Electro Rent

The Complete Lifecycle Approach

A SMARTER WAY TO MANAGE TEST EQUIPMENT

This Is When Experience Counts

Contents

Executive Summary

Across industries and around the world, technology development and manufacturing companies allocate a significant portion of their capital and operating budget to fund test equipment and operations. Yet, for all that investment, detailed data on asset utilization, testing costs, and the status and availability of equipment is often inaccurate, incomplete, or simply unavailable. In fact, most companies struggle to create an accurate and complete list of test equipment across the organization.

Without basic information such as asset location and availability, calibration status, and financial metrics, opportunities to improve efficiency and productivity remain out of reach. With access to real-time information, however, companies gain insights to reduce CapEx and OpEx requirements, increase ROI, and accelerate time to market.

For example, real-time information enables asset sharing, which means less equipment is needed, reducing capital spending. Operating expenses can be lowered by selling unused assets, using rental services strategically, and reducing duplicate purchases to shrink the size of the test fleet.

- Older or obsolete assets can be disposed of, eliminating many ownership costs.
- Renting can replace ownership, as appropriate, eliminating many expenses such as calibration, repair, property tax, and depreciation.
- With better search capability, redundant purchasing can be minimized.

Most companies use a mix of partial but ineffective asset management solutions, including shared spreadsheets, which tend to be error prone; ERP systems that are not optimized for test equipment; and multiple software programs and applications. Because such systems do not share data, they cannot provide the insights needed for informed decision making.

Even with the right data, acquiring, managing, calibrating, and disposing of test equipment can sometimes be challenging. Selecting the right equipment; deciding whether to rent, lease, or buy; tracking costs; aligning calibration timing with project schedules; managing costs, and selling older equipment require accurate, real-time data.

Most companies have unused or rarely used equipment that occupies storage and lab space and incurs costs for calibration, repair, insurance, taxes, depreciation, etc. An effective asset optimization system can identify non-essential equipment for disposal, but that alone is not enough. Companies also need to know when to sell it, how much to sell it for, and to facilitate buyer interactions. The right mix means the difference between a fair price and scrap value.

A comprehensive asset optimization solution provides real-time data on every test asset across the organization, enabling:

- **Equipment Sharing:** Engineers across labs and company locations can share assets, so fewer are needed. While it may seem counterintuitive, sharing provides access to a wider selection of equipment. Resistance to sharing by engineers will be reduced when they expect they will get what they need when they need it.

- **Better Search:** With parameter search, if the exact instrument is in use or otherwise unavailable, the system can recommend suitable alternatives based on user-provided parameters, saving time and placing focus on core engineering activities.

- **Strategic Renting:** Depending upon the instrument and intended term of use, renting can be more cost effective—even for terms of up to three years or longer. Renting reduces up-front costs and eliminates ownership expenses for calibration, repair, property tax, and depreciation.

- **Improved Scheduling:** With alignment of testing and calibration activities, project delays can be minimized, and costs decline. With better search capabilities, engineers can find what they need and reserve it. Less searching and better calibration alignment mean less downtime.

To reduce exposure on test equipment and project spending, a complete, end-to-end asset optimization lifecycle solution is needed. From acquisition and procurement to management, calibration, and disposal, asset optimization solutions offer significant financial benefits. However, the comprehensive nature of the solution, involving numerous departments across the organization as well as cultural change, means that executive sponsorship is needed to support a successful implementation.

After the asset optimization solution has been implemented:

- Engineers will enjoy access to a greater pool of equipment and be able to find what they need when they need it.
- Managers will understand what is in inventory, what is available for use, and what can be disposed of.
- Finance teams will realize significant savings in CapEx while improving return on net assets and cash flow.
- Procurement groups will have information to make more informed purchasing decisions.
- Operational improvements and cost-saving options will quickly become apparent.

With the right tools, valuable test assets can be shared to increase utilization and ROI.

We have been implementing highly efficient, innovative methods to maximize the value of test equipment in our own business for more than 55 years. Now, we can put our benchmarks and best practices to work for you.

