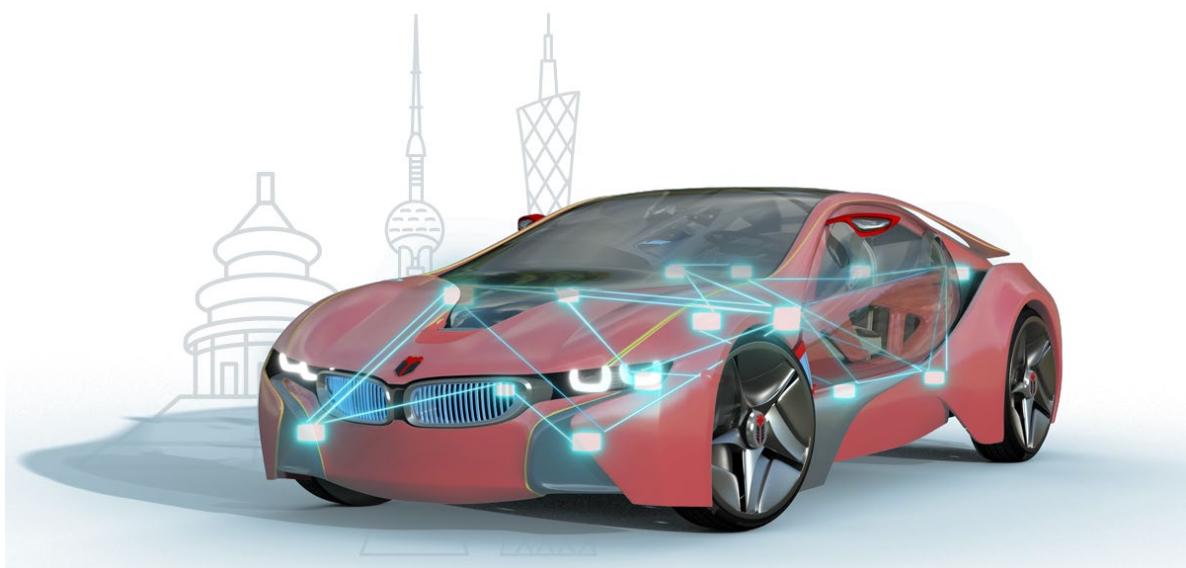




知从玄武诊断测试工具产品手册
ZC.XUANWU PROGRAM UPDATE AND
DIAGNOSTIC TESTING TOOL PRODUCT MANUAL

知从玄武工具
ZC.XuanWu Tool



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1 概述 OVERVIEW

知从·玄武（ZC.XuanWu）作为上位机软件，为具有诊断模块相关的汽车电子应用提供解决方案，包括程序刷新，诊断服务，诊断测试等，并提供定制化服务。

ZC.XuanWu (ZC.XuanWu), as an upper computer software, provides solutions for automotive electronics applications related to diagnostic modules, including program flashing, diagnostic services, diagnostic testing, etc., and offers customized services.

目前支持的整车厂诊断规范有广汽、长安、上汽、一汽、东风商用车、东风、上海通用、吉利、奇瑞、上汽通用五菱、萨博、长城、北汽新能源、小鹏汽车、蔚来、奥迪、沃尔沃等。（以上排名不分先后）

Currently, it supports diagnostic specifications from vehicle manufacturers such as GAC, Changan, SAIC, FAW, Dongfeng Commercial Vehicles, Dongfeng, Shanghai General Motors, Geely, Chery, SGMW, Saab, Great Wall, BAIC New Energy, XPeng Motors, NIO, Audi, and Volvo (listed in no particular order).

2 应用领域 APPLICATION FIELD

知从玄武诊断测试工具可应用于 OEM 和 Tier1 多种应用场景下。用户可以在实验室，试验车辆以及实车上方便的进行诊断和测试工作。

ZC.XuanWu diagnostic and testing tool can be applied in various scenarios for OEMs and Tier 1 suppliers. Users can conveniently perform diagnostics and testing in laboratories, test vehicles, and production vehicles.

此外，玄武还支持诊断调查表 excel 导入，自动生成测试用例，python 自动化诊断测试功能，极大拓展了应用范围。

In addition, ZC.XuanWu also supports the import of diagnostic inquiry forms in Excel, automatic generation of test cases, and Python-based automated diagnostic testing functions, greatly expanding its application range.

