS Applications Can Benefit From This FOCUS Windows Course:

With FOCUS Windows, you can build applications and enhance existing ones so that they:

- Automatically validate data entry
- Are easier for your staff to use
- Run faster because FOCUS Windows applications compile automatically
- Have more attractive menu screens
- Are easier for you to code

Topics Include:

- Role of FOCUS Windows in FOCUS Applications
- Capabilities of Windowing Technology
- Hardware Requirements
- Syntax and Use of FOCUS Windows
- Improving User Interface and Systems Control
- Impact of Integrating FOCUS Windows in Existing Applications
- FOCUS Windows Utilities

CEU:

.6 awarded.

Tuition:

IBI Site: \$265 per student.

On Site: \$1,585. See page 86 for details.

Next Recommended Course:

Course 111

Application Integration Techniques

Dates Offered:

Atlanta: August 20; November 16
 Austin: July 27
 Baltimore: October 5
 Birmingham: December 14
 Boston: July 27; September 24; October 29; November 19; January 7
 Charlotte: August 24; November 9
 Chicago: August 3; October 1; November 16; January 4
 Cincinnati: August 3; November 9
 Cleveland: October 1; January 28
 Columbus: October 22
 Dallas: July 12; August 31; October 26; December 10
 Denver: July 20; August 13; October 5; December 3
 Detroit: July 27; November 23; January 14
 Hartford: August 31
 Houston: September 2; October 29; December 14
 Indianapolis: November 9
 Kansas City, MO: September 14; November 16
 Los Angeles: August 13; October 29; January 21
 Louisville: September 16
 Memphis: August 13
 Miami: August 17
 Milwaukee: July 15; August 31; November 2
 Minneapolis/St. Paul: August 3; October 5; January 25
 New Jersey: August 24; November 16
 New Orleans: November 2
 New York City: August 17; October 19; December 7
 Omaha: September 21
 Orlando: July 20; October 26; January 25
 Philadelphia: August 17; November 30
 Phoenix: August 20; November 16
 Pittsburgh: September 14
 Rochester, NY: September 29
 Sacramento: October 5
 St. Louis: August 17; November 16
 San Antonio: November 9
 San Francisco: August 24; November 30
 San Jose: July 20; October 22
 Seattle: August 13; December 17
 Tallahassee: December 7
 Tampa: November 16
 Washington, DC: July 12; August 31; November 2; January 25
 White Plains/Stamford: September 24; December 10

Database Design

Course 200

Elective FOCUS Course

Objective:

Learn a systematic approach to designing large, complex FOCUS databases and improving existing ones. Learn how to evaluate organizational needs and database efficiency requirements, and implement an effective design.

Prerequisite:

Course 111 and knowledge of JOIN.

Duration:

Two days.

Description:

In this course, an application database is designed using prototyping techniques, and an existing system is analyzed and redesigned. In both cases, efficiency considerations in design and performance are emphasized.

Topics Include:

- Physical Database Versus Logical Database
- Advanced File Design Concepts and Techniques
- Large File Considerations
- File Size Analysis

- File Partitions
- Prototyping
- LOCATION
- MISSING
- Recursive Files and Alternate File Views
- Use of Indexes
- Static Cross-Referencing

CEU:

1.1 awarded.

Tuition:

IBI Site: \$550 per student.
On Site: \$3,500. See page 86 for details.

Next Recommended Course:

Course 201
Advanced Techniques

Dates Offered:

Anchorage: December 13-14
Atlanta: October 4-5
Baltimore: November 15-16
Boston: August 23-24; October 18-19; December 13-14
Charlotte: July 26-27; October 18-19
Chicago: July 19-20; August 30-31; October 28-29; December 2-3
Cincinnati: September 20-21; January 24-25
Cleveland: July 19-20; October 4-5; January 6-7
Columbus: November 15-16

Dallas: July 12-13; September 27-28; November 1-2; January 10-11
Denver: August 23-24; December 13-14
Detroit: July 19-20; September 20-21; November 1-2; January 24-25
Hartford: November 29-30
Houston: July 19-20; September 13-14; November 8-9; January 24-25
Indianapolis: July 19-20
Kansas City, MO: January 10-11
Los Angeles: August 16-17; November 15-16
Milwaukee: September 27-28; November 11-12
Minneapolis/St. Paul: August 16-17; January 10-11
New Jersey: September 20-21
New Orleans: July 12-13; January 10-11
New York City: July 12-13; September 20-21; November 29-30; January 24-25
Orlando: September 20-21; December 6-7
Philadelphia: July 8-9; November 18-19
Phoenix: November 8-9
Pittsburgh: November 4-5
Rochester, NY: September 20-21
Sacramento: November 15-16
St. Louis: July 12-13; January 24-25
San Antonio: December 6-7
San Francisco: December 13-14
San Jose: August 16-17
Seattle: October 4-5
Washington, DC: July 19-20; September 27-28; November 29-30; January 31 - February 1
White Plains/Stamford: October 25-26

Design and Techniques Program				
Increase the Efficiency of Your FOCUS Database Designs and MODIFY Procedures				
Location	Database Design	Advanced Techniques	Requirements	SAVE 10% on Both 200 and 201 Cost*
IBI Site	Course 200 Duration: two days	Course 201 Duration: three days	Must take Course 201 within six weeks of Course 200 and sign up for 201 within four days of having completed 200.	Regularly \$1,345 Now \$1,210!

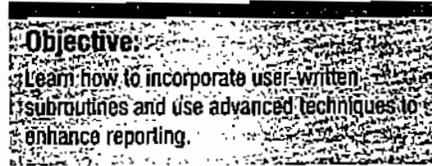
* No other discounts apply

Call your local IBI office to inquire about a Design and Techniques discount on site.

FOCUS Advanced Reporting

Course 210 New!

Elective FOCUS Course



Prerequisite:

Course 126 followed by a minimum of three months of FOCUS reporting experience.

Duration:

Two days.

Description:

Designed to make a reporting "pro" of FOCUS reporting specialists. In this course, students will be using case studies along with over 50 examples. This truly advanced course completes IBI's reporting curriculum.

Topics Include:

- Enhancing Reporting With User-Written Subroutines
- Prototyping a Reporting Application
- Mastering Diagnostic Techniques
- Use of Variables in Reporting
- Determining When to Use a Dynamic JOIN Versus a Static Cross-Reference
- Reporting From FOCUS-Generated External Files
- Working With Hold Files and Hold File Options
- Label Routines
- Printing a Record More Than Once in a Report
- Combining Two Reports Into One
- Printing PAGE n OF x
- Suppressing Blank Lines in a Report
- Finding the Median Value of a Field
- Creating Random Numbers and Using Them as Selection Criteria

CEU:

1.1 awarded.

Tuition:

IBI Site: \$575 per student.
 On Site: \$3,900. See page 86 for details.

Dates Offered:

- Anchorage November 1-2
- Atlanta: July 26-27; September 27-28; November 17-18
- Baltimore: December 6-7
- Boston: July 8-9; September 7-8; October 12-13; December 20-21; January 18-19
- Charlotte: September 8-9; December 2-3
- Chicago: July 19-20; September 27-28; November 11-12; January 10-11
- Cincinnati: July 20-21; November 18-19; January 13-14
- Cleveland: September 9-10; December 6-7
- Columbus: July 15-16; December 16-17
- Dallas: July 19-20; August 26-27; September 27-28; October 25-26; November 29-30; January 31 - February 1

- Denver: July 6-7; August 30-31; October 26-27; January 6-7
- Detroit: July 8-9; August 23-24; October 28-29; December 2-3
- Hartford: October 14-15
- Houston: August 10-11; November 29-30; January 18-19
- Indianapolis: January 13-14
- Kansas City, MO: August 12-13; October 14-15; December 6-7
- Las Vegas: October 21-22
- Los Angeles: September 30 - October 1; December 9-10
- Memphis: September 16-17
- Milwaukee: August 2-3
- Minneapolis/St. Paul: July 26-27; September 20-21; November 15-16; January 6-7
- New Jersey: October 7-8; January 13-14
- New Orleans: December 2-3
- New York City: August 12-13; October 12-13; December 2-3
- Omaha: August 19-20
- Orlando: October 12-13
- Philadelphia: September 23-24; December 20-21
- Phoenix: September 28-29; January 31 - February 1
- Pittsburgh: November 8-9
- Rochester, NY: July 26-27; December 9-10
- Sacramento: July 12-13; January 27-28
- St. Louis: September 9-10; December 9-10
- San Francisco: July 21-22; September 23-24; November 18-19; January 10-11
- San Jose: August 17-18; October 7-8; December 9-10
- Seattle: July 26-27; October 25-26
- Shreveport, LA: July 12-13
- Tampa: December 13-14
- Washington, DC: August 17-18; October 18-19; December 20-21
- White Plains/Stamford: November 17-18

Extended Matrix Reporting (EMR) for Decision Support Systems

Course 301

Elective FOCUS Course

Objective:

Using EMR, learn to create specialized "matrix" reports in which calculations are performed between rows. Learn to implement "What If" scenarios, balance sheets, budget reports, and decision support systems.

Prerequisite:

Thorough understanding of the TABLE command and Dialogue Manager acquired through Courses 111, or 125 and 120.

Duration:

One day.

Description:

Designed to give FOCUS reporting specialists and programmers the skills needed to use Extended Matrix Reporting (formerly called FRL), this course describes reporting capabilities that provide greater flexibility in form design and specialized reporting formats. Those attending will also gain competence in creating models for projections within the FOCUS TABLE environment.

Topics Include:

- Overview of Matrix Reporting
- RECAP for Interrow Calculations
- Supplying Row Titles
- Formatting Control
- "What If?" Capabilities
- Forecasting

CEU:

.6 awarded.

Tuition:

IBI Site: \$265 per student.

On Site: \$1,585. See page 86 for details.

Dates Offered:

Atlanta: October 15; January 21

Boston: December 10

Chicago: August 27; October 18; December 10

Cincinnati: October 15

Cleveland: July 9; September 1; January 24

Dallas: September 20; November 22; January 18

Denver: July 23; October 25

Detroit: July 30; October 27; December 10

Hartford: August 18

Houston: August 9; January 31

Kansas City, MO: December 8

Los Angeles: December 3

Milwaukee: August 4; November 3

Minneapolis/St. Paul: August 13; November 11

New York City: August 30; October 28;

January 24

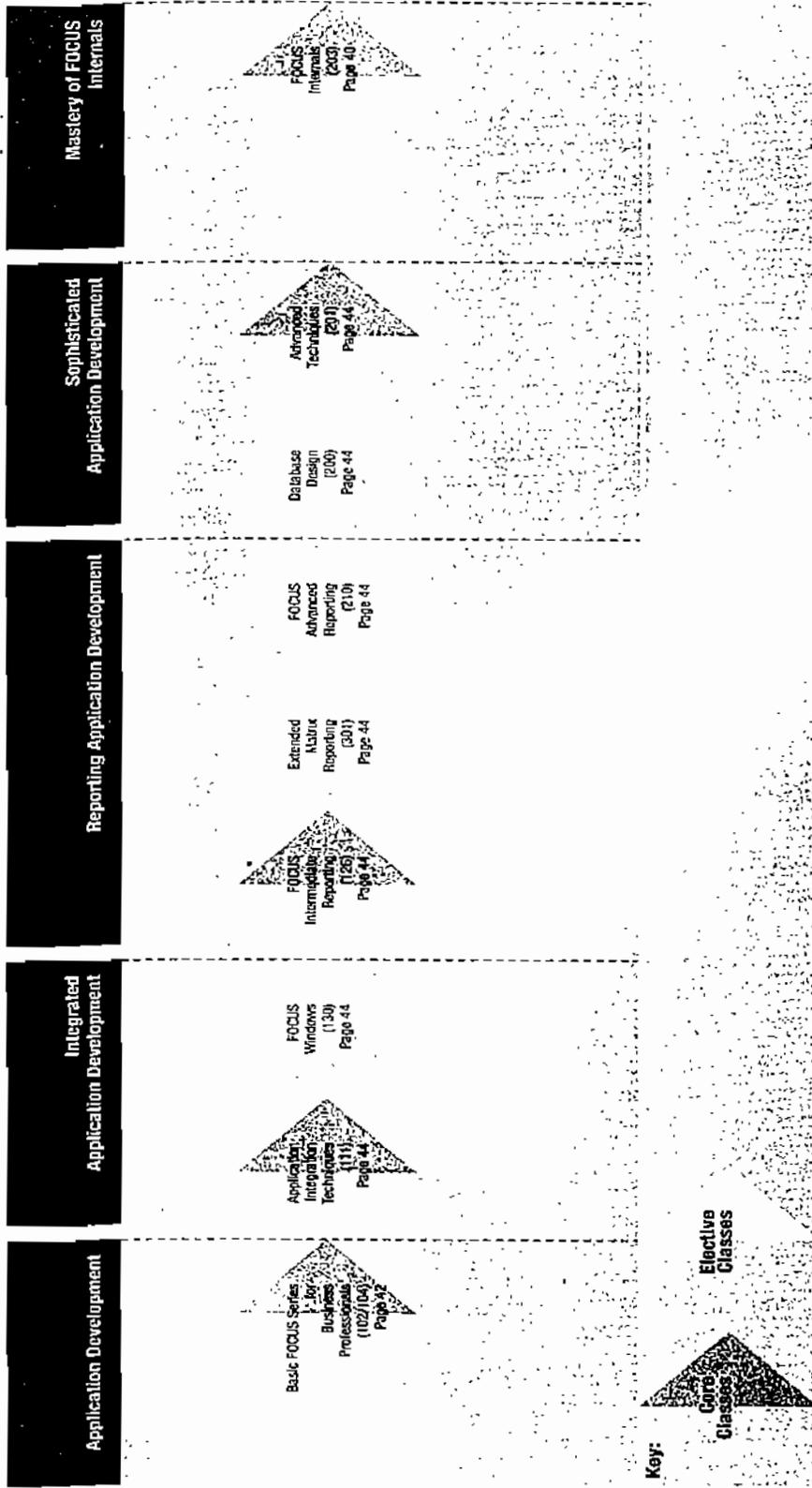
Phoenix: December 13

Washington, DC: September 7; January 14

FOCUS Masters Curriculum: Application Development for Business Professionals

FOCUS Masters Curriculum: Application Development for Business Professionals

Skill Level to Be Achieved



This curriculum is designed for Business Professionals who need to use FOCUS to produce and maintain information systems. In this curriculum's introductory course, the *Basic FOCUS Series for Business Professionals* (102/104), you will learn how to create and store useful business reports and then learn how to create FOCUS files, build data entry screens, and update data. The next course, *Application Integration Techniques* (111), shows you how to integrate basic FOCUS skills into menu-driven applications. For the remaining courses, see the individual course descriptions on the following pages.

Introducing the FOCUS Application Development Masters Program*

IBI has created the FOCUS Application Development Masters Program for Business Professionals who need to create sophisticated FOCUS information systems. This cost-saving program is designed to provide all the training and support services necessary to help you become a master at FOCUS Application Development. The FOCUS Masters program features:

- 15% discount off the then-current list price for FOCUS Application Development core and elective courses taken at IBI sites for each person who enrolls in the program
- 15% discount off the then-current list price for all other IBI site education courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses
- Special recognition by IBI's Support Services
- Individual curriculum planning with your IBI Education Account Representative or Consulting Manager
- FOCUS courses taught by highly trained FOCUS consultants who regularly develop full-scale applications for major organizations

How do you become a FOCUS Application Development Master?

1. Enroll in the program through the Education Account Representative or Consulting Manager at your local IBI office.
2. Conveniently pay up front with only a single purchase order.
3. Within 18 months of enrollment, attend at least four FOCUS Application Development core courses: *Basic FOCUS for Business Professionals* (102/104), *Application Integration Techniques* (111), then *FOCUS Intermediate Reporting* (126) and/or *Advanced Techniques* (201), followed by *FOCUS Internals* (203). You will receive a 15% discount on all these courses.
4. Within 18 months of enrollment, attend at least one of the four FOCUS Application Development elective courses, either *Database Design* (200), *FOCUS Windows* (130), *Extended Matrix Reporting* (301), or *Advanced Reporting* (210). You will receive a 15% discount on all these courses. During this 18-month period, you are eligible to receive a 15% discount on all IBI site courses listed in IBI's *Education Curriculum and Calendar*, as well as Top Gun Technology Days and FOCUS Computer Based Training courses.

