

CHILDERS SQUARE, Canberra

The Childers Square building has been designed to achieve 4.5 Star NABERS and 5 Star, Green Star environmental ratings and encompasses many **environmentally sustainable design initiatives** including a grey water harvesting and re-use system. CTI was contracted to provide the electrical energy management system which included a flexible DALI lighting control system, integrated HVAC, emergency lighting, blinds and louvers and meters. CTI's solution provides a scalable and modular system designed for future system expansion within the building.



Childers Square, Canberra

The **CTI solution** incorporates a high end Beckhoff IP Building Automation system complete with an OPC front end designed for easy client use, lighting control, DALI reporting and alerting. The solution includes daylight harvesting, perimeter dimming, emergency testing and reporting and complete scheduled operation of lights via a Graphical User Interface. The entire system is supported by a comprehensive Support Agreement.

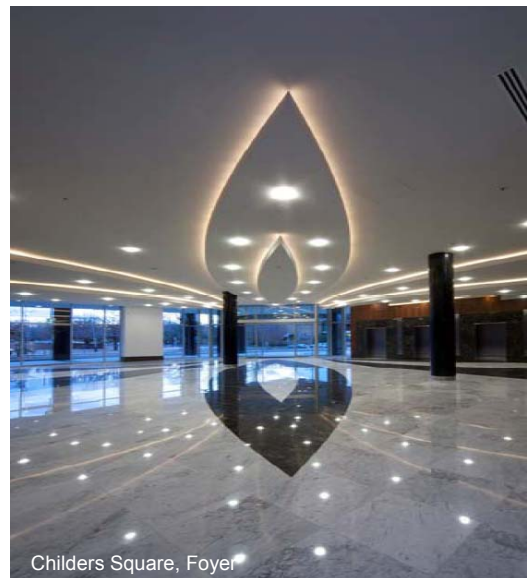
Project highlight

The highlight of this project for CTI was the integration of a complex IP network and the use of the latest generation SmartSpot sensors which provide a smooth dimming curve for perimeter daylight harvesting.

Connectivity

The system is based on the Beckhoff CX9000 Embedded PC using Microsoft Windows CE. The CX9000 uses a 266MHz Processor and is DIN mounted. Each CX9000 is connected to a dedicated high speed Ethernet IP network.

Beckhoff KL6811 DALI cards interface to the DALI luminaires and DALI Emergency fittings. The KL6811 includes integral DALI power supply and supports up to 64 DALI Slaves.



Childers Square, Foyer

CASE STUDY

KL1104 4 Channel input cards provide inputs for local switches and motion sensors. ZB6811 SmartSpot sensors provide multilevel light level sensing, dimming and motion sensing for perimeter lighting groups.

OPC provides the user friendly front end controls via multiple pages and simple click boxes. Pages are dedicated to Emergency light and DALI ballast testing and reporting. The front end can be upgraded at any time to include new drawings that show office layouts. The OPC based system allows for full integration with other systems such as security, AV, HVAC and BMS systems.



Project Information:

Value: \$87million

Description: 7 levels including car park

Construction Time Frame: 24 Months

Floor Space: 15,210m²

System Components Used:

28 x Beckhoff CX9000 CPU Module

35 x Beckhoff KL1104 - 4 Channel Input

85 x Beckhoff KL6811 - DALI Master & PS

28 x Beckhoff KL9010 - Bus End Terminal

100 x Beckhoff ZB6811 - SmartSPOT

Beckhoff TwinCAT PLC software

Beckhoff TwinCAT Building Automation FW

Beckhoff TwinCAT PLC DALI software

OPC System.NET & reSCADA

Project Partners:

Product: **Beckhoff Automation**

Front End: **OPC Controls and Alarms**

Contractor: **Network Electrical Services**

Consultant: **EMF Griffiths**

Architect: **Architects Ring & Associates**

Owner: **Amalgamated Property Group**



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CTI Building Automation
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