



4D Development - Programming

Advanced

Level 3 Course
Course Duration : 2 days
Course Code : 4D-DEV3

About the Course

This course builds on the Programming Introduction course (4D-DEV2) and introduces a number of advanced programming concepts, giving in-depth coverage of the extensive 4D programming language.

Benefits

- Learn about Pointers and Character Reference Symbols.
- Use of Processes and Interprocess Communications.
- Use of Sets for fast manipulation of record selections.
- Learn how to use Blobs for efficient data storage.
- Find out how to define and use arrays.
- Learn how to print advanced reports.
- Understand complex break processing.
- Learn how the powerful 4D Debugger works.
- Use of 4D Tools for effective database repair.

Prerequisites

It is recommended that you have attended our Level 2 4D Development - Programming Introduction course (4D-DEV2) or that you are familiar with the 4D Programming concepts and the 4D programming language.

What Next ?

4D Development - Programming - Multi-User (4D-DEV4)
4D Development - Programming - Web Integration (4D-DEV5)
Bespoke Training

Course Content

Advanced Programming • Introduction • Method Types Recap • Pointers • Syntax • "Self" Function • 4D Documentation.

Data and Variable Manipulations • String Manipulations • Numeric Manipulations • Character Reference Symbols • ISO Character Conversions • Date and Time Functions • Mathematical Functions.

Resources • RSR File • Mac and Win Differences • Resource File Chain.

Arrays • Concepts • Element Numbering and Dimensioning • Scrollable Areas and Drop Down Lists • Array Grouping • Find in Array • Do's and Don'ts • Distinct Values • Two Dimensional Arrays.

Processes • Process Concepts • Creating a Process • Process Attributes.

Inter Process Communications • Semaphores • Process Communications • Process Variables • Distributed Processing • Register Client • Execute on Client.

Blobs • Concepts • Using Blobs for Data Structures • Storing documents in Blobs • Picture Field vs. Blob • Analysing Blob Contents.

Sets • Concepts • Sizing and Storage • Set Manager • Sets and Booleans.

Named Sections • Compared with Sets • Cut and Copy and Use • Create from Array.

Drag and Drop • Concepts • Drag and Drop Properties.

Advanced Printing • Print Layout • Advanced Break Processing • New Commands in 4D 6.8.1.

Programmer Tools • 4D Debugger • Runtime Explorer • 4D Insider • Sanity Check.

4D Utilities • 4D Tools • Customizer Plus • 4D Insider.

To discuss your training needs, call us on **020 8245 4545** or email training@mehdiward.com.