Note: If you have already taken *FOCUS Basic Reporting for Business Professionals* (102, formerly "for End Users"), *FOCUS Database Creation and Maintenance* (104), and *Application Integration Techniques* (111), your record of attendance can be transferred to the FOCUS Masters Program, and you can continue your training as a FOCUS Masters student. No other discounts apply, and previously taken courses provide no retroactive discount.

Upon completing your FOCUS Masters coursework, you will receive:

- FOCUS Application Development Masters Certificate, ready for display
- Special recognition by IBI Support Services
- Complimentary copy of the new PC-based *FOCUS Menu Management* CBT course to reinforce skills learned in class
- FOCUS Masters gift premium
- 15% discount off the then-current list price for Top Gun Technology Days for use within 12 months after receiving your FOCUS Masters Certificate

Note: The discounted courses, services, and premiums are for the exclusive use of the individual enrolling in the FOCUS Masters Program and are non-transferrable to another student. Classes must be taken at an IBI location. In the event that the FOCUS Masters student should leave an organization before completing the FOCUS Masters Curriculum, any prepaid funds will be credited to the organization and applied to the then-current list price of IBI site and on-site courses. The new organization can complete the individual's program by providing a purchase order for the remainder of the FOCUS Masters courses at the 15% discount.

Introducing Application Quickstart for Business Professionals

Your time is valuable. The faster you learn FOCUS, the more quickly you can start doing what counts: developing FOCUS applications faster and more efficiently. This will result in significant time savings to you and, thus, cost savings to your organization.

To get started, take the "Application Quickstart" courses of *Basic FOCUS for Business Professionals* (102/104) and *Application Integration Techniques* (111). Save 15% on both courses by taking them as part of the FOCUS Masters Program (see above) or save 10% by taking courses in the Application Quickstart Program. See page 43.

FOCUS Masters Curriculum Price

Prices are 15% below the then-current IBI list prices for education courses and products if the individual student enrolls in three or more FOCUS Masters courses. Price ranges are indicated below because the price for a curriculum varies, depending on the number of core courses and electives chosen by an individual.

Application Development for Business Professionals: From \$2,830 to \$4,690.

* No other discounts apply.

Basic FOCUS Series for Business Professionals

FOCUS Basic Reporting, Database Creation and Maintenance

Course 102/104

Core FOCUS Course

Objective:
Using case studies and extensive hands-on exercises, learn how to create useful business reports with ad hoc and stored report requests. Then, after reporting from existing files, learn how to create your own FOCUS files, build data entry screens, and add and maintain data.

Prerequisite:

Course 102: None.

Course 104: Course 102.

Knowledge of basic computer terminology and hands-on familiarity with a computer keyboard is helpful, as is knowledge of an operating system and a system editor.

This course is designed for individuals with little or no data processing experience. If you are a Data Processing Professional, see Course 101/103 on page 28.

Duration:

Five days.

Description:

In this course, participants acquire the basic skills needed to produce sorted, formatted reports, and to organize and maintain data in FOCUS. The course describes FOCUS file structures and presents techniques for selecting and organizing data in reports. It illustrates how to format reports, report from multiple files, and use TableTalk, IBI's automated report generator.

After reporting from existing files, participants learn how to build single-segment (relational-like) and multi-segment FOCUS files. Students also learn how to add, change, and delete data, and how to use Case Logic to combine maintenance routines.

Students acquire reporting and file maintenance skills through extensive practice with business-oriented exercises. The class also features a complimentary reporting manual designed as a reference tool for use back on the job.

FOCUS Basic Reporting (102)

Topics Include:

- Overview of FOCUS
- Creating Reports With TableTalk
- Storing Report Requests
- Sorting Data
- Formatting Reports
- Performing Calculations
- Selectively Retrieving Data
- Creating New Fields
- Reporting From Multiple Files
- Creating Extract Files

FOCUS Database Creation (104)

Topics Include:

- FOCUS File Structures
- Specifying File, Segment, and Field Attributes
- Segment Relationships
- Producing a Picture of the File Structure
- Accessing Segment Instances to Maintain a FOCUS File

FOCUS Database Maintenance (104)

Topics Include:

- Creating Data Entry Screens
- Providing Customized System Messages
- Validating Transactions
- Calculating Field Values
- Adding Data
- Modifying Data
- Using Case Logic and NEXT Logic to Maintain Data
- Rebuilding a Database

CEU:

2.8 awarded.

102/104 Tuition:

IBI Site: \$1,020 per student.

On Site: \$6,250. See page 86 for details.

Next Recommended Course:

Course 111

Application Integration Techniques

For the convenience of participants whose schedules do not permit five consecutive days of training, we offer the option of taking *FOCUS Basic Reporting* (Course 102) and *FOCUS Database Creation and Maintenance* (Course 104) separately.

FOCUS Basic Reporting (102) – First Three Days of Class

CEU:

1.7 awarded.

Tuition:

IBI Site: \$625 per student.

On Site: \$3,750. See page 86 for details.

For more dates and information on attending *Basic Reporting* (102), please refer to pages 8 and 9.

FOCUS Database Creation and Maintenance (104) – Last Two Days of Class

CEU:

1.1 awarded.

Tuition:

IBI Site: \$395 per student.

On Site: \$2,500. See page 86 for details.

Featuring
Basic Reporting Manual

To Help Ensure Your Success

This comprehensive, 200-page reference source:

- Is designed for use in class and back on the job
- Puts all the Basic Reporting topics at your fingertips
- Provides fully explained and diagrammed coverage of topics and information

Dates Offered:

	102	104
Atlanta:	July 19-21 Sept 20-22 Dec 6-8	22-23 23-24 9-10
Baltimore:	Aug 16-18	19-20
Birmingham:	Sept 13-15	16-17
Boston:	Aug 16-18 Dec 13-15 Jan 24-26	19-20 16-17 27-28
Charlotte:	July 12-14 Sept 20-22 Jan 24-26	15-16 23-24 27-28
Chicago:	Aug 23-25 Oct 18-20 Dec 13-15 Jan 24-26	26-27 21-22 16-17 27-28
Cincinnati:	Aug 16-18 Oct 18-20	19-20 21-22
Cleveland:	Sept 20-22 Nov 15-17	23-24 18-19
Dallas:	July 19-21 Sept 13-15 Nov 8-10 Jan 10-12	22-23 16-17 11-12 13-14
Denver:	Sept 20-22 Nov 8-10	23-24 11-12

	102	104
Detroit:	July 19-21 Oct 4-6 Jan 24-26	22-23 7-8 27-28
Hartford:	Aug 2-4	5-6
Houston:	July 26-28 Sept 20-22 Nov 15-17 Jan 24-26	29-30 23-24 18-19 27-28
Indianapolis:	Sept 20-22	23-24
Kansas City:	Aug 16-18 Oct 18-20	19-20 21-22
Knoxville:	Sept 13-15	16-17
Los Angeles:	July 12-14 Oct 4-6 Jan 24-26	15-16 7-8 27-28
Louisville:	Aug 16-18	19-20
Memphis:	Oct 18-20	21-22
Miami:	Aug 9-11	12-13
Milwaukee:	Oct 25-27 Dec 13-15	28-29 16-17
Minneapolis:	July 12-14	15-16
St. Paul:	Sept 27-29 Dec 13-15	30 - Oct 1 16-17
New Jersey:	Nov 8-10	11-12
New York:	July 19-21 Aug 23-25 Sept 27-29 Nov 8-10 Dec 13-15	22-23 26-27 30 - Oct 1 11-12 16-17
Orlando:	Sept 13-15 Nov 8-10	16-17 11-12

	102	104
Philadelphia:	Oct 18-20 Jan 24-26	21-22 27-28
Phoenix:	Sept 20-22 Jan 24-26	23-24 27-28
Pittsburgh:	Oct 25-27	28-29
Portland:	July 19-21 Dec 6-8	22-23 9-10
Rochester:	Nov 15-17	18-19
St. Louis:	Aug 9-11 Nov 8-10	12-13 11-12
San Antonio:	Sept 20-22	23-24
San Francisco:	Nov 8-10	11-12
San Jose:	Sept 13-15 Jan 10-12	16-17 13-14
Seattle:	July 12-14	15-16
Tallahassee:	Oct 18-20	21-22
Tampa:	Oct 4-6	7-8
Washington, DC:	Aug 9-11 Sept 13-15 Nov 15-17 Dec 13-15	12-13 16-17 18-19 16-17
White Plains/ Stamford:	Nov 8-10	11-12

**Discounted Application Quickstart for Business Professionals
Provides Hands-On Skills to Build Complete FOCUS Applications**

Location	Basic FOCUS Series	Application Integration Techniques	Requirements	SAVE 10% on Both 102/104 and 111 Cost*
IBI Site	Course 102/104 Duration: five days	Course 111 Duration: two days	Must take Course 111 within six weeks of Course 102/104 and sign up for 111 within four days of having completed 102/104.	Regularly \$1,495 Now \$1,345!

* No other discounts apply.

Call your local IBI office to inquire about an *Application Quickstart* discount on site.

Application Development for Business Professionals FOCUS Masters Curriculum

Here is a brief description of the remaining core and elective courses in your curriculum. For a full description and dates the courses are offered, please refer to pages 30 through 39.

Application Integration Techniques (Core FOCUS Course) Course 111

Objective:

Learn to integrate basic FOCUS skills into effective, user-friendly, menu- and window-driven applications. Learn how to supply values through full-screen menus, interactive prompting, and control statements. Learn extended reporting and MODIFY capabilities that are essential to full-scale applications.

FOCUS Intermediate Reporting (Core FOCUS Course) Course 126

Objective:

Through case studies and hands-on exercises, acquire the skills to create sophisticated business reports efficiently. Both relational and FOCUS files will be used throughout the course.

Advanced Techniques (Core FOCUS Course) Course 201

Objective:

Learn advanced MODIFY techniques and efficiencies needed to develop and maintain large, complex, and effective applications.

FOCUS Internals (Core FOCUS Course) Course 203

Objective:

Learn the essential internal operations of FOCUS retrieval and MODIFY processing. Learn to take advantage of this knowledge to speed application development and to produce more efficient systems.

FOCUS Windows (Elective FOCUS Course) Course 130

Objective:

Learn how to use FOCUS Windows to control procedure flow, and to improve user-friendliness and application functionality through the use of case studies and hands-on exercises.

Database Design (Elective FOCUS Course) Course 200

Objective:

Learn a systematic approach to designing large, complex FOCUS databases and improving existing ones. Learn how to evaluate organizational needs and database efficiency requirements, and implement an effective design.

FOCUS Advanced Reporting (Elective FOCUS Course) Course 210

Objective:

Learn how to incorporate user-written subroutines and use advanced techniques to enhance reporting.

Extended Matrix Reporting (Elective FOCUS Course) Course 301

Objective:

Learn how to create specialized "matrix" reports in which calculations are performed between rows. Learn to implement "What if" scenarios, balance sheets, budget reports, and decision support systems.

FOCCALC

The FOCUS Spreadsheet
Course 303

Objective:

Learn basic FOCCALC spreadsheet techniques. Learn how to integrate FOCUS and FOCCALC.

Prerequisite:

A working knowledge of CMS, TSO, VAX/VMS, PC-DOS, Wang VS, or UNIX, and completion of Course 101/103, Course 102, or IBI's *Basic Report Preparation* CBT course. Experience in a spreadsheet language is useful but not necessary.

Duration:

Two days.

Description:

This hands-on course provides the skills needed to use FOCCALC and stresses the interface between FOCCALC and FOCUS.

Topics Include:

- Spreadsheet Structure/Navigation
- Entering Labels and Values
- FOCCALC Commands/Functions
- Formatting
- Creating/Replicating Formulas
- Recalculations
- Goal Seeking
- Consolidations
- FOCUS TABLE Requests in Cells
- Spreadsheet Macros in FOCXEXCs
- Importing/Exporting With FOCUS
- Creating Menus

CEU:

1.1 awarded.

Tuition:

IBI Site: \$510 per student.
On Site: \$3,300. See page 86 for details.

FOCMAN

The Project Management
System
Course 304

Objective:

Learn how to perform basic project management tasks using FOCMAN. Learn to define a project, establish critical paths, modify the project plan, and draw Precedence Network diagrams and customized Gantt charts.

Prerequisite:

A working knowledge of project management concepts and techniques. Read Chapter 2, the Project Management Section, in the *FOCMAN Users Manual* and complete Tutorial A.

Duration:

Three days.

Description:

This hands-on course provides the skills needed to use FOCMAN to automate the management of projects and their resources.

Topics Include:

- Performing Time and Resource Analyses
- Posting Progress to Activities
- Producing Standardized and Customized Reports

FOCMAN Consulting and Education

To help clients successfully implement FOCMAN within their organizations, IBI provides nine free days of FOCMAN education and consulting. To utilize these days, a client may want a mix of education and consulting, such as using three days for IBI's FOCMAN course at the client's site and the remaining six days for consulting services. IBI's FOCMAN Consulting Services range from the use and application of the FOCMAN software to the underlying implementation of project management within an organization. For more information, contact the Education Account Representative or Branch Consulting Manager at your local IBI office.

CEU:

1.7 awarded.

Tuition:

IBI Site: \$795 per student.
On Site: \$5,450. See page 86 for details.

FOCAUDIT

The Enterprise Audit
Software Tool
Course 306

Objective:

Learn to use FOCAUDIT as a tool for conducting financial, operational, and EDP audits. Produce audit-specific analyses and exception reports, and obtain "statistically valid" samples.

Prerequisite:

A working knowledge of auditing techniques. Basic knowledge of computers and computer concepts.

Duration:

Two days.

Description:

This hands-on course provides the skills needed to use FOCAUDIT to automate the analysis and auditing of computerized systems and files.

Topics Include:

- Field Analysis Routines
- Exception Analysis Routines
- Sampling Routines
- Date Conversion Routines
- JOIN and MATCH FILE Routines
- Ad Hoc Reporting via TableTalk

CEU:

1.1 awarded.

Tuition:

IBI Site: \$510 per student.
On Site: \$3,300. See page 86 for details.

FOCAUDIT Courses Available on Request

Contact the Education Administrator at your local IBI branch office to schedule these classes at your site. See inside back cover for the office nearest you. We will schedule classes at IBI sites as needed.

FOCCALC Courses Available on Request

Contact the Education Administrator at your local IBI branch office to schedule these classes at your site. See inside back cover for the office nearest you. We will schedule classes at IBI sites as needed.

PC/FOCUS

MultiUser on a Local Area Network (LAN)
Course 600

Objective:

Learn about LAN hardware, software, and topology options. Acquire the skills to install a LAN, set up PC/FOCUS MultiUser, and tune LAN applications.

Prerequisite:

A working knowledge of PC/FOCUS.

Duration:

One day.

Description:

Using a Novell network, this introductory course will cover the significant aspects of PC/FOCUS LANpak applications in a live LAN environment. The next recommended course is *PC/FOCUS Optimization* (611).

Topics Include:

- Designing, Troubleshooting, and Performance Tuning a PC/FOCUS-MultiUser Application
- Hardware and Software Requirements
- Available Networks
- Step-by-Step Installation of a LAN

CEU:

.6 awarded.

Tuition:

IBI Site: \$285 per student.
On Site: \$1,750. See page 86 for details.

Dates Offered:

Atlanta: November 11
Boston: August 5; November 4
Cleveland: November 4
Detroit: September 1
Hartford: October 25
New Jersey: October 25
New York City: December 6
Philadelphia: October 26
Pittsburgh: August 26
Washington, DC: July 15; October 20
White Plains: October 7

PC/FOCUS

Optimization
Course 611

Objective:

Learn to maximize PC/FOCUS application performance through powerful memory management techniques.

Prerequisite:

Courses 101/103 and 111 and at least six months of experience developing PC/FOCUS applications.

Duration:

One day.

Description:

This course provides attendees with information, insights, and techniques needed to maximize PC/FOCUS performance.

