

IKEA

Home Furnishings

MALAYSIA

C-Bus Control and Management System

Case Study ¹⁸



Bright IKEA

From humble beginnings in 1943, IKEA home furnishings has blossomed into a multi billion dollar organisation with more than 128 stores in over 29 countries. When IKEA opened its Malaysian store in 2003, it implemented a state of the art integrated building management system (IBMS) that would provide an unparalleled level of lighting control to complement IKEA's unique shopping experience and maximise energy efficiencies.

Situated in the thriving new township of Mutiara Damansara in Petaling Jaya, Selangor, this IKEA store is the largest dedicated home furnishing retailer in Malaysia and biggest IKEA store in Asia. The store spans 33,450m² over three levels as well as another two levels of underground car parking.

IKEA's 3000 individual lighting circuits play an important role in the store. Customers are encouraged to wander through the many furnished showrooms and market halls with the emphasis being on self-serve which is why there is so much information on price tags. Lighting is cleverly used to create a friendly mood

Even IKEA's 50m sign tower is programmed by C-Bus to illuminate at preset times.

yet not hinder information from being easily read. There is also a playland area to entertain children that allows parents to shop without distraction. Here the lighting is bright and inviting. When customers have made their purchases, they collect large furniture items in the form of the famous IKEA flat packs from the well lit warehouse.

Given the size of the facility, DC Consulting Engineers in collaboration with electrical contractor, CBH Engineering Sdn Bhd and Systems Integrator, A&S Building Tech Sdn Bhd, designed and installed a comprehensive system that would provide automated control of the building's lighting requirements. Well-known for their reliability and cost-effectiveness, Clipsal C-Bus was specified as the IBMS and Clipsal's C-Lution end-user software was chosen to provide real-time control and monitoring of the system.

Localised lighting control

In the main office area, individual C-Bus key input units have been installed, allowing localised control of lighting. Similarly, meeting rooms have been fitted with a dimming switch that allows occupants to easily control the lighting environment. Occupants simply have to soft press and release the switch to turn lights on and off, or press and hold to ramp lights up and down.

Maximising energy savings with sensors

For cost-effectiveness, PIR Motion Sensors have been installed in rest rooms. During business hours this lighting remains on allowing safe passage for customers, after hours rest room lighting is only activated via the motion sensors. Light level sensors have also been utilised to eliminate unnecessary lighting costs. Located on each floor, the sensors monitor light levels and transmit this information back to the C-Bus Network. To maintain pre-programmed lighting levels, commands are then sent via C-Bus to switch specific lighting ON or OFF as required.



Scheduling means hands free switching

Another function of the lighting system is the C-Bus Scheduler. This program enables the building services staff to pre-set when each lighting group is turned on and off. The time can be set on a daily, weekly or monthly basis.

C-Lution interface allows master control

Monitoring the 3000 individual lighting circuits, the C-Lution interface is accessed via a PC located in the security room, and allows easy command and control of lighting in individual areas. From this central location, building services staff utilise C-Lution's 'scheduler' feature to program specific lighting to turn ON or OFF automatically at preset times. This even extends to IKEA's 50m sign tower, the tallest sign tower in Malaysia, which has been scheduled to illuminate from 7pm to 1am and 5.30am to 7am.

In addition, C-Lution also provides status information about other electrical services that are interfaced to C-Bus, including; all main and secondary switchboards and distribution boxes, water tank and chiller room. This information includes; tripping status, pump status, volt and amp readings and alerts building services staff to the specific location of any emergencies, enabling them to respond and restore any failures quickly and efficiently. C-Lution can even generate reports for future reference.

To cover any contingency, a key input has also been installed in each electrical distribution board allowing building services staff local access to lighting should the C-Lution interface fail.

The leading home furnishings brand in the world, the owners of Malaysia's newest IKEA store are thrilled with the results that C-Bus delivers. With C-Bus, they have not only realised superior lighting control, but significant operational and labour savings as well.



The IKEA store in Mutiara Damansara is the largest one in Asia.

The Benefits of C-Bus Control

Features	Benefits
Individual key inputs	Localised lighting control
Motion Sensors	Reduces lighting energy costs
Master Control in Security Room	Allows central override of all lighting
View status of electrical services on PC	Faster response to faults

Installation Data

C-Bus Project	IKEA Mutiara Damansara, Malaysia
Architect:	TJ Ong Architect
Developer & Owner:	Ikano Pte Ltd
Consulting Engineer:	DC Consulting Engineers
Systems Integrator & C-Bus Installer:	A&S Building Tech Sdn Bhd (BMS)
Electrical Contractor:	CBH Engineering Sdn Bhd



C-Lution interface enables master control of all lighting and monitoring of C-Bus and all electrical services.

