



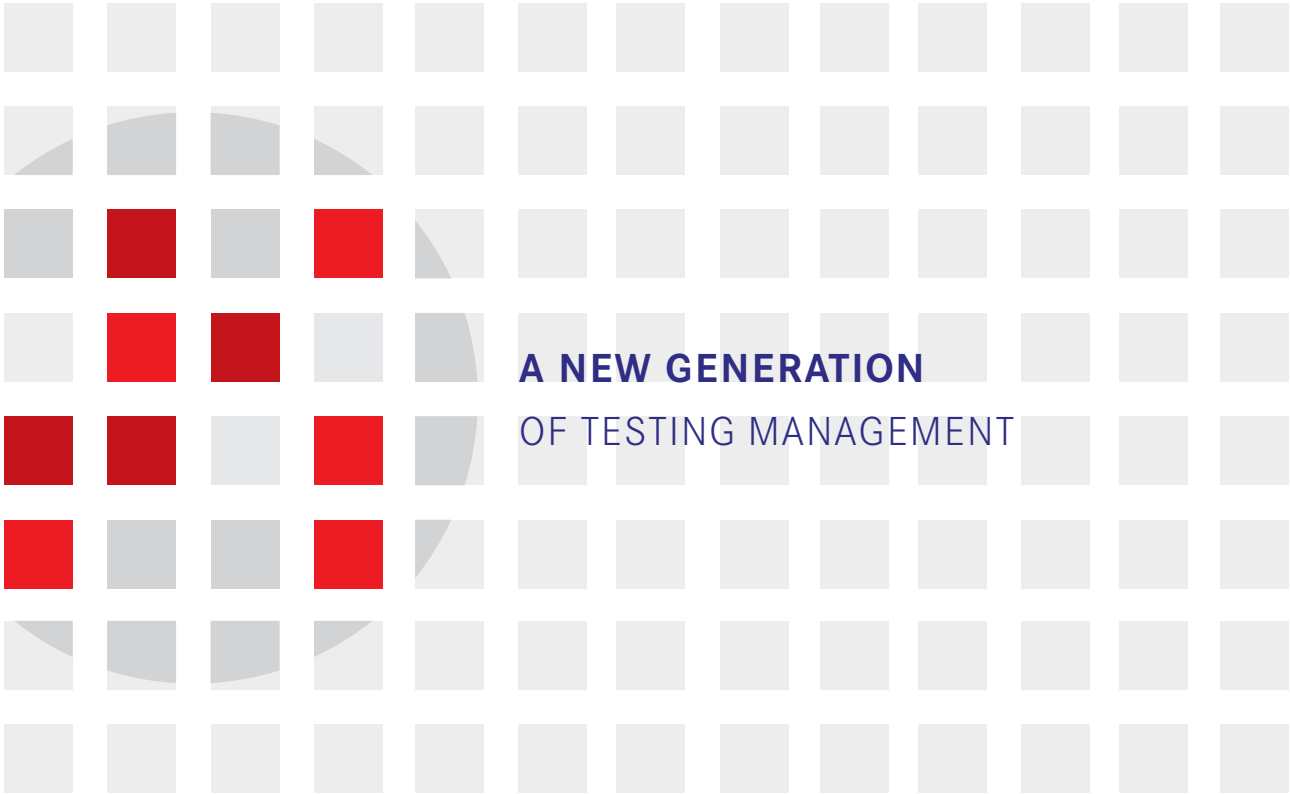
qMGR

qSIM

qBOX

qPOST

qPPS



**A NEW GENERATION  
OF TESTING MANAGEMENT**

MASTERING TEST MANAGEMENT





OT-MGR IS AT THE HEART OF OT-TMS, PROVIDING INTEGRATED AND COHERENT MANAGEMENT OF THE MULTIDISCIPLINARY FACETS OF TEST OPERATIONS, ENABLING ADVANCED GENERATION OF TESTING RULES. OT-MGR INCORPORATES OT-RULES – THE INDUSTRY’S FIRST TESTING SCENARIO LANGUAGE WITH EASILY CUSTOMIZABLE, PREDEFINED RULE TEMPLATES – TO ADDRESS CRITICAL TEST MANAGEMENT VECTORS.

### **OT-MGR – A NEW GENERATION OF TESTING MANAGEMENT**

Traditionally, test fleets and test programs have often been managed through diverse homegrown applications. Testing rules have been created and modified off-line - usually with scripts. Often, these scripts have been undocumented, not validated, and even conflict with each other. Rules developed for one system may not be applicable for other systems - and thus multiple copies of rules in disparate formats must be maintained. And, rules for real-time execution may be hard-coded at the test program level or included in a shell program, severely limiting flexibility and growth. In order to positively impact overall testing and its cost of ownership, integrated testing management is required.