Topics Include:

- Memory Management
- Coding Techniques for Efficient PC/FOCUS Development
- FOCUS Tuning and File Design
- Conventional, Extended, and Expanded Memory Usage
- PC/FOCUS Hardware Strategies

CEU:

.6 awarded.

Tuition:

IBI Site: \$285 per student.
On Site: \$1,750. See page 86 for details.

Dates Offered:

Atlanta: November 12
Boston: August 6; November 5
Cleveland: November 5
Detroit: September 2
Hartford: October 26
New Jersey: October 26
New York City: December 7
Philadelphia: October 26
Pittsburgh: August 27
Washington, DC: July 16; October 21
White Plains/Stamford: October 8

ACE

(The Application Control Environment)
Course 621

Objective:

Learn to use ACE to control access to FOCUS test and production applications.

Prerequisite:

At least six months of application development experience using FOCUS.

Duration:

One day.

Description:

This course provides in-depth instruction on ACE, a FOCUS product option, highlighted by online demonstrations.

Topics Include:

- Application Maintenance
 - Register an ACE Application
 - ACE Command Language
 - FACET Interactive Application Management
- Data Sharing
 - Simple Logical Database
 - Compound Logical Database
- Application Security
 - Writing ACE Rules
 - Evaluating ACE Rules
 - Assigning ACE Security
 - ACE SUBSET

CEU:

.6 awarded.

Tuition:

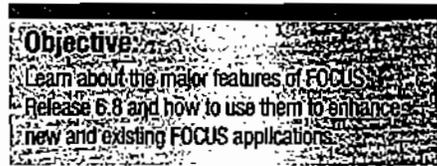
IBI Site: \$285 per student.
On Site: \$1,750. See page 86 for details.

ACE Courses Available on Request

Contact the Education Administrator at your local IBI branch office to schedule these classes at your site. See inside back cover for the office nearest you. We will schedule classes at IBI sites as needed.

FOCUS Release 6.8

Course 623



Prerequisite:

Recommended for FOCUS users with at least six months of application development experience, particularly FOCUS site coordinators, system developers, and application developers.

Note: ACE (Application Control Environment) is not included. Individuals interested in learning about ACE should attend Course 621.

Duration:

One day.

Description:

This course is the result of IBI's Education Department working closely with the FOCUS Release 6.8 development and quality assurance staff. It provides in-depth instruction using numerous illustrations and examples that demonstrate FOCUS Release 6.8 capabilities.

Topics Include:

- HiperFOCUS
- SmartMode
- Reporting Enhancements
- Long and Qualified Fieldnames
- DBA Security
- DYNAM Enhancements
- Dialogue Manager Enhancements
- Window Painter Enhancements
- MSO Enhancements
- SQL Interfaces
- VSAM Interfaces

CEU:

.6 awarded.

Tuition:

IBI Site: \$285 per student.
On Site: \$1,750. See page 86 for details.

Dates Offered:

Boston: August 13; November 22; January 28
Chicago: July 1
Cincinnati: November 17
Cleveland: September 15; December 10
Dallas: July 23
Denver: July 9
Detroit: October 1; January 12
Hartford: November 1
Los Angeles: September 17
Washington, DC: October 12

FOCUS Computer Based Training

CBT

**Introducing FOCUS Menu Management CBT
for the PC and Local Area Networks**

- Teaches the menu management techniques needed to:
 - Create user-friendly menus
 - Enhance your menus with color and PF key use
 - Combine and run multiple reports with one procedure
 - Change reports easily by entering variable information
- Expands upon the reporting skills learned in IBI's FOCUS Basic Report Preparation CBT
- Effectively uses graphics and color to achieve topic objectives

PC single-user cost: \$299
Four-user LAN cost: \$799
Eight-user LAN cost: \$1,599

For any other number of users, call IBI's Education Department in New York for price.
Call 1-800-969-INFO.

"It's like having a private FOCUS tutor on hand!"

IBI's FOCUS CBT is an excellent opportunity to increase user productivity and improve business effectiveness. The computers, FOCUS, and the data are in place in your organization. IBI's CBT makes it pay off by creating and increasing user capability and comfort with FOCUS. There are four courses in IBI's CBT series: *Basic Report Preparation*, *Describing Files to FOCUS*, *Maintaining FOCUS Files*, and the new *FOCUS Menu Management*.

All IBI's CBT courses have the following features:

- Computer simulation of five FOCUS sessions
- A flexible browse feature for selecting specific topics within the course
- Interactive learning through question-and-answer dialogue
- An online HELP facility
- Course workbooks that provide supplementary information and summaries

IBI's CBT courses equip students with the skills and experience that prepare them for IBI's intermediate-level FOCUS courses.

FOCUS Basic Report Preparation CBT – the New Look In FOCUS CBT

Available in PC single-user, Local Area Network versions, and now also for the IBM mainframe.

IBI's *Basic Report Preparation* CBT course is very popular with users. Clients are especially pleased with the enhanced graphics and the easy-to-use navigation techniques. "The presentation and content of the CBT are both superb," says one user. "The screen designs alone are enough to make one want to use the product."

Through a highly interactive dialogue with the computer, newcomers to FOCUS learn how to:

- Create Sorted Formatted Reports
- Retrieve Selected Data
- Define Temporary Fields
- Perform Basic Calculations
- Create Ad Hoc Reports Using TableTalk, IBI's Automated Report Generator
- Store Reports for Repetitive Use

Many clients are pleased with the simplicity of installation of the PC single-user, and Local Area Network versions of this course. In addition, clients with many FOCUS users who need to learn FOCUS reporting at the same time should find the IBM mainframe version convenient and cost-effective.

Describing Files to FOCUS CBT

Available in a PC single-user version.

This course covers the skills needed to describe FOCUS and non-FOCUS files, and the use of paths and indexes in a FOCUS database. Topics include: creating the Master File Description, describing data as a hierarchy, unique segments and multi-path hierarchies, indexes, dynamically JOINing FOCUS files, permanently JOINing FOCUS files, description and ACCEPT attributes, and date expressions.

Maintaining FOCUS Files CBT

Available in a PC single-user version.

In a simulated FOCUS environment, this course covers how to apply the file maintenance facilities of FOCUS to update and delete information in a FOCUS database. Full-screen, input file, and prompting techniques for data entry are covered. Topics include: using the MODIFY command, MATCH logic, PROMPT and FIXFORM transaction descriptions, CRTFORM transaction descriptions, program function keys, COMPUTE and VALIDATE, logging transactions, and TYPE, CHECK, START, and STOP.

System Requirements

The PC-based courses run on the IBM PS/2, PC, AT, and XT (or any compatible) with MS-DOS Release 2.0 or later and are available on 5 1/4" and 3 1/2" disks. A minimum of 256K, one hard drive, and one floppy disk are required. A self-contained presentation system developed by CSR, Inc. is used. The LAN version of *FOCUS Menu Management* and *Basic Report Preparation* runs on networked PCs using a variety of DOS-based Local Area Network operating systems.

The IBM mainframe version requires Goal Systems International Inc.'s Phoenix presentation system or IBM's IIS presentation system.

Contact IBI's Education Department at 1-800-969-INFO for information on our demo and free trial evaluation.

Purchase Information*

PC-Based Courses

Single-user version:

<i>Basic Report Preparation (updated to FOCUS 6.5)</i>	\$299
Upgrade from 6.0 to 6.5	\$99
<i>Describing Files to FOCUS</i>	\$299
<i>Maintaining FOCUS Files</i>	\$299
<i>Menu Management</i>	\$299
Price for <i>Basic Report Preparation</i> and <i>Describing and Maintaining</i>	\$799
Prices including <i>FOCUS Menu Management</i>	\$1,059

LAN version:

<i>Basic Report Preparation (updated to FOCUS 6.5)</i>	
Four-user version.....	\$799
Upgrade from 6.0 to 6.5	\$199
Eight-user version	\$1,599
Upgrade from 6.0 to 6.5	\$299

Any other number of users, call IBI's Education Department In New York.

Menu Management

PC single-user cost.....	\$299
Four-user LAN cost.....	\$799
Eight-user LAN cost.....	\$1,599

IBM Mainframe-Based Course

<i>Basic Report Preparation</i>	
Purchase	Starting as low as \$8,000
Lease	Starting as low as \$275/mo.

Shipping is additional. Volume discounts are available.

*Prices are effective August 1, 1993.

EDA/SQL Curriculum

EDA/SQL Curriculum

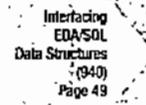
Skill Level to Be Achieved



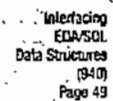
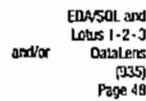
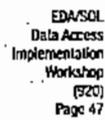
3GL Programmer Curriculum



EDA/SQL Implementors and Database Administrators



Planners; Management, Decision Support Personnel



Key:



Elective Classes

EDA/SQL

EDA/SQL Concepts and Facilities

Course 910

Objective:
DB managers, planners, and analysts acquire background knowledge needed to understand the EDA/SQL solution and its implementation. This course an introduction to other EDA/SQL courses should be considered a prerequisite.

Prerequisite:
None.

Duration:
One day.

Description:
This course covers the components of EDA/SQL and their capabilities. The emphasis is on functionality, benefits, resource needs, directions, and pertinent issues.

- Topics Include:**
- Functionality of Each Component
 - Terminology
 - Hardware, Software, and Communications Considerations
 - Universal Data Structure Access
 - Front-End Tools (API/SQL, DB2 Extender, Enablers)

CEU:
.6 awarded.

Tuition:
IBI Site: \$495 per student
On Site: \$2,495. See page 86 for details.

Dates Offered:
Atlanta: July 28; December 2
Boston: August 12; October 15
Chicago: August 23; October 20; January 5

Cleveland: August 30; November 29
Dallas: August 16; November 18
Denver: October 18
Detroit: September 29; January 7
Hartford: November 11
Houston: August 4; November 17
Kansas City, MO: September 9
Los Angeles: October 18; January 18
Minneapolis/St. Paul: November 29
New York City: July 14; September 8; December 1
Orlando: September 10
Phoenix: September 27
Rochester: October 20
Sacramento: July 14
San Antonio: July 21
San Francisco: August 19; October 7; December 9
San Jose: July 6; September 20; November 8; January 13
Washington, DC: September 1; January 18

EDA/SQL

EDA/SQL Data Access Implementation Workshop

Course 920

Objective:
Project managers, and business systems analysts acquire the knowledge and skills necessary to implement an EDA/SQL solution.

The third day is comprised of two data structures. Upon completion of this workshop, attendees will have seen and worked through all steps involved in making relational and nonrelational data accessible to a front-end product in an EDA/SQL environment.

CEU:
1.7 awarded.

Tuition:
On Site: \$5,995. See page 86 for details.

- Topics Include:**
- Implementing the EDA/SQL Architecture
 - Server Considerations for Data Access:
 - General Requirements
 - Security Issues
 - Handling and Routing Requests
 - Catalog Services
 - Client Considerations for Data Access via the API/SQL and Front-End Products (i.e., DB2 Extender, Enabled Products)
 - Client/Server Connections

EDA/SQL Data Access Implementation Workshop
This course is available at client sites only. To schedule, contact the Education Administrator at your local IBI office. See inside back cover for the office nearest you.

EDA API/SQL Interface

Course 930

Objective:

Programmers acquire the skills needed to utilize the EDA API/SQL from 3GL programs to access enabled data structures.

Prerequisite:

Course 910.

Duration:

One day.

Description:

This course provides the skills needed to effectively use EDA API/SQL calls within existing and new programs to obtain data from any enabled data structures in your EDA/SQL environment.

Topics Include:

- Overview of the EDA API/SQL Interface
- Purpose of Session Control Blocks
- Describing Session Control Blocks
- EDA API/SQL Program Calls
- Remote Procedure Calls
- EDA Dialogue Manager
- SQL for Nonrelational DBMSs
- Error, Status, and Comparison Codes
- Sample Programs

CEU:

.6 awarded.

Tuition:

IBI Site: \$395 per student.

On Site: \$1,995. See page 86 for details.

Dates Offered:

Atlanta: July 29; December 3
Boston: September 17
Chicago: August 24; October 21; January 6
Cleveland: October 27
Dallas: September 16; November 19
Denver: December 9
Detroit: July 16; November 8
Hartford: November 12
Houston: August 5; November 18
Kansas City, MO: September 10
Los Angeles: October 19; January 19
Minneapolis/St. Paul: July 1; November 30
New York City: July 15; September 9; December 2
Rochester: October 21
San Antonio: July 22
Washington, DC: September 2; January 19

EDA/SQL

EDA/SQL and Lotus 1-2-3 DataLens

Course 935 New!

Objective:

The Lotus user will learn how to populate a spreadsheet from over 50 external databases utilizing the EDA/SQL DataLens Extender interface.

Prerequisites:

Course 910 and a working knowledge of Lotus 1-2-3 with emphasis on range manipulation (highlighting, copying, erasing, and transposing).

Duration:

One day.

Description:

The EDA/SQL DataLens Extender for Lotus 1-2-3 covers all the tools needed to enable the Lotus user to access external databases from within a Lotus spreadsheet. This course will cover the installation of the EDA/SQL DataLens Extender for Lotus 1-2-3 through complex querying of databases.

Topics Include:

- EDA/SQL Overview
- Components of EDA/SQL DataLens Extender
- Enhancing the Criteria Range
- JOINing Files
- Enhancing the Output Range
- Remote Procedure Calls
- Scripting

CEU:

.6 awarded.

Tuition:

IBI Site: \$395 per student.

On Site: \$1,995. See page 86 for details.

Dates Offered:

Chicago: August 25; October 22; January 7
Cleveland: September 27; January 26
Detroit: August 6; November 19
Houston: August 6; November 19
Minneapolis/St. Paul: August 20; November 12
New York City: September 10; December 3
Rochester: October 22
Washington, DC: September 3; January 20

Interfacing EDA/SQL Data Structures

Course 940

Objective:
DBAs and Information Warehouse implementors acquire the skills necessary to describe and implement EDA/SQL access to supported data structures.

Prerequisite:

Course 910.

Duration:

One day (covers two data structures).

Description:

This course on describing supported data structures and setting up required access files is given in half-day segments for each supported structure; that is, DB2, IMS, VSAM, and others.

Topics Include:

- Describing the Data Structure to EDA/SQL
- Data Structure Efficiency Considerations
- Normalization Considerations (as applicable)

CEU:

.6 awarded.

Tuition:

IBI Site: \$395 per student.

On Site: \$1,995. See page 86 for details.

**Interfacing EDA/SQL
Data Structures
Available on Request**
Contact the Education Administrator at your local IBI office to schedule this class at your site. See inside back cover for the office nearest you. We will schedule classes at IBI sites as needed.

EDA/SQL

Rightsizing FOCUS Applications to the UNIX Environment

Course 801/802 New!

Objective:
Learn the advantages of the UNIX operating system and develop skills for working within UNIX, particularly as they relate to FOCUS application development. The class teaches techniques for migrating existing FOCUS applications to the UNIX platform. A sample rightsizing example and a variety of tuning techniques are covered.

Prerequisites:

Course 801: Operating system knowledge (i.e., DOS, CMS, TSO, or VMS).

Course 802: FOCUS knowledge and UNIX knowledge (Course 801).

Duration:

Two days.

Description:

Day one: Learn why UNIX is becoming the operating system of choice in today's business world. Develop an understanding of the powerful UNIX operating environment and tools you can use to your advantage. This course starts with a brief history of UNIX and is followed by an introduction to UNIX shell programming with lots of hands-on practice. Highlighting both the basics and advanced commands, with a particular emphasis on UNIX as it relates to FOCUS application development and delivery, you will become comfortable working with FOCUS on any UNIX system.

Day two: Using case studies, learn how to take FOCUS applications from other operating systems and make them run on a UNIX machine utilizing proven migration techniques. The course introduces what is necessary for UNIX/FOCUS, proceeds through a sample rightsize, and finishes up with tuning via background, batch, and sink machine processing.

CEU:

1.1 awarded.

801/802 Tuition:

IBI Site: \$745 per student.

On Site: \$3,900. See page 80 for details.

