Selecting 'Smart':
Choosing a PLC Vendor

Automation control projects, no matter how large or small, commonly start with the following specifications:

"
The system shall fill all requirements, function with perfect efficiency, be perfectly interoperable with all existing devices, require zero maintenance, and cost nothing. In addition, it must be completed by Wednesday.
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Speed is crucial for success in a field with demanding requirements and crushing competition. As a professional, you can certainly work with a variety of devices from a number of PLC manufacturers—however, most of us have a preferred brand, a platform that we return to time and time again.

This is because Familiar = Fast. You know the hardware range. You know the software. You know what to expect—and you have the sales rep on speed dial.

For these reason, selecting the manufacturer that stands behind a brand of controllers is a major decision. It is every bit as important as your CPU and I/O requirements.

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PLC
+HMI
ALL IN ONE ™

Here are 5 factors to consider when making that selection:

✥ The PLC:
Broad Range of PLCs

Your selected brand must have a complete, full product range that can meet the requirements of your customers. PLCs, for example, must be able to supply sufficient memory to support I/O, log and manipulate historical data, as well as execute the control program. Where execution speed is critical, the CPU processing speed must be considered as well.

What are your sector's standards? Do your applications need to comply with hazardous environment standards, CFR-21.11, or the spray-and-wipe standards of the food and beverage industry?

Influenced by the mobile industry, your customers expect HMI color touch-panels to provide the communication window between operator and system. In cases where space is at a premium, PLC + HMI all-in-one controllers have a distinct advantage. Some PLC manufacturers provide PLC + HMI controllers with onboard or snap-on I/O modules, which, in addition to saving space, also greatly reduce wiring.

🖥 Communications:
Data Communication & More

Flexibility is key—the more protocols your selected brand of PLCs supports, the better you can support interoperability with existing applications and third-party devices.

Important industrial datacom protocols include MODBUS, CANopen and other flavors of CANbus such as CAN Layer2 and EtherNetIP. Some brands also support protocols such as SNMP and FTP. Check to see if your PLC manufacturer provides software utilities that enable you to implement proprietary third-party datacom protocols, whether serial RS232/485 or TCP/IP.

You can also benefit your customers by increasing the visibility of operating data and diagnostic information.

Web Server—the ability to access a PLC via web browser—and VNC support are excellent methods of remotely accessing a PLC, while SMS messaging and email are very handy for notification via mobile. You may also want to look for GPRS/GSM modem support.

⚙ Programming:
Look for Intelligent Software

Saving time is the primary benefit of intelligently designed software. There are two particularly important factors to consider:

Ease of use – ergonomic design means that you do not need to search for elements when programming. In addition, logical, consistent construction saves time, since the programmer intuitively knows what to do even when programming a particular task for the first time.

Re-usability – Insist on it. Whether you are programming Ladder or C functions, designing HMI screens and Web pages, or creating custom controls, the ability to re-use your work across projects will save big chunks of time.

❤ Maintenance:
Service and Support

Look for PLC manufacturers that offer a high level of customer care. Make certain that support, whether technical or sales, is easily available and prompt.

Personal support –meaning from people, not automated systems, that is available 24/7 is extremely valuable. This is what can make the difference in meeting your deadlines and retaining your own customers.

Support documents, specs, and guides, should be readily available. "The best things in life are free" – select a company that provides support and documentation at no additional charge.

💳 Cost:
Total Cost of Ownership

Cost is not limited to the actual cash you pay to purchase the PLC. Your development costs and future maintenance costs can make or break your profit margin.

Therefore, when you purchase a PLC, remember that you are also selecting the company that stands behind that PLC—and that this decision, over the long run, can have a major impact on your success in industrial automation projects.

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