3 运行环境 RUN ENVIRONMENT

配置环境 Configuration Environment	
Supported Hardware	PCAN 、 Mongoose 、 Kvaser 、 USBCAN (ZLG) 、 VN1640
Run Environment	Win7/10 64bit



PCAN



Mongoose



USBCAN (ZLG)



Kvaser



VN1640

4 产品功能 PRODUCT FUNCTION

4.1 产品特点 Product Feature

知从科技推出玄武诊断测试工具的特性如下：

ZC Technology has launched the ZC.XuanWu diagnostic and testing tool with the following features:

➤ 操作简易 Easy to Operate

- 图形化界面，方便配置

Graphical user interface for easy configuration

- 根据 excel 自动解析诊断数据如 DID, DTC

Automatically parses diagnostic data such as DID and DTC from Excel

- 可导入不同 OEM 的诊断配置和诊断规范

Can import diagnostic configurations and standards from different OEMs

➤ 使用灵活 Flexible to Use

- 支持 CAN、CAN FD、Kline 协议

Supports CAN, CAN FD, Kline protocols

- 支持 ISO 14229、ISO 15765、ISO 14230 等标准

Supports standards such as ISO 14229, ISO 15765, ISO 14230

- 支持多种硬件接口

Supports multiple hardware interfaces

➤ 诊断测试支持 Diagnostic Testing Support

- 诊断调试

Diagnostic Debugging

- 可导入解析诊断调查表 excel

Can import and parse diagnostic inquiry forms in Excel

- 根据诊断调查表自动生成测试用例

Automatically generates test cases based on diagnostic inquiry forms

- 提供 Python API 接口，支持 Python 测试用例开发

Provides a Python API interface, supporting the development of Python test cases

- 支持 python 自动化测试

Supports Python automated testing

- 支持定制服务 Custom Service Support

4.2 诊断服务 Diagnostic Services

玄武支持用户向 ECU 发送单条或多条诊断报文服务，用户可以通过界面选择需要的诊断服务，完成向 ECU 的数据收发，并在日志文件中记录详细的数据通信过程。

ZC.XuanWu supports the user in sending single or multiple diagnostic message services to the ECU. Users can select the required diagnostic services through the interface, complete the data transmission to and from the ECU, and record the detailed data communication process in the log file.

