

DYNAMIC HANDWRITING VERIFICATION, HANDWRITING-BASED
USER AUTHENTICATION, HANDWRITING DATA GENERATION, AND
HANDWRITING DATA PRESERVATION

ABSTRACT

5 Handwriting verification methods and related computer systems, and
handwriting-based user authentication methods and related computer systems are
disclosed. A handwriting verification method comprises obtaining a handwriting test
sample containing a plurality of available parameters, extracting geometric parameters,
deriving geometric features comprising an x-position value and a y-position value for
10 each of a plurality of feature points in the test sample, performing feature matching
between geometric features of the test sample and a reference sample, determining a
handwriting verification result based at least in part on the feature matching, and
outputting the handwriting verification result. Techniques and tools for generating and
preserving electronic handwriting data also are disclosed. Raw handwriting data is
15 converted to a streamed format that preserves the original content of the raw handwriting
data. Techniques and tools for inserting electronic handwriting data into a digital image
also are disclosed.

[FIG. 1A.]