Test Universe Package Overview

OMICRON

For the combination of CMC test sets (CMC 356, CMC 256plus, CMC 430 and CMC 353) and Test Universe software, four different packages as well as optional add-ons are offered, which are tailored to diverse focal points of use. Each of these packages contains a selection of software modules that can be either used independently from each other for single tests or be embedded into test plans for automated testing:

Essential offers a good introduction with basic functions and modules; can serve as a base for custom compiled packages

Standard contains all modules that are typically used for settings-based testing of protection devices

Enhanced like Standard, specifically extended by functions for system-based testing and transient simulation as well as for free programming

Complete covers all functions and software modules that are offered for controlling CMC test sets

A package can be extended at any time by ordering additional single modules or optional add-ons.

			Packages				Add-ons		
			Essential	Standard	Enhanced	Complete	Measurement Equipment Testing	IEC 61850 Basic	IEC 61850 Advanced
Test Universe modules	OMICRON Control Center [1]	Automation tool, document-oriented test plan, template and report form	■	■	■	■			
	QuickCMC	Convenient manual testing in the Test Universe environment	■	■	■	■			
	State Sequencer	Determining operating times and logical timing relations by state-based sequences	■	■	■	■			
	TransPlay	Playback of COMTRADE files, recording of binary input status	■	■	■	■			
	Harmonics	Generation of signals with superimposed harmonics	■	■	■	■			
	CB Configuration	Module for setting the CB simulation	■	■	■	■			
	Ramping	Determining magnitude, phase, and frequency thresholds by ramping definitions	■	■	■	■			
	Pulse Ramping	Determining magnitude, phase, and frequency thresholds by ramping definitions	□	■	■	■			
	Overcurrent [2]	Automatic testing of positive/negative/zero sequence overcurrent characteristics	□	■	■	■			
	Distance	Impedance element evaluations using single-shot definitions in the Z-plane	□	■	■	■			
	Advanced Distance	Impedance element evaluations using automatic testing modes	□	■	■	■			
	VI Starting	Testing of the voltage dependent overcurrent starting function of distance relays	□	■	■	■			
	Autoreclosure	Testing of the autoreclosure function with integral fault model	□	■	■	■			
	Single-Phase Differential	Single-phase tests of the operating characteristic and the inrush blocking	□	■	■	■			
	Advanced Differential	Comprehensive three-phase differential relay testing (four modules)	□	■	■	■			
	Annunciation Checker	Verification of the correct marshalling and wiring of protection devices	□	■	■	■			
	Power	Testing with visualization and assessment in the P-Q plane (basic)	□	■	■	■			
	Advanced Power	Testing with visualization and assessment in the P-Q plane (enhanced)	□	■	■	■			
	Advanced TransPlay	Playback and processing of COMTRADE, PL4, or CSV files	□	■	■	■			
	Transient Ground Fault [3]	Simulation of ground-faults in isolated or compensated networks	□	□	■	■			
	Synchronizer	Automatic testing of synchronizing devices and synchro-check relays	□	□	■	■			
	Meter	Testing of single and multifunction energy meters	□	□	□	■	■		
	Transducer	Testing of measurement transducers	□	□	□	■	■		
	PQ Signal Generator	Simulation of power quality phenomena according to IEC 61000-4-30 and IEC 62586	□	□	□	■	■		
	IEC 61850 Client/Server	Automatic SCADA testing in accordance with IEC 61850	□	□	□	■		■	■
	GOOSE Configuration	Testing with GOOSE according to IEC 61850	□	□	□	■		■	■
	Sampled Values Configuration	Testing with Sampled Values according to IEC 61850-9-2 (“9-2 LE”) and IEC 61869-9	□	□	□	■			■
Additional tools	CMControl P App	Quick and easy manual testing of protection and measurement devices	□	■	■	■			
	RelaySimTest [3]	System-based protection testing by simulating realistic power system events	□	□	■	■			
	Adv. Transformer Features	Advanced transformer features for differential protection in RelaySimTest	□	□	□	■			
	CMEngine	Programming interface for controlling CMC test sets with user specific software	□	□	■	■			
	EnerLyzer Live	Analog measurements and transient recording with CMC test sets	□	□	□	■			
	TransView	Transient signal analysis for COMTRADE files	□	□	□	■			
	ADMO light [4]	Asset and maintenance management for protection systems	■	■	■	■			
	IEDScout	Universal software tool for working with IEC 61850 IEDs	□	□	□	□		■	■

Contained in all packages: Binary I/O Monitor, AuxDC Configuration, ISIO Connect (for ISIO 200), Polarity Checker (for CPOL2).

[1] Includes licenses for Pause Module, ExeCute, TextView
[2] Includes license for Overcurrent Characteristics Grabber
[3] RelaySimTest license also includes the licenses for Transient Ground Fault and NetSim
[4] ADMO light is limited to 50 assets but can be upgraded to a full ADMO version at any time

■ Contained
□ Optionally available