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Fitzpatrick et al.

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[54] **TIME-VARYING MAXIMUM-TRANSITION-RUN CODES FOR DATA CHANNELS**

[75] Inventors: **Kelly K. Fitzpatrick**, Mountain View; **Cory Modlin**, Palo Alto, both of Calif.

[73] Assignee: **Quantum Corporation**, Milpitas, Calif.

[56] **References Cited**

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Primary Examiner—Brian Young
Attorney, Agent, or Firm—David B. Harrison

[57] **ABSTRACT**

A data channel, such as a magnetic recording/playback channel implements a time-varying maximum-transition-run code such that the code allows three consecutive transitions while it removes a dominant plus-minus-plus error-event and does not permit of four or more consecutive transitions.
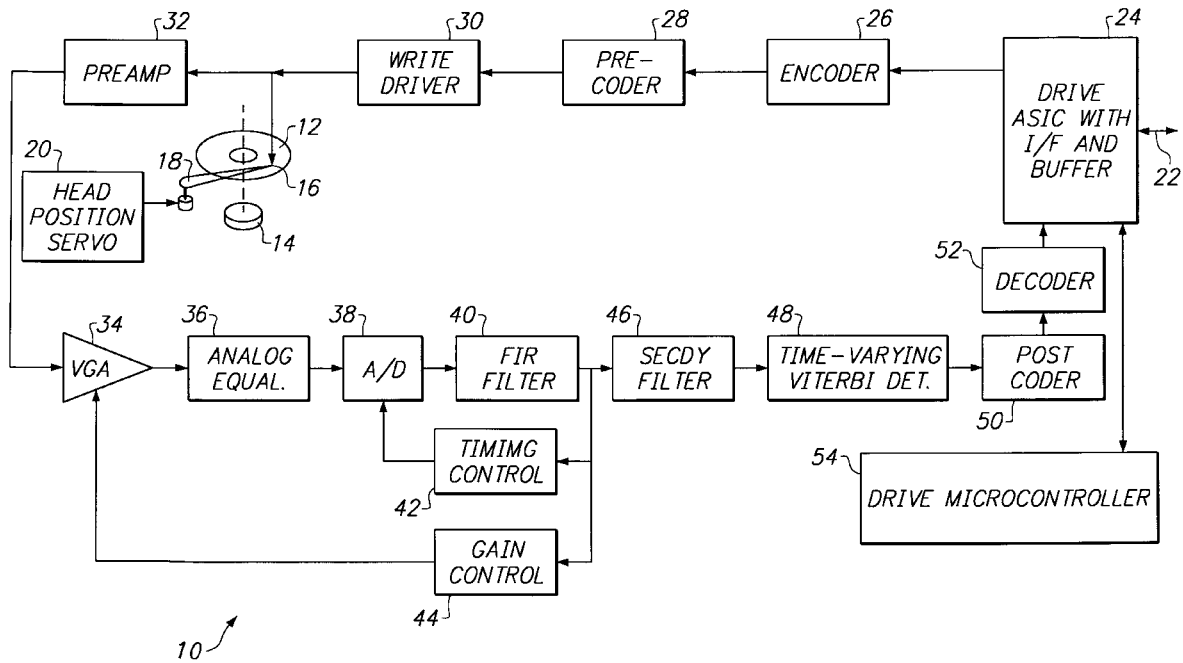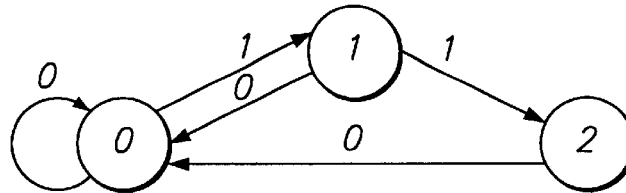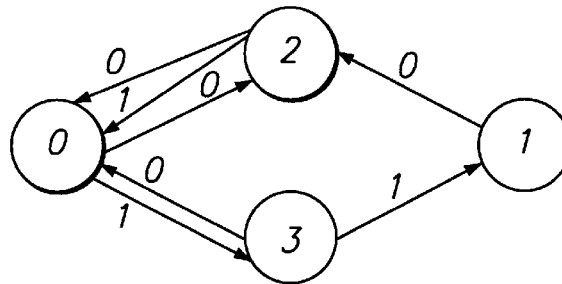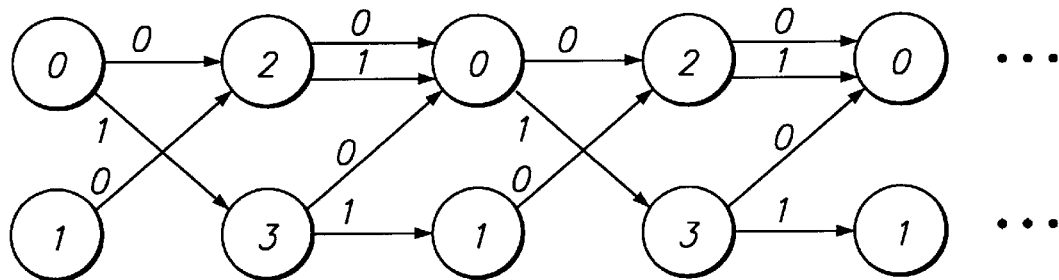
20 Claims, 4 Drawing Sheets

