

IBM UniVerse Enquiry Self Paced Training

Brian Leach

Table of Contents

| | |
|--|----|
| How to Use This Guide..... | 4 |
| Acknowledgments | 5 |
| Disclaimer | 5 |
| Table of Contents | 6 |
| Chapter 1 Introduction and Background..... | 10 |
| Objectives..... | 10 |
| NOTICE | 10 |
| Lesson 1: Enquiry Languages and IBM UniVerse..... | 11 |
| Database Enquiry Languages | 11 |
| The IBM UniVerse Database..... | 13 |
| IBM UniVerse, UniData and "U2" | 15 |
| The UniVerse Enquiry Languages | 16 |
| Lesson 2: Installing UniVerse Personal Edition | 17 |
| Downloading UniVerse Personal Edition | 17 |
| Installing the UniVerse Database Server | 19 |
| Installing Dynamic Connect..... | 20 |
| Important Notice for Administrators..... | 21 |
| Starting UniVerse under Windows | 21 |
| Installing the Training Database..... | 22 |
| Lesson 3: Running UniVerse | 23 |
| Connecting to UniVerse | 23 |
| Logging into a UniVerse Environment..... | 26 |
| Connecting to an Account | 28 |
| Account Names and Paths | 28 |
| The UniVerse Command Shell..... | 30 |
| Disconnecting from UniVerse..... | 32 |
| Lesson 4: Using the Sentence Stack | 33 |
| The Sentence Stack | 33 |
| Running a Previous Command | 34 |
| Recalling and Changing Commands..... | 35 |
| Adding to a Statement..... | 37 |
| Saving Commands | 39 |
| Getting Additional Help..... | 41 |
| Chapter Summary | 42 |
| Sentence Stack Commands..... | 42 |
| Essential TCL Commands..... | 42 |
| New Terms to Learn | 42 |
| Essential Things to Remember | 42 |
| Chapter 2 UniVerse Structure | 44 |
| Objectives..... | 44 |
| Lesson 1: UniVerse Accounts and Files | 45 |
| UniVerse Accounts..... | 45 |
| Accounts and Information..... | 45 |
| Account Flavors..... | 46 |
| Databases and Information | 49 |
| UniVerse Files | 49 |
| Listing the Files in your Account..... | 50 |
| Identifying Files..... | 52 |

| | |
|---|-----|
| Listing Remote Files..... | 53 |
| Navigating through Listings..... | 53 |
| Setting your Terminal Depth | 54 |
| Lesson 2: Discovering File Content | 55 |
| Files and Fields | 56 |
| The Default Listing | 57 |
| Files and Dictionaries..... | 58 |
| Dictionaries and Fields..... | 58 |
| Listing a File Dictionary | 59 |
| Dictionary Records..... | 61 |
| Conclusion..... | 63 |
| Chapter Summary..... | 64 |
| Commands to Learn..... | 64 |
| Things to Remember..... | 64 |
| Chapter 3 Displaying Information | 66 |
| Objectives..... | 66 |
| Notice | 66 |
| Lesson 1: Listing Fields | 67 |
| Changing the Display Width | 69 |
| Specifying the Display Format | 71 |
| Applying Display Masks | 72 |
| Changing the Column Header..... | 73 |
| Lesson 2: Conversion Codes..... | 76 |
| Conversion Codes for Character Data | 77 |
| Extracting Text | 79 |
| Extracting Words | 80 |
| Conversion Codes for Numbers..... | 82 |
| Date Conversions..... | 85 |
| Time Conversions | 89 |
| Finding More Conversion Codes..... | 90 |
| Lesson 3: Finding Specific Records | 91 |
| Records and Keys | 91 |
| Selecting Specific Record Keys | 92 |
| Searching for Specific Values | 93 |
| Searching to Exclude Specific Values..... | 94 |
| Comparisons with Numeric Data..... | 95 |
| Comparisons with Dates and Times | 95 |
| Comparisons with Character Data | 96 |
| Comparing Fields | 97 |
| Testing for Empty Fields..... | 98 |
| Partial String Searches..... | 98 |
| Using Search Metacharacters..... | 99 |
| Phonetic Searches | 100 |
| Lesson 4: MultiValued Data | 102 |
| Displaying Multiple Values | 102 |
| MultiValued Fields | 103 |
| Selecting MultiValued Data | 105 |
| Vectored Selections | 106 |
| Exclusive MultiValue Selection | 107 |
| Handling False Positives | 108 |

| | |
|---|-----|
| Filtered Selections | 109 |
| Associated Values | 111 |
| Combining Selections | 112 |
| Complex Selections | 113 |
| Understanding Precedence | 114 |
| Forcing Precedence | 115 |
| Chapter Summary | 118 |
| Essential Things to Remember | 118 |
| Chapter 4 Advanced Reporting | 120 |
| Objectives | 120 |
| Lesson 1: Sorting and Grouping | 121 |
| Sort Ordering | 121 |
| Reversing the Sort Order | 122 |
| The SORT Command | 123 |
| Grouping Reports | 124 |
| Adding Break Text | 125 |
| Embedding Break Text Values | 126 |
| Adding Totals and Sub-Totals | 127 |
| Other Summary Operators | 129 |
| Summarising a Report | 130 |
| Adding Headers and Footers | 132 |
| Embedding Codes in the Headers | 133 |
| Lesson 2: Normalizing Data | 135 |
| Performing an Exploded Sort | 136 |
| Exploding and Grouping | 137 |
| Selecting Specific Values for Exploding | 138 |
| Lesson 3: Printing Reports and Labels | 140 |
| Printing Reports | 140 |
| Sending a Test Print | 142 |
| Sending Listings to the Printers | 142 |
| Some More Retrieve Commands | 143 |
| Creating Labels | 145 |
| Lesson 4: Using Select Lists | 148 |
| Creating a Select List | 148 |
| Refining Selections | 150 |
| Sorting and Selecting | 150 |
| Cancelling a Select List | 151 |
| Saving Select Lists | 151 |
| Fetching a Saved List | 152 |
| Select Lists and Data Changes | 153 |
| Selecting Non-Key Fields | 153 |
| Chapter Summary | 156 |
| Things to Remember | 156 |
| New Terms | 156 |
| Chapter 5 Using Expressions | 158 |
| Chapter Objectives | 158 |
| Lesson 1: Expression Columns | 159 |
| Building Expressions | 160 |
| Simple Text Expressions | 161 |
| Performing Simple Arithmetic | 162 |

| | |
|---|-----|
| Complex Arithmetic | 163 |
| Combining Fields..... | 163 |
| Lesson 2: Using Functions | 165 |
| MultiValued Arithmetic..... | 167 |
| Totalling Multivalues..... | 168 |
| Reusing Values | 169 |
| Conditional Expressions..... | 170 |
| Next Steps..... | 171 |
| Chapter Summary..... | 172 |
| Things to Remember..... | 172 |
| Final Word | 173 |
| Answers to Labs | 176 |
| Chapter 3 Displaying Information | 176 |
| Lesson 1: Listing Fields..... | 176 |
| Lesson 2: Conversion Codes | 177 |
| Lesson 3: Finding Specific Records..... | 179 |
| Lesson 4: Multivalued Data..... | 181 |
| Chapter 4 Advanced Reporting | 182 |
| Lesson 1: Sorting and Grouping | 182 |
| Lesson 2: Normalizing Data | 184 |
| Lesson 3: Printing Reports and Labels | 185 |
| Lesson 4: Using Select Lists | 186 |
| Chapter 5 Expressions | 187 |
| Lesson 1: Expressions | 187 |