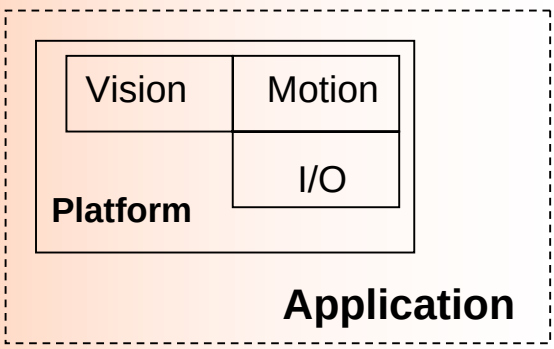
ICP DAS Automation Controller for Material Handling Equipment & System

With the promotion for PC and widely display application for CPU with machines recently, the electrical parts of production, assembly and test equipment have been replaced from PLC controller to PC-Based system, where semiconductor, passive component, FDP (mainly LCD/LCM), and PCB industries are major application clients.

For the field of automation control, there can be classified as five items (refer to Fig. 1). In addition to AP and most of them programmed by equipment suppliers (outsourcing to other coordinators under the special case), industrial control manufacturers specialize four items, including Platform. If a supplier can provide the total solutions for the whole system, he will be a leading company in this field.

ICP DAS has developed in the control industry for many years. We have experienced for factory automation (FA), environmental monitoring and analog/digital data retrieve. Of course, we will focus on equipment automation controller. For the product development, new products will be available in the beginning of 2006 except video serials. The rest of products, including Platform (PAC, IPC), Motion (PCI/ISA Card, Remote Module) and I/O (PCI/ISA Card, Remote Module), have been developing and produced.

For the application examples of actual equipment, 20-axis motor and 250 I/O points will be adopted for most commonly used automation transportation equipment (L&UL).



(Fig.1)

The total solutions provided by ICP DAS are as follows:
(1) Platform: IPC (P4 Level, Windows XP)
(2) Remote Controller: 5 sets

The specifications of each controller are as follows:
MCU: I-8430*1 (CPU=80188, 40MHz)
Motion: I-8094F*1 (4-Axis Stepper/Servo module)
I/O: FR-2053T*1 (Distributed I/O module with 16-points isolated digital input)
FR-2057T*2 (Distributed I/O module with 16-points isolated digital output)

For serial automation system in comparison with other competitors, the ICP DAS controllers can provide the following advantages:

1.Remote MCU: Even though Host PC crashed, remote motion and I/O control will normally work without motor over-thrust or collision.

2. Built-in CPU: Efficiency to control motion can be greatly improved.

3. Open network architecture: PC-based clients can easily introduce this system, which can greatly improve the developing schedule for software.

4. Star layout: In compliance with distributed architecture.

5. Space saving: In comparison with competitor's products, the ICP DAS controllers can greatly reduce the installation space.

(Fig. 2) A diagram of remotely distributed motion and I/O module for ICP DAS