The MTR constraint graph with capacity 0.8792 using NRZI notation.
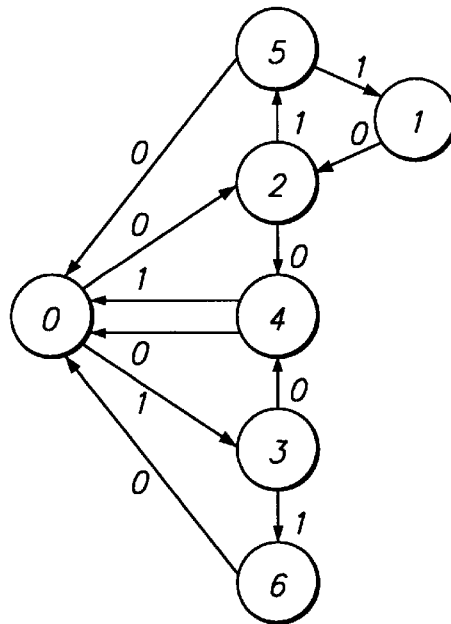
FIG. 1

Time-varying MTR constraint graph with capacity 0.9162 using NRZI notation.
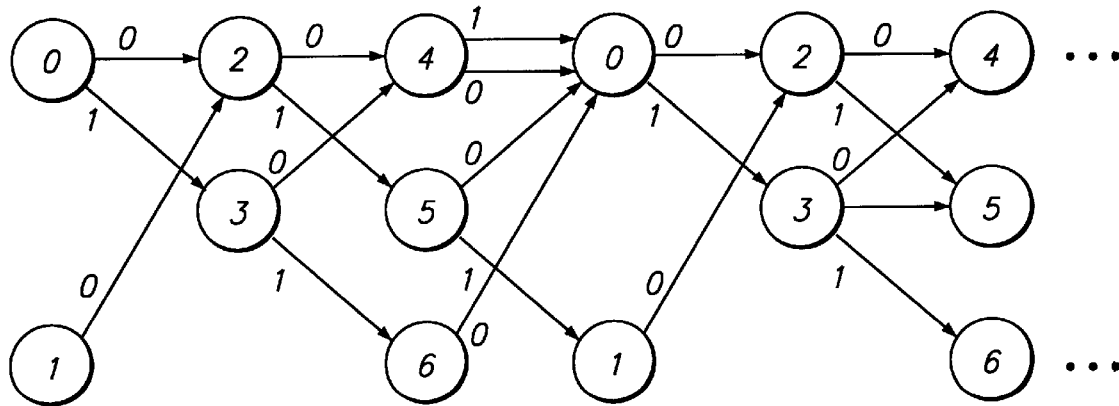
FIG. 2

