INTELLIGENT CONTROLS IN BUILDINGS
ENVIRONMENTAL CONTROL SYSTEMS
THE NORTH AMERICAN MARKET 2005 - 2010

FOR OPERATORS - SUPPLIERS AND SPECIFIERS OF ENVIRONMENTAL CONTROL SYSTEMS WORKING TOWARDS AN INTELLIGENT AND INTEGRATED FUTURE

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Introduction

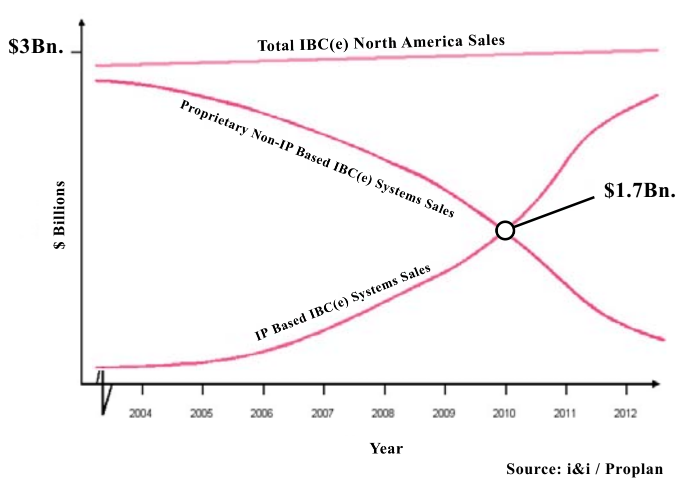
This study is part of a series of multi-client reports on the world's market for Intelligent Controls in Buildings - Environmental Control Systems (IBC(e)[1]). "The North American Market 2005 to 2010" is our third edition on the environmental control systems business in this region and, based on data from manufacturers representing more than 80% of sales to the market, is the most detailed and accurate current report published on this subject. Support from all the major manufacturers and suppliers over the last twenty years has enabled us to develop a series of robust models that takes account of inputs from all distribution channels and trends numerous market segmentations plus product and system cost structure over the last decade. This 265 page report benefits from comparisons with similar studies carried out in different regions of the world and related technical infrastructures in buildings. It is split into two volumes, where volume I comprises the executive summary, brings together the main findings so that the implications of operating different strategies can be clearly understood, and volume II provides the detailed analyses so that trends can be established over time and the impact of demand drivers evaluated. All data in our studies is clearly defined for both the product and systems business, so that realistic forecasts of demand over the next three years can be made and strategies developed.

The Dynamics of this Business

Trading conditions for IBC(e) manufacturers have been difficult in the last four years for they have had to cope with a declining market and increased competition from third party suppliers which together have increased price pressures and reduced cost per point and installed prices. This has escalated the relentless process of consolidation on the supply side and widened the gap between the major global companies and the smaller specialist suppliers, bringing about some significant changes in market share status across both the product and systems business. On the technology front, although significant change has taken place, the picture is much more stable, for this industry has not had to cope with the scale of disruptive change that the computer and communications industries have had to endure. But a metamorphosis is now under way which is being created by the convergence with IT-Networks and enabled by web services and XML. We estimate that by 2010 around $1.7 billion, accounting for 40% of IBC(e) system sales, will be fully IP based. Within the last two years there has been a significant move to converge building controls with IT-Networks and the business is moving away from one solely built upon controls to one committed to delivering information and value add services to improve the value and performance of their client's buildings.

There are a few global suppliers that have the skills and financial muscle to meet the new challenges and independently grow this business. Most will have to form partnerships led by "super integrators" having the capability and credibility to convince buyers that there is a business case for the investment and they can deliver a no risk, robust solution. Already, partnerships have been formed that are bringing together IBC(e) system suppliers with specialist companies that have developed software based integration tools and IT based companies, to deliver holistic solutions. These have been targeted at the new construct and major refurbishment markets. However, this report shows that the biggest spend is in the retrofit market where some $150 million was spent in North America in 2005, web enabling existing systems so that information from different manufacturer's systems could be brought together on a common platform that could at some future date be directly connected to the business enterprise network.

Forecast Growth of IBC(e) Systems & Penetration of IP-Based Solutions in North America 2004-2012

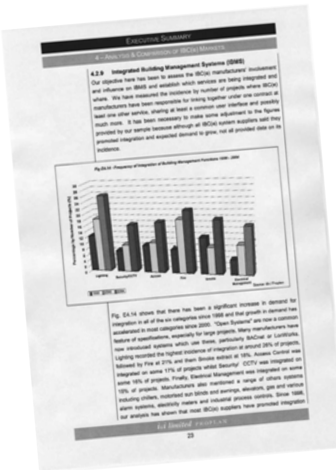


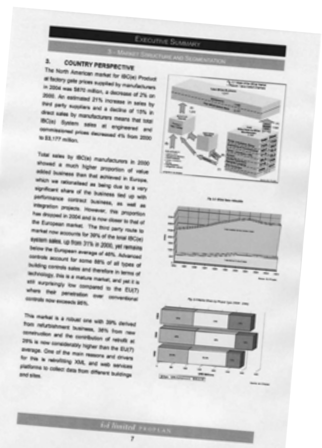
What is in this study?

