



# Hero Series

## Embedded Single Board Computer



ICPDAS provides not only stable and robust embedded SBCs, but also solution corresponding to each layer of customer product architecture to help our customers to integrate their embedded systems seamlessly and efficiently and to meet their time-to-market requirement



# Embedded Single Board Computer



## What is Hero

The HERO is an All-In-One RISC base CPU Board with artistic shell covered for users to integrate it to the control platform easily. By using the Intel PXA255 XScale® RISC microprocessor, the HERO is designed for high performance, low power, Fan-Less and because of these specifics, the application of HERO is very wild, for example : Industrial Automation, Factory Automation, Building Automation and Machine Automation. The Hero can be fit for rigorous environment. In addition, the Hero support WinCE.net and Embedded Linux OS. You can select the needed OS version to fit for your need.



## Integration Features

### Support IPC Capabilities

- Intel® XScale® PXA255 32 Bits Processor
- Clock rates up to 400 MHz
- Windows CE.NET
- Linux
- Supports VGA , Ethernet, USB, Keyboard, Mouse, Compact Flash

### Built-in Ethernet connectivity

- DAVIDCOM DM9000 10/100 MB Fast Ethernet Controller
- RJ45 Connector.

### VGA Support

- 2D Graphics Controller
- Display Resolution up to 640x480
- Built in 2MB video memory

### Universal fieldbus supported

- CAN bus network supported
- Industrial RS232/RS485 supported

### Remote I/O

- Support ICP DAS I-7K/I-8K/I-87K Series modules to fit hazardous industrial environment.

### Advanced programming environment

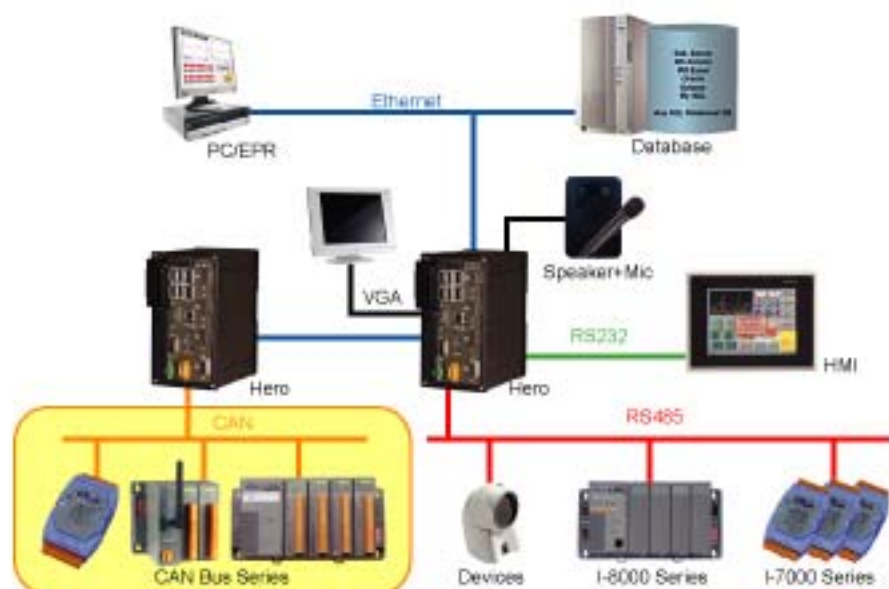
- Linux: GUN C Language and Java
- WinCE: Microsoft Embedded Visual C++, Visual Basic .NET or Visual C#

### HMI/ SCADA automation technology

- InduSoft (WinCE based only)- Hero provides a bundled driver to integrate the application performance and easy to use of software and hardware.
- IsaGraf - Hero supports ISaGRAF to be easily integrated with many HMI software and devices such as ICP DAS's MMICON, iFix, Iconics, Wizcon, Intouch, Citect, Indusoft, Kepware's Modbus OPC server, Touch 506, 510, etc.



# Embedded Single Board Computer



## Embedded RTOS

Each of our embedded SBCs is embedded Linux/WinCE built-in, and we also provide OS image OEM/ODM services for our customers to utilize their systems.



Microsoft  
Windows CE.net



Linux

## Software Development Kit

### Linux based SDK for Hero-4701L/ Hero-4501L :

ICPDAS provides the library file — libi8k.a which includes all the functions of the I-7000/8000/87k series modules. Users just install LinCon SDK in Windows PC, the cygwin environment will be established automatically and users can develop LinCon-8000 Applications easily by GNU C Language. Otherwise, users can also use Java to develop LinCon applications.

### WinCE based SDK for Hero-4701W/ Hero-4501W

The NuWaSDK\_LIB has all the essential Library functions designed for the IO series modules of ICPDAS for Microsoft WinCE.Net platform. It can be applied on eMbedded Visual C++ on WinCE 4.2.Net, and even on the newer platforms. Users can easily develop WinCE.NET applications on NuWa by using this toolkit. The various functions in NuWaSDK\_LIB are divided into the following sub-group functions for easy use in different applications.





