

PROVISION

JTAG
TECHNOLOGIES®



FAST GENERATION OF HARDWARE TEST AND PROGRAMMING APPLICATIONS

ProVision, the all-in-one development system for all boundary-scan applications



www.jtag.com

ProVision, all-in-one test equipment

YOUR APPLICATIONS, TESTED



Product Highlights

- Unified graphical user interface (GUI) for all test and programming applications
- Wizards guide the development process
- Automated, advanced generation tools
- Comprehensive device model library
- Full Python API for custom scripted applications
- Built-in Fault Coverage Analyser
- Graphical view and control of nets and devices
- Choice of fault reporting and diagnostic views
- Built-in sequencer for factory ready test plans

JTAG ProVision greatly simplifies the test engineer's main task - to develop reliable tests with the best possible fault coverage for failures that may occur during PCB (printed circuit board) assembly. ProVision's advanced technology allows many tests to be generated automatically, for all others ProVision includes tools to assist engineers to develop alternatives easily.

Automatic Test Generation

Using the PCB's CAD derived netlist and BOM (bill of materials), together with ProVision's built-in model library, powerful algorithms generate many tests automatically. These include interconnect tests (including 1149.6 differential interconnects), memory cluster tests and logic cluster tests. Together, these will cover most of the connections on a PCB.

Developing Additional Tests

Some connections, logic or mixed signal elements cannot, however, be covered by automatically generated tests - for example connections from/to A-to-D and D-to-A converters. Test engineers can therefore develop additional tests with ProVision's easy-to use Python based JFT (JTAG Functional Test) scripting routines. Since JFT automatically handles all low-level details of boundary-scan, test engineers can focus on the development of the actual tests - what data needs to be applied to which pins to find potential defects in the specific connections or logic block. Reusable test modules for specific devices can also be made.

Fault Coverage

With ProVision the total fault coverage of the automatically generated, plus any additionally developed tests, can be calculated. Since ProVision initially calculates the potential testability of a board (how many faults can be detected) engineers can compare the actual fault coverage provided by tests against testability to check if additional tests are needed.

Developing In-System Programming Applications (Flash and PLD)

In-System programming applications for Flash memories and Programmable Logic Devices (FPGA's, (c)PLD's) can be developed within ProVision. Flash programming applications are generated automatically using the extensive built-in model library. Programming of PLD's is also straightforward using programming data formats originating from the PLD development tools (SVF, JAM, STAPL, ISC etc..).

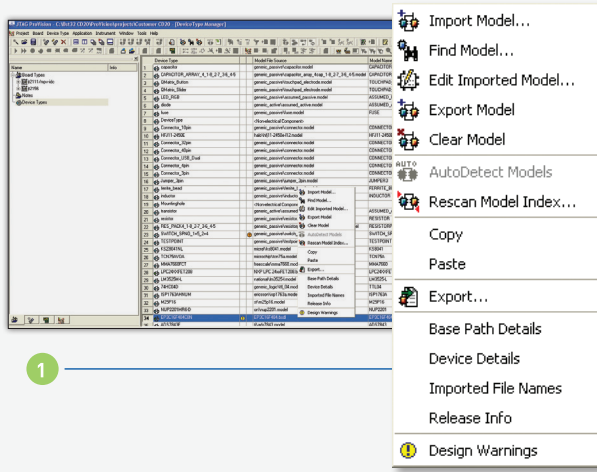
Developing Sequences

In the production environment, tests and in-system programming applications that have been developed need to be executed automatically and in the correct sequence. ProVision provides this sequencing capability: simply drag-and-drop your tests and programming actions into an overall test plan and create a complete sequence that can also include user messages, loops and branches.