OT-Mgr from OptimalTest is a new generation of testing management. At the heart of OptimalTest’s suite of test management solutions, OT-Mgr allows your test fleet, devices and test programs to interact seamlessly with an integral advanced rule set generator - enabling creation of a broad scope of testing algorithms or testing scenarios. These scenarios can be accurately simulated prior to publishing, and executed real-time or off-line. OT-Mgr also features advanced charting and reporting accompanied by a state-of-the-art dashboard.

Test Time Reduction  
Utilization  
Yield Quality  
Reliability

# A NEW GENERATION OF TESTING MANAGEMENT

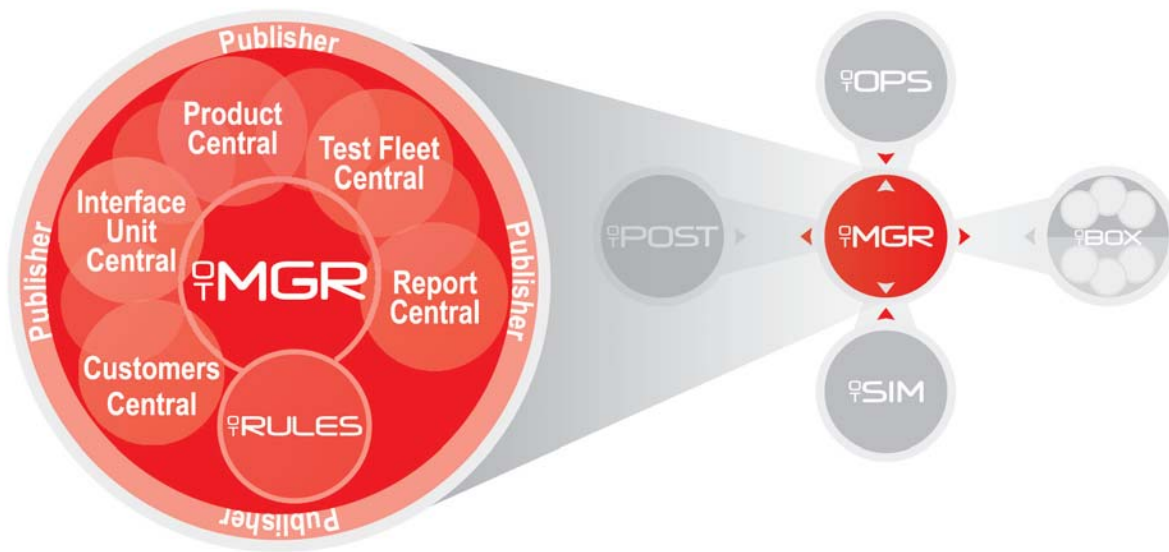
OT-MGR

OT-SIM

OT-BOX

OT-POST

OT-OPS



## OT-MGR CAPABILITIES

**CENTRALIZED CONTROL** – Totally integrated, centralized management – in a completely validated process – of your:

- **TEST FLEET** – OT-Mgr enables fully integrated management of all testing equipment for any device and any testing socket.
- **TEST PROGRAMS** – OT-Mgr integrates all relevant device parameters into one repository – from lithography through defects, from e-test through probing sequence and final test. OT-Mgr enables management of test program characteristics – from bins and parametric limits through testing coverage across sockets.
- **TEST INTERFACES** – OT-Mgr also tracks and manages all interfaces (for example, probe cards and load boards) for independent interaction among all test systems for truly automated, comprehensive interoperability.
- **CUSTOMER INTERFACES** – OT-Mgr facilitates easy communication of device and test process information with customers thanks to its centralized, updated records and standard formats and reporting

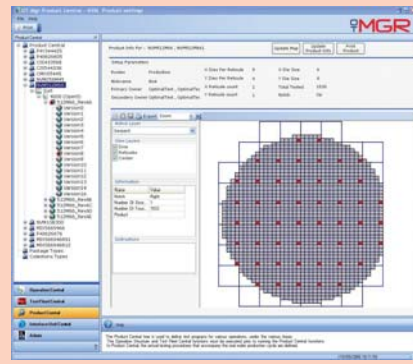
**CREATION AND ADAPTATION OF RULES** – OT-Rules enables rapid and simple generation of real-time and off-line rules or rule sets for simulation or execution and allows easy organization of rules by device, test socket, or test program. (See p. 10 for more information about OT-Rules.)

**PUBLISHER** – The "gate keeper" to production, the OT-Mgr Publisher launches and updates test programs, probing sequences, and rules – ensuring the best "copy-exactly" procedures between design and production, engineering and test floor.

