

Manufacturing automation reliability and uptime at Airbus

“HardwarePT has never let us down”

Wayne Forrester, Airbus

Airbus at Broughton, North Wales, is responsible for assembling the wings for all Airbus civil aircraft. The site employs more than 6,000 people – primarily in manufacturing. This complex manufacturing operation has many departments and production stages. After assembly at Broughton, the completed wings are transported by road and then by river craft to Mostyn harbour, where they are loaded onto a custom-built roll-on, roll-off ferry for the trip to France. Each production stage relies upon manufacturing automation software to execute production tasks correctly and with minimum downtime. Airbus at Broughton uses the products and services of HardwarePT to provide reliable computer platforms for many of these manufacturing areas.

When seeking a solution to the standardisation and support of its multiple industrial computing requirements Airbus needed, above all, a reliable supplier that had not only a broad scope of equipment but also the value adding capability and support services. This was to ensure that production did not suffer from unplanned downtime which was attributable to computer failure in the shop-floor environment of large scale manufacture.

HardwarePT with Airbus specialists has now rationalised the supply of such products and holds ready-to-go spare units in case of failure. If these are needed they are dispatched same day and imaged by Airbus ready for very quick replacement. Airbus has a rolling programme of change-out which is supported by HardwarePT; this avoids life cycle problems which can also be expressed as ‘obsolescence drift’. Quarterly meetings are held which review each equipment type and to audit potential obsolescence which may cause prolonged downtime on

failure. These items are identified and actioned for replacement or upgrade. HardwarePT’s strong commitment to legacy equipment support makes sure that an upgrade is needed only when many options have been evaluated.

One of the key benefits that Airbus obtains from HardwarePT is the support of legacy and third party legacy equipment. At the detailed level this can reflect that expensive software may only run on certain operating systems and motherboards, also connectivity to plant is subject to technological change, all of which may cause a problem with inflexible modern replacement. HardwarePT is able to provide legacy support for all aspects of industrial computer hardware, allowing well proven software to continue providing value long after it was foreseen that it would need re-investment.

In line with the proven norms of the aerospace industry each HardwarePT supplied device is fully recorded and is traceable. The hardware

hardwarept
Industrial Automation Hardware

Client
Airbus, Broughton

Industry sector
Aerospace

Challenge
Technology management and procurement

Solution
Technology partnering with HardwarePT

Implementation
Obsolescence management, value added configuration and test, and comprehensive support



Computer controlled Wing Stringer Contour Forming machinery

A batch of pre-configured and tested rack mount industrial computers ready for deployment



configuration process takes place in HardwarePT's workshops at Cheadle before testing and subsequent shipment to Broughton. Each machine's components at unit level are fully documented as part of the service level agreement.

Wayne Forrester and Steve Rose (Airbus) commented that the reliable and efficient services provided by HardwarePT greatly helped in their business critical industrial computing requirements. When asked about support in a potential crisis they said, "HardwarePT has never let us down".

HardwarePT provides a rationalised portfolio of technology to Airbus. This includes 2U and 4U Rack mount Computers Advantech ACP-2000 and ACP-4000, Panel PC models PPC-125T, FPM-5151G and FPM-5171G, 15 and 17" Flat screen monitors and SPower on-line rack mount UPS.

Although the industrial computers supplied by HardwarePT are used in many applications at Airbus Broughton some of them are mounted in a shop floor console which also houses a HardwarePT supplied on-line UPS. This UPS technology protects against all forms of mains disturbance, not just

protecting against temporary loss of supply. Many of the UPSs have SNMP fitted to signal status and potential problems to a central location.

The broad equipment scope that is available to HardwarePT means that that Airbus standard supply has been optimised and rationalised. This provides measurable efficiencies and flexibility when allocating a batch of machines. However a supplier is measured on their reaction to something that could be critical. Wayne and Steve both identified the HardwarePT Support as fast and reliable in response to support calls; all calls are properly logged, adding that their technological know-how was excellent and that HardwarePT's willingness to look after and support third party equipment was valuable.

In summary James Crewe, Airbus, said, "HardwarePT is always there to help us". James added that HardwarePT also took care of the important environmental issues of the correct disposal of electronic material and UPS batteries in accordance with environmental directives and Airbus policies.

Many of the PCs run Wonderware products such as InTouch SCADA/HMI for visualisation and Wonderware Historian for data collection and analysis. Wonderware UK is a sister division to HardwarePT within the company SolutionsPT, thus many support and procurement requirements can be resourced at a single location.

Through a process of quarterly meetings Airbus is able to manage risks associated with technological obsolescence and also to be aware of new products and technologies that can benefit the demanding manufacturing environment that is fundamental to the business that Airbus is in. HardwarePT is an effective technology supplier to Airbus, and in many ways is 'part of the team' in providing numerous professional services that help to make technology management at Airbus a great deal simpler and more effective.

hardware **pt**
Industrial Automation Hardware

HardwarePT offers a comprehensive range of world-class industrial hardware and connectivity tools suitable for all environments.

We supply branded products and integrated solutions built with leading edge technology to support Ethernet, Embedded Computing, Wireless Technology, Data Acquisition, Industrial Connectivity and High Availability Servers.

We present a complete range of services and support packages for longevity supply including design work, custom builds, legacy support, on-site repairs and site scans. In addition we offer pre-sales and post-sales consultancy delivered with first class technical expertise.

HardwarePT wishes to thank Airbus for their help in the preparation of this case study.

solutions **pt**
Industrial Automation Solutions

SolutionsPT is a leading supplier of manufacturing solutions to major companies across the UK and Ireland. Using world class industry expertise, quality training and support facilities and a proven range of software and hardware products, SolutionsPT specialises in building manufacturing management solutions that can increase productivity and supply corporate management with the information they need to make sound business decisions.

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