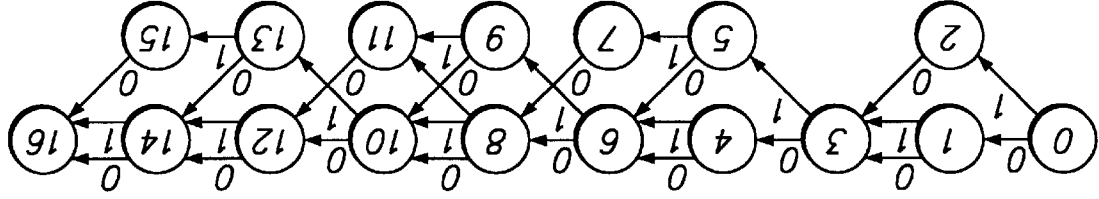Time-varying MTR trellis with period 2.

FIG. 3

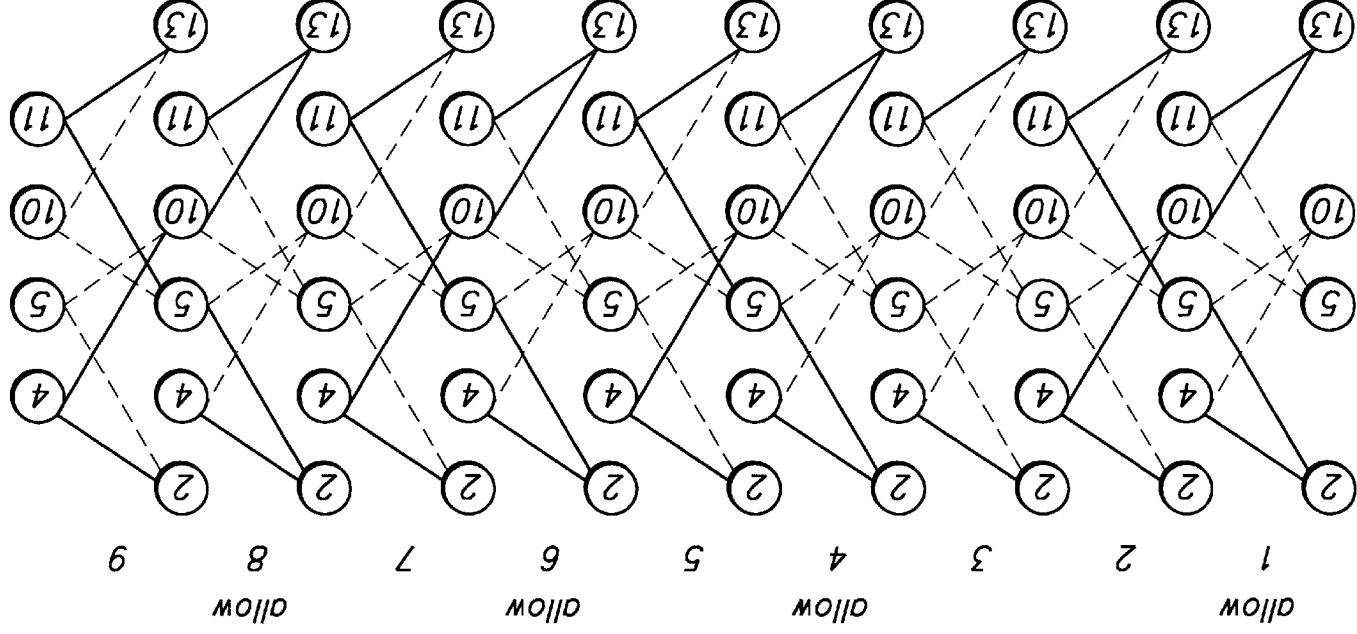Time–varying MTR constraint graph with capacity 0.9032 using NRZI notation.

FIG. 4

Time–varying MTR trellis with period 3.

FIG. 5

FIG. 7

The time-varying part of a 16-state detector trellis.

FIG. 6

The time-varying MTR trellis for the rate 8/9 block code.

