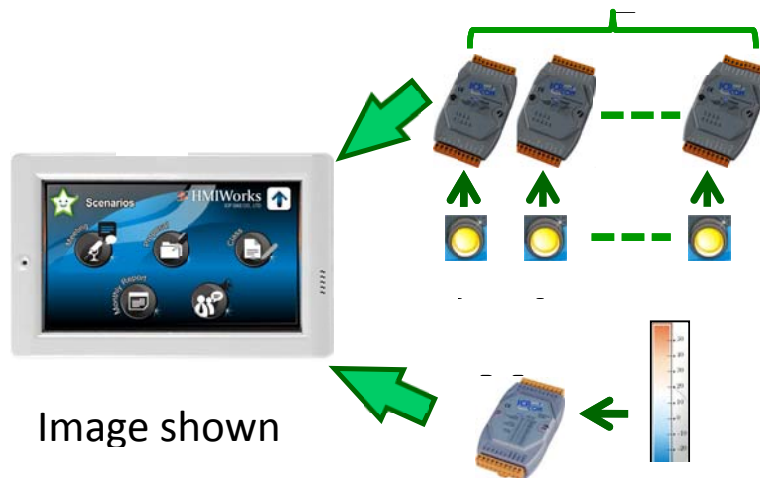




Application Story: ICP DAS Amphitheater Classroom

Introduction

A common amphitheater classroom usually contains lights and air conditioners. We implemented an HMI device to control all of the lights and air conditioners at our ICP DAS Amphitheater Classroom at our headquarters. We also use several scenarios like Meeting, Proposal, and Class to simplify amphitheater operations.



Case Analysis

Every light and air conditioner should be controlled by a touch HMI device. An amphitheater classroom usually has many switches for all of the lights. Because of the great number of lights, it is not possible to put them all on one screen of the touch HMI device. To save space, we implement multi-page control. Also, we used scenarios for easier control from the HMI device.





Configuration

We used the following devices.

- 1 x TPD-430 (16M SDRAM / 8M Flash touch HMI device)
- 19 x M-7065D (4 digital inputs / 5 relay outputs module)
- 1 x M-7018 (8 analog inputs module)

As shown in the application diagram, we used TPD-430 to control M-7065 and M-7018, Modbus RTU based data acquisition modules. M-7065 is used to control lights and air conditioners. M-7018 is used to read back the temperature value of the sensor (thermocouple).

Project Planning

Pages inside of the TPD-430	Description
	<p><i>Main Page:</i> This page provides the temperature reading and the menu.</p>
	<p><i>Air Conditioning Page:</i> This page is used to control the air conditioner.</p>



	<p><i>Down Light Page:</i> This page controls all the downlights. The downlight is the yellow light which emits right down onto the seat.</p>
	<p><i>Fluorescent Light Page:</i> This page controls all the fluorescent lights.</p>

To download HMIWorks:

<ftp://ftp.icpdas.com/pub/cd/touchpad/setup/>

Application Photos

– An amphitheater classroom at our ICP DAS headquarters





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More Information

TouchPAD web page: http://www.icpdas-usa.com/touchpad_controller.html

M-7000 Remote I/O Modules:

Analog: http://www.icpdas-usa.com/m_7000_analog_data_acquisition_modules.html

Digital: http://www.icpdas-usa.com/m_7000_digital_data_acquisition_modules.html

Email: sales@icpdas-usa.com