Just Enough UNIX (801)

Topics Include:

- Navigating Any UNIX Operating System
- Identifying Process IDs
- Killing Runaway Processes
- Writing UNIX Shell Programs
- Submitting Jobs to the Background
- Scheduling Jobs

Rightsizing to UNIX (802)

Topics Include:

- Identifying and Changing Operating System-Specific Commands in FOCUS Applications
- Utilizing FOCUS for UNIX
- Troubleshooting UNIX/FOCUS-Specific Challenges
- Controlling Printer Output for FOCUS Reports
- Tuning a FOCUS for UNIX Application

Just Enough UNIX (Course 801) – First Day of Class

CEU:

.6 awarded.

Tuition:

IBI Site: \$395 per student.

On Site: \$1,995. See page 86 for details.

Rightsizing to UNIX (Course 802) – Second Day of Class

CEU:

.6 awarded.

Tuition:

IBI Site: \$395 per student.

On Site: \$1,995. See page 86 for details.

Dates Offered:

Watch for announcements of upcoming dates in your area, or contact the Education Administrator at your local IBI office to schedule 801 and/or 802 at your site.

FOCUS for OpenVMS

(Formerly known as FOCUS for VAX)

Course 650

Objective:

Learn how to implement FOCUS applications in the OpenVMS environment effectively.

Prerequisite:

Courses 101/103, 111, and a minimum of three months of FOCUS application development experience. Knowledge of OpenVMS commands and utilities.

Duration:

One day.

Description:

This course conveys detailed information users need to implement FOCUS applications in the OpenVMS environment.

Topics Include:

- Application Control
- Special LET Commands
- Disk, Memory, and CPU Optimization
- System Parameters Affecting FOCUS Performance
- Use of Private Access Routines
- Using TED from DCL
- Customizing TED
- Special TED Commands
- Diagnosing and Eliminating Bottlenecks in the System
- Tips for Tuning Large Applications
- Converting the Time Subroutine to 12 Hours
- Selecting System Printers Using FOCUS Windows

CEU:

.6 awarded.

Tuition:

IBI Site: \$285 per student.
On Site: \$1,750. See page 86 for details.

Dates Offered:

Boston: September 10; December 0
Cleveland: December 8
Detroit: October 1

Special OpenVMS Classrooms

(Formerly known as FOCUS for VAX)

OpenVMS-Equipped Classrooms in Boston and New York

With the assistance of Digital Equipment Corporation, IBI has established total OpenVMS classrooms at our Boston and New York sites. These total OpenVMS environments promote learning by providing hands-on access to the same hardware and software that students are familiar with or need to become familiar with.

All IBI OpenVMS-specific courses (Course 650) held in Boston and New York are conducted in 100% OpenVMS-equipped classrooms.

In addition, selected FOCUS courses are held in these OpenVMS-equipped classrooms. Boston dates are listed on this page. For additional Boston dates, call the Education Administrator at IBI's Boston Office at (617) 272-8600. For additional New York dates call the Education Administrator at IBI's New York offices at (212) 736-4433.

101 Basic FOCUS Series for DP Professionals*

See page 18 for more details and information.

Boston: August 2-4; November 29 - December 1; January 3-5

103 Basic FOCUS Database Creation and Maintenance for DP Professionals

See page 28 for more details and information.

Boston: August 5-6; December 2-3

111 Application Integration Techniques*

See page 30 for more details and information.

Boston: September 2-3; November 11-12

*Save 10% on these classes with Application Quickstart. See page 29 for details.

102 FOCUS Basic Reporting for Business Professionals

See page 8 for more details and information.

Boston: August 16-18; October 25-27; January 24-26

104 FOCUS Database Creation and Maintenance for Business Professionals

See page 42 for more details and information.

Boston: August 19-20; January 27-28

*Save 10% on these classes with Application Quickstart. See page 43 for more details.

FOCUS Student Education Kits

Prices are effective August 1, 1993.

Purchase the following quality copyrighted materials as part of our In-House Startup Discount Package (see page 59), or separately:

DP Professional Kits:

Basic FOCUS Series for DP Professionals (five days of teaching material)
See Course 101/103 on page 28 for topics.

Course Presentation Guides
Course Reporting Manual
FOCUS Files
Hands-On Exercises
Quick Reference Cards

Per set: \$90
Discount cost for 60 sets*: \$4,450
Savings of: \$950

FOCUS Basic Reporting for DP Professionals (three days of teaching material)
See Course 101 on page 18 for topics.

Course Presentation Guides
Course Reporting Manual
FOCUS Files
Hands-On Exercises
Quick Reference Cards

Per set: \$60
Discount cost for 90 sets*: \$4,450
Savings of: \$950

FOCUS Database Creation and Maintenance for DP Professionals (two days of teaching material)
See FOCUS Database Creation and Maintenance (Course 103) on page 28 for topics.

Course Presentation Guide
Hands-On Exercises
Quick Reference Cards

Per set: \$50
Discount cost for 90 sets*: \$3,950
Savings of: \$550

Business Professional Kits:

Basic FOCUS Series for Business Professionals (five days of teaching material)
See Course 102/104 on page 42 for topics.

Course Presentation Guides
Course Reporting Manual
FOCUS Files
Hands-On Exercises
Quick Reference Cards

Per set: \$90
Discount cost for 60 sets*: \$4,450
Savings of: \$950

FOCUS Basic Reporting for Business Professionals (three days of teaching material)
See Course 102 on page 8 for topics.

Course Presentation Guide
Course Reporting Manual
FOCUS Files
Hands-On Exercises
Quick Reference Cards

Per set: \$60
Discount cost for 90 sets*: \$4,450
Savings of: \$950

FOCUS Database Creation and Maintenance for Business Professionals (two days of teaching material)
See FOCUS Database Creation and Maintenance (Course 104) on page 42 for topics.

Course Presentation Guide
Hands-On Exercises
Quick Reference Cards

Per set: \$50
Discount cost for 90 sets*: \$3,950
Savings of: \$550

To order individual kits (minimum order is five kits), contact the Publications Order Department at (212) 563-9120 or (212) 563-9121. For volume purchasing, contact the Education Account Representative or Branch Consulting Manager at your local IBI office.

*Other discounts apply.

T-T-T

FOCUS Professional Trainer Programs

IBI's FOCUS Professional Trainer Programs prepare you to teach basic FOCUS reporting, file creation, and maintenance to Business Professionals and/or DP Professionals using IBI coursebooks. Based on your training experience, use the chart to select the trainer program that fits your needs. You may also contact the Education Account Representative or Branch Consulting Manager at your local IBI office who will work with you to tailor a program to your specifications.

For New FOCUS Trainers:

IBI offers FOCUS instruction, Train-the-Trainer Workshops, and Student Education Kits that are updated to the current FOCUS releases. These components can be purchased separately or as an integrated package (see last column on opposite page).

IBI's specialized Train-the-Trainer Workshops are key to our new training programs. Whether your workshop covers how to teach IBI's basic courses for Business Professionals, DP Professionals, or both, you will learn proven FOCUS teaching techniques from IBI's top instructors.

New FOCUS Trainers

If You Want to Teach:	Background Courses Required:
<p><i>FOCUS Basic Reporting for Business Professionals (102) or FOCUS Basic Reporting for DP Professionals (101)</i></p>	<ul style="list-style-type: none"> ■ <i>FOCUS Basic Reporting (101 or 102) or Basic FOCUS Series (101/103 or 102/104)</i> ■ <i>FOCUS Intermediate Reporting (120)</i>
<p><i>Basic FOCUS Series for DP Professionals (101/103) and Basic FOCUS Series for Business Professionals (102/104)</i></p>	<ul style="list-style-type: none"> ■ <i>Basic FOCUS Series for DP Professionals (101/103) and Application Integration Techniques (111)</i>

*See page 57 for ordering additional Student Education Kits.

**No other discounts apply. Prices are effective August 1, 1993.

Each Train-the-Trainer Workshop Includes:

- Reviewing the content of the materials
- Controlling the pace and flow of the courses
- Integrating media and teaching techniques
- Developing presentation skills
- Handling diverse students

In the workshop, you will receive:

- A videotape of yourself teaching
- An individual, private review by your IBI instructor
- Training materials, including an instructor's guide and a Student Education Kit*
- The *Effective FOCUS Instructor* that covers teaching methods and presentation skills
- A trainer's hotline number for help in handling problem students and teaching the material covered in your Train-the-Trainer Workshop

To order or for more information, call the Education Account Representative or Branch Consulting Manager at your local IBI office, or contact IBI's Education Department at (212) 736-4433. Also ask about our personalized, on-site Team Teaching Program.

	Train-the-Trainer Workshop	Student Education Kits*	In-House Startup Trainer Discount Package** Includes:
	<p># 528: Four days IBI Site: \$995 per student On Site: \$7,000 CEU: 2.2 awarded Dates: Detroit: October 18-21 New York City: October 12-15</p>	<p><i>FOCUS Basic Reporting (102)</i></p> <ul style="list-style-type: none"> ■ Student's Presentation Guide ■ Student's Reporting Manual ■ Hands-On Exercise Book ■ Quick Reference Cards <p>Cost: \$60 per set</p>	<ul style="list-style-type: none"> ■ Attendance at Courses 101 or 102 and 126*** ■ Attendance at T-T-T 528 ■ 60 sets of Student Education Kits for Course 102 <p>Cost: \$5,035 Savings of: \$890</p>
	<p># 532: Five days IBI Site: \$1,225 per student On Site: \$8,750 CEU: 2.8 awarded Dates: Boston: July 19-23; November 15-19 New York City: November 1-5</p>	<p><i>Basic FOCUS Series for DP Professionals (101/103):</i></p> <ul style="list-style-type: none"> ■ Student's Presentation Guides ■ Student's Reporting Manual ■ Hands-On Exercise Books ■ Quick Reference Cards <p>Cost: \$90 per set</p> <p><i>Basic FOCUS for Business Professionals (102/104)</i></p> <ul style="list-style-type: none"> ■ Student's Presentation Guides ■ Student's Reporting Manual ■ Hands-On Exercise Books ■ Quick Reference Cards <p>Cost: \$90 per set</p>	<ul style="list-style-type: none"> ■ Attendance at Courses 101/103 and 111*** ■ Audit 102 based on seat availability ■ Attendance at T-T-T 532 ■ 60 sets total of Student Education Kits in any combination for Courses 101/103 and 102/104 <p>Cost: \$6,900 Savings of up to: \$1,220</p>

***if you have attended any of these courses, you can select from another course of the same duration.

T-T-T

Smart Application Development Using LEVEL5 OBJECT

Course 720

Objective:

Learn how to create and maintain a LEVEL5 OBJECT application using the new object-oriented environment. Hands-on exercises allow you to start coding in class.

Prerequisite:

None.

Duration:

Three days.

Description:

This hands-on course provides the skills needed to create and maintain intelligent applications using LEVEL5 OBJECT.

Topics Include:

- Types of Applications Supported by LEVEL5 OBJECT
- Overview of Development Environment
- Developing Interface-Centered Applications
 - Interface Design and Development
 - Data Structure Design
 - Methods
 - Database Access
- Developing Process-Centered Applications
 - Process Representations
 - Backward and Forward Chaining Process Control
 - Writing Rules
 - Interface Specifics
- Developing Hybrid Applications
 - Integrating Backward Chaining Inference Engine Into Interface-Centered Applications
- Debugging in LEVEL5 OBJECT

CEU:

1.7 awarded.

Tuition:

IBI Site: \$865 per student.
On Site: \$5,850. See page 80 for details.

Dates Offered:

Atlanta: September 13-15
Boston: December 1-3
Cincinnati: July 28-30
Kansas City, MO: August 9-11
New York City: August 9-11; December 13-15
Orlando: September 27-29
St. Louis: September 20-22
San Jose: July 14-16
Washington, DC: August 11-13; November 6-10

LEVEL5 Self-Study Guide (Reinforce the skills learned in your LEVEL5 class.)

Introduction to the Self-Study Guide

The guide reinforces concepts learned in class and cover problem-solving strategies for expert system development.

Note: IBI recommends that anyone who will be developing LEVEL5 applications take *Smart Application Development Using LEVEL5 OBJECT* before using a self-study guide. These instructor-led courses offer the advantage of an experienced consultant/instructor to present the material, answer your questions, and assist you in building LEVEL5 knowledge bases.

LEVEL5 OBJECT for Microsoft Windows Application Study Guide*

This is an in-depth tutorial for expert system application development. Through a series of hands-on exercises, it explores the entire process of building an application—from problem identification and knowledge acquisition to inference strategies and graphical user interface design. The *Guide* is accompanied by a diskette containing the tutorial exercises plus two complete LEVEL5 OBJECT applications.

Price: \$95

* Requires LEVEL5 OBJECT Development System and Microsoft Windows 3.0 or 3.1.

To order, call the IBI Publications Order Department at (212) 563-9120 or (212) 563-9121.

LEVEL5 OBJECT: The Intelligent Client

Course 730 New!

Objective:

Learn how to use LEVEL5 OBJECT in a client/server environment or in a peer-to-peer environment. This course will give you practical experience in using LEVEL5 OBJECT in an advanced data communications environment via numerous hands-on exercises.

Prerequisite:

Course 720 or equivalent.

Duration:

Two days.

Description:

This hands-on course will provide extensive training in the use of LEVEL5 OBJECT in data communications. You will learn how to use LEVEL5 OBJECT to build applications that let users build dynamic SQL to access both local and remote databases via either EDA/SQL or the Q+E Database Library add-on. You will also learn how to communicate with other applications via DDE.

Topics Include:

- Role of LEVEL5 OBJECT in the Client/Server World
- LEVEL5 OBJECT and DDE
- Brief Introduction to SQL
- Communications Environments
- Using the EXEC SQL Command to Unleash the Power of EDA/SQL
- Using the Q+E Database Library Add-On

CEU:

1.1 awarded.

Tuition:

IBI Site: \$575 per student.

On Site: \$3,900. See page 86 for details.

Dates Offered:

Chicago: October 28-29

New York City: September 27-28

San Jose: October 13-14

Washington, DC: September 9-10

Top Gun Technology Days

The Best of Top Gun Is Coming to Your Area

Top Gun Technology Days

IBI's Top Gun Technology Days, which features the very best Top Gun courses taught by IBI's leading Top Gun instructors, are being held in IBI's local branch offices throughout the United States. Course selections are offered in four two-day Top Gun Curricula: FOCUS Reporting, FOCUS Internals for Efficiencies, EDA/SQL, and PC/FOCUS and LAN Optimization. Technology Days provides an intensive training experience, recommended for advanced application and system developers, experienced support staff, and advanced users.

Gain advanced FOCUS knowledge with the following Top Gun Technology Curricula:

FOCUS Reporting Curriculum

This curriculum is designed for business professionals and application developers who create and implement reporting applications in FOCUS. You'll learn how to:

- Learn a variety of different approaches to solving business problems
- Gain real experience analyzing a number of complex reporting requirements
- Develop reports more efficiently through an understanding of the internal workings of multi-path, multi-level reporting
- Use Extended Matrix Reporting to create complex and highly formatted reports
- Apply Universal JOIN concepts and efficiencies for creating complex reporting data structures

FOCUS Internals for Efficiencies Curriculum

This curriculum is designed for advanced FOCUS technicians concerned with the performance and tuning of FOCUS applications. You'll learn how to:

- Optimize the retrieval of database instances
- Develop more effective reports through an understanding of the internal workings of multi-path, multi-level reporting
- Use ACTIVATE and DEACTIVATE effectively to code and analyze complex MODIFY procedures
- Apply techniques for efficient retrieval and display of multiple instances in a FOCUS database for multi-record updating

Explore leading-edge topics with these curricula:

EDA/SQL Curriculum

EDA/SQL technology, the premier means of accessing all your data from all your hardware platforms, offers both FOCUS and non-FOCUS users alike the opportunity to obtain the highest levels of efficiency from their information systems. You'll learn how to:

- Describe and implement EDA/SQL access to supported data structures. Covers describing and setting up required access files
- Acquire the knowledge needed to understand an EDA/SQL implementation from management and technical planning perspectives. Emphasis is on capabilities, resource needs, benefits, and directions. Case studies are included.