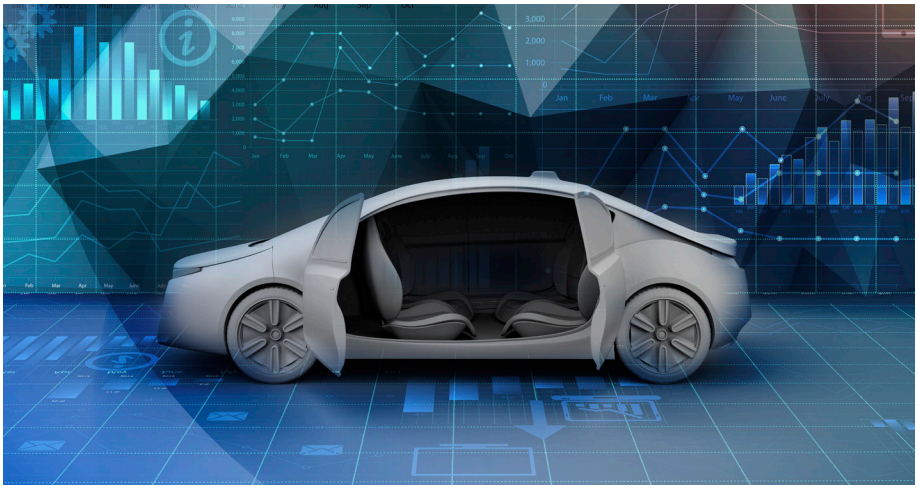
This is when experience counts.

Is There a Better Way

Among an estimated $100 billion worth of test and measurement assets deployed in labs, production facilities and field service organizations around the world, less than 20 percent is actually in use at any one time, leaving an estimated $80 billion in capital unused.

As Uber and Airbnb have demonstrated, valuable and underutilized assets can be shared to improve ROI. Now, these asset optimization tools are available to measure and improve the utilization of electronic test and measurement equipment.

From R&D labs in aerospace and defense and semiconductor industries to field service organizations and other heavy users of electronic test and measurement equipment, there has never been a greater or more urgent need to optimize test equipment fleets. Two key drivers include pressure to reduce testing costs and the need to improve time to market.



Access to real-time data on the status of test assets across the organization is critical to success.

Reducing Costs

Given the significant financial requirements for R&D in many industries (i.e. semiconductor, automotive and aerospace and defense (A&D) organizations, just to name a few), R&D spending is coming under significant pressure. Likewise, field service organizations are being challenged to do more with less.

Ineffective asset management drives up costs in three ways:

- **Low Utilization:** Low utilization drives up both CapEx and OpEx costs. The key reason organizations end up spending too much is because accurate and up-to-date information about asset location, status and availability, and utilization is unavailable. As a result, equipment is purchased unnecessarily, driving up CapEx spending as well as ownership costs.

- **Calibration Challenges:** Companies typically calibrate their equipment at regular intervals. Without a centralized system based on real-time data and an effective calibration workflow, companies often struggle to calibrate their assets in a timely manner, which can lead to certification issues, faulty test outcomes, and other unwelcome situations.

- **Suboptimal Asset Recovery:** Without a full understanding of the right time to dispose of equipment, most companies keep older assets too long, reducing the marketability and value of these assets as the fleet size is optimized.

Improving Time to Market

As global competition increases and product development cycles shorten, engineers, designers, manufacturers and their supply chains face increased pressure to get to market faster. A similar dynamic occurs in field service organizations where time-to-service is a key differentiator.

Across the organization, teams gain visibility into equipment availability, project costs, calibration timelines, and more.

However, without an effective system that provides real-time data on the status of test assets across the organization, R&D and field service teams cannot achieve peak performance or perform timely testing.

There are two primary reasons an ineffective asset management process slows down many organizations.

- **Searching for equipment:** Just like the lack of accurate location information drives up costs, it also negatively impacts time to market. Engineers and lab managers cannot find the equipment they need, so they spend a great deal of time searching around or calling colleagues. Or, they order or rent new test equipment and have to delay projects until the equipment arrives.

- **Lack of availability:** Without an effective asset management solution, engineers may face surprises if, for instance, equipment appears to be available, but is later found to be reserved for a previously planned testing program. This often means that several weeks may pass before the asset is available for project use.