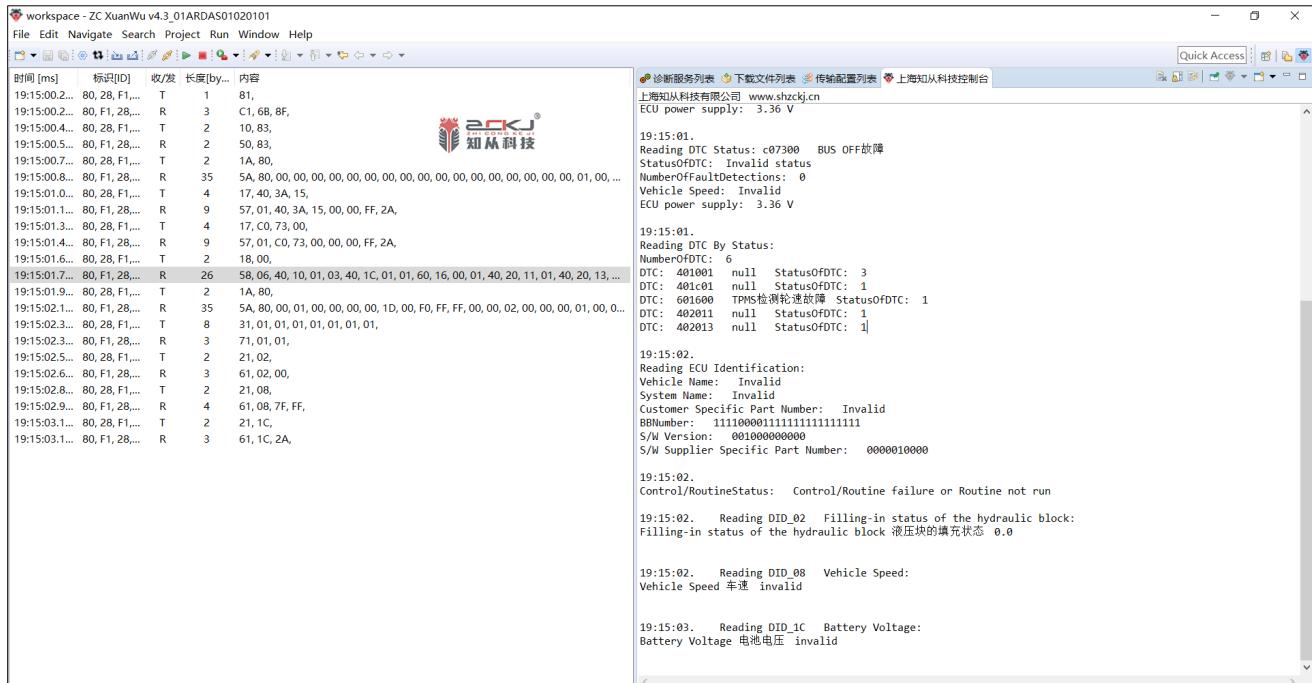


图 4- 1 诊断服务
4- 1 DIAGNOSTIC SERVICES

4.3 测试用例 Test Cases

玄武支持基于 Python 的测试用例开发，同时提供了诊断服务的 Python API 接口，方便用户二次开发。

ZC.XuanWu supports the development of test cases based on Python and also provides a Python API interface for diagnostic services, facilitating secondary development by users.

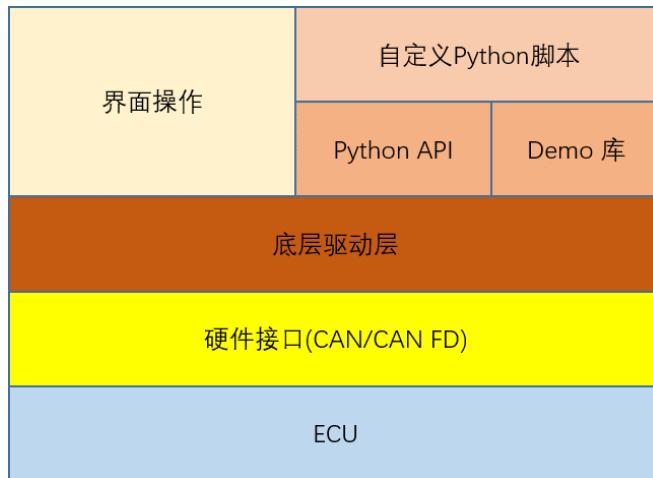


图 4- 2 PYTHON API 示意

4- 3 PYTHON API PICTURE

玄武根据不同整车厂诊断规范制定了测试用例库，导入玄武后可直接进行诊断服务的测试。不仅如此，用户可以在此基础上修改开发自己的测试用例库。

ZC.XuanWu has established a test case library according to the diagnostic specifications of various vehicle manufacturers. After importing into ZC.XuanWu, diagnostic service testing can be conducted directly. Moreover, users can modify and develop their own test case libraries based on this foundation.