PC/FOCUS and LAN Optimization Curriculum

This curriculum is designed for users who will be installing or have installed PC/FOCUS-MultiUser on a LAN and want to optimize performance. Learn about:

- Hardware and topology options available for a local area network and their benefits and differences, including efficient installation of PC/FOCUS-MultiUser
- Advanced techniques for using Simultaneous Usage on a PC LAN. Includes an in-depth analysis of memory management, internal operations, and optimization techniques.
- Information, insights, and techniques needed to maximize PC/FOCUS performance

The regular fee for a two-day Top Gun Technology Days curriculum is \$745 per student. The on-site fee per two-day curriculum is \$3,900.

For more information or details on upcoming dates, please call the Top Gun Registrar in New York at (212) 736-4433, ext. 4316.

Top Gun Alumni Discount

Top Gun extends special pricing to attendees of previous Top Gun programs who wish to attend a Top Gun Technology Days curriculum. The IBI site Top Gun alumni fee per two-day curriculum is \$670 per student.

In addition to alumni discounts, Top Gun honors the 15% FOCUS Master discount, as well as EDPACK, Free Days (plus cash), and IBI Educational Partnerships. Only one discount applies.

Upcoming Top Gun Technology Days

City	Date	Curriculum
Chicago	July 12-13	Internals
Cleveland	September 16-17	Reporting
Detroit	July 26-27	Reporting
	October 28-29	Internals
Minneapolis	August 23-24	Reporting
	August 30-31	Internals
New York	July 27-28	To Be Determined
Orlando	July 26-27	Reporting

Course Customization Services

With IBI's Course Customization Services, organizations can have an IBI course customized to a specific application or environment. Some of the services are:

- All examples in coursebooks changed to show FOCUS requests and output relevant to the specific application
- Problem Sets rewritten with hands-on exercises that pertain to the specific application
- All environmental notes in the coursebooks changed to refer to your environment
- Specialized Train-the-Trainer Workshop for your instructors

The Education Consultant responsible for course customization will work closely with your representative to ensure that realistic and relevant examples are used throughout the course. Contact the Education Account Representative or Branch Consulting Manager at your local IBI office for more information.

Customized FOCUS Basic Reporting for Army Reserve CLAS Users

Description:

FOCUS Basic Reporting for CLAS Users is a four-day customized course developed for U.S. Army Reserve personnel, based on IBI's *FOCUS Basic Reporting for Business Professionals* (102). The course uses familiar technology and realistic examples from the PER (CLAPERS), RM ADARS (TTENDB), and RM (CLA1058) modules. In *Basic Reporting for CLAS Users*, reservists will learn how to:

- Use FOCUS With Ease and Confidence
- Generate Reports Quickly and Easily With TableTalk, IBI's Automated Report Generator
- Create Stored Report Requests Without Assistance
- Apply Problem-Solving Skills That Boost Productivity
- Interpret and Respond Quickly to FOCUS System Messages
- Apply the Efficiencies of the Latest FOCUS Features

Tuition:

IBI Site: \$750 per student (minimum of eight students).

On Site: \$6,200. See footnote on page 86 for details.

Additional On-Site Charges:

Over 20 students: \$50 per student per class day to a maximum of 25 students; instructor travel and expenses, and material shipment costs.

Dates Offered:

Atlanta: September 27-30; August 16-19; November 8-11

This course can be applied to the FOCUS Masters Program. To register for classes, schedule on-site training, or for more information on the FOCUS Masters Program, contact IBI's Atlanta branch at (404) 395-9913.

Calendar by City

Albuquerque, NM	68	Indianapolis, IN	80	Pittsburgh, PA	76
Anchorage, AK	78	Kansas City, MO	71	Portland, OR	76
Atlanta, GA	64	Knoxville, TN	80	Rochester, NY	76
Austin, TX	70	Las Vegas, NV	76	Sacramento, CA	76
Baltimore, MD	65	Los Angeles, CA	71	St. Louis, MO	77
Birmingham, AL	80	Louisville, KY	80	Salt Lake City, UT	76
Boise, ID	76	Memphis, TN	80	San Antonio, TX	76
Boston, MA	65	Miami, FL	80	San Francisco, CA	77
Charlotte, NC	66	Milwaukee, WI	72	San Jose, CA	76
Chicago, IL	66	Minneapolis/St. Paul, MN	72	Seattle, WA	76
Cincinnati, OH	67	New Jersey	73	Shreveport, LA	76
Cleveland, OH	67	New Orleans, LA	73	Spokane, WA	76
Columbus, OH	80	New York, NY	74	Tallahassee, FL	80
Dallas, TX	68	Oklahoma City, OK	68	Tampa, FL	80
Denver, CO	68	Omaha, NE	80	Washington, DC	76
Detroit, MI	69	Orlando, FL	75	White Plains, NY/Stamford, CT	76
Hartford, CT	70	Philadelphia, PA	75		
Houston, TX	70	Phoenix, AZ	76		

Atlanta

Phone: (404) 395-9913

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14		13-15	18-20		13-15	24-26
	103†	Basic FOCUS/DP	15-16		16-17	21-22		16-17	27-28
	102†	Basic Reporting/BP	19-21	16-18	20-22	25-27		6-8	10-12
	104†	DB Creation/Maint/BP	22-23		23-24			9-10	
	111	A.I.T.			30-10/1		22-23		13-14
	125	Menu Management		19			15		
	126	Intermediate Reporting		23-25		12-14			18-20
	130	FOCUS Windows		20			16		
	200	Database Design				4-5			
	201	Advanced Techniques				6-8			
	203	FOCUS Internals		11-13			15-17		
	210	Advanced Reporting	26-27		27-28		17-18		
	301	Extended Matrix Reporting				15			81
402	FOCUS Report Effic./DB2			9-10					
600	PC/FOCUS-MultiUser/LAN					11			
611	PC/FOCUS Optimization					12			
EDA/SQL	910	Concepts and Facilities	28					2	
	930	EDA AP/SQL Interface	29					3	
LEVEL5	720	LEVEL5 OBJECT			13-15				

Dates

Baltimore

Phone: Washington, DC (703) 247-5565

subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
OCUS	101†	Basic Reporting/DP	12-14		9-10				10-12
	103†	Basic FOCUS/DP	15-16						13-14
	102†	Basic Reporting/BP		16-18					
	104†	DB Creation/Maint./BP		19-20					
	111	A.I.T.							
	125	Menu Management							4
	126	Intermediate Reporting							6-8
	130	FOCUS Windows							5
	200	Database Design							15-16
	201	Advanced Techniques							17-19
210	Advanced Reporting			6-7					

Boston

Phone: (617) 272-8600

subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
OCUS	101†	Basic Reporting/DP		2-4	13-15	4-6	29-12/1		3-5
	103†	Basic FOCUS/DP	1-2	5-6		7-8		2-3	
	102†	Basic Reporting/BP	12-14	16-18	20-22	25-27	15-17	13-15	24-26
	104†	DB Creation/Maint./BP		19-20				16-17	27-28
	111	A.I.T.	22-23		2-3		11-12		13-14
	125	Menu Management	25		23	28	18		6
	126	Intermediate Reporting	28-30	30-9/1	27-29		8-10	6-8	10-12
	130	FOCUS Windows	27		24	29	19		7
	200	Database Design		23-24		18-19		13-14	
	201	Advanced Techniques		25-27		20-22		15-17	
	203	FOCUS Internals	14-16					6-8	
	210	Advanced Reporting	8-9		7-8	12-13		20-21	18-19
	301	Extended Matrix Reporting						10	
	400	Intro. to DB2 and SQL/DS			13-15				
	402	FOCUS Report Effic./DB2		10-11					
	600	PC/FOCUS-MultiUser/LAN		5			4		
	611	PC/FOCUS Optimization		6			5		
623	FOCUS 6.8 Seminar		13			22		28	
DA/SQL	910	Concepts and Facilities		12		15			
	930	EDA API/SQL Interface			17				
openVMS	650	FOCUS for OpenVMS			10			9	
-T-T	532	Basic FOCUS/BP and DP (102/104, 101/103) T-T-L	19-23				15-19		
EVEL5	720	LEVEL5 OBJECT						1-3	

Dates

† 101 and 103 dates and the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 104 description on page 42.

Charlotte

Phone: Charlotte (704) 334-7440

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		9-11		4-6		6-8	
	103†	Basic FOCUS/DP		12-13		7-8		9-10	
	102†	Basic Reporting/BP	12-14		20-22		16-18		24-26
	104†	DB Creation/Maint/BP	15-16		23-24				27-28
	111	A.I.T.			14-15		2-3		
	125	Menu Management		23			8		
	126	Intermediate Reporting		25-27			10-12		10-21
	130	FOCUS Windows		24			9		
	200	Database Design	26-27			18-19			
	201	Advanced Techniques	28-30			20-22			
	203	FOCUS Internals			1-3		29-12/1		
	210	Advanced Reporting			8-9			2-3	
	400	Intro. to DB2 and SQL/DS				13-15			
	402	FOCUS Report Effic./DB2							12-13

Chicago

Phone: (708) 971-6700

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14	18-20	20-22	13-15	29-12/1		10-21
	103†	Basic FOCUS/DP	15-16		23-24		2-3		
	102†	Basic Reporting/BP	7-9; 26-28	23-25	15-17	18-20	17-19	13-15	24-26
	104†	DB Creation/Maint/BP		26-27		21-22	16-17		27-28
	111	A.I.T.	29-30	30-31		7-8		16-17	31-2/1
	125	Menu Management		2	30		15		3
	126	Intermediate Reporting		9-11		25-27		6-8	26-28
	130	FOCUS Windows		3		1	16		4
	200	Database Design	19-20	30-31		28-29		2-3	
	201	Advanced Techniques	21-23		8-10		29-12/1		10-21
	203	FOCUS Internals		16-18		4-6		13-15	12-14
	210	Advanced Reporting	19-20		27-28		11-12		10-11
EDA/SQL	910	Concepts and Facilities		23		20			5
	930	EDA API/SQL Interface		24		21			6
	935	EDA DataLens/Lotus		25		22			7
LEVEL5	730	LEVEL5 OBJECT: Client				28-29			

Cincinnati

Phone: St. Louis (314) 434-7500

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14		13-15			6-8	
	103†	Basic FOCUS/DP	15-16		16-17			9-10	
	102†	Basic Reporting/BP		16-18		18-20			
	104†	DB Creation/Maint./BP		19-20		21-22			
	111	A.I.T.	22-23					16-17	
	125	Menu Management		2			8		
	126	Intermediate Reporting		4-6			10-12		10-12
	130	FOCUS Windows		3			9		
	200	Database Design			20-21				24-25
	201	Advanced Techniques			22-24				26-28
	203	FOCUS Internals		25-27					
	210	Advanced Reporting	20-21				18-19		13-14
	301	Extended Matrix Reporting				15			
	402	FOCUS Report Effic./DB2			9-10				
623	FOCUS 6.8 Seminar					17			
LEVEL5	720	LEVEL5 OBJECT	28-30						

Cleveland

Phone: Detroit (313) 641-8820

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		16-18		13-15		13-15	
	103†	Basic FOCUS/DP		19-20		18-19			13-14
	102†	Basic Reporting/BP	12-14		20-22	20-22	15-17		19-21
	104†	DB Creation/Maint./BP			23-24		18-19		
	111	A.I.T.		26-27		28-29		2-3	
	125	Menu Management			30				27
	126	Intermediate Reporting		11-13			1-3		31-2/2
	130	FOCUS Windows				1			28
	200	Database Design	19-20			4-5			6-7
	201	Advanced Techniques	21-23			6-8			10-12
	203	FOCUS Internals	28-30				10-12		
	210	Advanced Reporting			9-10			6-7	
	301	Extended Matrix Reporting	9		1				24
	402	FOCUS Report Effic./DB2					8-9		
600	PC/FOCUS-MultiUser/LAN					4			
611	PC/FOCUS Optimization					5			
623	FOCUS 6.8 Seminar			15			10		
EDA/SQL	910	Concepts and Facilities		30			29		
	930	EDA/SQL Interface				27			
	935	EDA DataLens/Lotus			27				26
OpenVMS	650	FOCUS for OpenVMS					8		

Dates

† The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 102/104 description on page 42.

Dallas

Albuquerque and Oklahoma City dates are to be announced. For information, phone Dallas: (214) 490-1300.

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	26-28	23-25	20-22	18-20	15-17	13-15	24-26
	103†	Basic FOCUS/DP	29-30	26-27	23-24	21-22	18-19		27-28
	102†	Basic Reporting/BP	19-21	16-18	13-15	12-14	8-10	6-8	10-12
	104†	DB Creation/Maint./BP	22-23		16-17		11-12		13-14
	111	A.I.T.		12-13		21-22			6-7
	125	Menu Management	9	30		25		9	31
	126	Intermediate Reporting	6-8	9-11	13-15	12-14	15-17	13-15	10-21
	130	FOCUS Windows	12	31		26		10	
	200	Database Design	12-13		27-28		1-2		10-11
	201	Advanced Techniques	14-16		29-10/1		3-5		12-14
	203	FOCUS Internals		2-4		4-6		1-3	
	210	Advanced Reporting	19-20	26-27	27-28	25-26	29-30		31-2/1
	301	Extended Matrix Reporting			20		22		10
	402	FOCUS Report Effic./DB2		5-6		7-8		9-10	
623	FOCUS 6.8 Seminar	23							
EDA/SQL	910	Concepts and Facilities		16			18		
	930	EDA AP/SQL Interface			16		19		

Denver

Phone: Dallas (214) 490-1300

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14		13-15		15-17		24-26
	103†	Basic FOCUS/DP	15-16		16-17		18-19		27-28
	102†	Basic Reporting/BP	26-28		20-22		8-10		10-12
	104†	DB Creation/Maint./BP			23-24		11-12		13-14
	111	A.I.T.	29-30		27-28		22-23		
	125	Menu Management	19	12		4		2	
	126	Intermediate Reporting	21-23	16-18		12-14		6-8	
	130	FOCUS Windows	20	13		5		3	
	200	Database Design		23-24				13-14	
	201	Advanced Techniques		25-27				15-17	
	203	FOCUS Internals			1-3		3-5		3-5
	210	Advanced Reporting	6-7	30-31		26-27			6-7
	301	Extended Matrix Reporting	23			25			
	402	FOCUS Report Effic./DB2		5-6		7-8			20-21
623	FOCUS 6.8 Seminar	9							
EDA/SQL	910	Concepts and Facilities				18			
	930	EDA AP/SQL Interface						9	

Detroit

Phone: (313) 641-8820

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14	11-13	20-22	18-20	17-19	6-8	10-12
	103†	Basic FOCUS/DP	15-16		23-24	21-22		9-10	
	102†	Basic Reporting/BP	19-21	18-20	13-15	4-6	10-12	13-15	24-26
	104†	DB Creation/Maint/BP	22-23			7-8			27-28
	111	A.I.T.		16-17	30-10/1	25-26		16-17	13-14
	125	Menu Management	26		16		22		13
	126	Intermediate Reporting	28-30		27-29		29-12/1		19-21
	130	FOCUS Windows	27				23		14
	200	Database Design	19-20		20-21		1-2		24-25
	201	Advanced Techniques	21-23		22-24		3-5		26-28
	203	FOCUS Internals			15-17				31-2/2
	210	Advanced Reporting	28-30	23-24		28-29		2-3	
	301	Extended Matrix Reporting	30			27		10	
	400	Intro to DB2 and SQL/DS				13-15			
	402	FOCUS Report Effic./DB2			9-10				
	600	PC/FOCUS MultiUser/LAN			1				
611	PC/FOCUS Optimization			2					
623	FOCUS 6.8 Seminar					1		12	
EDA/SQL	910	Concepts and Facilities			29				7
	930	EDA API/SQL Interface	16				8		
	935	EDA DataLens/Lotus		6			19		
OpenVMS	650	FOCUS for OpenVMS				1			
T-T-T	528	Basic Reporting/BP (102) T-T-T				18-21			

Dates

†The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 102/104 description on page 42.