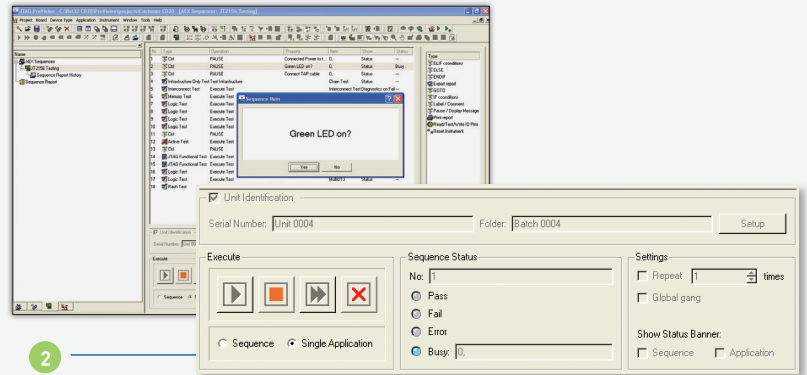
We *are* boundary-scan.®

ProVision SCREEN PREVIEW

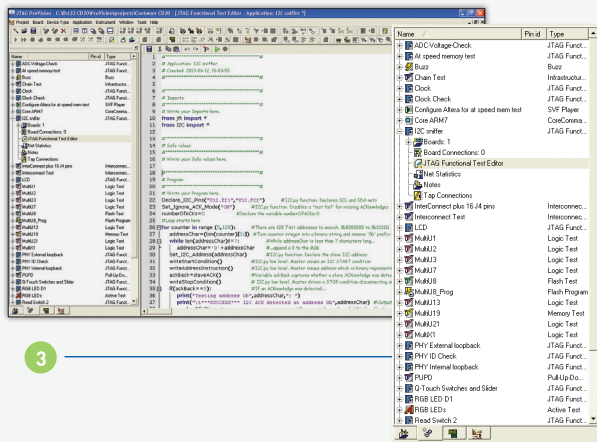
Go to www.jtag.com to find full descriptions of ProVision, demo's and recorded webinars.



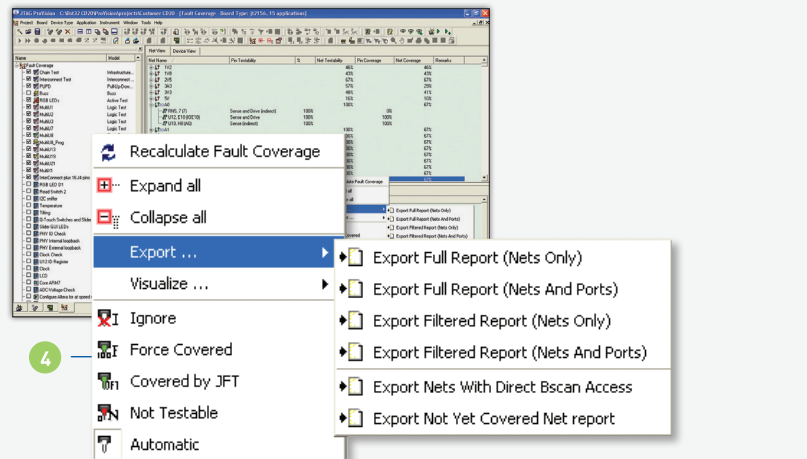
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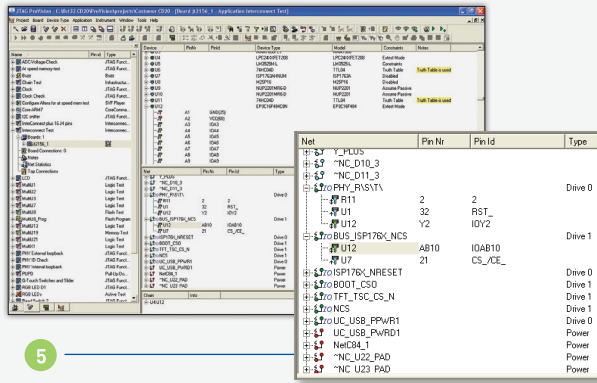
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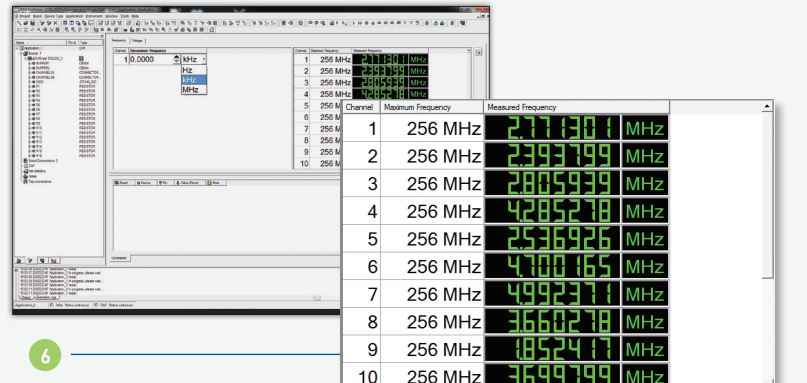
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- 1 Device Type Manager. Automatically assign models from the library to devices of the design.
- 2 Sequencer. Drag-and-drop tests and programming actions in an overall testplan.
- 3 Jtag Functional Test (JFT). Develop additional applications using the powerful Python-based JFT programming capability.

- 4 Fault Coverage. View the testability and fault coverage of a board.
- 5 Netlist Explorer. Inspect nets, devices, pins and set constraints.
- 6 Digital, Analog and Frequency (DAF) measurements. Use the optional JT2149/DAF module for frequency and voltage measurements.

Detailed Features

- One graphical user interface for all applications
- Multi-language support
- Netlist and BOM importer
- Netlist explorer for easy design navigation
- Comprehensive intelligent device model library
- Built-in DFT testability analyser
- Automatic test program generation
- Recognition of applications that can be generated automatically
- Automatic generation of ISP applications
- Truth Table Reporter showing detailed net and pin information
- Highly integrated Python scripting capability
- Archiving for convenient porting to other systems
- Integrated production sequencer
- Expandable, scalable
- LAN, WAN licensing options

More information

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