FIG. 8

DOCKET ALARM
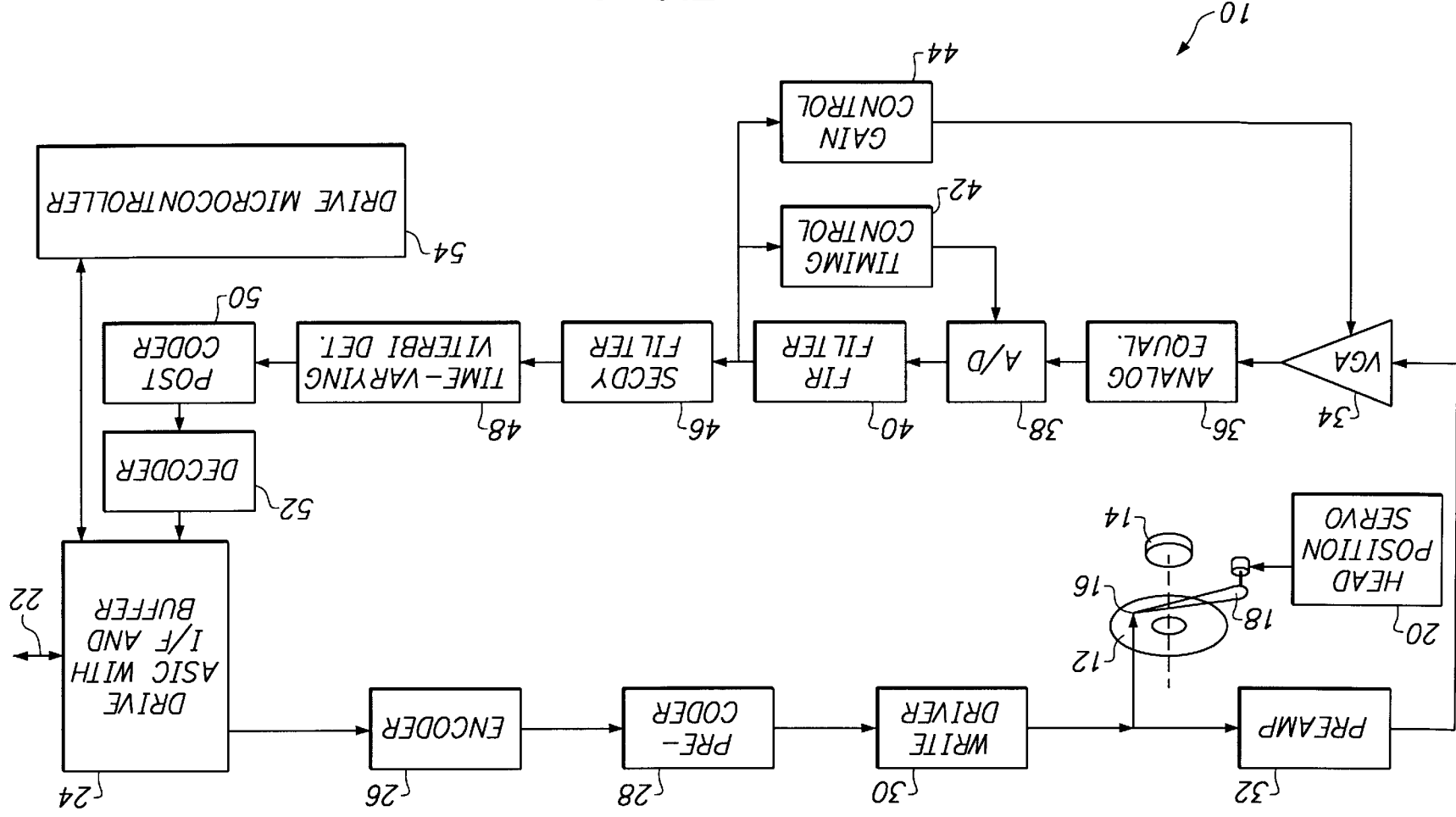
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