



LOSSLESS CONTOUR REPRESENTATION USING EFFICIENT MULTIPLE GRID CHAIN CODING (WedAmPO3)

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★ **Abstract :** We present an efficient lossless contour coding scheme based on a chain code representation. The algorithm is suitable for the binary shape coding of arbitrarily shaped objects. Previous attempts to exploit the correlation between successive chain links have resulted in a complex encoding process, due either to the employment of chain code post processing or by dividing the contour into segments. Our approach exploits the differential predictability of contour smoothness by embedding it into the chain structure. Anisotropic chain links are applied in the direction of the contour according to selection rules that exploit contour coherence effectively. Experimental evaluation indicates that the proposed algorithm provides superior performance over existing chain coding schemes, and implementation complexity is not increased.