A Better Way to Manage Test Assets

Electro Rent Asset Optimization solutions help companies make better decisions based on insights into test and measurement equipment use and availability.

A centralized asset optimization solution provides full visibility on equipment location, asset and project status, and calibration schedules across the organization. From engineers and lab managers to procurement and finance teams, everyone can see what assets are available, what is in use or reserved, project costs, calibration timelines, and other important data.

With this information, asset sharing initiatives can be implemented to significantly reduce costs and improve operational efficiency, productivity and time to market.

A real-time asset optimization solution brings numerous benefits, including:

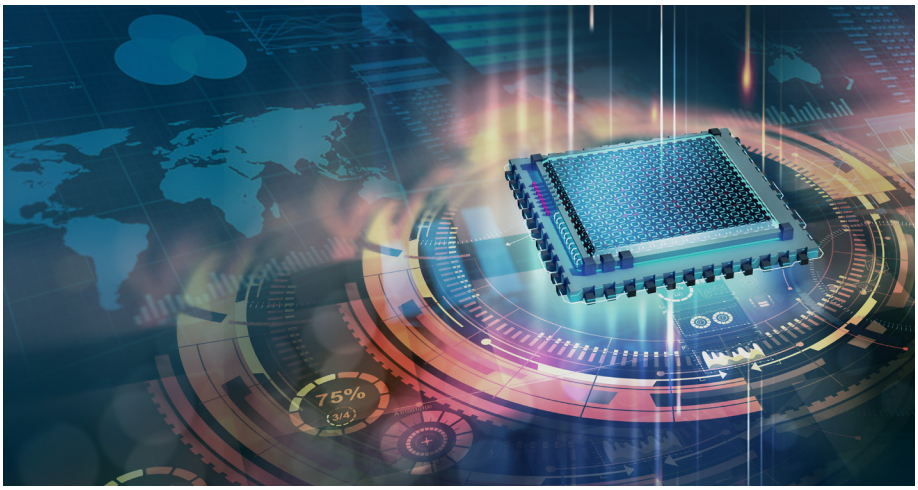
- **Better decision making:** Using real time data to understand asset location and utilization helps organizations make better decisions on equipment selection, planning, spending, and acquisition. For example, renting allows companies to reduce costs by avoiding most up-front and long-term ownership expenses while reducing the amount of owned equipment in the asset base.

It is not unusual for clients to find test assets they were previously unaware they owned.

Improved asset intelligence data also enables users to share equipment, a key driver of improving utilization. Finally, better insights into utilization allow organizations to flag assets that are not being utilized appropriately for disposal earlier, maximizing recovery value in the used market.

- **Improved calibration management:** One of the biggest impediments to productivity across industries is the loss of efficiency due to unplanned and ineffectively scheduled calibration activities. With accurate, real-time systems for aligning testing and calibration schedules, engineers and lab managers can rest assured that equipment will be calibrated for the duration of each project, increasing operational efficiency.

- **Improved search (for companies that have such a system):** Searching for test equipment by part number is inefficient and simply indicates if a specific model is available. Searching by parameter opens up the entire set of available assets that might satisfy project needs, while reducing over-purchasing and further improving utilization.



How Do I Get Started?

From a strategic perspective, there are two key phases to asset optimization. The first is asset base reduction, and the second is optimization of the remaining asset base. Generally, these initiatives include the following steps:

Usage patterns can be analyzed to identify areas for further reduction of equipment in the test asset pool.

- **Goal setting:** Setting clear goals and a performance baseline is necessary to understand future gains and improvements. This includes an assessment of the current utilization of the asset base and the cost to service and support the existing asset base. Based on this information, as well as a proprietary ROI model, estimates of cost savings can be provided at the outset.

- **Asset audit:** An onsite team will evaluate the current process and the quality of existing asset data, both of which will determine how much work is required to develop the database and update work processes.

In most cases, existing asset data is insufficient to load into the database because it is missing fields like equipment options, location, etc. All of this missing information will be identified during a comprehensive audit. It is not uncommon for clients to find assets that they were unaware they owned.

