

Thermal Mapping

Building an energy efficient future

Thermal Mapping

Thermal Mapping is a powerful, value-added spatial information tool for analysing relative heat loss from buildings, ground features and even objects below the ground. Heat loss is recorded using the latest thermal imaging camera technology to create an image that quantifies thermal variation.

Following capture the thermal imagery is interpreted into **Thermal Mapping** and is presented in a more easily understood form. The thermal data are integrated with your existing building outline database so that each building in the map is assigned a relative heat loss value. By reducing data interpretation time clients are able to start examining and analysing relative heat loss immediately.

Thermal Mapping makes it very easy to monitor and compare heat loss from properties, associate heat loss with specific addresses and then develop and monitor energy conservation programmes. This highly valuable mapping tool can be applied to both rural and urban areas and utilised within the public and commercial sectors. It can be used to

monitor relative heat loss in accordance with the Home Energy Conservation Act 1995 (HECA) and for monitoring industrial heat loss to improve energy reduction programmes in support of carbon offset initiatives.

Thermal Mapping integrates with the Cities Revealed product portfolio including Land Use, Building Class and Building Heights data to provide a more comprehensive understanding of the world.

Case Study Spelthorne Borough Council Energy Conversation

Spelthorne Borough is a compact urban area, with a population of approximately 90,000 people, covering some 50 square kilometres. As part of its commitment to improve energy efficiency within the Borough it used **Thermal Mapping** to help assess the SAP rating, a measure of home energy efficiency, of its housing stock. The analysis enabled the council then to target properties in need of energy conservation measures.



"Thermal Mapping has provided an invaluable tool enabling us to target our resources and efforts to improve energy efficiency across the Borough." Sandy Muirhead, Head of Environmental Services, Spelthorne Borough Council.

Features

Digital database showing relative heat loss for individual buildings

Multi level colour classification for ease of use and quick analysis

Thermal measurement accuracy of 0.018°C; measure relative heat loss differences of less than 1°C

Provision of average, mean, minimum and maximum values for each building

Integrated with Ordnance Survey mapping

Geographically enabled and available in major GIS formats

Heat loss values linked to addresses (requires valid address product license e.g. Address Point)

Additional raster database available as colour coded thermal image layer

Integrates with all Cities Revealed data products to enrich analysis

Benefits

Relative heat loss is measured using the most advanced thermal imaging system providing accuracy and confidence in the results.

Night-time winter aerial surveys ensure that the data are collected at the optimum time, for comparative heat loss values.

Offers a very detailed understanding and analysis of energy consumption enabling energy conservation, fuel poverty and housing management plans to be drafted at the local level.

Four times greater area of capture compared to other systems to provide much more consistent data, quickly.

Advanced thermal processing provides the most reliable and accurate comparative heat loss measurement for every building.

Classified database saves time and ensures quick start up.

No additional training requirement and no lengthy GIS integration process necessary.

Applications

Thermal Mapping can be utilised in many applications, a few of which are listed below.

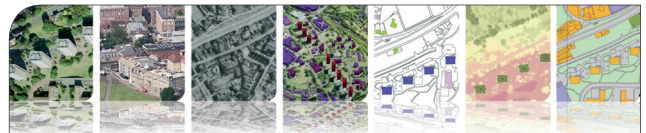
- Building heat loss measurement
- Strategic climate change planning
- Community energy target setting
- Sustainable community initiatives
- Fuel poverty calculations
- Energy conservation programmes
- Planning sub-surface heating systems
- Building maintenance and upgrade Programmes
- Pipe line heat loss analysis
- Energy loss awareness presentations



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