# Embedded Single Board Computer



## Automation Solution ISaGRAF

The Hero supports ISaGRAF to be easily integrated with many HMI software and devices such as ICP DAS's MMICON, iFix, Iconics, Wizcon, Intouch, Citect, Indusoft, Kepware's Modbus OPC server, Touch 506, 510, etc. When the ISaGRAF controller integrate with a GSM Modem, Short Message Service is supported. It can deliver message to a cell phone to report information, or receive message from a cell phone to control something.



*(WinCE based Only)*

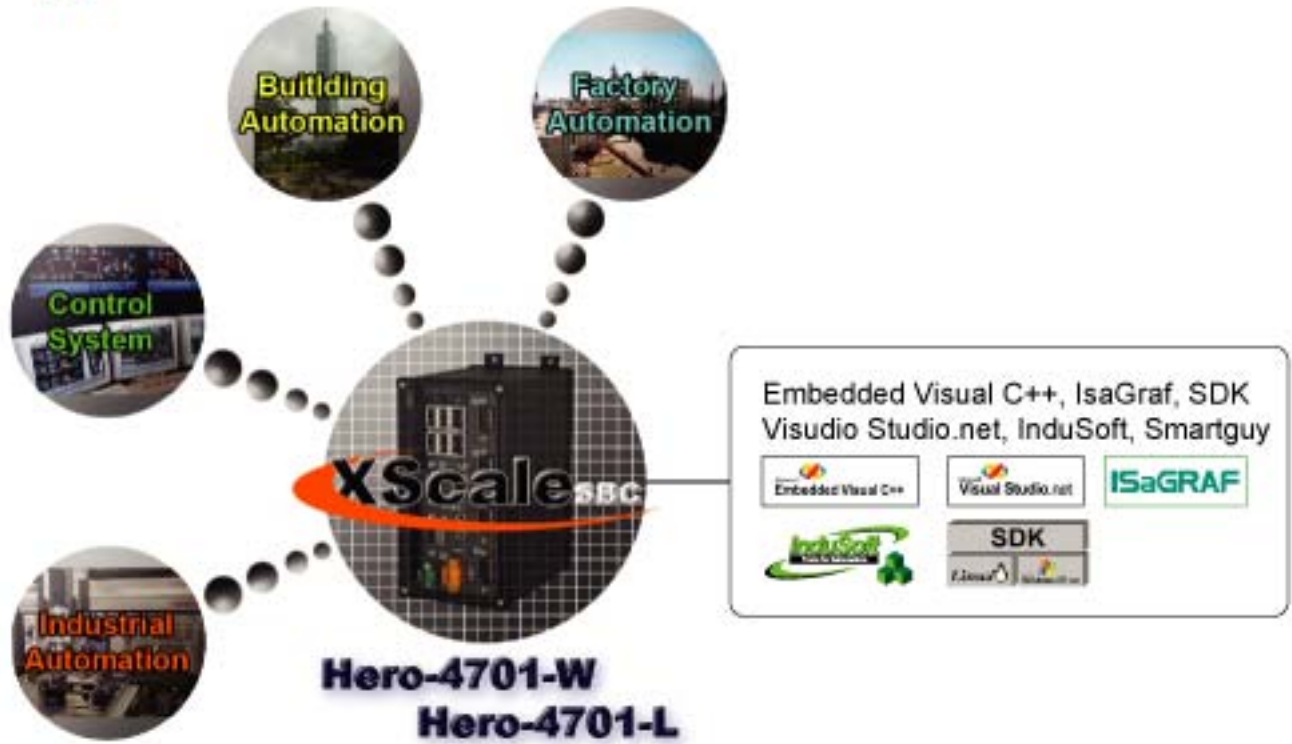
The Hero provides a bundled driver to integrate the application performance and easy to use of software and hardware. It can play as an intelligent distributed data acquisition front end connected to a Host machine running a standard SCADA package.



# Embedded Single Board Computer



## Application Field

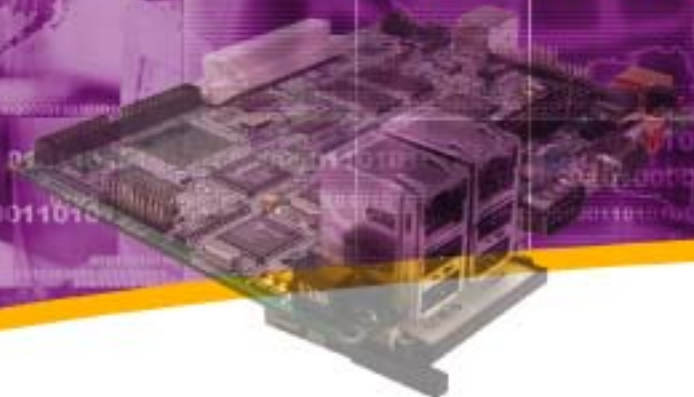


## Wireless Solution





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## Application Reference

### School Library Monitor System

Lighting Control System

Monitor and Control the light in the School Library.

Computer usage Monitor system

Monitor the usage of PCs in the School Library.

