Hewlett Packard Enterprise

HPE Integrity NonStop X Application Migration H6C38S

HPE course number	H6C38S
Course length	2 days
Delivery mode	ILT, VILT
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*Realize Technology Value with Training, IDC Infographic 2037, Sponsored by HPE, October 2017

This course provides the information needed to convert applications to run on the HPE Integrity NonStop X Servers. The course starts with an overview of the hardware architecture and then covers program migration information for each of the main languages. Other topics include the debuggers available on the new systems, including a new Native Inspect debugger, a new PC hosted TNS debugger, the new linker, and changes to NSDEE. The course is 60 percent lecture and 40 percent hands-on labs using HPE Integrity NonStop X servers.

Audience

- System designers, application developers, support personnel

Prerequisites

This course requires completion of one of the following prerequisites:

- Concepts and Facilities for NonStop Systems (U4147S)
- Experience with programming languages

Course objectives

At the conclusion of this course you should be able to:

- Describe the architecture used by Integrity NonStop X servers
- Describe migration paths
- Identify changed and discontinued products
- Convert C/C++, pTAL, and COBOL application programs
- Describe the xld linker
- Describe available program debuggers
- Discuss changes to the NonStop Development Environment for Eclipse (NSDEE)
- Discuss the TNS Visual Debugger project properties
- Debug applications using the Eclips debugger
- Convert existing ETK projects to NSDEE

Benefits to you

- Streamline application migration tasks and increase your productivity by knowing where and how the application needs to be adjusted and being familiar with how to utilize compilation and debugging utilities including the xld linker, Native Inspect, and NonStop Development Environment for Eclipse (NSDEE)
- Gain valuable hands-on experience compiling, executing, creating, and debugging multiple source file programs

Next steps:

- Consider attending other advanced courses in the HPE NonStop Application Development curriculum

Detailed course outline

Module 1: Course Overview	• Objectives	• Schedule
Module 2 - Integrity NonStop X Systems Overview	• NonStop X basics • NonStop X specifications • Changes from Integrity NonStop NB56000c • InfiniBand Interconnect	• CLIM types and configurations • Big endian and little endian • Changed, unchanged, and discontinued products and features
Module 3 - Software	• Unavailable software products • Software products version availability • Operating system changes • Changed software products	• NSDEE 7.0 changes • TS/MP server class launch • TNS/X process components
Module 4 - Compilers	• General considerations • COBOL, C/C++, xpTAL, Java compilers • Windows based cross-compilers	• Other tool names • Labs: compile COBOL, C/C++, xpTAL applications
Module 5 - Linkers and Other Tools	• Linking with xld • xld inputs and outputs • DLL names and locations • Run-Time Loader • Examining an object file with xnoft	• Object Code Accelerator (OCAX) • Accelerated Program Examiner (TNSVUX) • BINDER changes • Code Coverage Utility changes • Labs: link multiple modules for execution; examine object files; accelerate a non-native application
Module 6 - Debuggers	• Available debuggers • Changes to Native Inspect • NSDEE 7.0 debugger changes	• TNS Visual Debugger • Labs: using Native Inspect; using NSDEE debugger; using TNS Visual debugger
Module 7 - TNS Support	• TNS programs and tools available • Object Code Interpreter	• Debugging TNS programs • Program compatibility
Module 8 - General Considerations	• Migration concerns • DDL dictionary conversion	• Third party tools • HPE migration services
Module 9 - Operations	• Measure changes • Performance analysis	• Peek changes • Labs: using Peek and SCF

Onsite Delivery Equipment Requirements :

- System - an Integrity NonStop X system running L16.05 or later release of the NonStop operating system
- Software - TNS/X native COBOL - xpTAL - TNS/X native C/C++ - NonStop TS/MP - NonStop Development Environment for Eclipse (NSDEE) 7.1

Learn more at
hpe.com/ww/learnNonStop

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