

THE MAINTENANCE MANAGER'S GUIDE

REDUCING FAULT FINDING TIME

The Hidden Cost of Inefficient Maintenance
in Industrial Automation Systems



THIS GUIDE WILL HELP YOU:



Identify the maintenance challenges slowing your team down.



Understand the impact on downtime, costs and reliability.



See how Stratos helps you find faults faster and keep your systems running.

KEY MAINTENANCE PAIN POINTS



REACTIVE MAINTENANCE

Firefighting issues instead of preventing them leads to increased downtime and stress.



POOR DOCUMENTATION

Missing or outdated documentation slows down troubleshooting and increases risk.



SPARE PARTS CHALLENGES

Wrong parts, stockouts and poor tracking cause delays and costly downtime.



OBsolete PLCs

Legacy systems are harder to support and increase failure frequency.



REPEATED FAILURES

Recurring issues waste time, inflate costs and damage confidence.



**Faster fault finding. Better uptime. Lower costs.
Stronger systems. Stronger teams. Better results.**



FOR:
MAINTENANCE MANAGERS
RELIABILITY ENGINEERS
MAINTENANCE SUPERVISORS
TECHNICAL TEAMS



stratos
Control Systems Ltd.



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COMPLIANCE CHALLENGES IMPACTING MAINTENANCE

Maintenance teams face constant pressure to solve problems faster with fewer resources, limited visibility and ageing systems.

Stratos Control Systems helps you overcome these challenges with reliable, standardised automation solutions.



THIS GUIDE WILL HELP YOU:



Identify the maintenance challenges slowing your team down.



Understand the impact on uptime, productivity and maintenance efficiency.



See how Stratos delivers measurable improvements through proven solutions.

KEY MAINTENANCE PAIN POINTS



REACTIVE MAINTENANCE

Fires to fight. Increased downtime and emergency repair costs.

30-60%
more reactive maintenance work orders



POOR DOCUMENTATION

Missing or incomplete documentation slows down fault resolution.

40-70%
longer time to find the right information



SPARE PARTS

Unclear inventory and critical spares missing when you need them most.

20-50%
increase in maintenance spare spend



OBSOLETE PLCS

Outdated hardware and unsupported technology increase risk and limit performance.

25-45%
higher risk of unexpected downtime



REPEATED FAILURES

Recurring issues waste time, resources and impact reliability.

15-40%
of maintenance effort on repeat problems



Reducing these pain points improves uptime, lowers maintenance costs and empowers your team to focus on continuous improvement.

Better systems. Faster fixes. Stronger performance.



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MAINTENANCE SUPERVISORS
PLANT ENGINEERS



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DOWNTIME REDUCTION

Less Downtime. More Output. Greater Efficiency.



THE CHALLENGE

Many facilities operate with ageing PLCs, inconsistent control systems and limited diagnostic capabilities. When faults occur, engineers often spend significant time identifying root causes before repairs can begin.



HOW STRATOS HELPS

Stratos modernises control systems using current PLC platforms, structured programming standards, improved diagnostics and standardised architectures. This enables maintenance teams to identify and resolve issues faster while reducing unexpected failures.



TYPICAL IMPROVEMENT



15-50%
reduction in
downtime events



30-70%
reduction in
fault-finding time



BUSINESS IMPACT

- ✓ Increased production uptime
- ✓ Reduced lost output
- ✓ Lower emergency maintenance costs
- ✓ Improved customer delivery performance

FROM DOWNTIME TO PERFORMANCE

BEFORE

Legacy Systems



- ✗ Long fault-finding times
- ✗ Unexpected breakdowns
- ✗ Reactive maintenance
- ✗ Lost production
- ✗ Higher costs

AFTER

Stratos Modernised Systems



- ✓ Fast fault-identification
- ✓ Fewer unexpected failures
- ✓ Proactive maintenance
- ✓ Increased uptime
- ✓ Lower operating costs

IMPROVING UPTIME. DRIVING RESULTS.

■ Downtime Events
— Fault-Finding Time



UP TO
50%
FEWER DOWNTIME
EVENTS

UP TO
70%
FASTER
FAULT-FINDING



REDUCE DOWNTIME
Keep production running.



IMPROVE RELIABILITY
Modern systems. Fewer failures.



BOOST PRODUCTIVITY
More uptime. More output.



LOWER COSTS
Fewer emergencies. Lower maintenance spend.