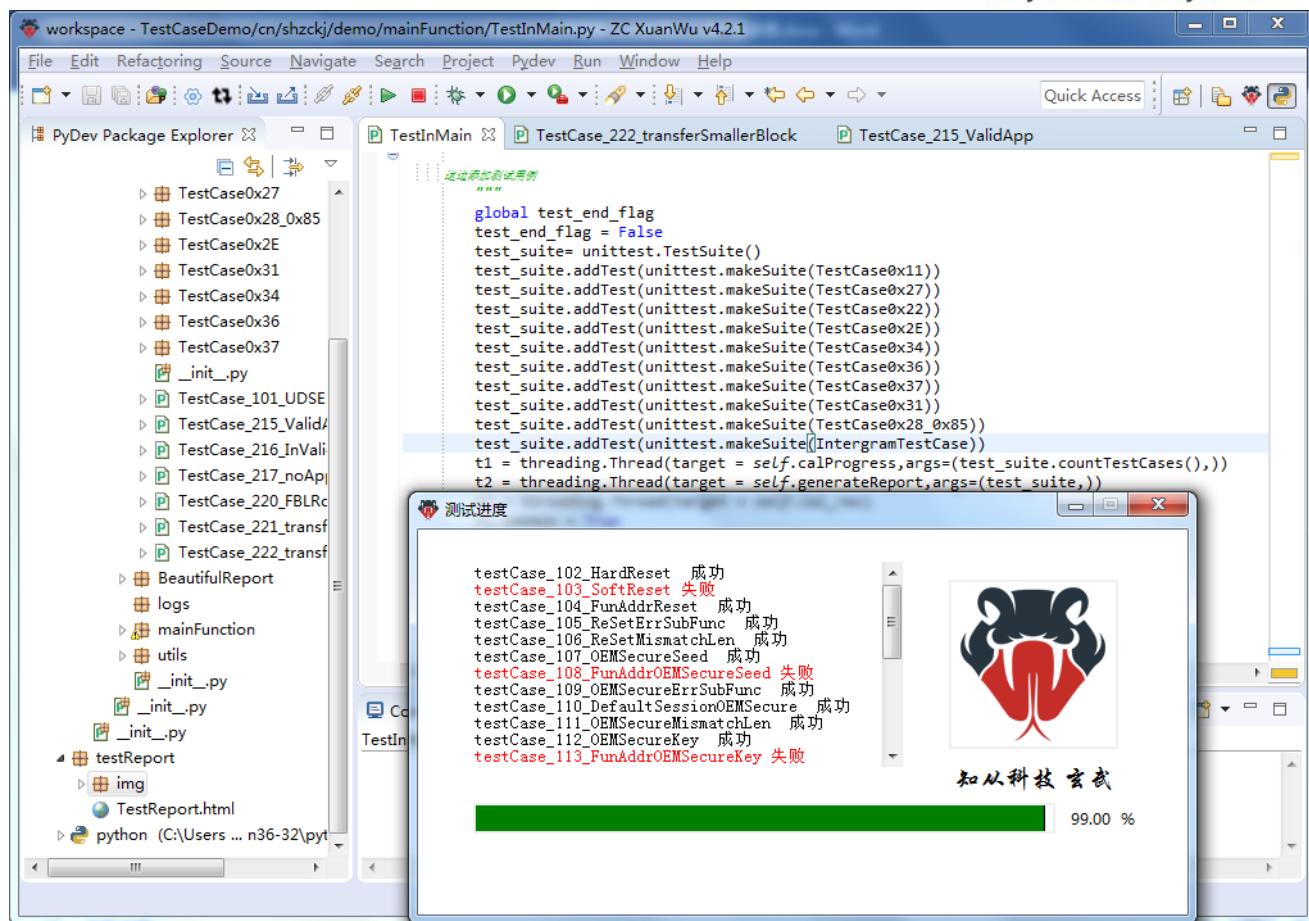


图 4-4 自定义测试程序

4- 5 CUSTOMIZED TEST PROGRAM

4.4 测试报告 Test Reports

针对测试结果，玄武工具可以自动生成测试报告。

In response to test results, ZC.XuanWu tool can automatically generate test reports