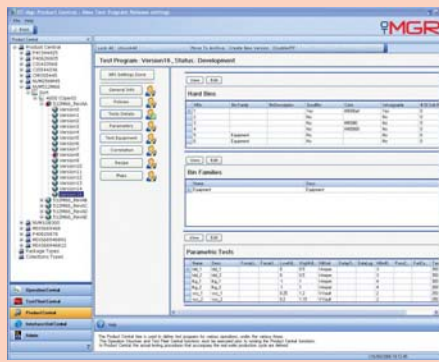
**REPORTING** – OT-Mgr includes flexible, advanced tools for generating state-of-the-art, customizable reports.

## A CLOSER LOOK AT THE OT-MGR USER INTERFACE

OT-Mgr: Wafer Sort Product Settings



OT-Mgr: Test Program Bin and Parametric Settings



OT-Mgr: Product Operational Process Flow (Route)



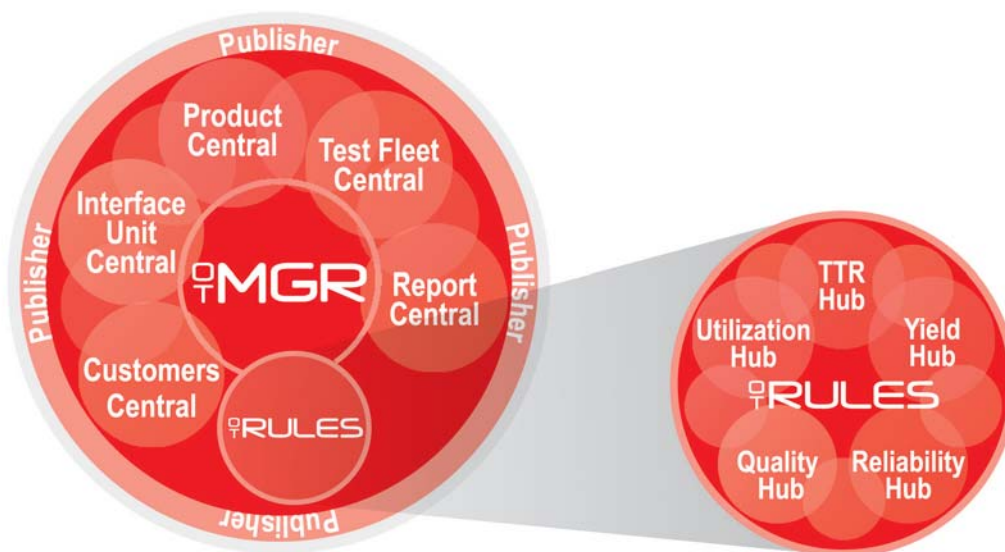
OT-Mgr: Test Fleet Central Supporting All Test Equipment for All Sockets

Equipment ID	Socket	Manufacturer	Model	Serial	Year	Status
EQ001	Socket A	Manufacturer X	Model Y	12345	2010	Active
EQ002	Socket B	Manufacturer Z	Model W	67890	2011	Inactive

## FLEXIBLE LOGIC FOR INTUITIVE RULE CREATION AND ADAPTATION

In today's testing arena, hard-coded testing business logic - residing in test program code, on station controllers, or in post-processing scripts - is difficult to change or reuse, and cannot keep up with your ever-expanding needs and knowledge base.

To ensure that the full power of your organization's knowledge is always leveraged, OptimalTest created the industry's first universal and independent testing scenario language, packaged it as OT-Rules and bundled it with OT-Mgr.



OT-Rules enables rapid and simple generation of real-time and off-line rules or rule sets for simulation or execution. With a comprehensive and intuitive approach to rule-set management, OT-Rules is a one-stop-shop solution - allowing easy organization of rules by device, test socket, or test program.

OT-Rules addresses most testing needs through a rich array of rules in predefined templates, easily customized to your unique needs without high-level scripting or programming. Easy-to-use rule templates, for real-time and off-line execution, include algorithms from various families (hubs) like: Test Time Reduction, advanced Statistical Process Control, Quality and Control, Reliability, and Disposition.

Because of OptimalTest's integrated architecture, data from various sources is available to each rule in order to best perform adaptive and optimal testing. Each rule family hub features a considerable variety of rule types - allowing flexible definition of triggers, actions and exception criteria for any business scenario.

OT-Rules also enables structured creation of rules with enforced validation, redundancy management, conflict resolution and prioritization.

Designed for application across the test floor, OT-Rules allows you to reuse specific code from your test programs and station controllers more efficiently across devices and test modules. And, OT-Rules helps integrate data that was previously unavailable to test programs - like results from previous lots, wafers or devices - into accessible rule sets.

### OT-RULES BENEFITS:

**QUALITY RULES** – The rule-set generator provides a structured approach to create rules with enforced validation, redundancy management, conflict resolution and prioritization. OT-Rules delivers the flexibility to define triggers, actions and exception criteria for any business scenario.

