



Case Study



Cartographic Institute of Catalonia

Express Server helps mapping agency of Spain efficiently broaden image serving capability

Business Profile

The Institut Cartogràfic de Catalunya (ICC), or Cartographic Institute of Catalonia, is a public agency of the Catalan Autonomous Government. Its mandate is to lay the technical groundwork for the development of cartographic information in various government agencies and to carry out mapping and development projects requested by public and private institutions. The ICC turned to LizardTech Express Server to make its image data available to users at high speed and high resolution.

Situation

The ICC maintains a vast library of digital map imagery that has traditionally been delivered to users on CD-ROM s, as well as paper maps that are accessible only on site. In 2004 the ICC Web site served 11,000 registered users with more than 215,000 downloads each averaging 8 megabytes (MB). In addition, 300,000 image tiles totaling 14 terabytes (TB) were delivered to end-users on more than 4,000 CDs and DVDs.

“We had been delivering these digital materials to customers individually for some time, first on CDs and then via FTP sites,” says Lluís Colomer, general technical subdirector for the ICC. “As our catalog and user-base both grew these methods began to be impractical. It became clear to us that our future involved serving digital imagery directly online to public and private institutions, as well as to users at large.”

Efficient Delivery of User-Defined Image Scenes

The challenge was assembling a system that could efficiently handle thousands of clients requesting gigabytes (GB) of user-defined image scenes through standard Web browser interfaces. The ICC had already begun serving individual mosaic tiles but wanted to be able to extract any scene, even a scene composed of multiple partial tiles, and quickly render that scene in an end-user’s browser.

Integrated Access

Besides serving the needs of individual Catalan citizens and the world at large, the ICC needed to provide businesses and public agencies in Spain with integrated access to the ICC database through GIS applications at the professional and enterprise level.

Solution Overview

Company

Cartographic Institute of Catalonia (ICC)

<http://www.icc.es>

Customer Profile

The ICC provides imagery and mapping services to Catalan public and private organizations and general users in need of geospatial information.

Industry

Mapping and Geospatial Imagery

Business Situation

The ICC required an image serving solution that can handle thousands of simultaneous scene requests and also provide GIS applications integrated access to its database.

Solution Description

The ICC implemented LizardTech Express Server for fast delivery of high-resolution images to both browser-based and workstation users through its Web and WMS APIs.

Technology Link

<http://www.lizardtech.com/products/exp/>

Solution

The ICC turned to LizardTech Express Server, a server add-on that optimizes both the transfer and viewing of data from images in MrSID, JPEG and other formats over networks such as the Internet, with or without a browser plug-in. Express Server's components include support for Web Map Services (WMS), a set of standard interfaces defined by the Open Geospatial Consortium (OGC) for transmitting map data.

Through an online interface, individuals may select maps by area, type and scale — for example a topographic view of Barcelona at 1:5000 — for instant viewing and quick download. At Express Server's back end, WMS provides access to the ICC database to geospatial professionals and businesses and agencies handling such activities as road maintenance and transportation and delivery services.

"We found that Express Server was the fastest and most efficient way to deliver our map data to our users," says Colomer. "Express Server significantly increased our image throughput in comparison with the main server alone — not only in serving images but also in building the spatial index — and enabled us to build into our system other features our users were looking for."

Benefits

High Resolution at High Speed

Express Server's high-speed delivery of high-resolution image data enables the ICC to provide a positive user experience even with thousands of simultaneous image requests, while also providing network efficiencies for the institute through optimized bandwidth use.

Reduced Labor and Material Costs

The ICC's material and labor costs associated with burning and shipping CDs and DVDs are completely eliminated.

Broadened User Base

Express Server enables ICC map data to be included in other search applications such as NASA's WorldWind, broadening the usefulness of the database and extending the reach of the ICC's service.

Reduced Project Delivery Time

Thanks to Express Server's WMS API, finished projects can be delivered to requesting agencies and businesses efficiently as a data stream. Without the need to burn CDs or DVDs, the time between completing a project and getting map and image data in the hands of a client is reduced from days or weeks to mere hours.

Express Server enabled the ICC to serve high-quality geospatial imagery at high speed to different users with differing access needs while preserving the image detail that gives value to their products.

“We found that Express Server was the fastest and most efficient way to deliver our map data to our users.”

Josep Lluís Colomer
General Technical Subdirector
Cartographic Institute of Catalonia (ICC)

For More Information

For more information about LizardTech products, contact LizardTech at (206) 652-5211. In Europe, call LizardTech UK, at 44 (0) 870 922 0239. Outside the 50 United States, please contact your local LizardTech sales manager. To access purchase information using the World Wide Web, go to: <http://www.lizardtech.com/purchase>.

For more information about LizardTech Express Server, go to: <http://www.lizardtech.com/products/exp/>

For more information about the Cartographic Institute of Catalonia products and services, visit the Web site at: <http://www.icc.es>

© 2005 LizardTech. All rights reserved.

This case study is for informational purposes only. LIZARDTECH MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY. LizardTech, product logos, and product names are either registered trademarks or trademarks of LizardTech in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

Press contact: jbednarski@lizardtech.com

The National Building
Suite 200
1008 Western Avenue
Seattle, WA 98104 USA

P: 206.652.5211
F: 206. 652.0880

info@lizardtech.com
www.lizardtech.com

We Make Imaging Work. Everywhere.

 **LIZARDTECH™**
a celartem Company