



**OMICRON**

# OMICRON Test Universe

## What's New in version 4.20



## What's New in Test Universe 4.20

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The product information, specifications, and technical data embodied in this manual represent the technical status at the time of writing and are subject to change without prior notice.

OMICRON electronics translates this manual from the source language English into a number of other languages. Any translation of this manual is done for local requirements, and in the event of a dispute between the English and a non-English version, the English version of this manual shall govern.

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# 1 Introduction

*Test Universe* 4.20 is a major software release.

*Test Universe* 4.20 can work with test files created with previous *Test Universe* versions, whereas files created/edited with *Test Universe* 4.20 cannot be opened with previous versions.

The main new features are listed in chapter **2. New Features**. Further changes, improvements, and bug fixes are listed in chapter **3. Changes, Improvements, and Bug Fixes**.

## 2 New Features

### 2.1 Advanced Power – Working with Ramps

- You can select one binary input from the list of routed signals and a change condition. The response to the executed ramps is displayed in the Power plane.
- Ramp assessments now support all binary input signals that are routed in the **Hardware Configuration**.
- Less entries required for a valid ramp assessment. If no entries for nominal value or deviations are entered, the complete ramp is considered for the condition fulfillment.
- Ramp assessments: The actual value and the deviation are still shown when out of tolerance. The entries for Act, Dev and Tact show **n/a** if the expected transitions did not occur.
- By default, no ramp zone assessment is done (option cleared) because many common test cases do not require this.

### 2.2 Power Modules – General

- Dynamic Ribbon: The **Home** ribbon is now automatically extended with the commands for Shots or Ramps, depending on the selected test view.
- Overall structure of Test Settings has been improved to make the impact of settings easier to understand. Furthermore, state marker in Time Signal View have been improved for better overview, especially in combination with multi-selection.
- Power shots: Incident time has been increased when waiting for a trip signal. This is to make sure that trip times signals coming slightly out of tolerance are still recorded.
- In the Power **Test Object**, the usage of the relative power tolerances (S, P, Q) for the lower boundary was slightly changed. The negative tolerance is now applied symmetrically to the positive tolerance.  
The relative tolerance can be set to 0 - 99 % now. Already tested or partially tested files, saved with *Test Universe* 4.10 or before, will display tolerances as they were before the change and will show updated tolerances only after results are cleared. Furthermore, partially tested files from previous *Test Universe* versions can only be edited/executed/continued once the results were cleared and the tolerances therefore updated.

### 2.3 Distance Modules – General

Dynamic Ribbon: The **Home** ribbon is now automatically extended with the commands for Shots, Checks or Searches, depending on the selected test view.

### 2.4 IEC 61850 Client/Server

The test module now supports the control of binary outputs.