**LEVERAGED KNOWLEDGE** – OT-Rules lets you leverage data and knowledge from all operations, including fab information (lithography, defects, particles, etc.), e-test, and test results from all test sockets including "current" and "previous" information from lots, wafers, devices and neighbors of various types (proximity, geography, lithography exposure, touchdown) and even final test from previous lots.

**RULE MANIPULATION** – With OT-Rules, you can reuse, organize, bundle and publish rules. Copying rules from different products and test programs for reuse availability is as easy as cut-and-paste with any conflicts immediately flagged for structured resolution. Rules are organized by devices, test sockets, and test programs. For more effective rules management, rules are easily bundled by product, test program, various test cells or cross-products and cross-modules – to best serve your unique product needs. In addition, the Publisher of OT-Mgr enables easy bundling into rule sets, publishing them to OT-Box for real-time execution, OT-Post for off-line execution, or OT-Sim for simulation and analysis.

Test Time Reduction  
Utilization  
Yield Quality  
Reliability

**OT-RULES FAMILIES**

**FOR REAL-TIME AND OFF-LINE**

- Test Time Reduction Hub
- Utilization Hub
- Yield Hub
- Quality Hub
- Reliability Hub

**OT-RULES BENEFITS (CONTINUED):**

**CHANGE MANAGEMENT** – The rule-set generator provides version control and management capabilities, enables multiple users to edit rules based on permission levels, and includes rule templates, best-known methods, and system defaults.

**COPY-EXACTLY** – OT-Rules allows centralized control of rule-set execution at fabrication sites with a seamless, silent release engine for new or updated rule sets.

**KNOWLEDGE RETENTION** – By capturing rules that have been tested and validated over time, organizations capture accumulated experience and preserve knowledge regardless of staff turnover. The information is always available and visible to all current test professionals.

**HARNESSED SIMULATION** – OT-Rules helps you maximize testing benefits by simulating the rules using historical testing data, prior to production. Together with OT-Sim, you gain an accurate understanding of the actual benefits and ROI of rule sets, delivering proof of concept for multiple what-if scenarios, and improving the quality and efficiency of published rule sets.

**OT-RULES AVAILABLE DATA**

**FAB**

- In-line E-Test
- Lithography and Metrology
- Particles and Defects
- Advanced Process Control

**WAFER SORT**

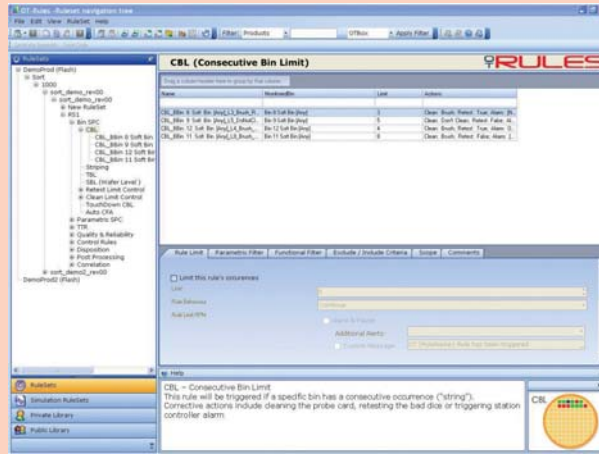
- End-Of-Line E-Test
- Previous Testing Socket
- Previous Fab Lot or Wafer
- Neighborhood devices in any template
- Cross Data (Product, Process and Equipment)

**FINAL TEST**

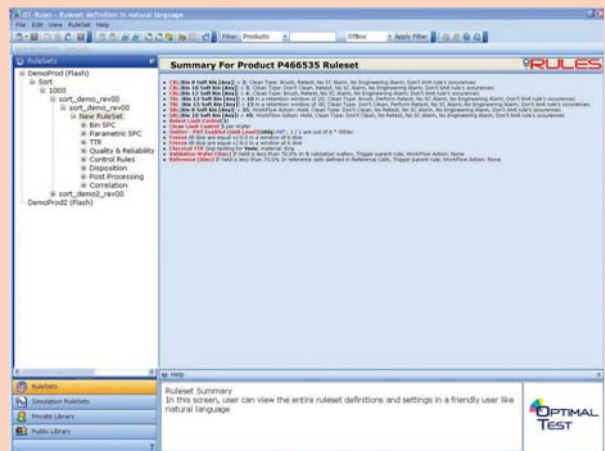
- All Wafer Sort Data
- Burn-In Data
- Previous Testing Socket
- Previous Assembly Lot
- Cross Data (Product, Process and Equipment)

## A CLOSER LOOK AT THE OT-RULES USER INTERFACE

OT-Rules: All Rule Families Tree View Per Product Operation and Area



OT-Rules: Rule Set “Natural” Language Definition



OT-Rules: Classical TTR Algorithm Wizard View

