APM Technologies

AT-T2000 Series Automatic Test System

AT-T2000 adopts hardware modular embedded framework structure. Because of the variety of APM power source, E-load and home-made board cards, it could provide a variety of hardware options according to the requirements, to facilitate customer cost control. It provides flexibility and expandability to the system. At the meanwhile, the system is compatible with various brands model of power analyzer, digital oscilloscope, multimeter.
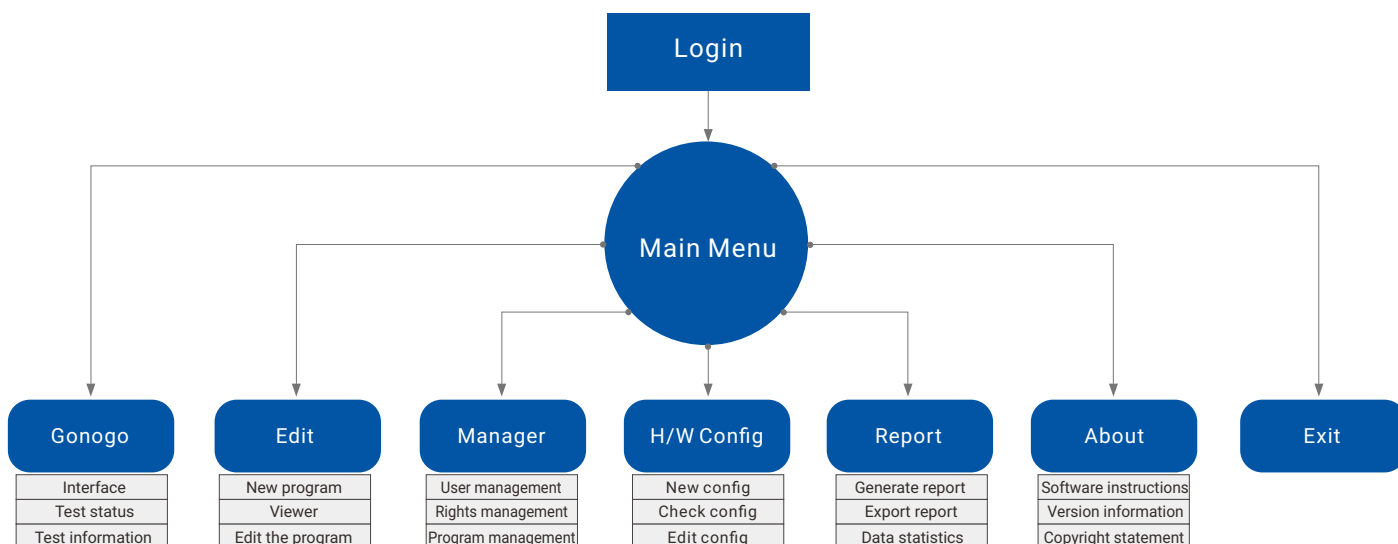
▶ Range of application

AC source, DC source, DC E-load, AC/DC power module, DC/DC power module, adapter, charger, LED power source, telecom power source.

Features

- Graphic interface, simple and clear.
- Standard test item, available to expand elastically
- Module design, easy to maintain
- High measurement accuracy, stable system operation

- Support single or multi channel parallel test
- Multilevel managing privileges setting function
- User privileges setting function
- Open software edition platform, available to edit and modify the test program