- **Training:** In parallel with the asset audit, assigned users will be trained on the new system and processes. At the end of this step, users will have been trained, the database will be clean and complete, and assigned superusers will be responsible for maintaining the integrity of the database, going forward.

There are several options available, including fully automated utilization and location tracking using proprietary technologies, and leveraging artificial intelligence to track asset movement and measure utilization, making the process as simple as possible.

- **Asset base reduction:** Several months after the system is in place, sufficient data will be available to analyze usage patterns and identify opportunities to reduce the asset base. An in-depth analysis will reveal which assets can be sold, and a fair market value tool will provide an estimate of potential value. Using our consignment sale service, clients can offload these assets into the market to generate cash for additional equipment.

Based on our experience with clients in the aerospace, semiconductor, electronics, and field service industries, we have identified three critical success factors to achieve the most benefit from an asset optimization engagement in the shortest period of time:

- **Vision:** A clearly articulated and widely communicated vision is essential. Users should understand the benefits of the asset optimization solution and how it will change daily operations for those involved.

- **Executive sponsorship:** Asset optimization builds new capabilities within the organization. As such, it requires a change in processes, systems and metrics, which is not easy for everyone. A strong executive sponsor functions as a change agent to smooth out and accelerate the process.

- **IT support:** From the first download of existing asset data to potential integration with the client's ERP system, strong collaboration with the IT group is essential.

What Asset Optimization Can Do for You

With all asset-related data delivered in real time to a centralized system, better decision-making and deeper insights become possible.

Most companies have asset utilization rates in the 20–30% range. World-class utilization is at or near 70%.

- Engineers, lab managers, finance and procurement staff can quickly and easily find the equipment they need. Finance and procurement teams can access detailed project and equipment ownership costs.

- Executive management can monitor key metrics as they improve over time, improving operations and throughput, lowering costs and increasing return on invested capital.

Although companies worldwide have been investing heavily in test and measurement equipment to support accelerated R&D and manufacturing activities, a large part of that investment is being ineffectively utilized. Asset optimization is a comprehensive, companywide solution, and the financial benefits can be significant.

Electro Rent helps leading companies across industries and around the world make more informed decisions around asset acquisition (i.e. benefits of renting vs. buying) and "right-sizing" the test equipment portfolio to reduce costs, improve operations, and get to market faster.

Companies often suffer from continually rising testing and ownership costs, and low levels of operational efficiency and productivity.

After the asset optimization solution has been implemented:

- Engineers will enjoy access to a greater pool of equipment and be able to find what they need when they need it.
- Finance teams will understand what is on hand and what can be sold.
- Procurement groups will have information to make more informed decisions.
- Operational improvements and cost-saving options will quickly become apparent.

We have been implementing highly efficient, innovative methods to maximize the value of test equipment in our own business for more than 55 years. Now, we can put our benchmarks and best practices to work for you.

This is when experience counts.

About Us

Electro Rent is a leading global provider of test and technology solutions that enable customers to accelerate innovation and optimize asset investments. Our rental, leasing, sales, and asset optimization solutions serve innovators in communications, aerospace and defense, automotive, energy, education, and electronics industries, and we have been doing so since 1965.

Contact Us Today

To learn more about our asset optimization solutions, request a demo or see how we can help you grow your business faster:

Asia Pacific Headquarters & Malaysia

Plot 253, Jalan Kampung Jawa, Bayan Lepas FIZ Phase 3,
11900 Bayan Lepas, Penang, Malaysia
+604 614 6000
info.asia@electrorent.com

India

Unit No. 706-707, 7th Floor, Tower D, Unitech Cyber Park,
Sector 39, Gurugram, Haryana 122001, India
+91 124 4831 400
info.india@electrorent.com

China

Room 101, 1st Floor, East Side of Building 6, Courtyard 18,
Ziyue Road, Chaoyang District, Beijing, 100102, China
+86 400 819 2800
info.china@electrorent.com

Taiwan

12 F., No. 508, Sec. 5, Zhongxiao E. Rd., Xinyi Dist.,
Taipei City 11083, Taiwan (R.O.C.)
+886-701 0152 200
info.china@electrorent.com

Electro Rent

Smarter Solutions for Testing & Technology