

Plant Baseline

Creating a Baseline to Maximize Asset Performance

A Plant Baseline consists of seven services that can be utilized individually or combined in any combination to create the right baseline of your plant to help maximize asset performance:

- Installed Base Evaluation
- Installed Software Evaluation
- Network Evaluation
- Safety Evaluation
- Arc Flash Evaluation
- Energy Evaluation
- Training Evaluation

The true value of a Plant Baseline lies in the output of each service evaluation. With the information you receive, you can make educated decisions on where to initiate improvements and how to implement an effective maintenance strategy.

Managing Change

An effective Plant Baseline is not a one-time snapshot. On a regular basis, your plant environment changes – new technology is added, safety and energy targets become more stringent, people skills fluctuate, etc., and data from the last year, or even the last six months may be outdated. We recommend establishing a repeatable cadence to refresh your data, evaluate new areas of focus by revisiting goals and creating plans based on the latest, most accurate information. Our Plant Baselines are structured to securely manage and update information about your plant on an annual basis, making it an integral part of your maintenance planning process.

What's the first step? We start by capturing your installed base of parts throughout your plant, in production or on a shelf. This initial step allows us to help you to determine what support services are going to be most effective to help you improve plant asset performance.

Service and support may vary in each region depending on individual customer requirements.



Today's manufacturing environment poses new opportunities, as well as challenges to continuously improve on business and production goals. Each day you're expected to be creative, resourceful, find innovative solutions and overcome hurdles, but where do you start?

The following are a few of today's common goals.

- Managing spare parts & inventory reduction – keeping your inventory down, quality up and production on plan
- Resolving on-site skills shortages – developing your workforce to have the knowledge to support new and obsolete or legacy equipment
- Maximizing your assets – utilizing resources to the fullest while keeping your maintenance costs in budget
- Enabling IT & plant floor convergence – having the capability and expertise to develop secure architectures and support plans
- Reducing energy consumption – proactively develop a sustainable energy plan
- Implementing or maintaining plant floor safety and regulatory compliance – ensuring you are up-to-date on global and industry safety standards
- Reducing production downtime – minimizing the environmental impact and time to recover

How do you prioritize? Where should you invest? What kind of return should you expect? What expectations are reasonable relative to the risks you may have to take?

To find answers to these questions, start with a Rockwell Automation Plant Baseline. Establishing a baseline of your manufacturing environment can be done effectively through on-site evaluations of key areas, spanning from your installed base to your training program. After performing a Plant Baseline tailored to your needs, we'll make recommendations on solutions based on your biggest challenges or most important priorities. The evaluations help you bridge the gap between your current state and end goals.

LISTEN.
THINK.
SOLVE.™

Installed Base Evaluation

One of the first steps to optimize your assets is through an evaluation of your installed base of production equipment and spares inventory.

An Installed Base Evaluation (IBE) analyzes how equipment is used in various applications, environmental conditions and its maintenance history. Your spare parts management, repair and maintenance procedures are also evaluated. To determine recommended inventory levels, our engineers review your complete electrical installed base of products, your spares inventory, plant operating hours and product mean time between failure data (where available). In addition, our analysis includes a review of environmental conditions (grounding, wiring, possible corrosive conditions, temperature, etc.). We consult with your electricians and maintenance staff to determine the nature of any problems experienced.

Your IBE includes:

- Review of installed equipment
- Spares and stash inventory
- Environmental conditions: grounding, wiring, possible corrosive conditions, etc.
- Performance history and product Mean Time Between Failures (MTBF) analysis

Your IBE provides:

- Detailed hierarchical inventory reports by plant, location, department, line, panel, catalog numbers
- Identification of critical spares into five major categories:
 - Active - Necessary to support installed process equipment

- Inactive - “Obsolete” inventory not required to support process
- Excess Active - Active, but over stocked inventory
- Insurance & Safety Stock - Additional, crucial, or other inventory that “must be there”
- Stash - Valuable inventory throughout the plant that is not recorded or visible to the inventory system
- Spares inventory handling & storage recommendations
- Summary of your current cost of carrying inventory (where available)
- Identification of the status of legacy equipment & recommended support & migration plan

Benefits:

Cost Savings

- Inventory carrying cost savings by reducing inventory levels
- Purchase prevention savings by avoiding unnecessary inventory replenishment

Increased Uptime / Maximized Production

- Optimizing inventory levels to ensure you have critical spares to support production & maintenance
- Identifying risks associated with supporting legacy equipment
- Identifying potential environmental conditions that would impact asset performance on-site

Inventory Reduction

- Identification of excess inventory levels creates an opportunity to reduce inventory levels – improves financial metrics, including Return On Net Assets (RONA)

What makes our Installed Base Evaluation different?

Rockwell Automation has a comprehensive tool that collects both Rockwell Automation and non-Rockwell Automation products and creates a plant hierarchy model for your facility. We're able to use terminology and plant descriptions that are meaningful and important to you. Once all the data is collected, we're able to provide detailed reports providing information, such as:

- Exact “plant zip-code” location of all parts
- Corresponding Mean Time Between Failure (MTBF) data
- Reports cataloging products by vendor, plant area, OEM supplier, etc.
- Product lifecycle status where available (current, end of life, obsolete, etc.)

Utilizing the data gathered with the MTBF data and plant operating hours, we will recommend an optimal spares inventory holding.

Why is this important to you?

The knowledge gained from the reports, what parts you have, their status, where they are located and on what machines, gives you valuable insight to your facility. When it is decided to add a new line, update equipment, replace parts, change vendors, you now can do so knowing exactly what will be affected in your installed base and its impact on your spare parts management strategy.

Maximizing the Value of Your Plant Baseline

By including an evaluation of any of the following areas, you gain a broader picture of your current landscape. The results of these evaluations will help you to prioritize, plan and implement an effective, strategic maintenance program.



Installed Base Evaluation: Identify opportunities for improvements in inventory, financial performance and asset productivity



Software Inventory Evaluation: Document all installed software to ensure all licenses are valid and that appropriate skills, support and maintenance coverage is in place



Network Evaluation: Assess the overall health of your network, identify potential network issues and provide high level recommendations



Safety Evaluation: Identify areas of risk where safety improvements can be made and prioritize what modifications are necessary



Arc Flash Evaluation: Review of Arc Flash documentation to evaluate the level of detail, completeness, accuracy and identify areas of concern



Energy Evaluation: Identify opportunities for energy savings that should be the focus of more in-depth analysis



Training Evaluation: Identify skills gap in personnel and develop specific training plans with financial justification and priorities

When combined together evaluation services include:

- Review of the health & safe operations of your plant equipment & infrastructure
- Identified areas of risk to production, safety & environment
- Identified gaps in your current state to your desired state

Each evaluation provides:

- A summary report detailing priorities that need to be addresses
- A single assessment approach providing broad visibility of your plant assets

Benefits of baseline knowledge to you:

Cost Savings

- Identify issues/opportunities without large up-front consulting investment
- Menu driven options based on your current needs

Increased Uptime/Maximized Production

- Identify critical equipment to support production & maintenance
- Reduce unplanned downtime
- Identify risks associated with supporting legacy equipment
- Identify potential environmental conditions that would impact asset performance on-site

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