

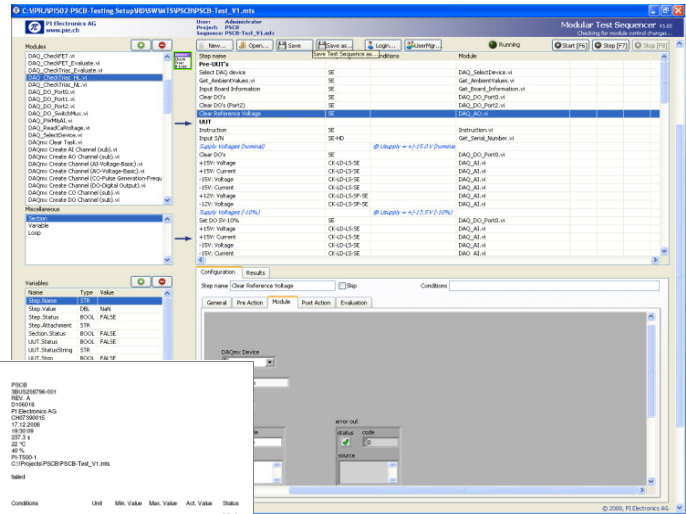
## Modular Test Sequencer

### Features

- Modular test sequencer for the automated device test during production
- Simple editing of test plans by drag and drop
- Test modules based on LabVIEW VI's
- Test modules can be configured directly on their VI front panel
- Looping option for defined sections of the test sequence
- User-defined variables for passing parameters and results between test modules
- Automated analysis and reporting of test results
- Single stepping mode for commissioning and debugging of the test system.

### Operating system

- Microsoft Windows 2000/XP/VISTA/Win7



Test Report

Part name: PISCB  
 Part number: 880100786-001  
 PCN: D194918  
 Manufacturer: PI Electronics AG  
 Serial number: CH07200075  
 Test date: 17.12.2008  
 Test time: 10:30:00  
 Test duration: 207 s  
 Ambient temperature: 20 °C  
 Relative humidity: 61 %  
 Test station: PI-TSD-1  
 Test file: C:\ProgramData\PI\Projects\PISCB\PI-Test\_V1.mts

Test status: Passed

Test	Conditions	Unit	Min. Value	Max. Value	Min. Value	Max. Value	Status
Supply Voltage	+15V Voltage	Nominal	V	14.80	15.20	14.95	Passed
	+15V Current	Nominal	A	0.010	0.040	0.005	Passed
	-15V Voltage	Nominal	V	-16.20	-14.80	-14.80	Passed
	-15V Current	Nominal	A	-0.030	-0.010	-0.010	Passed
	+12V Voltage	Nominal	V	11.90	12.10	12.00	Passed
	+12V Current	Nominal	A	0.020	0.030	0.010	Passed
	+15V Voltage	10%	V	13.20	13.40	13.47	Passed
	+15V Current	10%	A	0.020	0.040	0.030	Passed
	-15V Voltage	10%	V	-15.80	-15.60	-15.64	Passed
	-15V Current	10%	A	-0.040	-0.010	-0.020	Passed
Digital Outputs Open Drain	DM-CH1 Current	Visual Check	A	0.200	0.240	0.200	Passed
	DM-CH2 Current	Visual Check	A	0.200	0.240	0.200	Passed
	DM-CH3 Current	Visual Check	A	0.200	0.240	0.200	Passed
	DM-CH4 Current	Visual Check	A	0.200	0.240	0.200	Passed
	DM-CH5 LED Check	Visual Check	A	0.200	0.240	0.200	Passed
Digital Outputs PWM	PWM-CH1 Current	@ 100% PWM	A	1.22	1.32	1.28	Passed
	PWM-CH2 Current	@ 50% PWM	A	0.65	0.71	0.71	Passed
	PWM-CH3 LED Check	Visual Check	A	0.20	0.20	0.20	Passed
	PWM-CH4 Current	@ 100% PWM	A	0.65	0.71	0.71	Passed
	PWM-CH5 LED Check	Visual Check	A	0.20	0.20	0.20	Passed
AC-Trap Switch	AC-Trap Low Voltage	Visual	V	110.00	120.00	118.81	Passed
	AC-Trap Not Current	Atms	A	1.265	1.317	1.280	Passed

Operator: J. Sample

### Overview

MTS is a framework for automated device test during the production process. The modules for the test sequences can be developed by the test engineer using LabVIEW® and can be imported into the MTS' test modules library. Any test function in the library is accessible through the MTS' module catalog window and can be embedded into the sequence. The application offers an interface for automated analysis and reporting of the test results for every single test step. Further data analysis with 3<sup>rd</sup>-party tools is straightforward since test results are saved in fixed, tabular ASCII format.

### Drag n' Drop editing of test sequences

The test steps / modules can easily be added to the test sequence by drag n' drop. Once in the sequence the modules can be configured as needed by the device under test. Test modules are configured directly on their front panels.

A variable engine handles forwarding of test results and status information to subsequent test modules.

Within a sequence, test steps can be repeated by inserting loops. For execution control the loop's iteration counter is available as variable. Further, sections can be defined in the sequence which allows for graphical and textual structuring of the sequence and enhances the readability of the report.

The report's header and footer sections can be customized through MTS' report form editor.

### Stepping mode

Apart of the automated execution of the test plan any test sequence can be walked through by single stepping. Single stepping can be started at any point in the sequence. This feature is particularly useful for debugging of a newly created test sequence or commissioning of a new test system.

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