Advanced Handling of *PowerFactory*

DAY 1

MODULE 1: Graphical Representation in Diagrams

Presentation: Graphical Representation in Diagrams   **1 h**

Show the different graphical representations in *PowerFactory*. Use of Layers and the Diagram Layout Tool.

Exercise: Graphical Representation in Diagrams. Part I   **$^1/_2$ h**

Define branches and include sites in a simplified diagram. Customise single line diagrams.

Coffee break

Exercise: Graphical Representation in Diagrams. Part II   **1 $^1/_2$ h**

Generate overview, detailed, simplified and geographical diagrams. Use of the diagram layout tool. Assign coordinates in a geographical diagram.

Q&A session

DAY 2

MODULE 2: Load Flow Troubleshooting

Presentation: Load Flow Troubleshooting   **$^3/_4$ h**

Classification of the typical convergence problems into data model, inner loop and outer loop issues. Description, identification and possible solutions for each type of problem.

Exercise: Solving Convergence Issues   **$^3/_4$ h**

Identify and solve data model, inner loop and outer loop problems.

Coffee break

MODULE 3: Compare and Merge

Presentation: Compare and Merge   **$^1/_2$ h**

Use of the compare and merge tool to compare elements and projects. Merge changes using the tool and solving conflicts.

Exercise: Simple Compare and Merge of Elements $^1/_4$ h

Use the compare and merge tool to identify the differences between projects and simple merge of elements.

Exercise: Advanced Handling of Compare and Merge Tool $^3/_4$ h

Merge projects and handling of conflicts. Compare single elements using the Compare and Merge Tool.

Q&A session

DAY 3

MODULE 3: Advanced Network and Operational Planning

Presentation: Advanced Network and Operational Planning. Operation Scenarios $^1/_2$ h

Network and operational planning with operations scenarios. Introduction to the Operation Scenario Manager.

Exercise: Advanced Network and Operational Planning. Part 1 1 h

Define operational data and compare it using the *Operation Scenario Manager*. Transfer operational data using a *Scenario Apply Configuration*.

Coffee break

Presentation: Advanced Network and Operational Planning. Variations $^1/_2$ h

Network and operational planning with variations and operations scenarios. Introduction to the Variation Manager.

Exercise: Advanced Network and Operational Planning. Part 2 1 h

Use variations for network planning. Track changes and identify conflicts using the *Variation Manager*. Merge and split variations. Transfer the data from the base case into a variation. Usage of the *Error Correction Mode*.

Q&A session

DAY 4

MODULE 5: Project Combination and Connection

Project Combination and Connection $^3/_4$ h

Small presentation of the project combination and project connection tools and exercise to prepare and combine two different projects using the virtual node method.

MODULE 6: Data Extension

Data Extension $^3\!/_4$ **h**

Use of data extensions for additional parameters. Exercise to define a new class and new parameters in an existing class.

Coffee break

MODULE 7: Task Automation

Task Automation $^1\!/_2$ **h**

Automating task using the Task Automation tool. Exercise to prepare the Task Automation tool and result files. Define parallelisation and show results of the automation.

MODULE 8: *PowerFactory* Interfaces

***PowerFactory* Interfaces** $^1\!/_2$ **h**

Presentation of available interfaces and usage of the DGS interface to enrich the data model. Exercise to import DGS data and export results.

MODULE 9: Tips and Tricks for *PowerFactory*

Presentation: Tips and Tricks for *PowerFactory* $^1\!/_2$ **h**

Helpful shortcuts, new functionalities of the newest *PowerFactory* version and room for open questions.

Q&A session

Time Schedule (Central European Time)

	Time
First 90 minutes block	9:00
Coffee break	10:30
Second 90 minutes block	10:45
Q&A session	12:15
End of the training day	12:30