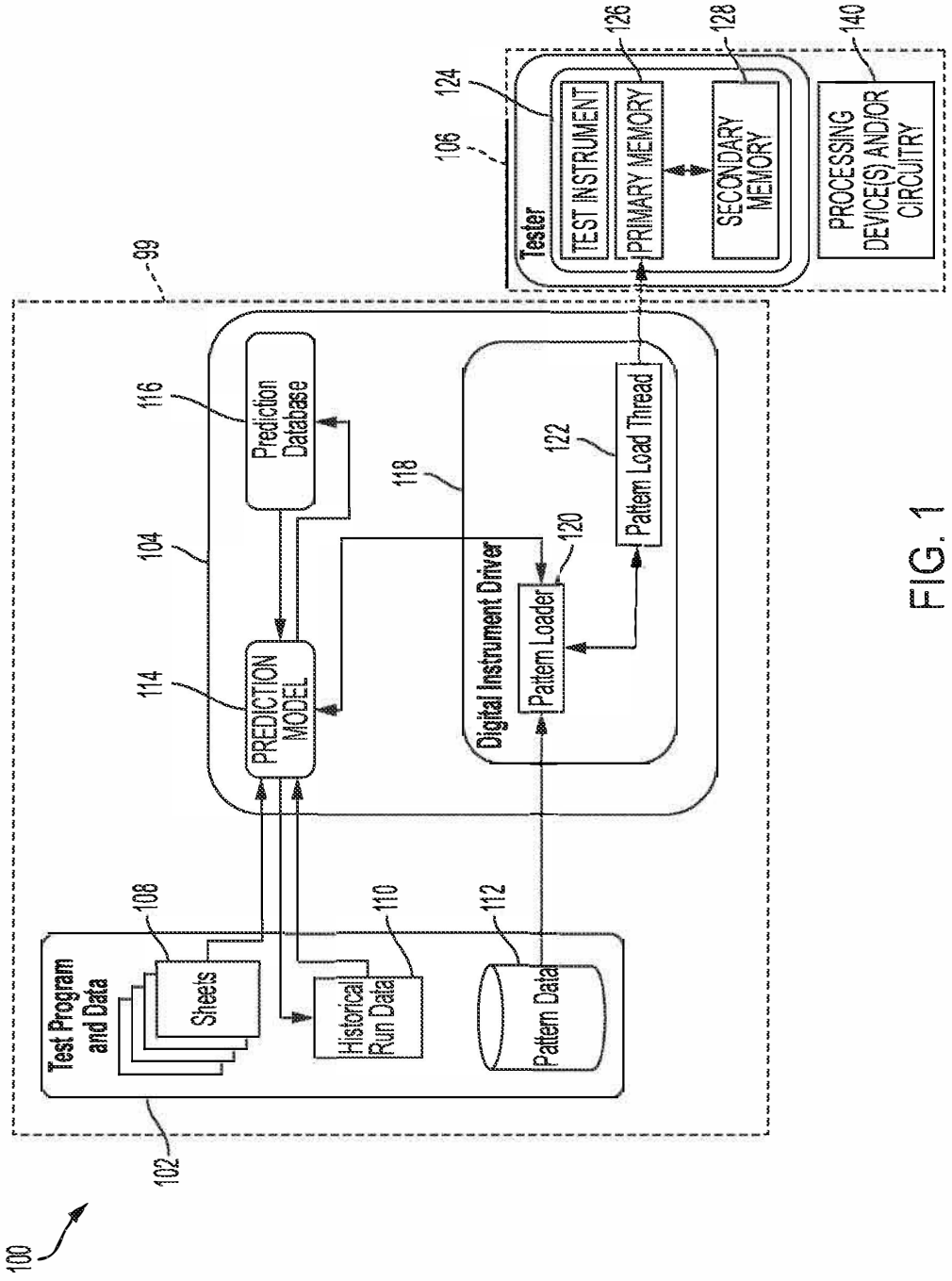

100
102
99
Test Program and Data
Sheets
108
Historical Run Data
110
Pattern Data
112
Prediction Database
116
PREDICTION MODEL
114
104
Digital Instrument Driver
118
Pattern Loader
120
Pattern Load Thread
122
Tester
106
124
TEST INSTRUMENT
126
PRIMARY MEMORY
SECONDARY MEMORY
128
PROCESSING DEVICE(S) AND/OR CIRCUITRY
140

