TECHNOLOGY

Curve-Based Data Hiding for Protecting Map Document

OVERVIEW

Curves, or non-linear shapes, are major components appearing in maps, drawings, signatures and other documents. A huge amount of such documents are being brought to the digital domain owing to the popularity of scanning devices and pen-based devices (such as the TabletPC). Hiding digital watermarks or other secondary data in curves can facilitate digital rights management of important documents in government, intelligence and commercial operations. For example, trace-and-track capabilities can be provided through embedding a unique ID, referred to as a digital fingerprint, to each copy of a document before distributing to users to deter the unauthorized leak of classified documents outside an allowed group.

Inventors at the University of Maryland have developed a new data-hiding algorithm for curves by parameterizing a curve using the B-spline model and adding spread spectrum sequences in curve parameters. They have demonstrated the feasibility of proposed algorithm in collusion-resistant fingerprinting applications for writings/drawings from pen-based input as well as topographic maps.

For more information please contact the University of Maryland, Office of Technology Commercialization at 301 405-2555, or by e-mail at otc@umd.edu.

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Additional Information

INSTITUTION

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PATENT STATUS

Patent(s) pending

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CATEGORIES

- Information Technology

EXTERNAL RESOURCES

- US Patent 7,817,817

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