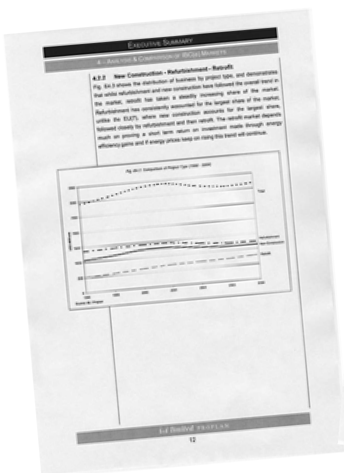
Within its 265 pages and over 150 charts and tables this study tells you:

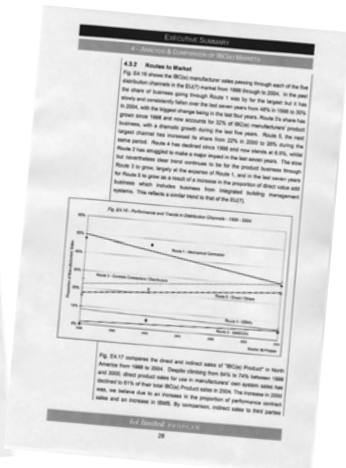
- The sales by Product (factory gate prices) and Systems (installed) for direct and indirect channels, to 2004 , with forecast to 2010.
- The level of penetration of system sales comparing with performance in previous years.
- The market size by type of project, new construction, refurbishment and retrofit and demand to 2010.
- The market size by contract value (4 segments).
- The market size by single, multiple & multi-site projects.
- The market size by type of hardware (9 products), including web enabled devices and those using a common communication protocol.
- The market size by type/end use of building (16 categories).
- The geographic distribution of sales in 5 regions.
- The distribution channels and the volume of business that they handle, comparing trends in "product" and "system sales".
- Sales and market share bands for all established suppliers, by DDC product, and total system sales.
- Profiles of established suppliers provided in a standard format allowing comparisons to be made.
- An analysis of the major demand forces & buying motives.
- A detailed analysis of the channels of distribution and emerging trends and changes in contractual procedures and the impact that they are having on the business.
- Technology and particularly the convergence with IT, will be the crux of structural change in the next few years is reviewed under the headings:
- Overview of Current & Emerging Technologies
- Product Development - Web Services & XML
- Product & Communication Standards
- Assesses the IBC(e) suppliers' influence on the Integrated Building Solutions business, measuring the incidence of integration in thirteen different building types.
- It explains why the recent developments in communication initiatives and convergence with IT and the Enterprise Network will bring down the road blocks that have for so long held back progress in delivering total solutions that increase the performance and value in buildings.
- For Eureka, by specifying systems that are based on Web Services and XML, building owners and operators will be freed from the dubious task of either buying systems from one supplier to guarantee interoperability or the obligation to chose between incompatible controls technologies. Instead "best of the breed" policy can be pursued safe in the knowledge that it will work together, interoperating with other manufacture's web embedded, web enabled products across all technical infrastructures and at the same time easily adapting to change and an unpredictable future.

Intelligent Controls in Buildings









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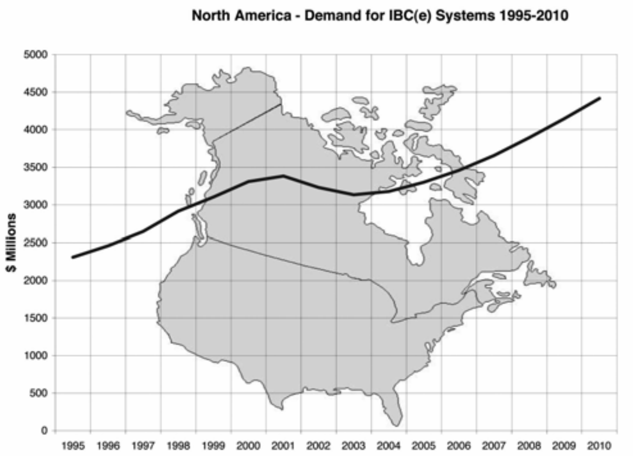
Market Overview

The North American Market for IBC(e) systems at $3.3 billion in 2005 is the world's largest single market. The chart below shows that the market has been cyclical between 1995 and 2004, with rapid consistent growth from 1995 to the middle of 2001 and then falling away but bottoming out in 2003 and then returning to growth in 2004/5. Our forecast is for continued growth over the next 3 years on the back of strong activity in the construction of new buildings, participation in a rapidly growing market for IT-Convergence and rising energy prices coupled with increased demand for sustainable buildings having improved energy efficiency and air quality.