Hartford

Phone: Boston (617) 272-8600

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP			20-22				3-5
	103†	Basic FOCUS/DP			23-24				6-7
	102†	Basic Reporting/BP		2-4				13-15	
	104†	DB Creation/Maint./BP		5-6					
	111	A.I.T.				12-13			
	125	Menu Management		30					
	126	Intermediate Reporting			1-3			8-10	
	130	FOCUS Windows		31					
	200	Database Design					29-30		
	201	Advanced Techniques						1-3	
	203	FOCUS Internals	26-28						
	210	Advanced Reporting				14-15			
	301	Extended Matrix Reporting		18					
	600	PC/FOCUS-MultiUser/LAN				25			
611	PC/FOCUS Optimization				26				
623	FOCUS 6.8 Seminar								
EDA/SQL	910	Concepts and Facilities					11		
	930	EDA API/SQL Interface					12		

Houston/San Antonio/Austin

Additional Austin dates to be announced. For information, phone Houston: (713) 952-4800.

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101	Basic Reporting/DP	12-14 H	9-11 SA 16-18 H	13-15 H	4-6 H	1-3 H	6-8 H	10-12 H
	103	Basic FOCUS/DP	15-16 H	12-13 SA 19-20 H		7-8 H		9-10 H	
	102†	Basic Reporting/BP	26-28 H	23-25 H	20-22 H 20-22 SA	18-20 H	15-17 H	1-3 H	24-26 H
	104†	DB Creation/Maint./BP	29-30 H		23-24 H 23-24 SA		18-19 H		27-28 H
	111	A.I.T.	26-27 H		16-17 H	7-8 SA	4-5 H		20-21 H
	125	Menu Management	26 A		1 H	28 H	8 SA	13 H	
	126	Intermediate Reporting	6-8 H; 28-30 A		27-29 H	25-27 H	10-12 SA	15-17 H	
	130	FOCUS Windows	27 A		2 H	29 H	9 SA	14 H	
	200	Database Design	19-20 H		13-14 H		8-9 H	6-7 SA	24-25 H
	201	Advanced Techniques	21-23 H		15-17 H		10-12 H	8-10 SA	26-28 H
	203	FOCUS Internals		2-4 H		13-15 H		13-15 H	12-14 SA
	210	Advanced Reporting		10-11 H			29-30 H		18-19 H
	301	Extended Matrix Reporting		9 H					31 H
	400	Intro. to DB2 and SQL/DS		25-27 H				8-10 H	
402	FOCUS Report Effic./DB2				9-10 H			20-21 H	
EDA/SQL	910	Concepts and Facilities	21 SA	4 H			17 H		
	930	EDA API/SQL Interface	22 SA	5 H			18 H		
	935	EDA DataLens/Lotus		6 H			19 H		

Dates

A - Austin, Texas
H - Houston, Texas
SA - San Antonio, Texas

K

Ph

Sub

FOC

EDA

LEV

L

Ph

Sul

FO

ED

Kansas City

Phone: St. Louis (314) 434-7500

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP			20-22			13-15	
	103†	Basic FOCUS/DP			23-24			16-17	
	102†	Basic Reporting/BP		16-18		18-20			19-21
	104†	DB Creation/Maint./BP		19-20		21-22			
	111	A.I.T.	1-2			7-8			
	125	Menu Management			13		15		
	126	Intermediate Reporting			15-17		17-19		
	130	FOCUS Windows			14		16		
	200	Database Design							10-11
	201	Advanced Techniques	7-9						12-14
	203	FOCUS Internals	19-21				8-10		
	210	Advanced Reporting		12-13		14-15		6-7	
301	Extended Matrix Reporting						8		
402	FOCUS Report Effic./DB2		26-27						
EDA/SQL	910	Concepts and Facilities			9				
	930	EDA API/SQL Interface			10				
LEVELS	720	LEVELS OBJECT		9-11					

Los Angeles

Phone: (310) 615-0735

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	19-21		20-22		1-3		10-12
	103†	Basic FOCUS/DP	22-23		23-24		4-5		13-14
	102†	Basic Reporting/BP	12-14		13-15	4-6	8-10	6-8	24-26
	104†	DB Creation/Maint./BP	15-16			7-8			27-28
	111	A.I.T.		9-10		21-22		13-14	
	125	Menu Management		12		28			20
	126	Intermediate Reporting	7-9		27-29		22-24		
	130	FOCUS Windows		13		29			21
	200	Database Design		16-17			15-16		
	201	Advanced Techniques		18-20			17-19		
	203	FOCUS Internals						15-17	
	210	Advanced Reporting			30-10/1			9-10	
	301	Extended Matrix Reporting						3	
402	FOCUS Report Effic./DB2				14-15				
623	FOCUS 6.8 Seminar			17					
EDA/SQL	910	Concepts and Facilities				18			18
	930	EDA API/SQL Interface				19			19

The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 2/104 description on page 42.

Dates

Milwaukee

Phone: Chicago (708) 971-6700

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	19-21		20-22		15-17		24-26
	103†	Basic FOCUS/DP	22-23		23-24				27-28
	102†	Basic Reporting/BP	12-14	23-25	29-10/1	25-27		13-15	19-21
	104†	DB Creation/Maint/BP	29-30			28-29		16-17	
	111	A.I.T.		9-10		4-5		2-3	
	125	Menu Management	9	30					
	126	Intermediate Reporting	6-8		1-3		8-10		10-12
	130	FOCUS Windows	15	31					
	200	Database Design			27-28		11-12		
	201	Advanced Techniques	26-28			13-15			
	203	FOCUS Internals		11-13				6-8	
	210	Advanced Reporting		2-3					
	301	Extended Matrix Reporting		4			3		

Minneapolis/St. Paul

Phone: Chicago (708) 971-6700

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	7-9		1-3	27-29		6-8	31-2/2
	103†	Basic FOCUS/DP			9-10			9-10	
	102†	Basic Reporting/BP	12-14	25-27	27-29	18-20	17-19	13-15	19-21
	104†	DB Creation/Maint/BP	15-16		30-10/1			16-17	
	111	A.I.T.		5-6		7-8		20-21	
	125	Menu Management	19	2					24
	126	Intermediate Reporting		9-11		13-15		1-3	26-28
	130	FOCUS Windows		3					25
	200	Database Design		16-17					10-11
	201	Advanced Techniques	21-23		22-24				12-14
	203	FOCUS Internals					8-10		3-5
210	Advanced Reporting	26-27		20-21		15-16		6-7	
301	Extended Matrix Reporting		13			11			
EDA/SQL	910	Concepts and Facilities					29		
	930	EDA API/SQL Interface	1				30		
	935	EDA DataLens/Lonis		20			12		

New Jersey/Rochester

Phone: (201) 487-6767

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		9-11 R	27-29 NJ	25-27 R			24-26 NJ
	103†	Basic FOCUS/DB		12-13 R	30-10/1 NJ	28-29 R			27-28 NJ
	102†	Basic Reporting/BP	26-28 NJ		8-10 NJ				19-21 NJ
	104†	DB Creation/Maint./BP		12-13 NJ	13-15 R		8-10 NJ 11-12 NJ	15-17 R 18-19 R	26-28 R
	111	A.I.T.				21-22 NJ	11-12 R		
	125	Menu Management		23 NJ	28 R		15 NJ		
	126	Intermediate Reporting			1-3 NJ	13-15 R		8-10 NJ	
	130	FOCUS Windows		24 NJ	29 R		16 NJ		
	200	Database Design			20-21 NJ				
	201	Advanced Techniques			20-21 R				
	203	FOCUS Internals			22-24 NJ				
	210	Advanced Reporting	26-27 R			7-8 NJ	3-5 NJ	1-3 R	13-14 NJ
	402	FOCUS Report Effic./DB2					18-19 NJ	9-10 R	
	600	PC/FOCUS-MultiUser/LAN				25 NJ			
611	PC/FOCUS Optimization				26 NJ				
EDA/SQL	910	Concepts and Facilities				20 R			
	930	EDA API/SQL Interface				21 R			
	935	EDA DataLens/Lotus				22 R			

NJ - New Jersey

R - Rochester, New York

New Orleans/Shreveport

Additional Shreveport dates are to be announced. For information, phone Houston: (713) 952-4800.

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP				18-20 NO			
	103†	Basic FOCUS/DP				21-22 NO			
	102†	Basic Reporting/BP			8-10 NO				
	125	Menu Management					1 NO		
	126	Intermediate Reporting					3-5 NO		
	130	FOCUS Windows					2 NO		
	200	Database Design	12-13 NO						10-11 NO
	201	Advanced Techniques	14-16 NO						12-14 NO
	203	FOCUS Internals		16-18 NO					
	210	Advanced Reporting	12-13 SH					2-3 NO	

NO - New Orleans, Louisiana

SH - Shreveport, Louisiana

Dates

†The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 102/104 description on page 42.

New York

Phone: (212) 736-4433

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	19-21	2-4 16-18	20-22	4-6 18-20	1-3 15-17	6-8	24-26
	103†	Basic FOCUS/DP	22-23	5-6 19-20	23-24	7-8 21-22	4-5 18-19	9-10	27-28
	102†	Basic Reporting/BP	7-9	9-11	1-3; 13-15	13-15; 25-27	29-12/1		10-12; 26-28
			19-21	23-25	27-29		8-10	13-15	
	104†	DB/Creation/Maint/BP	22-23	26-27	30-10/1		11-12	16-17	
	111	A.I.T.	26-27	26-27	13-14	14-15	8-9	13-14	13-14
	125†	Menu Management	30	16		18		6	
	126	Intermediate Reporting	27-29	25-27	20-22	6-8; 20-22	15-17	8-10	19-21
	130†	FOCUS Windows		17		19			
	200	Database Design	12-13		20-21		29-30		24-25
	201	Advanced Techniques	14-16		22-24			3	26-28
	203	FOCUS Internals	12-14			4-6			18-20
	210†	Advanced Reporting		12-13		12-13		3	
	301	Extended Matrix Reporting		30		28			24
400†	Intro to DB2 and SQL/DS				25-27				
402	FOCUS Report Effic./DB2		19-20			18-19		6-7	
600†	PC/FOCUS MultiUser/LAN						6		
611	PC/FOCUS Optimization						7		
EDA/SQL	910†	Concepts and Facilities	14		8				
	930	EDA API/SQL Interface	15		9			2	
	935	EDA DataLens/Lotus			10				
T-T-T	528	Basic Reporting/BP (102) T-T-T				12-15			
	532	Basic FOCUS/BP and DP (102; 104; 101/103) T-T-T					1-5		
LEVEL5	720	LEVEL5 OBJECT		9-11				13-15	
	730	LEVEL5 OBJECT: Client			27-28				

Orlando

Phone: Atlanta (404) 395-9913

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14			18-20			10-12
	103†	Basic FOCUS/DP	15-16			21-22			13-14
	102†	Basic Reporting/BP			13-15		8-10		19-21
	104†	DB Creation/Maint/BP			16-17		11-12		
	111	A.I.T.				14-15		13-14	
	125	Menu Management	19			25			24
	126	Intermediate Reporting	21-23			27-29			26-28
	130	FOCUS Windows	20			26			25
	200	Database Design			20-21			6-7	
	201	Advanced Techniques			22-24			8-10	
	203	FOCUS Internals		23-25					
210	Advanced Reporting				12-13				
EDA/SQL	910	Concepts and Facilities			10				
LEVEL5	720	LEVEL5 OBJECT			27-29				

Philadelphia/Pittsburgh

Phone: (215) 940-0790

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14 P		13-15 P 20-22 P	4-6 P	8-10 P	13-15 P	10-12 P
	103†	Basic FOCUS/DP	15-16 P		16-17 P 23-24 P	7-8 P	11-12 P	16-17 P	13-14 P
	102†	Basic Reporting/BP	28-30 P	23-25 P			15-17 P		24-26 P
			28-30 P	23-25 P	20-22 P	10-20 P 26-27 P	15-17 P	13-15 P	24-26 P
	104†	DB Creation/Maint/BP				21-22 P 28-29 P			27-28 P
	111	A.I.T.	22-23 P	26-27 P	30-10/1 P	7-8 P		16-17 P	
	125	Menu Management	7 P	16 P	13 P		29 P		
	126	Intermediate Reporting		18-20 P	15-17 P	13-15 P	10-12 P	1-3 P	19-21 P
									19-21 P
	130	FOCUS Windows		17 P	14 P		30 P		
	200	Database Design	8-9 P				18-19 P		
							4-5 P		
	201	Advanced Techniques	19-21 P					6-8 P	
	203	FOCUS Internals			27-29 P				
	210	Advanced Reporting			23-24 P			20-21 P	
402	FOCUS Report Effic./DB2					8-9 P			
600	PC/FOCUS-MultiUser/LAN		26 P			28-29 P			
611	PC/FOCUS Optimization		27 P			5-6 P			
						25 P			
						26 P			

‡ - Philadelphia, Pennsylvania

‡1 - Pittsburgh, Pennsylvania

†The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 102/104 description on page 42.

Dates

Phoenix

Phone: Los Angeles (310) 615-0735

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP			13-15			6-8	
	103†	Basic FOCUS/DP			16-17			9-10	
	102†	Basic Reporting/BP	7-9		20-22		1-3		24-26
	104†	DB: Creation/Maint./BP			23-24				27-28
	111	A.I.T.				18-19			20-21
	125	Menu Management		19			15		
	126	Intermediate Reporting				25-27			
	130	FOCUS Windows		20			16		
	200	Database Design					8-9		
	201	Advanced Techniques					10-12		
210	Advanced Reporting			28-29				31-2/1	
301	Extended Matrix Reporting						13		
EDA/SQL	910	Concepts and Facilities			27				

Sacramento/Las Vegas/Salt Lake City/Boise

Phone: San Jose (408) 453-7600

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		16-18 S			10-12 S		
	103†	Basic FOCUS/DP		19-20 S					
	102†	Basic Reporting/BP	19-21 S	23-25 LV	20-22 S	13-15 SLC 18-20 B		1-3 S	
	125	Menu Management				4 S		7 SLC	
	126	Intermediate Reporting			13-15 LV	6-8 S	17-19 B	8-10 SLC	12-14 S
	130	FOCUS Windows				5 S			
	200	Database Design					15-16 S		
	201	Advanced Techniques					17-19 S		
203	FOCUS Internals							19-21 S	
210	Advanced Reporting	12-13 S				21-22 LV			27-28 S
EDA/SQL	910	Concepts and Facilities	14 S						

B - Boise, Idaho

LV - Las Vegas, Nevada

S - Sacramento, California

SLC - Salt Lake City, Utah

St. Louis

Phone: (314) 434-7500

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP			13-15			13-15	
	103†	Basic FOCUS/DP			16-17			16-17	
	102†	Basic Reporting/BP		9-11			8-10		19-21
	104†	DB Creation/Maint/BP	1-2	12-13			11-12		
	111	A.I.T.			23-24				13-14
	125	Menu Management		16			15		
	126	Intermediate Reporting	7-9	18-20			17-19		
	130	FOCUS Windows		17			16		
	200	Database Design	12-13						24-25
	201	Advanced Techniques	14-16			20-22			26-28
	203	FOCUS Internals	28-30					6-8	
210	Advanced Reporting			9-10			9-10		
402	FOCUS Report Effic./DB2				14-15				
LEVEL5	720	LEVEL5 OBJECT			20-22				

San Francisco

Phone: San Jose (408) 453-7600

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14		13-15		1-3		24-26
	103†	Basic FOCUS/DP	15-16			14-16			27-28
	102†	Basic Reporting/BP		16-18	20-22		8-10	6-8	
	104†	DB Creation/Maint/BP	19-20				11-12		
	111	A.I.T.			16-17		4-5		
	125	Menu Management		23			29		
	126	Intermediate Reporting		25-27		25-27		1-3	19-21
	130	FOCUS Windows		24			30		
	200	Database Design						13-14	
	201	Advanced Techniques						15-17	
	203	FOCUS Internals		11-13					12-14
210	Advanced Reporting	21-22		23-24		18-19		10-11	
EDA/SQL	910	Concepts and Facilities		19		7		9	

Dates

†The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 102/104 description on page 42.