DELIVER PERFORMANCE
Meet commitments. Build customer trust.




FAULT FINDING & TROUBLESHOOTING

**FIND FAULTS FASTER.
GET BACK TO PRODUCTION SOONER.**

Well-designed systems, clear information and better visibility mean faster diagnosis and quicker resolutions.









THE CHALLENGE

Poor documentation, inconsistent panel layouts and undocumented modifications make troubleshooting slow and difficult.



HOW STRATOS HELPS

Through standards-based panel design, clear labelling, structured PLC programming and comprehensive documentation, engineers can quickly locate faults and understand system operation.

BEFORE	AFTER
INCONSISTENT. UNCLEAR. SLOW.	STANDARDISED. CLEAR. FAST.
	
 EASY TO FIND	 CLEAR DOCUMENTATION
	 CLEAR LABELLING
	 STRUCTURED PROGRAMMING

TYPICAL IMPROVEMENT



30-70%
REDUCTION IN
FAULT-FINDING TIME



50-90%
REDUCTION IN
DOCUMENTATION
RETRIEVAL TIME

BUSINESS IMPACT



FASTER REPAIRS

Engineers resolve issues quickly and get systems back online.



REDUCED DOWNTIME DURATION

Shorter outages mean more uptime and higher production output.



LOWER MAINTENANCE LABOUR COSTS

Less time spent searching, more time fixing.



LESS RELIANCE ON INDIVIDUAL "TRIBAL KNOWLEDGE"

Knowledge is documented, shared and sustainable.



Better information. Better systems.
Better outcomes.



QUICKER
DIAGNOSIS



IMPROVED
PRODUCTIVITY



GREATER
RELIABILITY



STRONGER
REPERFORMANCE



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ENGINEERING RESOURCE EFFICIENCY

**More Expertise. Less Strain.
Better Results.**

Access specialist automation expertise when you need it, so your internal team can focus on what matters most.



**YOUR TEAM FOCUSED
ON IMPROVING OPERATIONS**

STRATOS HANDLES THE COMPLEXITY



THE CHALLENGE

Internal engineering teams are often stretched across maintenance, projects and operational support.



HOW STRATOS HELPS

Stratos provides specialist automation expertise covering design, programming, commissioning and lifecycle support, reducing pressure on internal resources.

END-TO-END AUTOMATION EXPERTISE



SYSTEM DESIGN



PLC & SCADA PROGRAMMING



COMMISSIONING & TESTING



LIFECYCLE SUPPORT



CONTINUOUS IMPROVEMENT

TYPICAL IMPROVEMENT



20-50%

**REDUCTION IN
ENGINEERING
DESIGN TIME**

Through proven standards, reusable designs and efficient engineering processes.



**FASTER PROJECT
EXECUTION**

Without increasing headcount, enabling your team to deliver more, sooner.

BUSINESS IMPACT



**IMPROVED UTILISATION
OF INTERNAL ENGINEERS**

Free up your team to focus on high-value engineering and continuous improvement.



**FASTER DELIVERY OF
IMPROVEMENT PROJECTS**

Get expert resources in place quickly to keep projects moving and achieve results faster.



**REDUCED RECRUITMENT
PRESSURE**

Reduce the need to hire specialist skills by leveraging an experienced automation partner.



**Right Expertise. Efficient Engineering.
Stronger Performance.**



OPTIMISE
RESOURCES



DELIVER
MORE PROJECTS



DRIVE OPERATIONAL
EXCELLENCE



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MAINTENANCE EFFICIENCY

EASIER MAINTENANCE. LOWER COSTS. GREATER RELIABILITY.

Well-designed automation systems reduce maintenance effort and help your team focus on continuous improvement.



THE CHALLENGE

Many maintenance teams operate reactively, spending time dealing with recurring faults rather than preventative improvements.



HOW STRATOS HELPS

By designing maintainable systems, improving documentation and implementing standardised hardware platforms, maintenance activities become simpler and more predictable.

TYPICAL IMPROVEMENT



20-40%

REDUCTION IN MAINTENANCE LABOUR REQUIREMENTS



20-50%

REDUCTION IN ONGOING SUPPORT COSTS

BUSINESS IMPACT



LOWER MAINTENANCE EXPENDITURE

Reduce reactive maintenance costs and get more value from your assets.



IMPROVED ASSET RELIABILITY

More reliable systems mean fewer unexpected failures and greater operational stability.