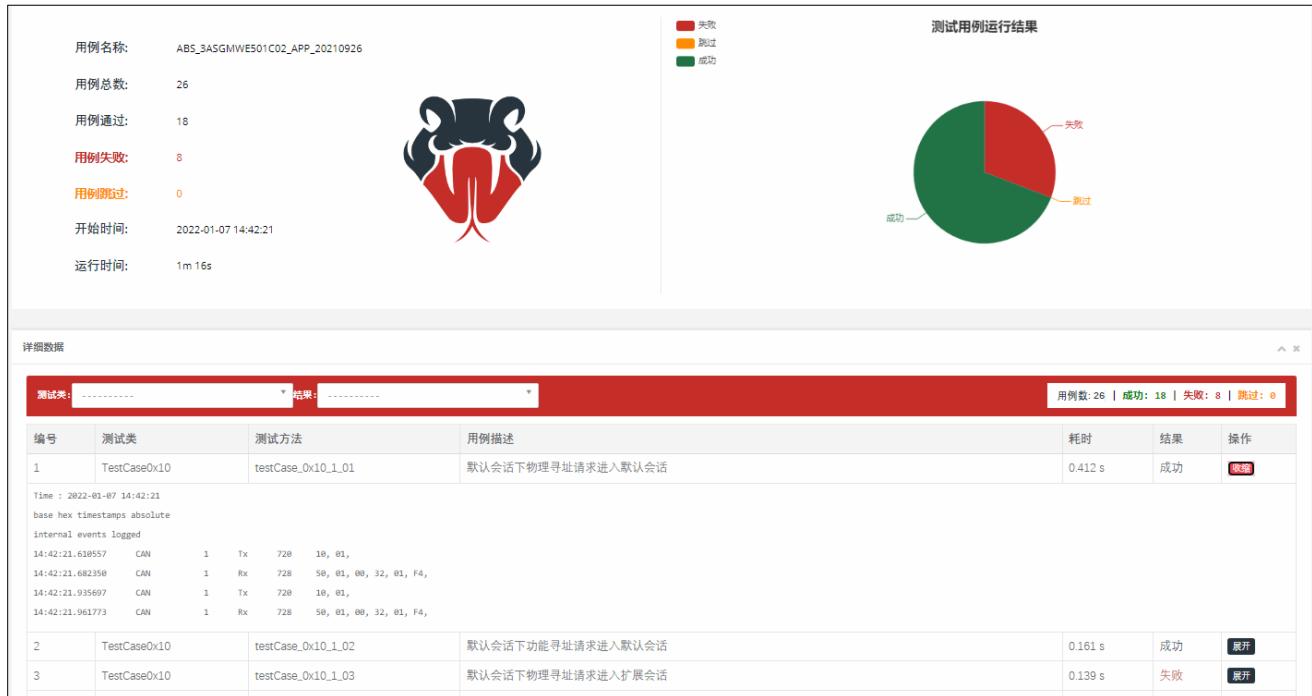


图 4- 6 测试报告
4- 7 TEST REPORTS

4.5 测试用例生成 Test Case Generation

玄武导入诊断调查表 excel 后，可以生成测试用例和自动化测试脚本。

After ZC.XuanWu imports the diagnostic inquiry spreadsheet in Excel, it can generate test cases and automated test scripts.

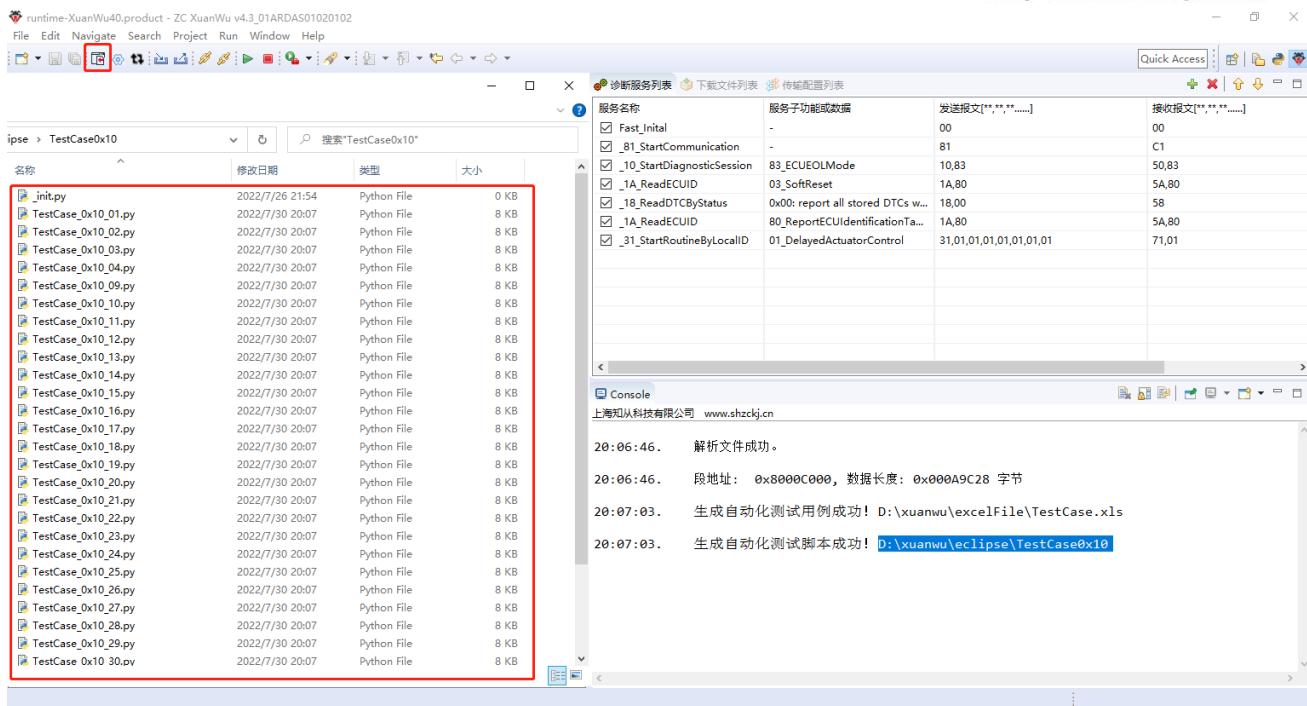


图 4- 7 生成测试用例
 4- 7 GENERATE TEST CASES

4.6 定制开发 Custom Development

玄武支持定制开发，根据用户需求做独立版本。

XuanWu supports custom development, creating independent versions based on user requirements.

5 证书 CERTIFICATE



玄武软件著作权登记证书
ZC.XUANWU SOFTWARE COPYRIGHT REGISTRATION CERTIFICATE



玄武软件产品登记证书
ZC.XUANWU SOFTWARE PRODUCT REGISTRATION CERTIFICATE



成为全球领先的汽车基础软件公司
To Be the Global Leading Automotive Basic Software Company