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(54) **ENCODING DEVICE, ENCODING METHOD, DECODING DEVICE, DECODING METHOD, AND PROGRAM**

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(57) **ABSTRACT**

The technology relates to an encoding device, an encoding method, a decoding device, a decoding method, and a program enabling encoding with favorable transmission efficiency with a controlled running disparity.

A calculation section divides inputted data into N or M bits to calculate a first running disparity of an N or M bit data string. A determination section determines whether the data string is inverted based on the first running disparity calculated by the calculation section and a second running disparity calculated therebefore. An addition section inverts or non-inverts the data string based on a determination result by the determination section to add a flag indicating the determination result for outputting. The determination section determines not to perform inversion when the data string is a control code. The addition section adds the flag assigned to the control code. The technology is applicable to a device communicating in an SLVS-EC specification.