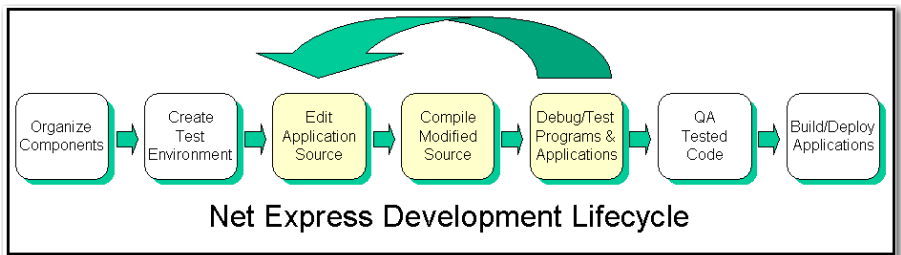

Module 3

Net Express Quick Start

Overview

The purpose of this module is to give you a high level overview of using the Net Express Tools in the Net Express Development Lifecycle.



Objectives

At the end of this module you will be able to:

- Discuss the tasks Net Express helps you to perform.
- Understand project tasks as they relate to Net Express Development Lifecycle.
- Identify the tools available in Net Express.

What is the Net Express Development Lifecycle?

The Net Express Development Lifecycle is a project-oriented group of related processes.

Task	Description
Organize Components	Gather all base source code and data files required to build the application
Create the Test Environment	Set up the Net Express project and set project parameters
Edit Application Source	Make required modifications to application source
Compile Source	Compile source for testing and debugging
Debug and Test	Clean up code and apply test plans to ensure quality of code
QA Code	Enforce quality standards of application code
Build/Deploy Application	Produce executable code and package application

Using Net Express Throughout the Lifecycle

The following section will walk you through the process of building and deploying a very simple application using Net Express tools. After you open Net Express, follow all the steps very carefully.

Organize Components in a Net Express Project

Gathering necessary files:

1. Click File, New.
2. Select Project, Click OK.

3. With Empty Project selected, supply the following:
Project Name: QSTART
Folder: x:\netxclass\projects\QSTART.
4. Click Create.
5. Click Yes to create a directory/folder.
6. You now have an empty project. Right click in the left pane of the project window and select Add files to project.
7. Select the program x:\netxclass\IDEPROGS\QTAXPROG.cbl.
8. Click Add and be sure to click Yes to copy the file into your folder. The project window now has your program listed.

Create the Test Environment

Identify and setup datafiles for the project:

1. Right click on QTAXPROG.cbl and click Edit.
2. Note that the SELECT statements list two input files:
TBLFLE.DAT
EMPFLE.DAT.
3. Close the Editor.
4. Using Windows Explorer, copy the files from x:\netxclass\Datafile to your project folder.

Edit Application Source

Make required changes to application source:

5. Right click on QTAXPROG.cbl and click Edit.
6. Page down to 0000-MAINLINE.
7. Make the following change:
from PERFORM 040-DISPLAY 25 TIMES.
to PERFORM 040-DISPLAY 2 TIMES.

Compile Source

With required program changes made, compile the program:

8. Click the Checkmark icon in the Net Express toolbar.
9. Verify that the program compiled clean by looking at the messages in the output pane at the bottom of the window. You should see a message that says 'Rebuild complete'

Debug and Test

Test and debug the recently compiled application source.

10. With the Edit session still open, select Animate, Start Animating from the main menu. You will be positioned at the first line of executable code.
11. Click the Step icon (footprint) from the toll menu 2 times. You will see that a new output window opens.
12. Continue to click the step icon until you clear the OPEN INPUT file commands. The output window now displays a line "TAX PROGRAM LOADED". If you hover your mouse over the file names in the INPUT statements (TBLFILE, EMPFILE) you should see a good 0/0 status.
13. Keep stepping through the entire program until you hit stop run. Occasionally check the output window to see the progress of program execution. At program end, the output window will display 'TAX PROGRAM TERMINATED SUCCESSFULLY'.
14. When you hit stop run, click OK.
15. Click Animate, Stop Animating.
16. Close the Animate/Edit window.

QA Code

QA requires a 10% ratio of comments to code.

17. Click Search, Show COBOL Reports, Program statistics.
18. Verify that this code will pass the QA requirement.
19. Close the Program Statistics window.

Build/Deploy Application

With project testing and QA complete, the application is ready to be packaged. This part is a bit more complicated. Don't worry if it does not work. This is your first experience building an application. More chances follow in the course later.

20. Using the dropdown in the left pane of the project window, select Generic Release Build.
21. Right-click on QTAXPROG.cbl; select Package Selected Files, Executable_File.
22. In the Define New Executable.File window, it will read QTAXPROG.exe.
23. Toggle off Include this package file in all build types (i.e., don't add it to the Debug Build). Press Create.
24. Right-click on QTAXPROG.cbl; select Package Selected Files, Dynamic_Link Library. Again, toggle off Include this package file in all build types. Press Create.
25. Set the link parameters. Right-click QTAXPROG.exe; select Build Settings... On the Link tab, select Static, character, verbose linker output. (Don't close the window yet).
26. Click on QTAXPROG.dll in the Project Build Settings Window. On the Link tab, select Static, verbose linker output. Press Close. The application will be shipped as statically linked, with QTAXPROG.exe as the driver, and a separate QTAXPROG.dll.
27. Select Project, Rebuild All.
28. Using Windows Explorer, open the Release folder in your project folder. Verify the creation of QTAXPROG.exe and QTAXPROG.dll files in this folder.
29. Double click on QTAXPROG.exe. If all went well, the program runs. Watch the output screen closely as it will close when the program finishes.

Summary

In this module you have had an overview of using the Net Express tools to set up, test and deploy an application. While this was a very simple set of steps, you have had exposure to all the major phases in the Net Express Application Development Lifecycle. This will serve as a foundation to the learning experiences in the modules ahead that explore development in much more depth.