

Automating and Customizing Data Processing Using DIAdem with Python Course Overview

2 Days

DURATION

10

MODULES

42

TOPICS

910932-69 | 910932-11 | 910932-71

COURSE CODE

COURSE OVERVIEW

The DIAdem Advanced Course covers the automation of common tasks in the DIAdem panels using Python.

WHO THIS COURSE IS FOR

- DIAdem users who have taken the Exploring Data Interactively Using DIAdem
- DIAdem users with Python experience

PREREQUISITES

- Exploring Data Interactively Using DIAdem
- Experience coding in Python
- If you take the course On-Demand:
 - DIAdem Professional
 - Python Code
- If you take the course in an instructor-led format:
 - DIAdem Professional

LEARNING OBJECTIVES

What You Will Learn

- Automate DIAdem using Python
- Use standard dialog boxes
- Design user-defined dialog boxes
- Create user-defined variables and commands
- Control the script sequence
- Define functions and procedures

- Optimize and structure scripts
- Programmatically handle files

COURSE SYLLABUS

10 Modules, 42 Topics

01

Introduction to DIAdem Script

TOPICS

- Explore the work area in DIAdem SCRIPT to automate recurring procedures and standard evaluations.
- Application Areas of DIAdem SCRIPT
- DIAdem SCRIPT Workspace
- DIAdem SCRIPT Functions

02

Python Functionality in DIAdem

TOPICS

- Explore Python script execution in DIAdem, the usage of variables, functions, and APIs.
- Using DIAdem Variables and Functions in Python
- Working with Python in DIAdem
- Using DIAdem Application Programming Interfaces (APIs) in Python

03

Working with the Debugger

TOPICS

- Use an external debugger to check scripts for errors.
- Debugger and Information Area
- Debugging Errors

04

Creating and Editing Scripts

TOPICS

- Use the editor that is integrated in the DIAdem SCRIPT workspace to edit scripts.
- Creating a Script
- Starting and Stopping a Script
- Integrating a Script in the DIAdem Interface
- Tools for Creating Scripts

05

Variables and Commands in Scripts

TOPICS

- Explore different types of variables in DIAdem, their value ranges, and the environments in which you use them.
- DIAdem Variables
- DIAdem Commands in Scripts
- Selected DIAdem Command
- Defining and Using User Commands

06

Using Dialog Boxes in Python Scripts

TOPICS

- Use dialog boxes to configure functions, specify settings, select properties, and enter custom settings.
- Calling Standard Dialog Boxes
- Description about User Dialog Boxes
- Calling User Dialog Boxes

07

Working in the DIAdem Panels

TOPICS

- Explore the objects in the various DIAdem panels and learn how to modify them.
- Working with DIAdem REPORT
- Working with DIAdem VIEW
- Working with Internal Data
- Working with DIAdem NAVIGATOR

08

Customizing DIAdem

TOPICS

- Explore how to customize DIAdem standard functionalities and the user interface for special applications.
- Launching DIAdem with Parameters
- Showing DIAdem in Full-Screen Mode
- Working with the Bar Manager

09

Creating DataPlugins

TOPICS

- Explore how to create DataPlugins in order to index, search, and load additional data formats.
- General Information about DataPlugins
- Python DataPlugin with Direct Loading
- Python DataPlugin with Callback Loading
- Important Notes about Python DataPlugins

10

Parallel Processing

TOPICS

- Explore how to use all computer processor kernels to execute scripts simultaneously.
- Overview of Parallel Processing
- Special Features of Worker Programming

DELIVERY NOTE

How It Is Delivered

- Virtual instructor-led training includes digital course material that is delivered through the NI Learning Center.
- NI virtual instructor-led training is delivered through Zoom, and Amazon AppStream/LogMein access is provided to participants to perform the exercises on virtual machines equipped with the latest software.

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Hands-on exercises throughout the course
- Delivery by certified instructors and subject matter experts
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.



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