This report shows that buoyant new construction and an expanding refurbishment business will continue to play a key role in the recovery and growth of this market. In addition, there has been strong growth in integration and remote control of building services which will add further momentum and sustain demand into the future. In particular, this is where our report shows that IT-Convergence is starting to play a major role but it will be up to the IBC(e) manufacturers and third party suppliers to ensure that they make the most of this opportunity.

This report manifestly demonstrates that this market, continues to offer the best opportunity in the developed world for sustained growth over the next five years and must be a priority for all aspiring suppliers for the full potential of this market is simply not being realised.

North America has a larger building stock, a higher spend on building construction per capita, installs much more air conditioning & refrigeration equipment, consumes more energy per square foot, has a higher number of heating and cooling degree days than any other developed economy. Nevertheless, it spends no more on DDC controls per dollar of construction or per square meter of floorspace than the average across Europe. However, our studies show that the propensity to fully engage with IT-Convergence is higher in North America than Europe at this time and this will rapidly bring about changes right across the board as holistic solutions prove the benefits from installing more comprehensive building controls.



Why i&i - PROPLAN?

We are a specialist consultancy that focuses on analysing the market for intelligent controls in buildings. We have achieved our status of being the number one source for market intelligence by retaining the support for 20 years, of the world's major suppliers to this business. Our studies are built upon their valuable data which they have entrusted, as well as information gathered in face-to-face interviews with end users and other players in the supply chain. Our integrity and honesty have given us this privileged and unique position - to deliver insightful analysis based on accurate quantitative data. Our first multi-client projects started 20 years ago and most of the original team are still managing and directing projects today. But more importantly, we can chart the progress and developments in the market, over two decades in some cases, which provides us with much more capability to determine trends in technology and market segments. Forecasting the future and identifying gaps and opportunities in the market is therefore based on a firm foundation. We ensure that we get accurate quantitative data, appropriately segmented, in the way that clients want it. This makes for hard work and is time consuming, but only then can we be assured that we can back up our conclusions with hard facts.

All our reports under the series "Intelligent Controls in Buildings" are built upon the same analysis tools and models and this allows us to compare, on a global basis, for example, environmental (HVAC) controls, fire detection, lighting and security systems and more importantly, review their integration and the new business of providing total building solutions.

We support all our studies, on occasions with a brief presentation, and you will always have direct contact with the staff that researched and wrote the study. Before making a decision to buy please call us to find out how we conducted the research, learning about our methodology and procedure for carrying out the study and the assistance and cooperation we had from our founder members.

NEW SERVICE

In 2006 we shall make it possible for our clients to access online, anywhere in the world, our relational database based on 20 years of validated data. This will enable them to produce their own charts, analyse trends and benchmark their performance.

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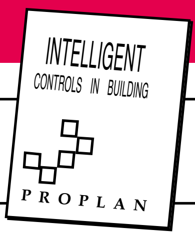

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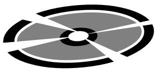
	Additional copies in ring binders	$575		
	Additional CD ROM with a licence to print unrestricted quantities for exclusive use within own organisation	$900		

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i&i limited - Building Intelligence & Innovation

i&i limited is one of Europe's leading research and consultancy companies specialising in intelligent buildings. We provide a comprehensive range of professional services encompassing marketing intelligence, technology intelligence and user intelligence to suppliers, managers, government and industry. The marketing intelligence division established in 1980 has analysed the markets and technology for building controls and services in 40 different countries throughout the world. Over 100 assignments have been completed in marketing strategy, product planning, market assessment and evaluation and company/product image.

We research the following markets on a global basis under our branded title "Intelligent Controls in Buildings":

- Environmental (HVAC) Control Systems - IBC(e)
- Fire Detection Systems - IBC(f)
- Lighting Control Systems - IBC(l)
- Security Systems - IBC(s)
- Intelligent & Integrated Infrastructures in Buildings Such as Retail - Hotels - Health

We can supply tailored, single-client studies on the above subjects across global markets using our models & benchmarking techniques. These can be structured by a wide range of segmentations e.g. type of building, type of project, type of product . In addition, we can produce reports on a range of supporting topics including:

- Communication Elements & Computer Hardware
- Communication Standards
- Engineering and Commissioning
- Maintenance
- Sensors and Field Elements
- Supervisory Software
- Wireless Systems

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Intelligent Controls in Buildings

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Definitions

[1] **IBC(e):** Intelligent Building Controls - environmental controls: - Computerised / microprocessor products and systems that control/monitor environmental plant such as heating, ventilation, air conditioning in non-domestic buildings, comprising a central user interface, communications network and data acquisition/direct digital controllers (DDC)

Intelligent Controls in Buildings

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