MORE TIME FOR PLANNED MAINTENANCE

Free up your team to focus on planned work and continuous improvement initiatives.



Smarter systems. Simpler maintenance.
Lower costs. Better performance.



MAINTAINABLE BY DESIGN



CLEAR DOCUMENTATION



STANDARDISED SOLUTIONS



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CHANGE MANAGEMENT & FUTURE UPGRADES

Designed for Change. Built for the Future.

Stratos designs and documents control systems so changes and upgrades are easier, faster and lower risk — today and in the future.



MODULAR
BY DESIGN



EASY TO
CHANGE



BUILT FOR
TOMORROW



THE CHALLENGE

Many organisations find even small modifications difficult because systems are poorly documented and inconsistent.



HOW STRATOS HELPS

Modular designs, standardised programming and comprehensive documentation make future upgrades simpler and lower risk.

DESIGNED FOR EASY CHANGE



MODULAR
ARCHITECTURE



STANDARDISED
PROGRAMMING



COMPREHENSIVE
DOCUMENTATION



REUSABLE
COMPONENTS



SCALABLE FOR
FUTURE NEEDS

SMALL CHANGES TODAY. BIG BENEFITS TOMORROW.

TYPICAL IMPROVEMENT



30-60%

REDUCTION IN
UPGRADE PROJECT RISK

Lower risk through consistent designs, standards and clear documentation.



FASTER
IMPLEMENTATION OF
FUTURE IMPROVEMENTS

Changes can be delivered quicker with less rework and downtime.

BUSINESS IMPACT



LOWER
LIFECYCLE COSTS

- ✓ Easier, lower-cost upgrades
- ✓ Less rework and re-engineering
- ✓ Lower total cost of ownership



REDUCED FUTURE
PROJECT COMPLEXITY

- ✓ Clear structure and documentation
- ✓ Faster scoping and planning
- ✓ Simpler testing and commissioning



GREATER OPERATIONAL
FLEXIBILITY

- ✓ Adapt quickly to changing needs
- ✓ Easier integration of new technologies
- ✓ Future-proofed operations



CHANGE WITH CONFIDENCE.
UPGRADE WITH EASE.
FUTURE-READY BY DESIGN.



DOCUMENTED
& TRACEABLE



LOWER RISK
CHANGES



LESS DOWNTIME
& DISRUPTION



BUILT FOR
CONTINUOUS
IMPROVEMENT



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TRAINING & ENGINEER ONBOARDING

Knowledge Shared.
Engineers Empowered. Teams Stronger.



**CLEAR SYSTEMS.
BETTER UNDERSTANDING.
STRONGER TEAMS.**



THE CHALLENGE

New engineers often struggle to understand legacy systems due to inconsistent standards and poor documentation.



HOW STRATOS HELPS

Standardised architectures, documented systems and structured control philosophies reduce the learning curve for new personnel.

BUILT FOR UNDERSTANDING. DESIGNED FOR SUCCESS.



STANDARDISED ARCHITECTURES



COMPREHENSIVE DOCUMENTATION



CONSISTENT PROGRAMMING STANDARDS



INTUITIVE DIAGNOSTICS & VISUALISATION



CLEAR CONTROL PHILOSOPHIES & WORKFLOWS



From day one, new engineers can understand, contribute and **add value**.

TYPICAL IMPROVEMENT



30-60%

FASTER ONBOARDING OF NEW ENGINEERS

New engineers reach productivity faster.



50-90%

FASTER ACCESS TO TECHNICAL INFORMATION

Find what you need, when you need it.

BUSINESS IMPACT



FASTER COMPETENCY DEVELOPMENT

Engineers become effective sooner and contribute more quickly.



REDUCED DEPENDENCY ON KEY INDIVIDUALS

Knowledge is captured, shared and retained within the team.



IMPROVED WORKFORCE RESILIENCE

Strong, capable teams ready to support today and scale for tomorrow.



**EMPOWERING ENGINEERS.
STRENGTHENING TEAMS.
DELIVERING RELIABLE OPERATIONS.**



BETTER DOCUMENTATION



SHARED KNOWLEDGE



STANDARDISED SYSTEMS



STRONGER PERFORMANCE



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SPARE PARTS MANAGEMENT

**Standardise Today.
Reduce Inventory. Lower Costs.**

Managing spare parts doesn't have to be complex or costly. Stratos helps you streamline your inventory and focus on what matters most.



