

# PLC & CONTROL SYSTEM UPGRADE SCOPE DEFINITION CHECKLIST

Define the Right Scope Before the Project Begins



Avoid costly surprises, scope creep and project delays.

Many automation upgrade projects encounter problems because key requirements are missed during planning. Use this checklist to ensure your PLC or control system upgrade has a clearly defined scope before engineering work begins.



1		<p><b>DEFINE THE BUSINESS OBJECTIVES</b></p> <p>What problem is the upgrade intended to solve?</p>	<input type="checkbox"/> Reduce downtime <input type="checkbox"/> Replace obsolete hardware <input type="checkbox"/> Improve reliability <input type="checkbox"/> Improve fault finding <input type="checkbox"/> Increase production output <input type="checkbox"/> Improve safety or compliance <input type="checkbox"/> Standardise systems <input type="checkbox"/> Improve visibility through SCADA <input type="checkbox"/> Support future expansion <input type="checkbox"/> Reduce maintenance costs		<p><input checked="" type="checkbox"/> Projects succeed when objectives are clearly defined.</p>
2		<p><b>ASSESS THE EXISTING SYSTEM</b></p> <p>Understand the current environment.</p>	<input type="checkbox"/> PLC platform identified <input type="checkbox"/> HMI platform identified <input type="checkbox"/> SCADA system reviewed <input type="checkbox"/> Network architecture documented <input type="checkbox"/> Control panels assessed <input type="checkbox"/> Remote I/O identified <input type="checkbox"/> Third-party equipment reviewed <input type="checkbox"/> Existing system limitations documented <input type="checkbox"/> Hardware lifecycle status reviewed <input type="checkbox"/> Obsolescence risks identified		<p><input checked="" type="checkbox"/> You cannot define the future without understanding the present.</p>
3		<p><b>REVIEW DOCUMENTATION</b></p> <p>Confirm available information.</p>	<input type="checkbox"/> Electrical drawings available <input type="checkbox"/> PLC backups available <input type="checkbox"/> HMI application backups available <input type="checkbox"/> SCADA backups available <input type="checkbox"/> Network drawings available <input type="checkbox"/> Panel schedules available <input type="checkbox"/> Previous modifications recorded <input type="checkbox"/> Documentation accuracy verified		<p><input checked="" type="checkbox"/> Poor documentation increases project risk.</p>
4		<p><b>IDENTIFY TECHNICAL REQUIREMENTS</b></p> <p>Clearly define what the new system must deliver.</p>	<input type="checkbox"/> PLC replacement required <input type="checkbox"/> HMI replacement required <input type="checkbox"/> SCADA upgrade required <input type="checkbox"/> Network upgrades required <input type="checkbox"/> Additional I/O required <input type="checkbox"/> New instrumentation required <input type="checkbox"/> Reporting requirements defined <input type="checkbox"/> Alarm requirements defined <input type="checkbox"/> Cybersecurity requirements identified <input type="checkbox"/> Data collection requirements defined		<p><input checked="" type="checkbox"/> Requirements drive project scope.</p>
5		<p><b>DEFINE OPERATIONAL CONSTRAINTS</b></p> <p>Understand what can and cannot happen during implementation.</p>	<input type="checkbox"/> Available shutdown windows identified <input type="checkbox"/> Production constraints documented <input type="checkbox"/> Critical processes identified <input type="checkbox"/> Safety requirements reviewed <input type="checkbox"/> Business continuity requirements documented <input type="checkbox"/> Recovery strategy agreed <input type="checkbox"/> Temporary operation requirements identified <input type="checkbox"/> Commissioning constraints defined		<p><input checked="" type="checkbox"/> Operational realities must shape project delivery.</p>
6		<p><b>IDENTIFY PROJECT RISKS</b></p> <p>Assess potential obstacles.</p>	<input type="checkbox"/> Obsolete components identified <input type="checkbox"/> Supplier lead times reviewed <input type="checkbox"/> Resource availability assessed <input type="checkbox"/> Site access requirements reviewed <input type="checkbox"/> Integration risks identified <input type="checkbox"/> Documentation risks assessed <input type="checkbox"/> Cybersecurity risks reviewed <input type="checkbox"/> Budget risks reviewed <input type="checkbox"/> Programme risks reviewed		<p><input checked="" type="checkbox"/> Risks identified early are easier to manage.</p>
7		<p><b>DEFINE PROJECT DELIVERABLES</b></p> <p>Clearly document what will be delivered.</p>	<input type="checkbox"/> Functional Design Specification (FDS) <input type="checkbox"/> Software development <input type="checkbox"/> Electrical design updates <input type="checkbox"/> Panel modifications <input type="checkbox"/> Factory Acceptance Testing (FAT) <input type="checkbox"/> Site installation <input type="checkbox"/> Site Acceptance Testing (SAT) <input type="checkbox"/> Operator training <input type="checkbox"/> Documentation updates <input type="checkbox"/> Final backup delivery <input type="checkbox"/> Ongoing support requirements		<p><input checked="" type="checkbox"/> If it is not documented, it is not part of the scope.</p>

## UPGRADE SCOPE READINESS SCORE

- 60+ CHECKED**

Excellent, project scope is well defined.
- 45 – 59 CHECKED**

Good preparation with minor gaps.
- 30 – 44 CHECKED**

Moderate risk of scope changes and delays.
- BELOW 30 CHECKED**

High risk of project overruns and uncertainty.

## THE BENEFITS

- BETTER BUDGET CONTROL**

Reduce unexpected project costs.
- FEWER CHANGE REQUESTS**

Minimise scope creep.
- FASTER DELIVERY**

Reduce delays during engineering and commissioning.
- LOWER PROJECT RISK**

Identify issues before implementation begins.
- IMPROVED STAKEHOLDER ALIGNMENT**

Keep engineering, operations and management aligned.

## HOW STRATOS HELPS

Stratos Control Systems helps manufacturers define upgrade requirements, assess existing infrastructure and develop practical project scopes that reduce risk and improve delivery outcomes.

Whether you're replacing obsolete PLCs, upgrading SCADA systems or modernising production controls, we help ensure projects start with the right foundation.

DEFINE THE RIGHT SCOPE BEFORE YOU START  
 Speak to an Engineer Today.

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