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Pathway application programming II U4191S

course overview

Acquire advanced Pathway application programming skills such as cursor control, shadow byte processing, and terminal redisplay. Also included in this 4-day course are topics such as User Conversion routines, intelligent device support (IDS), PATHSEND, and unsolicited message processing (UMP). Through classroom discussion and valuable hands-on experience on the HP NonStop™ server, you will become proficient in application programming within the Pathway environment. Most of the concepts presented in this course utilize techniques implemented in SCREEN COBOL; however, a few of the concepts also implement programs written outside the Pathway environment and communicate with the Pathway components Terminal Control Process (TCP) or server classes. The course uses COBOL85 as the host language for applying the concepts.

audience

Application programmers who need to utilize advanced Pathway features in developing Pathway application environments.

benefits to you

- SCREEN COBOL requesters that use cursor control, terminal redisplay, and shadow byte processing
- User conversion routines
- Intelligent device support
- PATHSEND facility
- Unsolicited messages
- Performance and security

prerequisites

- Concepts and Facilities course
- Pathway Application Programming I course (COBOL or C Language) or Pathway Application Programming Series ISPs
- Six months of Pathway application programming experience

to order

You can order this course online at http://education.hp.com. At the site, select a country, then choose "registration" or "Book a course" and fill out the online registration form.

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module	key topics
Pathway overview	• Requirements of a successful OLTP system • Components of the Pathway environment • Differences between the TCP requester and the PATHSEND requester • Pathway server classes and how they interact with the OLTP database • Role of PATHMON as the monitor of the Pathway environment • Complete functionality of the Pathway OLTP environment and how it operates with other products in the NonStop server family
the TCP and SCREEN COBOL	• Advantages of the TCP requester • Issues of server class communication in a network Pathway environment • Requirements for interacting with terminals using SCREEN COBOL • Issues of controlling transaction mode in requesters when updating databases protected by Transaction Monitor/MP (TM/MP) (Transaction Monitoring Facility, TMF) software • Using some of the more advanced features of SCREEN COBOL for terminals, such as cursor control statements, terminal redisplay, and shadow bytes • Coding programs that use different screen navigation concepts available in SCREEN COBOL
SCREEN COBOL user conversion routines	• Role of user conversion routines in SCREEN COBOL programs • Performing the setup necessary to enable a TCP to utilize customized user conversion routines • Performing the setup necessary to enable a TCP to utilize customized user advisory messages • Coding a SCREEN COBOL program to utilize user conversion routines Lab Exercise (2 hours): • Code a SCREEN COBOL program that will use shadow byte definitions to cause appropriate screen highlighting • Code a COBOL85 server program to associate error messages to screen fields through the setting of shadow bytes Lab Exercise (1 hour): • Code a SCREEN COBOL program that will utilize user conversion routines in Screen Section definitions • Create a user library by binding pTAL object code with the TCP library • Modify the Pathway parameter configurations to utilize the new TCP library
intelligent device support (IDS)	• Reasons for and requirements of IDS • Support available for IDS in SCREEN COBOL programs • Coding a SCREEN COBOL program to send messages to and receive messages from an intelligent device • Configuring the Pathway environment for IDS Lab Exercise (1.5 hours): • Code a SCREEN COBOL program that will read and reply to messages from an intelligent device
the PATHSEND requester	• Role of the PATHSEND requester within the Pathway environment • PATHSEND environment and the functions of the LINKMON process • Design considerations of creating applications using the PATHSEND facility • PATHSEND facility for using context-sensitive servers Lab Exercise (1.5 hours): • Modify your Pathway configuration to enable it to receive message from PATHSEND processes • Code a COBOL85 program that will accept terminal input and send data to a Pathway server class using the PATHSEND facility
unsolicited message processing (UMP)	• Reasons for and requirements of UMP • Detecting unsolicited messages in SCREEN COBOL programs • Using the UMP special registers to identify a logical terminal to a Guardian process • Sending unsolicited messages to and receive replies from Pathway terminals • Configuring the Pathway environment to allow receipt of unsolicited messages Lab Exercise (1.5 hours): • Modify your Pathway configuration to enable the TCP and terminal threads to receive unsolicited messages • Code a SCREEN COBOL program that will receive and reply to unsolicited messages
Pathway servers	• Server class link management functions • Applying server packaging techniques into an effective design • Issues involved in designing server programs for performance • Implications of using dynamic SQL in server programs

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configuration guidelines

- Considerations in the configuring of the global parameters in a Pathway environment
- Important aspects of configuring TCPs
- Efficient configuring of TERM and PROGRAM objects
- Importance of sever configuration to overall system performance
- Using efficient techniques in configuring and starting Pathway systems

Lab Exercise (2 hours):

- Become familiar with the task of coding a cascading server, which is a server that sends messages to another server using the PATHSEND facility

introduction to client/server programming

- Advantages of the Remote Server Call (RSC) product in a client/server application
- Workstation options available with RSC
- Components RSC provides for the workstation environment
- Functions of the NonStop server components of RSC
- Functions and capabilities of iTP WebServer and how this product enables access to Pathway servers from the internet

for more information

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