## 3 Changes, Improvements, and Bug Fixes

- *Overcurrent*: Tolerance calculation adapted according to standard IEC 60255-151.
- Clicking **Open Existing Test Document** on the start screen no longer starts the *Control Center*. Instead, a window is shown that allows to browse through *Control Center* test documents (the default) as well as all test documents from stand-alone test modules and *RelaySimTest* documents.
- All dialogs in *Test Universe* where you select a file (Open, Save, Save As, Import, Export, ...), have the standard Windows layout now. Shortcuts to special directories can be defined using **Quick Access** and **Libraries** in Windows Explorer.
- XRIO: A new import filter for SIFANG AESP Studio settings is now available.
- Hardware Configuration: For the main test set (top entry on **General** tab), the entries for Current Outputs/Voltage Outputs will be displayed as not used (between brackets) if no such outputs are configured.
- The Help section for the *Advanced Differential* modules' **Test Object** now includes a table with common power transformer connections for users not familiar with the vector group definition from IEC standards.
- Since *Test Universe* 4.10, the calibration info is delivered as a PDF file. It can now be opened from the start screen by clicking **Diagnosis & Calibration... ► Calibration Info**.
- The version of *TransView* delivered by OMICRON is now version 4.61.
- The **Insert Test Module** dialog in *Control Center* now also supports special characters.
- The *Test Universe* start screen did not detect *EnerLyzer Lite* license. This is fixed now.
- *PQ Signal Generator* crashed when multiple states were deleted at once while the last state is of type "multi-incident". This is fixed now.
- Search test in *Adv. Distance* did not show correct percentage unit for deviation of a Reach if X is the assessed quantity. This is fixed now.
- Search-lines in *Adv. Distance* that cross the origin of the impedance plane do not fail anymore if fault loop L1-E is selected and the test object reacts correctly.
- Tests in *Distance* modules were always assessed as **passed** when there was no tripping-zone defined (for example, starting-zones, only). This is fixed now.
- Phase and magnitude error correction in *PQ Signal Generator*'S interharmonic state was not applied to interharmonics above 1 kHz if a *CMC 430* test set was used. This is fixed now.
- Import of RIO files in **Test Object** failed. This is fixed now.
- Under certain circumstances, the overall assessment of shot test in *Adv. Distance* was assessed as **passed** even when the test shot failed. This is fixed now.
- *Adv. Power*. power ramps: Ramping the quantity Phi now considers 360 ° angle shifts.
- Crash in *Characteristic Grabber* when first opening an image and importing it afterwards. This is fixed now.
- The individual zone tolerance settings of *Distance* and *Power Test Object* were reset to the default value under certain circumstances. This is fixed now.

## Changes, Improvements, and Bug Fixes

- Some *Power* modules Test Settings fields were erroneously updated after saving and reopening file if they were linked to XRIO, and **Relative** mode was active. This is fixed now.
- When an XRIO file had been changed, it could occur that later changes in the RIO section data introduced with a new *Test Universe* version were not considered anymore in this specific XRIO file. For example, if a maximum value for a RIO entry was extended with a later *Test Universe* version, the old value was kept in the XRIO file. The same could happen in case of changes of the language (occurred when you switched to a different *Test Universe* user interface language after a software update). This is fixed now.
- *Advanced Power*: Removing the LinkToXRIO link of the **Value** field in **Delta** group accidentally also removed the **Frequency** value of the **To** group. This is fixed now.
- System Settings: **Default Values validation error** is now fixed.
- *Power Test Object*: Zone shape **Arc**: Radius parameter is now converted to primary units when the view is changed to primary values.
- Replaced Example of Use for **Power QV-Protection** in English version for which the German version was installed.
- Russian start screen: Test module names stay in English now (as for other languages).
- *Sampled Values Configuration*: VLANID and APPID can now also be entered as Hex numbers.
- Hardware Configuration: Settings of binary inputs (wet/dry/binary/counter) were lost if test set of type *CMC 156(-EP)* was replaced by a different test set type. This is fixed now.
- *Diff Operating Characteristic*: when changing the fault type, **tnom** was not updated according to a changed characteristic. This fixed now.
- *Polarity Checker* allowed using values >10 s for ramp-up/down times. This is limited to 10 s now.
- The timer in the statusbar of *QuickCMC* and *Sequencer* only showed minutes and seconds; it restarted from 00:00 after one hour had elapsed. This is fixed now.
- *Single-Phase Differential*: test module crashed in some languages when clicking the **File** menu. This is fixed now.
- *Synchronizer*: module froze under special conditions. This is fixed now.
- *Meter*: Improved reporting and data export for multiple test runs and mechanism test's meter reading.
- *Advanced Distance*: In case a Check or Search line crossed the impedance planes origin, the Z/t diagram was not drawn correctly in backwards direction. This is fixed now.
- *Advanced Distance*: When manually entering data for Search/Check test, occasionally a change of one parameter resulted in unwanted updates of other parameters. This is fixed now.
- The deglitch and the debounce time of the **Test Object**'s RIO block **Device** are now limited to the range from 0 to 25 ms.

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