San Jose

Phone: (408) 453-7600

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		9-11		4-6		6-8	
	103†	Basic FOCUS/DP		12-13				9-10	
	102†	Basic Reporting/BP	7-9	9-11	13-15	18-20	1-3		10-12
	104†	DB Creation/Maint/BP			16-17				13-14
	111	A.I.T.		19-20		7-8			20-21
	125	Menu Management	19			2			
	126	Intermediate Reporting	21-23		21-23		8-10		10-12
	130	FOCUS Windows	20			22			
	200	Database Design		16-17					
	201	Advanced Techniques		18-20					
	203	FOCUS Internals				13-15			
210	Advanced Reporting		17-18		7-8		9-10		
400	Intro. to DB2 and SQL/DS	7-9							
EDA/SQL	910	Concepts and Facilities	6		20	3	8		13
LEVEL5	720	LEVEL5 OBJECT	14-16						
	730	LEVEL5 OBJECT Client				13-14			

Seattle/Portland/Spokane/Anchorage

Phone: San Jose (408) 453-7600

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		23-25 S	8-10 P	18-20 S		13-15 S	
	103†	Basic FOCUS/DP		26-27 S		21-22 S			
	102†	Basic Reporting/BP	12-14 S 19-21 P	9-11 A		4-6 SP	3-5 S	6-8 P	10-12 S
	104†	DB Creation/Main/BP	15-16 S 22-23 P					9-10 P	
	111	A.I.T.		4-5 S			10-11 S		
	125	Menu Management		12 S		12 A	15 P	16 S	
	126	Intermediate Reporting			20-22 S	13-15 A	16-18 P	1-3 SP	19-21 S
	130	FOCUS Windows			13 S			17 S	
	200	Database Design				4-5 S		13-14 A	
	201	Advanced Techniques				6 A S		15-17 A	
	203	FOCUS Internals						8-10 S	24-26 A
210	Advanced Reporting	26-27 S			25-26 S	1-2 A			

A - Anchorage, Alaska
 P - Portland, Oregon
 S - Seattle, Washington
 SP - Spokane, Washington

Dates

Washington, DC

Phone: (703) 247-5565

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	26-28	23-25	20-22	25-27	29-12/1		3-5
	103†	Basic FOCUS/DP	29-30	26-27	23-24	28-29	2-3		6-7
	102†	Basic Reporting/BP	12-14	9-11	13-15	13-15	15-17	13-15	10-12
	104†	DB Creation/Maint/BP		12-13	16-17		18-19	16-17	
	111	A.I.T.	8-9	19-20		7-8		9-10	20-21
	125	Menu Management	9	30			1		24
	126	Intermediate Reporting	6-8		1-3		3-5		26-28
	130	FOCUS Windows	12	31			2		25
	200	Database Design	19-20		27-28		29-30		31-2/1
	201	Advanced Techniques	21-23		29-10/1			1-3	
	203	FOCUS Internals		4-6		4-6		6-8	
	210	Advanced Reporting		17-18		18-19		20-21	
	301	Extended Matrix Reporting			7				14
	400	Intro. to DB2 and SQL/DS				20-22			
	402	FOCUS Report Effic./DB2					9-10		
600	PC/FOCUS-MultiUser/LAN	15			20				
611	PC/FOCUS Optimization	16			21				
623	FOCUS 6.8 Seminar				12				
EDA/SQL	910	Concepts and Facilities			1				18
	930	EDA API/SQL Interface			2				19
	935	EDA DataLens/Lotus			3				20
LEVEL5	720	LEVEL5 OBJECT		11-13			8-10		
	730	LEVEL5 OBJECT: Client			9-10				

White Plains/Stamford

Phone: New York: (212) 736-4433

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP	12-14				1-3		
	103†	Basic FOCUS/DP	15-16				4-5		
	102†	Basic Reporting/BP		25-27			8-10		19-21
	104†	DB Creation/Maint/BP					11-12		
	111	A.I.T.				21-22			
	125	Menu Management			23			9	
	126	Intermediate Reporting	7-9			13-15			26-28
	130	FOCUS Windows			24			10	
	200	Database Design				25-26			
	201	Advanced Techniques				27-29			
	203	FOCUS Internals						6-8	
	210	Advanced Reporting					17-18		
600	PC/FOCUS-MultiUser/LAN				7				
611	PC/FOCUS Optimization				8				

Dates

†The 101 and 103 dates or the 102 and 104 dates that are boxed can be taken in five consecutive days. For more information, see the 101/103 course description on page 28 or the 102/104 description on page 42.

Midwest

Phone: St. Louis (314) 434-7500

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		9-11 C				6-8 I	24-26 C
	103†	Basic FOCUS/DP		12-13 C				9-10 I	27-28 C
	102†	Basic Reporting/BP		9-11 M		13-15 C			
	104†	DB Creation/Maint/BP		16-18 L	20-22 I	18-20 M			
	111	A.I.T.		19-20 L	23-24 I	21-22 M			
	125	Menu Management			13-14 C				
	126	Intermediate Reporting	7-9 I; 12-14 C	12 M	15 L; 20 O	21 C	8 I		
	130	FOCUS Windows		16-18 O	13-15 M	6-8 L	10-12 I		
	200	Database Design	19-20 I	13 M	16 L; 21 O	22 C	9 I		
	201	Advanced Techniques	21-23 I				17-19 C		
210	Advanced Reporting	15-16 C	19-20 O	16-17 M			16-17 C	13-14 I	

C - Columbus, Ohio
 I - Indianapolis, Indiana
 L - Louisville, Kentucky
 M - Memphis, Tennessee
 O - Omaha, Nebraska

Southeast

Phone: Atlanta (404) 395-9913

Subject	Course/ Wksp #	Title	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOCUS	101†	Basic Reporting/DP		16-18 T			15-17 B		
	103†	Basic FOCUS/DP		19-20 T			18-19 B		
	102†	Basic Reporting/BP		9-11 M	13-15 K	13-15 B	4-6 TA	16-20 T	
	104†	DB Creation/Maint/BP		12-13 M	16-17 K	16-17 B	7-8 TA	21-22 T	
	125	Menu Management		16 M			15 TA	6 T; 13 B	
	126	Intermediate Reporting		18-20 M			17-19 TA	8-10 T	
	130	FOCUS Windows		17 M			16 TA	7 T; 14 B	
	210	Advanced Reporting						13-14 TA	

B - Birmingham, Alabama
 K - Knoxville, Tennessee
 M - Miami, Florida
 T - Tallahassee, Florida
 TA - Tampa, Florida

EDPACK Volume Discount

IBI's popular EDPACK Program now offers a graduated savings of up to 18%. EDPACK can be applied to the entire range of IBI education offerings, including FOCUS, LEVEL5, EDA/SQL, DB2 training, and Top Gun Technology Days.

This program is for you, if:

- You want the convenience of a single purchase order and invoice up front, while avoiding the paperwork associated with each student and/or class
- You want to lock in your discount

Description

EDPACK provides a multiple-step, graduated savings plan, as described in the chart below:

Step	EDPACK \$ Value	Discount	Invoice Amount	Savings
One	\$15,000	10%	\$13,500	\$1,500
Two	\$30,000	13%	\$26,100	\$3,900
Three	\$60,000	15%	\$51,000	\$9,000

Once Step One is reached, IBI will add an extra 3% discount for any education in excess of Step One conducted at an IBI branch location.

For example, if you anticipate that your education needs for a year will consist of courses, products, and services that have a total price of \$30,000 in the *IBI Education Curriculum and Calendar*, you will get that education at a 13% discount. In addition, once you have used \$15,000 worth of education, any training conducted at an IBI branch location will be provided at an additional 3% discount, for a total discount of 16%.

Billing

EDPACKS are payable in advance, and must be used within 12 months. No other IBI discounts apply.

Advantages of EDPACK

Savings on the full range of IBI education offerings, including:

- FOCUS and LEVEL5 Courses
- Top Gun Technology Days
- FOCUS Computer Based Training
- FOCUS Train-the-Trainer Programs
- DB2, SQL/DS, and UNIX
- Student Education Kits
- Course Customization Services
- EDA/SQL (Enterprise Data Access/SQL) Courses

Convenient Scheduling

Schedule classes on site at your location or at an IBI branch location.

Education Support

We will assist you in curriculum planning and tailor services to fit your exact needs.

Payment Convenience

Up-front payment with EDPACK.

To start receiving your discount, fill out the EDPACK agreement form (page 82). With the EDPACK form, also include a signed purchase order for the total EDPACK amount. Mail to Information Builders, 1250 Broadway, New York, NY 10001-3782, Attention: Education Department, EDPACK Program. You may also FAX your completed form and purchase order to (212) 268-6717, Attention: Education Department, EDPACK Program.

For more information, contact the Education Account Representative or Branch Consulting Manager at your local IBI office. See inside back cover for office addresses and phone numbers.

EDPACK Program Agreement

IBI's EDPACK Program provides a multiple-step savings on any combination of IBI education products and services. IBI will invoice the client at a selected discounted rate based on the following table:

Step	EDPACK \$ Value	Discount	Invoice Amount	Savings
One	\$15,000	10%	\$13,500	\$1,500
Two	\$30,000	13%	\$26,100	\$3,900
Three	\$60,000	15%	\$51,000	\$9,000

For a selected invoice amount, the client receives an EDPACK \$ Value worth of IBI education products and services to be used within 12 months at the then-current list prices. Once Step One is reached, IBI will add an extra 3% discount for any education in excess of Step One conducted at an IBI branch location.

Both parties can renew the EDPACK Program Agreement at the end of each program year by the provision of the appropriate purchase order by the client and its acceptance by IBI. A letter stating that the client does not want to renew will cancel the program for the next year.

In addition, the client will pay expenses for all on-site classes, including instructor's travel, lodging and meals, shipping expenses for materials, taxes where applicable, and for IBI documentation other than course workbooks provided with a course. EDPACK provides IBI education products and services at an amount discounted below our normal fee schedule. No other discounts apply.

To obtain this discount, the client acknowledges that payment must be made upon receipt of invoice and the client has included the following on the EDPACK purchase order: "The terms and conditions of the EDPACK Program Agreement (Rev 4.1.93) are part of this purchase order."

Order Information

Please indicate: _____ number of EDPACKs @ Step: _____ Total EDPACK Amount: \$ _____

Purchase order number _____ (Please attach purchase order.)

IBI Site Code _____

Company _____

Training contact name _____

Title _____

Address _____

City/State/Zip _____

Phone number _____

Starting date of program _____

Please send this form with a signed purchase order for the total EDPACK amount to:

Information Builders
1250 Broadway, 25th Floor
New York, NY 10001-3782

Attention: Education Department, EDPACK Program. Or FAX: (212) 268-6717, Attention: Education Department, EDPACK Program.

An IBI Education Representative will call the training contact to assist in designing the EDPACK program.

Authorized client signature _____ Date _____

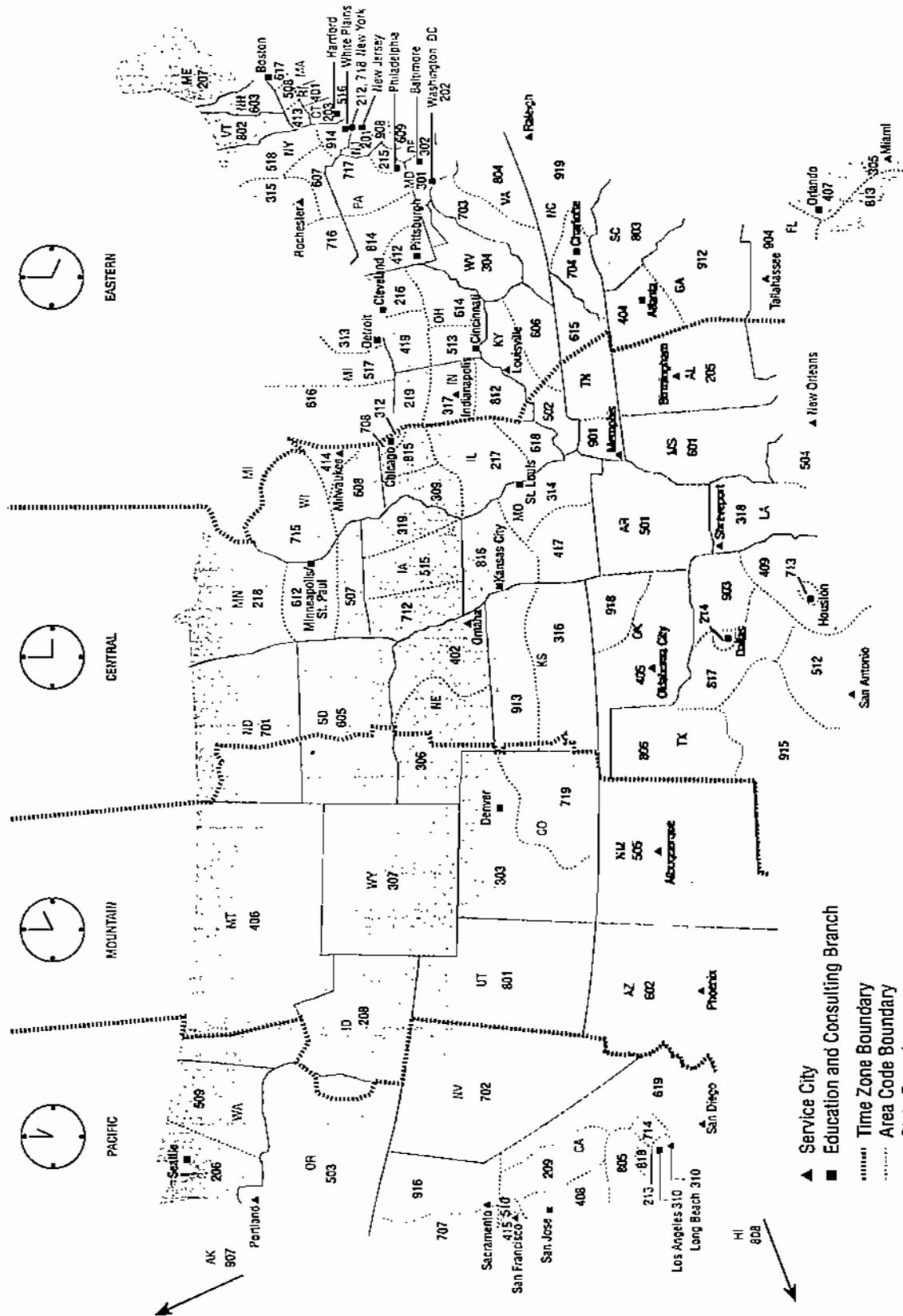
Authorized IBI signature _____ Date _____

Client name (Please print.) _____

IBI name (Please print.) _____

U.S. Telephone Area Codes, Time Zones, and IBI Education and Consulting Locations

U.S. Telephone Area Codes, Time Zones, and IBI Education and Consulting Locations



- ▲ Service City
- Education and Consulting Branch
- Time Zone Boundary
- Area Code Boundary
- State Boundary

For Education and Consulting office phone numbers, see inside back cover.

Information Builders Course Registration Form

3 Easy Ways to Register – Classes Fill Up Quickly – Register Today

By Phone:

Contact the IBI office
where the class is scheduled.
See page 86 for registration
phone numbers.

By FAX:

Complete the
registration form and
send to:
FAX# (212) 268-6717.
Our FAX lines are open
24 hours a day.

By Mail:

Complete and mail the
registration form to:
Information Builders
Education Department
1250 Broadway, 25th Floor
New York, NY 10001-3782
Attention: Registrar

Mail-in and FAX registrations should be received at least seven business days before a class to ensure proper processing. You will receive written and/or phone confirmation of your registration.

Cancellations: Information Builders reserves the right to cancel or reschedule any class at its discretion.

If you need to cancel, Information Builders must receive a cancellation letter from you at least seven business days prior to the scheduled beginning of that class to avoid billing.

Company _____	
Billing contact _____	
Address _____	
City/State _____	Zip _____
Phone # _____	FAX # _____
Extension # _____	
Student Name(s)	
1. _____	
2. _____	
3. _____	
Course # _____	Course title _____
Course dates _____	Course location _____
Total fee _____	
<input type="checkbox"/> Check enclosed	
<input type="checkbox"/> Bill me You must send a purchase order. If your company does not issue purchase orders, then you must get a Registration Payment Agreement signed, which we will send to you upon request.	
<input type="checkbox"/> American Express	<input type="checkbox"/> MasterCard
<input type="checkbox"/> Visa	
Credit card # _____	Expiration date _____
Name as shown on card _____	Signature _____
For Office Use Only	
Sent to branch _____	Date _____
Registration taken by _____	Date _____

Enrollment and Tuition

Classes Taught at IBI Education Centers

Classes begin at 9:30 A.M. and conclude at 4:30 P.M., unless notified otherwise. Coffee and pastries are available at 9:00 A.M., and lunch is provided.