Software Architecture and Specifications

```
                        Login
                          │
                          ▼
                      Main Menu
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Gonogo	Edit	Manager	H/W Config	Report	About	Exit
Interface	New program	User management	New config	Generate report	Software instructions	
Test status	Viewer	Rights management	Check config	Export report	Version information	
Test information	Edit the program	Program management	Edit config	Data statistics	Copyright statement	

## Description of Module Functions (as shown in the figure above)

- Login: Login to the main menu of the software with the correct user name and password
- GO/NOGO(test execution) : the main test interface, test status and results display screen, which can be used for some corresponding operations in the test process, and the test information can be set, such as work order, etc., which will be reflected in the test report
- Edit: add and edit the test program, that is, users select test items according to the required specifications and enter corresponding parameters
- H/W(hardware) : match the test hardware as required, set the information and save it as a file, then select the corresponding hardware configuration for the required test products in combination with the Edit module
- Management: software user management(add, edit or delete); user rights management; test procedures management(release, import or export delete, etc.)
- About: view information about the software, such as version, copyright, etc
- Exit: select to exit from the test software

Software Interface Diagram

Clear software function modular division and simple interface, it is easy for user to use.

Logo in interface

Support Chinese/English operation interface
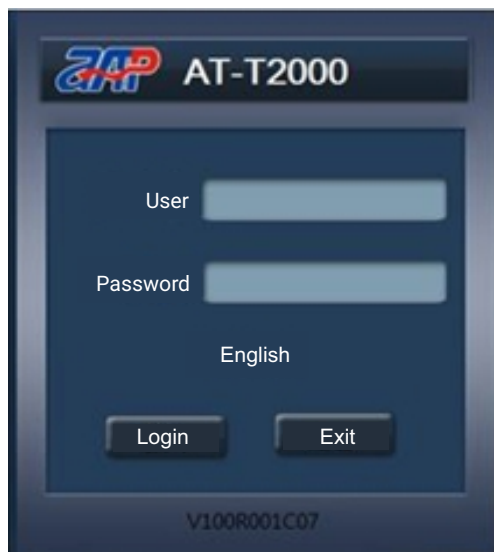
Guidance interface

Quick switch to target interface

Test Interface

It could directly insert edited test program for test. Besides final test result highlighted display, test result of each test item will display with different color for user to find out the abnormal item.

Edit Interface

Test program is edited in this interface. It could directly use in test interface after saving it. Besides built-in test item, user could set new test item based on defined VI program of system to satisfy different test requirement.

Management Interface

Set user-permission

H/W Configuration Interface

User could select equipment to configure system to realize automtic test.

Access to Test Report

Test report could automatically upload to designated spot of server according to different test product and test result.

	A	B	C	D	E	F	G
			Certificate of Testing Report				
1							
2	Manufacturer	XXXX				Model:	DC60-5
3	Serial Number:	0149482027000050				AVRversion:	100.0.2
4	Cal Date/Time:	2020/7/2 08:30				STM32version:	100.0.4
5	Test Result:	PASS				MAC:	NA
6							
7	APM recommended calibration interval of this instrument is 12 months and start couted from the date of the instrment activated into service.						
8							
9	Instrument Condition: Meets all specifications					Calibration Site:	PPS-DC-ATE
10							
11	Calibration Equipment Used:						
12	Item	Mfg/Model Type	Serial No.			Cal.Date	Cal.Due Date
13	1	RIGOL DS1204B	DS1BA171300029			2018/11/5	2019/11/4
14	2	YOKOGAWA WT210	91M935715			2018/11/5	2019/11/4
15	3	FLUKE 8808A	1238033			2018/11/5	2019/11/4
16	4	AITEK AWE2101	120401054			2018/11/5	2019/11/4
17	5	RIGOL DM3068	DM30161850131			2018/11/5	2019/11/4
18							
19	Item	Step	Description	Min	Value	Max	Result
20	Testing index						
21		A0	FCT/ATE Testing	/	OK	/	PASS
22		A1	HI-POT Testing	/	OK	/	PASS
23		A2	Vibration Testing	/	OK	/	PASS
24		A3	BRUN-IN Testing	/	OK	/	PASS
25		A4	QA Testing	/	OK	/	PASS
26	Below is Testing Data						
27		12	Master_Slaver_Test				
28				/	OK	/	PASS

Testing Items

ATE SYSTEM could realize below 7 test items.

Product information
- SN/MAC information input
- Product information comparison

Stability Test
- Line regulation test
- Load regulation test

Input characteristic test
- Input current RMS test
- Input power factor test
- Input power disturbance test
- Input frequency fluctuation test
- Input power test

Timing and Transient Characteristics
- Startup time test
- Rise time test
- Shutdown time test
- Fall time test

Protection characteristic test
- Short circuit protection test
- Over voltage protection test
- Over load protection test
- Over power protection test

Control characteristic test
- RS232 read and write
- RS485 read and write
- USB read and write
- LAN read and write
- GPIB read and write

Output characteristic test
- Output voltage/current/power accuracy test
- Output voltage ripple test
- Output efficiency test
- Dynamic mode test

AC-DC/DC-DC Power Module Test System

This system is applicable in AC-DC/DC-DC power module test.

AC-DC/DC-DC module power is widely used in military, communication equipment, automotive electronics and aerospace. Standard test item of test system matching with external test fixtures could realize automatic test. It could avoid error that may be caused by repeated test manually and improve test efficiency significantly.

Medium/Low Power DC Power Test System

The test system is suitable for the medium/low power DC power supply test.

Test capacity: voltage 0~800VDC, current 0~200A, 0~4000W, expandable;

In addition to the test items that implement the above standards, customized function expansion can be realized according to customer needs.

Medium/low power AC Power Supply Test System

This test system is suitable for the medium/low power AC power supply test.

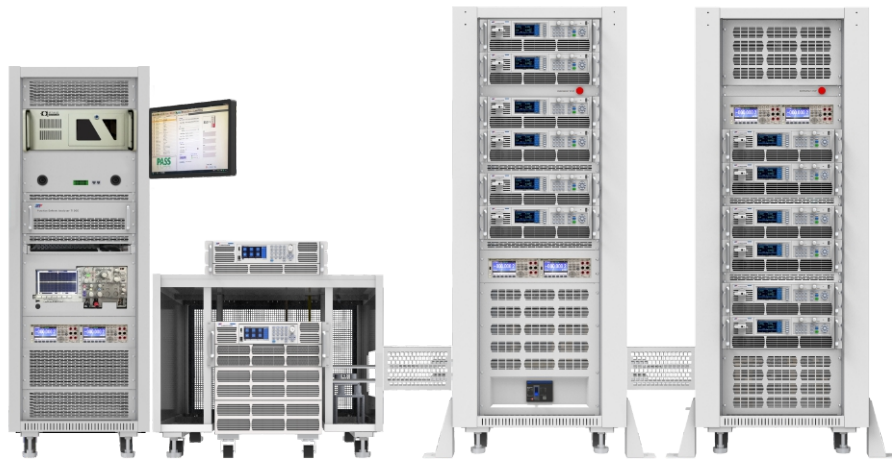Test capacity: voltage 0~300VDC, current 0~46A, 0~5000W, expandable;

In addition to the test items that implement the above standards, customized function expansion can be realized according to customer needs.

DC Electronic Load Test System

The test system is suitable for DC Electronic Load.
Test capacity: voltage 0~1200VDC, current 0~3000A, 0~300kW, expandable;
In addition to the test items that implement the above standards, customized
function expansion can be realized according to customer needs.

High-power DC Power Supply Test System

The test system is suitable for the high-power DC power supply test.
Test capacity: voltage 0~2250VDC, current 0~3000A, 0~300kW, expandable;
In addition to the test items that implement the above standards, customized
function expansion can be realized according to customer needs.

Welcome to contact regional sales for more detail information.