Products of Clipsal Integrated Systems Pty Ltd

Member of Clipsal Australia Holdings Group

ABN 15 089 444 931

Head Office

12 Park Terrace, Bowden
South Australia 5007

PO Box 103 Hindmarsh
South Australia 5007

Telephone (08) 8440 0500
International +61 8 8440 0500

Facsimile (08) 8346 0845
International +61 8 8346 0845

Internet www.clipsal.com/cis
E-Mail cis@clipsal.com.au

CIS Technical Support Hotline

1300 722 247

Offices in all States

NSW Sydney (02) 9794 9200
Albury (02) 6041 2377

VIC Melbourne (03) 9207 3200
Country Areas 1800 653 893

QLD Brisbane (07) 3244 7444
Townsville (07) 4729 3333

SA Adelaide (08) 8268 0400

WA Perth (08) 9442 4444

TAS Launceston (03) 6343 5900

NT Darwin (08) 8947 0278

International Enquiries

International Sales and Marketing

Telephone +61 8 8269 0587
Facsimile +61 8 8340 7350
E-Mail export@clipsal.com.au

New Zealand

Clipsal Industries (NZ) Ltd
Telephone +64 9 576 3403
Facsimile +64 9 576 1015
E-Mail headoffice@clipsal.co.nz

Customer Service

Free Facsimile(0508) 250 305
Auckland/Mobile Phone (09) 572 0014
Free Phone (0508) CLIPSAL
2547725

Malaysia

Clipsal Integrated Systems (M) Sdn Bhd
Unit 3-2, Level 3, C P Tower
No.11, Jalan 16/11, Seksyen 16,
46350 Petaling Jaya, Selangor, Malaysia
Telephone +60 3 7665 3555
Facsimile +60 3 7665 3155
E-Mail sales@cisasia.com.my

Hong Kong

Clipsal Integrated Systems (HK) Limited
1/F Kam Bun Industrial Building
13-19 Kwai Wing Road
Kwai Chung, New Territories
Hong Kong
Telephone +852 2487 0261
Facsimile +852 2480 5865
Email infocis@clipsal.com.hk

International Representatives

China

Clipsal China Limited
Telephone +86 755 8237 5959

Greece

Schneider Electric AE
Telephone +30 69 4646 3200

India

Schneider Electric India Pvt Ltd
Telephone +91 11 5159 0000

Indonesia

PT Clipsal Graha Nusa
Telephone +62 21 630 6430

Korea

Clipsal Korea Co. Ltd
Telephone +82 31 708 9240

Pakistan

Clipsal Pakistan (PVT) Ltd
Telephone +92 21 506 7278

Philippines

Clipsal Representative Office
Telephone +632 683 0275-78

Singapore

Clipsal Integrated Systems Pte Ltd
Telephone +65 6415 3232

South Africa

Clipsal South Africa (Pty) Ltd
Telephone +27 11 314 5200

Sri Lanka

Clipsal Lanka (PVT) Ltd
Telephone +94 11 4 792 111

Taiwan

Clipsal (Taiwan) Co Ltd
Telephone +886 2 2558 3456

Thailand

Clipsal Thailand Ltd
Telephone +66 2 952 5338-42

United Arab Emirates

Clipsal Middle East
Telephone +971 6 5570 777

United Kingdom

Clipsal Integrated Systems (UK)
Telephone +44 1628 508 530

Vietnam

Clipsal - VTEC
Telephone +848 856 3002

You can find this brochure and many others online in PDF format at:

clipsal.com

Follow the links off the home page or access the following page directly:

clipsal.com/wat_lib_pdf.cfm

clipsal.com/cis

Clipsal Integrated Systems Pty Ltd reserves the right to change specifications, modify designs and discontinue items without incurring obligation and whilst every effort is made to ensure that descriptions, specifications and other information in this catalogue are correct, no warranty is given in respect thereof and the company shall not be liable for any error therein.

©Clipsal Integrated Systems Pty Ltd 2004.
All rights reserved.

This material is copyright under Australian and international laws. Except as permitted under the relevant law, no part of this work may be reproduced by any process without prior written permission of and acknowledgement to Clipsal Integrated Systems Pty Ltd.