Please ensure that you, or the people you are enrolling, meet the prerequisites for all the courses and workshops described in this catalog.

Registration should be made in advance by calling the office where the class is scheduled. See inside back cover for IBI offices. Try to register early because class size is limited. You will receive written confirmation of your registration. If you need to cancel, please do so no later than one week prior to the class to avoid being billed and to allow us to schedule someone in your place who may be "wait-listed." Be sure to get a cancellation number.

FOCUS and LEVEL5 training are also conducted outside the United States at Information Builders' subsidiaries and agent offices throughout the world. For information on training in Canada, contact InfoBuild Inc. at (416) 364-2760. To receive a phone number listing of IBI international subsidiaries and agents who offer training services, contact International Operations in New York at (212) 736-4433, extension 3502.

Information Builders reserves the right to cancel or reschedule any class at its discretion.

Classes Taught On Site

When a course is being conducted by IBI instructors at a user's organization site, the user is responsible for providing a classroom, audio-visual equipment, an overhead projector, a blackboard or flipchart, and at least one PC or mainframe terminal, as needed, with a user ID for every three students. The pace and subject matter emphasis will be adapted to the needs, environment, and business areas relevant to the students and the organization. In addition, course content can be customized. If you need to cancel, please do so no later than one week prior to the class to avoid being billed. Be sure to get a cancellation number. Information

Builders reserves the right to cancel or reschedule any class at its discretion.

For training effectiveness, enrollment in each class is limited. Please make sure that you, or the people you are enrolling, meet the prerequisites for all courses and workshops described in this catalog. Call the IBI office nearest you to arrange training at your site. For customized courses, see page 63.

Tuition and Index

Prices are effective August 1, 1993.

Subject	Course #	Title	Days	IBI Site Price	On-Site Price**	Page No.
FOCUS	101/103	Basic FOCUS Series for DP Professionals	5	\$1,020	\$6,250	28
	101	FOCUS Basic Reporting for DP Professionals	3	\$625	\$3,750	18
	103	FOCUS Database Creation and Maintenance for DP Professionals	2	\$395	\$2,500	28
	102/104	Basic FOCUS Series for Business Professionals	5	\$1,020	\$6,250	42
	102	FOCUS Basic Reporting for Business Professionals	3	\$625	\$3,750	8
	104	FOCUS Database Creation and Maintenance for Business Professionals	2	\$395	\$2,500	42
	111	Application Integration Techniques	2	\$475	\$2,850	30
	125	FOCUS Menu Management	1	\$265	\$1,585	13
	126	FOCUS Intermediate Reporting	3	\$705	\$4,650	10
	130	FOCUS Windows	1	\$265	\$1,585	14
	200	Database Design	2	\$550	\$3,500	37
	201	Advanced Techniques	3	\$795	\$5,450	34
	203	FOCUS Internals	3	\$865	\$5,850	35
	210	FOCUS Advanced Reporting	2	\$575	\$3,900	12
	301	Extended Matrix Reporting (EMR)	1	\$265	\$1,585	15
	303	FOCALC	2	\$510	\$3,300	45
	304	FOCMAN	3	\$795	\$5,450	45
	306	FOCAUDIT	2	\$510	\$3,300	45
	400	Introduction to DB2 and SQL/DS	3	\$865	\$5,850	24
	402	FOCUS Reporting Efficiencies for DB2, SQL/DS	2	\$575	\$3,900	25
	600*	PC/FOCUS-MultiUser on a Local Area Network (LAN)	1	\$285	\$1,750	46
	611*	PC/FOCUS Optimization	1	\$285	\$1,750	46
	621*	ACE (The Application Control Environment)	1	\$285	\$1,750	46
623*	FOCUS 6.8 Seminar	1	\$285	\$1,750	47	
EDA/SQL	910	EDA/SQL Concepts and Facilities	1	\$495	\$2,495†	51
	920	EDA/SQL Data Access Implementation Workshop	3	\$875	\$5,995†	51
	930	EDA API/SQL Interface	1	\$395	\$1,995†	52
	935	EDA/SQL and Lotus 1-2-3 DataLens	1	\$395	\$1,995†	52
	940	Interfacing EDA/SQL Data Structures	1	\$395	\$1,995†	53
UNIX	801/802	Rightsizing FOCUS Applications to the UNIX Environment	2	\$745	\$3,900	54
	801	Just Enough UNIX	1	\$395	\$1,995	55
	802	Rightsizing to UNIX	1	\$395	\$1,995	55
OpenVMS	650*	FOCUS for OPEN VMS	1	\$285	\$1,750	56
T-T-T	528	FOCUS Basic Reporting Train-the-Trainer	4	\$995	\$7,000	59
	532	Basic FOCUS for Business and DP Professionals Train-the-Trainer	5	\$1,225	\$8,750	59
LEVEL5	720	Smart Application Development Using LEVEL5 OBJECT	3	\$865	\$5,850	60
	730	LEVEL5 OBJECT: The Intelligent Client	2	\$575	\$3,900	61

* When held on site these workshops allow a maximum of 30 students; all other offerings allow a maximum of 20. There is an additional charge of \$50 per student per day for over 15 students up to the maximum number.

** The on-site price covers up to 15 students with the exception of *FOCMAN* and *FOCUS Train-the-Trainer Workshops* that have a maximum of eight students. Additional expenses for all on-site classes and on-site discount programs include instructor's travel, lodging and meals, shipping expenses for materials, and applicable taxes. FOCUS documentation other than course training materials (which are included) is available at standard rates. There is an additional charge of \$50 per student per day for over 15 students up to the maximum number.

† Per 15 students. Additional on-site charges: \$75 per extra student/per class day. Instructor expenses, material shipment costs, and applicable taxes are extra.

Tuition Discounts for Individual Students

Prices are effective August 1, 1993.

FOCUS Masters Curriculum Programs

Enroll in one of the FOCUS Masters Curriculums listed below and:

- Save 15% on education courses attended at IBI sites
- Conveniently pay up front with only a single purchase order
- Upon curriculum completion, receive a FOCUS Masters Certificate as well as discounts and premiums available only to FOCUS Masters graduates

FOCUS Masters Curriculum Prices

Prices are 15% below the then-current IBI list prices for education courses and products. Price ranges are indicated because the price for a curriculum varies depending on the number of core courses and electives chosen by an individual.

Reporting for DP Professionals:

From \$1,845 to \$2,295
Save up to \$405. See page 17.

Reporting for Business Professionals:

From \$1,845 to \$2,295
Save up to \$405. See page 7.

Reporting for Relational Database Users:

From \$2,330 to \$3,515
Save up to \$625. See page 23.

Application Development for DP Professionals:

From \$2,830 to \$4,690
Save up to \$825. See page 27.

Application Development for Business Professionals:

From \$2,830 to \$4,690
Save up to \$825. See page 41.

To enroll, contact the Education Account Representative or Consulting Manager at your local IBI office. See specific page references for discount terms and conditions. Only one discount program may apply.

FOCUS Application Quickstart Programs

Complementing the FOCUS Masters programs are IBI's Application Quickstart discounts. Save 10% on two related courses conducted at IBI sites:

Programs	IBI Site	
	Regular Fee	Discount Fee
Application Quickstart For DP Professionals features (see page 29): <ul style="list-style-type: none">■ Basic FOCUS Series for DP Professionals (101/103)■ Application Integration Techniques (111)	\$1,495	\$1,345
For Business Professionals features (see page 43): <ul style="list-style-type: none">■ Basic FOCUS Series for Business Professionals (102/104)■ Application Integration Techniques (111)	\$1,495	\$1,345
Design and Techniques For Experienced Users features (see page 37): <ul style="list-style-type: none">■ Database Design (200)■ Advanced Techniques (201)	\$1,345	\$1,210

See specific page references for discount terms and conditions. Only one discount program may apply.

Registration Contacts

To register for courses, or to obtain information on the Education Program at the location of your choice, contact the Education Administrator at the IBI office indicated below.

Albuquerque, NM

Contact: Dallas (214) 490-1300

Anchorage, AK

Contact: San Jose (408) 453-7600

Atlanta, GA

Contact: Atlanta (404) 395-9913

Augusta, GA

Contact: Atlanta (404) 395-9913

Austin, TX

Contact: Houston (713) 952-4800

Baltimore, MD

Contact: Washington, D.C. (703) 247-5565

Birmingham, AL

Contact: Atlanta (404) 395-9913

Boise, ID

Contact: San Jose (408) 453-7600

Boston, MA

Contact: Boston (617) 272-8600

Charlotte, NC

Contact: Charlotte (704) 334-7440

Chicago, IL

Contact: Chicago (708) 971-6700

Cincinnati, OH

Contact: St. Louis (314) 434-7500

Cleveland, OH

Contact: Detroit (313) 641-8820

Columbus, OH

Contact: St. Louis (314) 434-7500

Dallas, TX

Contact: Dallas (214) 490-1300

Denver, CO

Contact: Dallas (214) 490-1300

Detroit, MI

Contact: Detroit (313) 641-8820

Hartford, CT

Contact: Boston (617) 272-8600

Houston, TX

Contact: Houston (713) 952-4800

Indianapolis, IN

Contact: St. Louis (314) 434-7500

Kansas City, MO

Contact: St. Louis (314) 434-7500

Knoxville, TN

Contact: Atlanta (404) 395-9913

Las Vegas, NV

Contact: San Jose (408) 453-7600

Los Angeles, CA

Contact: Los Angeles (310) 615-0735

Louisville, KY

Contact: St. Louis (314) 434-7500

Memphis, TN

Contact: St. Louis (314) 434-7500

Miami, FL

Contact: Atlanta (404) 395-9913

Milwaukee, WI

Contact: Chicago (708) 971-6700

Minneapolis/St. Paul, MN

Contact: Chicago (708) 971-6700

New Jersey

Contact: New York (212) 736-4433

New Orleans

Contact: Houston (713) 952-4800

New York City

Contact: New York (212) 736-4433

Oklahoma City, OK

Contact: Dallas (214) 490-1300

Omaha, NE

Contact: St. Louis (314) 434-7500

Orlando, FL

Contact: Atlanta (404) 395-9913

Philadelphia, PA

Contact: Philadelphia (215) 940-0790

Phoenix, AZ

Contact: Los Angeles (310) 615-0735

Pittsburgh, PA

Contact: Philadelphia (215) 940-0790

Portland, OR

Contact: San Jose (408) 453-7600

Providence, RI

Contact: Boston (617) 272-8600

Rochester, NY

Contact: New York (212) 736-4433

Sacramento, CA

Contact: San Jose (408) 453-7600

St. Louis, MO

Contact: St. Louis (314) 434-7500

Salt Lake City, UT

Contact: San Jose (408) 453-7600

San Antonio, TX

Contact: Houston (713) 952-4800

San Francisco, CA

Contact: San Jose (408) 453-7600

San Jose, CA

Contact: San Jose (408) 453-7600

Seattle, WA

Contact: San Jose (408) 453-7600

Shreveport, LA

Contact: Houston (713) 952-4800

Tallahassee, FL

Contact: Atlanta (404) 395-9913

Tampa, FL

Contact: Atlanta (404) 395-9913

Washington, DC

Contact: Washington, DC
(703) 247-5565

White Plains, NY/Stamford, CT

Contact: New York (212) 736-4433

**FAX and Mail-In Registration Now Available.
See page 84 for Registration Form.**



For more information on IBI's Education courses, products, and services, please fill in this card.

Name _____
Title _____
Company _____
Address _____
City _____
State _____ Zip _____
Telephone (____) _____ Ext. _____

- Send me another *Education Curriculum and Calendar*.
 Send me a *Technical Publications* catalog.
 Call me to discuss education in greater detail.
 Add me to your mailing list so I can receive the next *Education Curriculum and Calendar*, Education announcements, the *FLASH*, etc.

Send me information on:

- FOCUS Masters Curriculums
 FOCUS Masters for DB2, SQL/DS, Oracle, and Teradata
 FOCUS Top Gun Technology Days
 Computer Based Training and FOCUS/CBT Free Demo and Trial
 Discount Programs
 GSA Listing
 Train-the-Trainer Programs
 LEVEL5 Support Services Brochure
 EDV/SQL

For more information on IBI's Education courses, products, and services, please fill in this card.

Name _____
Title _____
Company _____
Address _____
City _____
State _____ Zip _____
Telephone (____) _____ Ext. _____

- Send me another *Education Curriculum and Calendar*.
 Send me a *Technical Publications* catalog.
 Call me to discuss education in greater detail.
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 FOCUS Masters for DB2, SQL/DS, Oracle, and Teradata
 FOCUS Top Gun Technology Days
 Computer Based Training and FOCUS/CBT Free Demo and Trial
 Discount Programs
 GSA Listing
 Train-the-Trainer Programs
 LEVEL6 Support Services Brochure
 EDV/SQL

For more information on IBI's Education courses, products, and services, please fill in this card.

Name _____
Title _____
Company _____
Address _____
City _____
State _____ Zip _____
Telephone (____) _____ Ext. _____

- Send me another *Education Curriculum and Calendar*.
 Send me a *Technical Publications* catalog.
 Call me to discuss education in greater detail.
 Add me to your mailing list so I can receive the next *Education Curriculum and Calendar*, Education announcements, the *FLASH*, etc.

Send me information on:

- FOCUS Masters Curriculums
 FOCUS Masters for DB2, SQL/DS, Oracle, and Teradata
 FOCUS Top Gun Technology Days
 Computer Based Training and FOCUS/CBT Free Demo and Trial
 Discount Programs
 GSA Listing
 Train-the-Trainer Programs
 LEVEL5 Support Services Brochure
 EDV/SQL

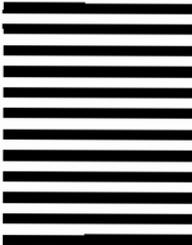


NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT 1305 NEW YORK, NY

POSTAGE WILL BE PAID BY ADDRESSEE

ATTN: Education Department
Information Builders, Inc.
1250 Broadway
New York, NY 10117-0582



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT 1305 NEW YORK, NY

POSTAGE WILL BE PAID BY ADDRESSEE

ATTN: Education Department
Information Builders, Inc.
1250 Broadway
New York, NY 10117-0582

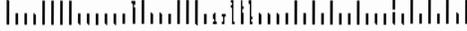


NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT 1305 NEW YORK, NY

POSTAGE WILL BE PAID BY ADDRESSEE

ATTN: Education Department
Information Builders, Inc.
1250 Broadway
New York, NY 10117-0582



Addresses

Corporate Headquarters

(212) 736-4433

Branch Offices

Atlanta, GA

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Baltimore, MD 21234
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Boston, MA

10 Mall Road, Suite 110B
Burlington, MA 01803
(617) 272-8600

Charlotte, NC

121 West Trade Street, Suite 2450
Charlotte, NC 28202
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Chicago, IL

1020 31st Street, Suite 100
Downers Grove, IL 60515
(708) 971-6700

Cincinnati, OH

Princeton Hill
30 Merchant Street, Suite 330
Cincinnati, OH 45246
(513) 771-8181

Cleveland, OH

Corporate Plaza 1
6450 Rockside Woods Blvd. South, Suite 100
Independence, OH 44131
(216) 328-2025

Dallas, TX

15303 Dallas Parkway, Suite 1420
LB41
Dallas, TX 75248
(214) 490-1300

Denver, CO

6400 S. Fiddler's Green Circle
Suite 850
Englewood, CO 80111
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Northfield Hills Corp. Center
Troy, MI 48098-2696
(313) 641-8820

Hartford, CT

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Houston, TX 77042
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One Main Plaza
1436 Main Street, Suite 060
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Los Angeles, CA

300 Continental Blvd., Suite 290
El Segundo, CA 90248
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1110 N. Old World Third St.
Suite 374
Milwaukee, WI 53203
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(201) 487-6767
(Classes held in Woodbridge, NJ)

New York City, NY

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To receive a phone number listing of IBI subsidiaries and agents who offer training services, contact International Operations in New York at (212) 736-4433, extension 3502.

Education Curriculum and Calendar
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