

MAYERICK

SURESTART® Safe. Smart. Systematic.

Your Path to Safer, Smarter Commissioning and Startup

SURE**START**

STARTUP AND COMMISSIONING IS RISKY BUSINESS.

We understand how stressful startup and commissioning can be during the best of situations, but oftentimes, startups must be performed under less-thanideal conditions. We also understand due to global competition, timelines are compressed and staffing resources and bandwidth are limited.

Under these conditions, attempting to execute effective startups without a proven process in place puts your entire operation at risk—financially and physically. Most budgetary overruns and unobtainable first-year ROIs are due to missed startup dates. Worst of all, with 70% of all accidents occurring during non-routine activities such as startups, this is not an environment where you can afford to be understaffed or underskilled.

The surest way to protect against these liabilities is to work with a partner that uses a well-established process to perform startups regularly. MAVERICK Technologies is that partner. Our SureStart® solution applies the experience we've gained through 17.500+ successful projects and the efficiency we've gained through technological breakthroughs like eStart®, our digital commissioning tool, to help you get up and running safely, smartly and ahead of schedule.



THE SURESTART DIFFERENCE:

- √ 50+ startup and commissioning projects per year
- **√** 100+ technicians and electricians on staff
- √ 200,000 hours per year of on-site technical visits
- **✓** Static and dynamic testing
- **✓** Real-time project tracking with eStart®

SURE**STAIRT**

SAFE

WHAT'S NON-ROUTINE FOR YOU IS EVERYDAY FOR US.

When you're operating the plant, your focus is on operations—as it should be. It's how you keep the plant running safely. Startup and commissioning efforts, on the other hand, are non-routine activities; in fact, most engineers participate in one only every couple of years. As a result, startups leave you susceptible to environmental and safety incidents that pose a serious risk to your business.

But that doesn't mean you have to develop a separate team for something you'll execute just a handful of times in the life of your facility. With MAVERICK's SureStart®, we begin by gathering site-specific information to better define the ways in which we can tailor our process to meet your exact needs. At your request, we can review or participate in hazard and operability studies (HAZOPs) to identify and evaluate any potential risks. By increasing our awareness of possible hazards, we're able to better protect the safety of your plant and personnel throughout the process.

You'll also get the benefit of our 200,000+ annual hours of on-site experience. Our ommissioning and construction managers, technicians and electricians perform more than 50 startups each year. By doing what we do best, you're able to do what you do best: stay focused on operations.

Reducing environmental, health and safety risks

Our team has worked together on thousands of projects, which allows us to effectively partner with your team for greater safety. Your operational expertise, combined with our startup experience, yields a safer startup environment. Better planning and solid documentation coupled with a proven structured commissioning process are the recipe for success.

Though startup and commissioning account for barely

5% of all operations

... it's during these types of non-routine activities that

70% of major accidents occur

SURE**STAIRT**

SMART

OUR PROCESS SHORTENS YOUR TIME TO STARTUP.

Though on-time completion is the goal of every project, a recent study found that 91% of projects finished late. Lack of seasoned personnel and miscommunication among the startup team can lead to schedule overruns, causing operating expenses (OPEX) and capital expenses (CAPEX) to escalate to unacceptable levels. Regardless of the level of effort, without a proven, structured process, there's little hope of finishing on time.

With SureStart, our proven process takes advantage of the efficiencies we've gained through years of experience to help you start up smarter—and sooner. Our process is designed to work in parallel with construction efforts, and you can track our progress in real time with the eStart® digital commissioning app. No more scheduling issues or unexpected delays. Know exactly where we are at in the project so you can make smart decisions about how to allocate resources to finish on time or even earlier than projected.

Long-term reliability starts with smart commissioning

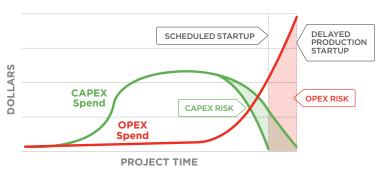
If commissioning is performed improperly, post-startup reliability is unlikely. To avoid high equipment failure rates and off-spec production, thorough final dynamic testing and documentation are essential.

Interruptions in the final dynamic testing can lead to incomplete interlock testing, which is an imperative step in ensuring a safe process. The SureStart process includes pre-static inspection, static checks and pre-dynamic testing to eliminate issues that can disturb the final dynamic testing or live process simulation. Solid commissioning documentation provides the maintenance team with the necessary information to maintain the new system post-startup. Our proven approach enhances long-term reliability by getting you off to a strong start.

91% of projects

of projects typically finish late.

What if you could avoid the risks and shorten startup?





SYSTEMATIC

A PROVEN PROCESS LEADS TO QUICKER COMPLETION.

We take a collaborative and systematic approach to startups. By better coordinating the commissioning and construction processes, we can often help you reach completion ahead of schedule.

We begin by assembling a world-class team made up of your operations experts and our seasoned startup personnel. As site-specific information is gathered, we define the best ways to tailor our process to meet your precise needs. Then we thoroughly inspect, check and test all instrument and control devices to correct any issues prior to live process simulation.

After pre-dynamic testing is signed off by operations, we transfer ownership to your team for final dynamic testing and provide a core crew to support you through the remainder of the startup. Once startup is complete, we debrief personnel and turn over the closeout documentation so you have a sustainable, well-documented system.

Planning Identify startup & commissioning team Gather information Develop schedule Develop schedule Develop schedule Develop Startic develop schedule Develop schedule Develop Startic develop schedule Develop Startic develop schedule Develop Startic inspection Static checks Pre-dynamic testing Final dynamic testing Final dynamic testing Discuss lessons learned

SURE**START**

SIMPLIFIED

NOW STARTUP IS SIMPLER, WITH OUR DIGITAL COMMISSIONING TOOL, eStart®

When outage windows become condensed, even the slightest inaccuracies in project tracking can have a serious impact. Fortunately, our digital commissioning tool, eStart, helps us keep your project on track by making production more efficient and transparent than ever.

A more efficient workflow

Every project begins with data-gathering and the creation of loop folders to house all relevant instrument data and checksheets. With eStart, loop folders are created digitally, which not only reduces the time required for documentation by up to 50%, but also keeps all electronic data at the

technicians' fingertips, anywhere they are. And with fully-customizable checksheets, each project is custom-fit to your instruments and requirements.



Barcodes applied to each instrument can be scanned to record GPS data and populate a fully functional Google Maps™ layout of your facility's instruments. eStart's Near Me feature can then locate nearby instruments and identify which stage of commissioning they are in to make loop-shooting more efficient.

Every time a step is completed, the technician's name, date and time stamp are recorded and automatically captured, allowing the percent-complete data to be updated in real time. That way, you'll always know exactly where we are in the process and how close we are to completion.

Up-to-the-minute progress updates

eStart continuously monitors productivity so you can see, in real time, your projected completion date. This allows you to quickly assess and avoid potential schedule slips and costly rework.

Up to 50% documentation time savings

Up to 30% loop-shooting time savings



Learn more about our proven SureStart® process, now with eStart®.

Sure-Start.com

SureStart Resources



The path to a successful startup



A simplified loop check process



Founded in 1999, MAVERICK is a platform-independent systems integrator in North America, and is a global leader in industrial automation, enterprise integration, sustaining services and strategic manufacturing solutions for clients across a wide range of manufacturing and process industries. With more than 400 professionals on staff at 21+ locations, we work with clients across a wide range of manufacturing and process industries — from life sciences to oil and gas to food and beverage. Our people, process and technical capabilities ensure delivery of the right solution, using the most appropriate technology.