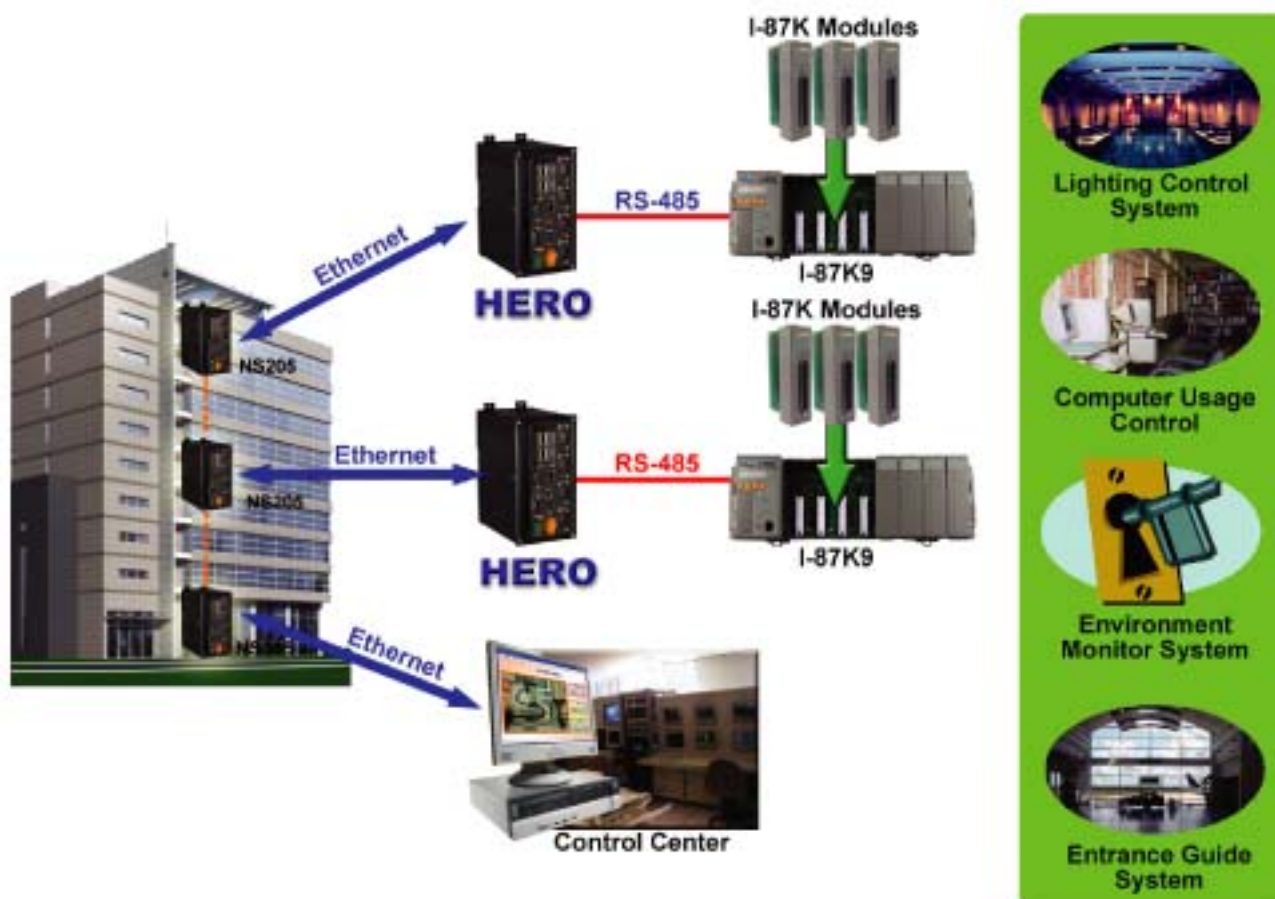
Environment Monitor System

Control and Monitor the status of the window, doors in the School Library.

Entrance Guide System

Manage the entrance to the School library.

## Control Center: The Center to monitor, control and store data.



# Embedded Single Board Computer



## Specification

	HERO-4701W	HERO-4701L	HERO-4501W	HERO-4501L
Operation System	Windows CE.net	Embedded Linux	Windows CE.net	Embedded Linux
Processor	Intel XScale PXA255			
Processor Clock Rate	400 MHz			
Flash A (32 Bits Mode)	32 MB			
Flash B (16 Bits Mode)	8MB			
System Memory	64 MB SDRAM			
Compact Flash Interface	Type I/II x 1			
Hardware Unique ID	v			v
RTC	v			v
Watch Dog Timer	v			v
Touch Interface	v			v
RS-232	4			1
RS-485	1			1
USB Client	1			1
AC97' Audio	v			v
SRAM (Battery Backup)	512 KB			512 KB
EEPROM	128 K bit			128 K bit
PCMCIA	Type II			N/A
10/100 Ethernet	2			2
USB Host Port	4			4
CAN Bus	1			N/A
Power In	DC 5V, optional DC 12V for LCD			
Dimension	153mm x 135mm x 82mm			
Operation Temp.	0~70°C			



<http://www.icpdas.com>



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