



Automated distance and differential protection testing with CMC

 2 days

 English

 # Cprs02en

You will learn how to efficiently test distance and transformer differential relays with the OMICRON Test Universe. Become familiar with the test procedures in theoretical and hands-on sessions and get to know the benefits of reusable test templates.

Objectives

- ▶ Strengthen your testing skills with the CMC hardware and the Test Universe software
- ▶ Refresh your technical knowledge on distance and transformer differential protection functions
- ▶ Be able to choose the appropriate software modules for testing distance and transformer differential relays
- ▶ Become more efficient in testing by creating and expanding reusable test plans
- ▶ Get to know the full range of OMICRON solutions for protection testing

Content

- ▶ Power system protection principles and typical substation topologies
- ▶ Fundamentals of distance, ground fault and transformer differential protection functions
- ▶ Working with OMICRON Control Center (OCC) test plans
- ▶ Modelling the relay characteristics in the Test Object and configuring the CMC test set
- ▶ Creating a reusable test plan for testing distance relays including
 - ▶ testing the trip times
 - ▶ verifying the zone reaches
- ▶ Creating a reusable test plan for testing transformer differential relays including
 - ▶ testing the stability during external faults
 - ▶ testing the tripping characteristic and times
 - ▶ testing harmonic restraint function
- ▶ Testing ground fault protection with RelaySimTest using realistic network simulation
- ▶ Hands-on testing of distance and transformer differential relays as well as ground fault protection function

Solutions

Test Universe: Advanced Distance,
Advanced Differential
OMICRON Control Center
RelaySimTest
ADMO, CMC-Family

Audience

Technical staff from utilities or
companies working mainly in
commissioning or
maintenance testing

Prerequisites

Training course "Power System
Protection Testing 1" or equivalent
knowledge