Carbon Down, Carbon Calculator

Case Study

CS1009 July 2009

Survey, calculate and analyse the carbon emission of small and medium businesses

Project Summary:

The Carbon Down, Carbon Calculator is an online business carbon footprint survey that calculates carbon emission production for small to medium businesses in Victoria. The survey is a flex application that runs as a flash application in a web browser. The information provided is being used to measure the carbon footprint of small and medium businesses in Victoria and work out the steps we need to take to further reduce it.

The calculator use extensive algorithms and parameter tables in determining carbon emission factors. Calculations are browser based. This calculator can work as a widget.

View the calculator online at: http://carbondown.ivt.com.au/

Client:

Carbon Down
http://www.carbondown.com.au

Client Business Background:

Carbon Down is a climate-change initiative of the Victorian Government, its agency Sustainability Victoria, and the Victorian Employers' Chamber of Commerce and Industry (VECCI).

Project Challenge:

Carbon Down wanted to be able to provide an accurate, intuitive and user friendly online application to enable users to enter relevant details to calculate their business' carbon emission footprint, and be able to convert this massive amount of data into readable and meaningful reports.

The ultimate goal of Carbon Down is to provide funding, knowledge and support to develop projects that make it easier for small to medium businesses to reduce their carbon footprint.

Actions:

Development of a web application with the following functionality:

- Full data collection
- Full data summarisation and reporting functions
- User friendly survey

Outcomes:

The Carbon Down, Carbon Calculator is a simple and effective Flash application that uses data entered by the user, to calculate the carbon emission production of a small to medium business based on their electricity, gas, vehicles, flights, waste and business industry information. These details are all recorded in a central database and can be exported in CSV file format.

Brilliant Web Applications

www.ivt.com.au

Technology Used:

The Carbon Down, Carbon Calculator was created using Adobe Flex (using ilog elixir components), PHP, MySQL and runs as a Flash Application.

Adobe Flex:

Adobe Flex is a software development kit released by Adobe Systems for the development and deployment of cross-platform rich Internet applications based on the Adobe Flash platform. Rich Internet applications (RIAs) are web applications that have some of the characteristics of desktop applications. The advantage of Flex is that it doesn't rely on page reloads, can have animations, interactive graphs and handles large datasets.

PHP:

PHP is a widely-used general-purpose scripting language that is especially suited for web development and can be embedded into HTML.

MySQL:

MySQL is a relational database management system (RDBMS). The program runs as a server providing multi-user access to a number of databases.

Adobe Flash:

Adobe Flash (previously called Macromedia Flash) is a multimedia platform originally acquired by Macromedia and currently developed and distributed by Adobe Systems. Since its introduction in 1996, Flash has become a popular method for adding animation and interactivity to web pages. Flash is commonly used to create animation, advertisements, and various web page components, to integrate video into web pages, and more recently, to develop rich Internet applications.

Screenshots: