

Table of Contents

Customizing Pro/ENGINEER with J-Link

Module 1: Introduction of J-Link 1

 1.1 Course Introduction and Overview 2

 1.2 Java Programming 2

 1.4 Installation and Setup 2

 1.5 Downloading Java Development Kit and Packages 3

 1.6 J-Link Applications Types 3

 1.7 Class Types 4

 1.8 Exception Handling 6

 1.9 Locate J-Link Help Documentation 8

 1.10 Browsing Topics..... 8

 1.11 APIWizard Search Feature 10

 1.12 PTC J-Link Examples 11

Module 2: Introduction of Eclipse (IDE) 13

 2.1 Using the Eclipse IDE for J-Link 15

 2.2 Down Loading Eclipse..... 15

 2.3 Introduction of Eclipse..... 16

 2.4 Working with Projects..... 18

 2.5 Creating a New Project 22

 2.6 Creating a Package..... 28

Synchronous Application 30

 3.1 Introduction..... 31

 3.2 Registry File (protk.dat)..... 31

 3.3 Registering a J-Link Synchronous Application..... 33

 3.4 Structure of a Synchronous Java Class 34

 3.5 Creating New Buttons and Menus..... 35

 3.6 Creating a Message File 36

 3.7 Creating a protk.dat file 37

Running a Synchronous Application 38

 4.1 Creating a Class in Eclipse 39

 4.2 Importing the J-Link Packages 41

 4.3 Session Objects 43

 4.4 Adding J-Link code to a Class 44

 4.5 Compiling a class in Eclipse 45

 4.6 Creating a Main class..... 46

- 4.7 Creating a JAR File in Eclipse 48
- 4.8 Running and Registering a J-Link Synchronous Application..... 52
- 4.9 Creating Multiple Menus 53
- 4.10 Obtaining input from a user 56
- Module 3: Model Objects 59
 - Model Objects 61
 - 5.1 Model Objects 62
 - 5.2 Retrieving Models..... 64
 - Retrieving Multiple Models..... 68
 - 6.1 Introduction..... 69
 - 6.2 Selecting a Model from Browser..... 69
 - 6.3 Open Multiple Models 71
- Module 4: Parameter Objects..... 75
 - Parameter Objects 77
 - 7.1 Introduction..... 78
 - 7.2 Parameter Objects 78
 - 7.3 Getting a List of Parameters from a Model 80
 - 7.4 Parameter Designation Method..... 83
 - 7.5 Designated Parameters 84
 - 7.6 Creating Parameters 85
 - 7.7 Renaming Parameters 90
- Module 5: Feature Objects 95
 - Features Objects 97
 - 8.1 Introduction..... 98
 - 8.2 Feature Objects..... 98
 - 8.3 Obtaining Feature Information 99
- Module 6: Family Table Objects..... 103
 - Family Table Objects 105
 - 9.1 Introduction..... 106
 - 9.2 Family Table Objects 106
 - 9.3 Verifying Family Table Instances..... 108
 - 9.4 Adding a family table column..... 111
 - 9.5 Family Tables Rows, Columns, and Values..... 113
- Module 7: Assembly Objects..... 117
 - Assembly Objects 119
 - 10.1 Introduction..... 120
 - 10.2 Assembly Component Feature Objects 121
 - 10.3 Creating Class to Transverse Assemblies 122
 - 10.4 Retrieving Active Assembly Components Parameters 126
 - 10.5 Recursive Assembly..... 128
- Module 8: Asynchronous Mode..... 131
 - Asynchronous Mode 133
 - 11.1 Introduction of Asynchronous Mode..... 134
 - 11.2 Setting up an Asynchronous J-Link Application..... 134

11.3 Add and Reorder Library to Project.....	137
11.4 Create an Asynchronous Connection class	139
11.5 Create the Main Class	140
11.6 Set Project Runtime Configuration	141
11.7 Runing the Project.....	143
11.8 Debugging the Project	145
11.9 Start and Connect to Pro/ENGINEER	146
Module9: Drawing Objects	149
Drawing Objects	151
12.1 Introduction.....	152
12.2 Drawing Object Structure.....	152
12.3 Drawing Objects	153
12.4 Calling Drawing Methods.....	155
12.5 Retrieving Drawing Table	156
12.6 Set Table Cell.....	160
12.7 Retrieve Sheet Size	162
12.8 Determine Sheet Unit.....	165
12.9 Replace Drawing Format	167
Module 10: Application Deployment	169
Deploying Applications.....	171
13.1 Introduction.....	172
13.2 Application JAR file	172
13.3 Creating Startup Script File.....	173
Module 11: Action Listeners/Model Programs.....	177
Action Listeners.....	179
14.1 Action Listeners.....	180
Module A: Windchill Functions	187
Windchill Objects.....	189
A.1 Introduction	190
A.2 Windchill Functions.....	190
A.3 Creating a J-Link Application using Windchill.....	194
A.4 Creating Windchill Methods.....	195
Appendix	201
ToolKit Callout Example	201
Protk.dat File Example using JAR files	205
Message Dialog Options.....	206
Java References	207
FELCO Solutions Courses and Manuals	208
Java Web Sites	209