FIG. 1

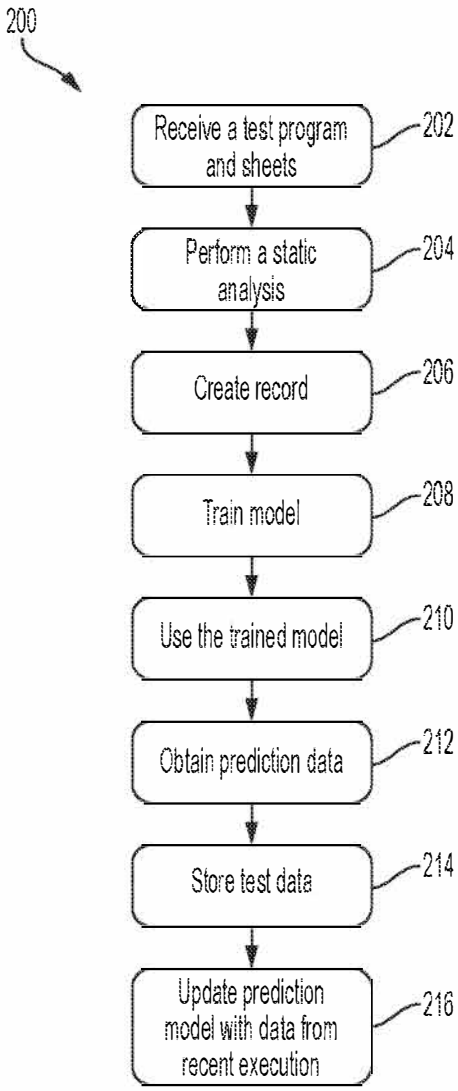

200
Receive a test program and sheets
202
Perform a static analysis
204
Create record
206
Train model
208
Use the trained model
210
Obtain prediction data
212
Store test data
214
Update prediction model with data from recent execution
216

FIG. 2

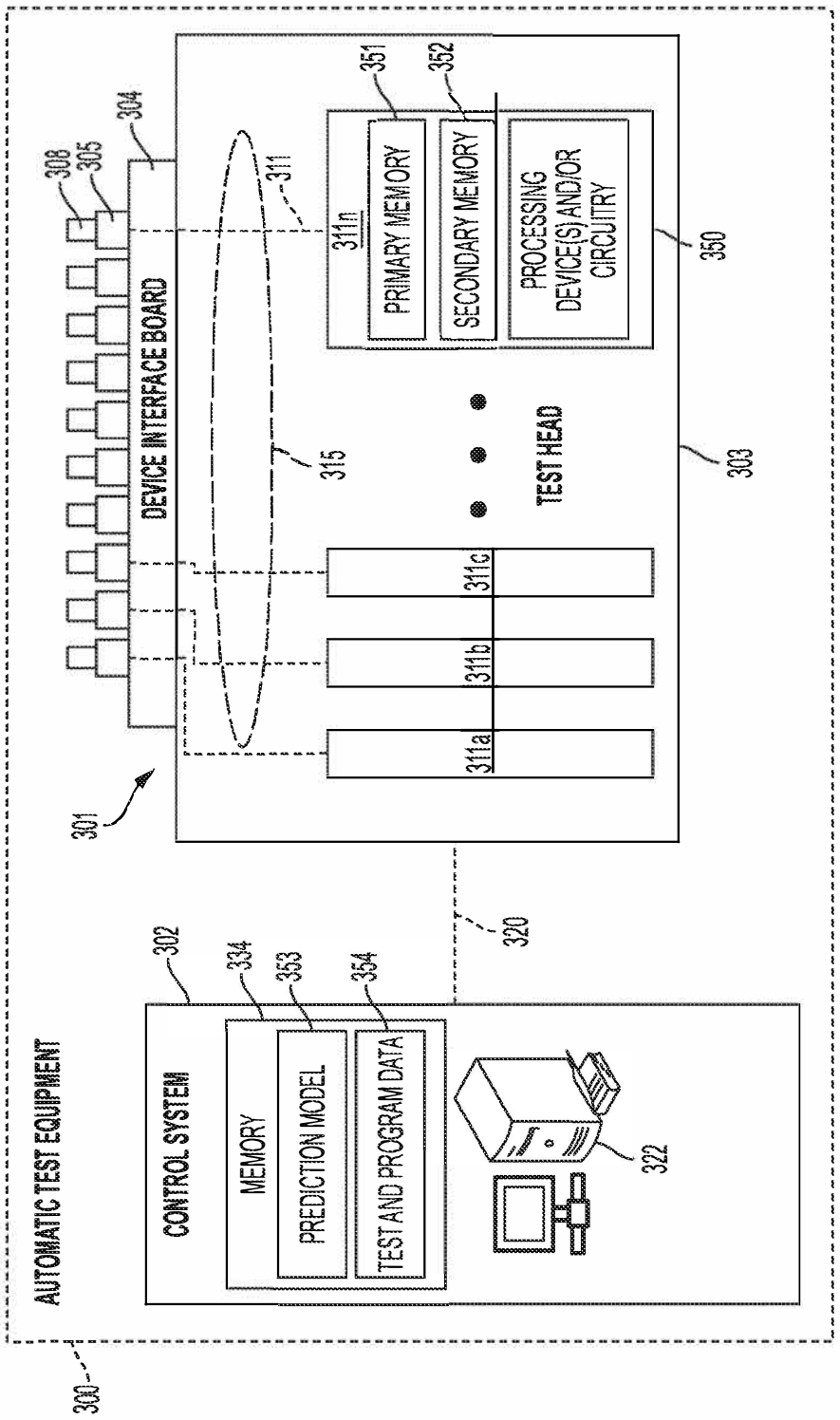

AUTOMATIC TEST EQUIPMENT
300
CONTROL SYSTEM
302
MEMORY
334
PREDICTION MODEL
353
TEST AND PROGRAM DATA
354
322
320
301
DEVICE INTERFACE BOARD
304
308
305
311
315
311n
311a
311b
311c
TEST HEAD
303
PRIMARY MEMORY
351
SECONDARY MEMORY
352
PROCESSING DEVICE(S) AND/OR CIRCUITRY
350

FIG. 3