**RIGHT PART. RIGHT TIME.
LOWER COST. LESS RISK.**



THE CHALLENGE

Legacy systems often contain multiple hardware platforms and obsolete components requiring extensive spare inventories.



HOW STRATOS HELPS

Standardisation reduces hardware diversity and simplifies inventory requirements.

TYPICAL IMPROVEMENT



15-40%

REDUCTION IN SPARE PARTS INVENTORY REQUIREMENTS

Fewer parts. Less inventory. Lower cost.

HOW STANDARDISATION DELIVERS VALUE



REDUCED HARDWARE DIVERSITY
Fewer platforms mean fewer spare parts.



SIMPLIFIED INVENTORY MANAGEMENT
Easier to track, manage and forecast.



LOWER HOLDING COSTS
Less capital tied up in excess inventory.



REDUCED OBSOLESCENCE RISK
Current platforms with long-term support.

FROM COMPLEX TO SIMPLE

BEFORE

Multiple Platforms
High Inventory



AFTER

Standardised Platform
Optimised Inventory



BUSINESS IMPACT



REDUCED INVENTORY HOLDING COSTS

- ✓ Lower capital commitment
- ✓ Reduced storage requirements
- ✓ Less waste and write-offs



EASIER PARTS SOURCING

- ✓ Common components
- ✓ Multiple supplier options
- ✓ Faster lead times



LOWER OBSOLESCENCE RISK

- ✓ Proven, current technology
- ✓ Planned lifecycle support
- ✓ Fewer urgent replacements



**STANDARDISE. SIMPLIFY.
SAVE TODAY. STAY READY FOR TOMORROW.**



STANDARDISED PLATFORMS



OPTIMISED INVENTORY



REDUCED COSTS



IMPROVED RELIABILITY



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DATA VISIBILITY & OPERATIONAL INSIGHT

See More. Understand More.
Perform Better.

Real-time data and operational insights empower your team to make faster, smarter decisions and drive continuous improvement.



REAL-TIME DATA



SMARTER DECISIONS



BETTER PERFORMANCE



THE CHALLENGE

Many facilities lack meaningful operational data, making improvement initiatives difficult.



HOW STRATOS HELPS

SCADA systems, reporting tools and monitoring solutions provide real-time operational visibility across your plant.

REAL-TIME VISIBILITY ACROSS YOUR OPERATION

PRODUCTION PERFORMANCE	EQUIPMENT STATUS	ALARMS & EVENTS	ENERGY & UTILITIES	TRENDS & REPORTING

✔ One source of truth. Complete operational clarity.

TYPICAL IMPROVEMENT



FASTER ACCESS TO PERFORMANCE DATA

Dashboards and reports provide real-time data at your fingertips.



IMPROVED DECISION-MAKING SPEED

The right information, available when you need it.



ENHANCED ROOT CAUSE ANALYSIS

Historical data and event tracking make it easier to identify and resolve issues.

BUSINESS IMPACT



BETTER PRODUCTION MANAGEMENT

- ✔ Monitor performance in real time
- ✔ Identify bottlenecks and losses
- ✔ Drive continuous improvement



FASTER ISSUE RESOLUTION

- ✔ Detect problems sooner
- ✔ Reduce downtime and disruptions
- ✔ Improve team response



MORE INFORMED INVESTMENT DECISIONS

- ✔ Data-driven prioritisation
- ✔ Clear ROI justification
- ✔ Invest with confidence



SEE IT. UNDERSTAND IT.
IMPROVE IT.
TURN DATA INTO RESULTS.



REAL-TIME VISIBILITY



CENTRALISED DATA



PROACTIVE ALERTS



ACTIONABLE INSIGHTS



MEASURABLE RESULTS



ENERGY EFFICIENCY

Smarter Control.
Lower Energy Use.
Sustainable Results.

Stratos delivers automation solutions that reduce energy consumption while maintaining or improving performance.



REDUCE ENERGY USE



IMPROVE PERFORMANCE



SUPPORT A SUSTAINABLE FUTURE



THE CHALLENGE

Legacy automation systems often operate inefficiently and lack optimisation capabilities.



HOW STRATOS HELPS

Modern control strategies, variable speed drive integration and improved process control reduce unnecessary energy consumption.

OUR APPROACH



ANALYSE

Identify energy use and opportunities



OPTIMISE

Implement efficient control strategies and VSDs



MONITOR

Real-time energy monitoring and performance tracking



SUSTAIN

Continuous optimisation for long-term savings



MEASURE. OPTIMISE. SAVE. SUSTAIN.

TYPICAL IMPROVEMENT



5-20%

ENERGY REDUCTION

Typically 5–20% energy reduction depending on process and application.



SMARTER CONTROL LOWER ENERGY USE

Advanced control strategies ensure equipment runs only as needed.



VARIABLE SPEED DRIVE INTEGRATION

VSDs optimise motor speed, reducing energy waste.



CONTINUOUS MONITORING AND OPTIMISATION

Real-time insights drive ongoing efficiency improvements.

BUSINESS IMPACT



LOWER OPERATING COSTS

- ✓ Reduced energy bills
- ✓ Improved overall efficiency



REDUCED CARBON FOOTPRINT

- ✓ Lower greenhouse gas emissions
- ✓ Support corporate sustainability goals



IMPROVED SUSTAINABILITY PERFORMANCE

- ✓ Meet environmental targets
- ✓ Enhance ESG performance



ENERGY SMART TODAY.
SUSTAINABLE TOMORROW.



REDUCE ENERGY CONSUMPTION



LOWER COSTS



IMPROVE SUSTAINABILITY



DRIVE CONTINUOUS IMPROVEMENT

THE OVERALL RESULT

Measurable impact. Real business value.
Across every part of your operation.



BETTER AUTOMATION.
BETTER OUTCOMES.

TYPICAL IMPROVEMENTS ACHIEVED WITH STRATOS



15–50%
FEWER DOWNTIME INCIDENTS

Improved reliability and greater uptime.



30–70%
FASTER FAULT FINDING

Quickly identify issues and resolve faster.



20–40%
LOWER MAINTENANCE EFFORT

More efficient processes and better systems.



20–50%
LOWER SUPPORT COSTS

Reduced reactive support and external dependency.



30–60%
LOWER PROJECT RISK

Better planning, standardisation and proven approaches.



40–70%
LESS AUDIT PREPARATION EFFORT

Well-documented systems ready when you are.



30–60%
FASTER ENGINEER ONBOARDING

Standardised systems are easier to learn and use.



15–40%
LOWER SPARE PARTS INVENTORY

Fewer parts, lower inventory and less obsolescence risk.



50–80%
GREATER STANDARDISATION ACROSS FACILITIES

Consistent architectures, designs and standards.

THE RESULT FOR YOUR BUSINESS



MORE RELIABLE OPERATIONS

Reduced interruptions and greater stability.



HIGHER PRODUCTIVITY AND PERFORMANCE

Systems that enable your people to perform at their best.



LOWER TOTAL COST OF OWNERSHIP

Efficient to operate, support and grow.



STRONGER, MORE RESILIENT TEAMS

Empowered engineers and sustainable processes.



SUSTAINABLE FUTURE

Better outcomes for your business and the planet.



The result is not simply better automation—
it is a more efficient, reliable and maintainable operation that costs less to support throughout its lifecycle.

THE STRATOS DIFFERENCE

Unlike many automation providers who focus solely on project delivery, Stratos Control Systems focuses on the entire lifecycle of your automation systems.

OUR GOAL IS SIMPLE:

To help industrial organisations spend **less** time firefighting, less money maintaining ageing systems and **more** time operating efficient, reliable and scalable facilities.

REAL OUTCOMES. LASTING IMPACT.



REDUCE DOWNTIME

Improve reliability and keep operations running.



IMPROVE ENGINEERING EFFICIENCY

Spend less time on reactive issues and more on improvement.



LOWER LIFECYCLE COSTS

Reduce maintenance, support and upgrade costs.



SIMPLIFY SYSTEM SUPPORT

Standardised systems and documentation for long-term ease and flexibility.



SCALE WITH CONFIDENCE

Future-ready solutions that grow with your business.



STANDARDS-BASED AUTOMATION

Consistent. Reliable. Future-ready.



CONTROL PANEL DESIGN & BUILD

Built to standards. Built to last.



PLC SYSTEM UPGRADES

Modernise without disruption.



SCADA & SYSTEM INTEGRATION

Visibility that drives better decisions.



LIFECYCLE SUPPORT

Support that goes beyond go-live.



DOCUMENTATION THAT DELIVERS

Clear. Complete. Compliant.



We help manufacturers spend **less time** firefighting, **less money** maintaining ageing systems and **more time** running efficient, reliable operations.

