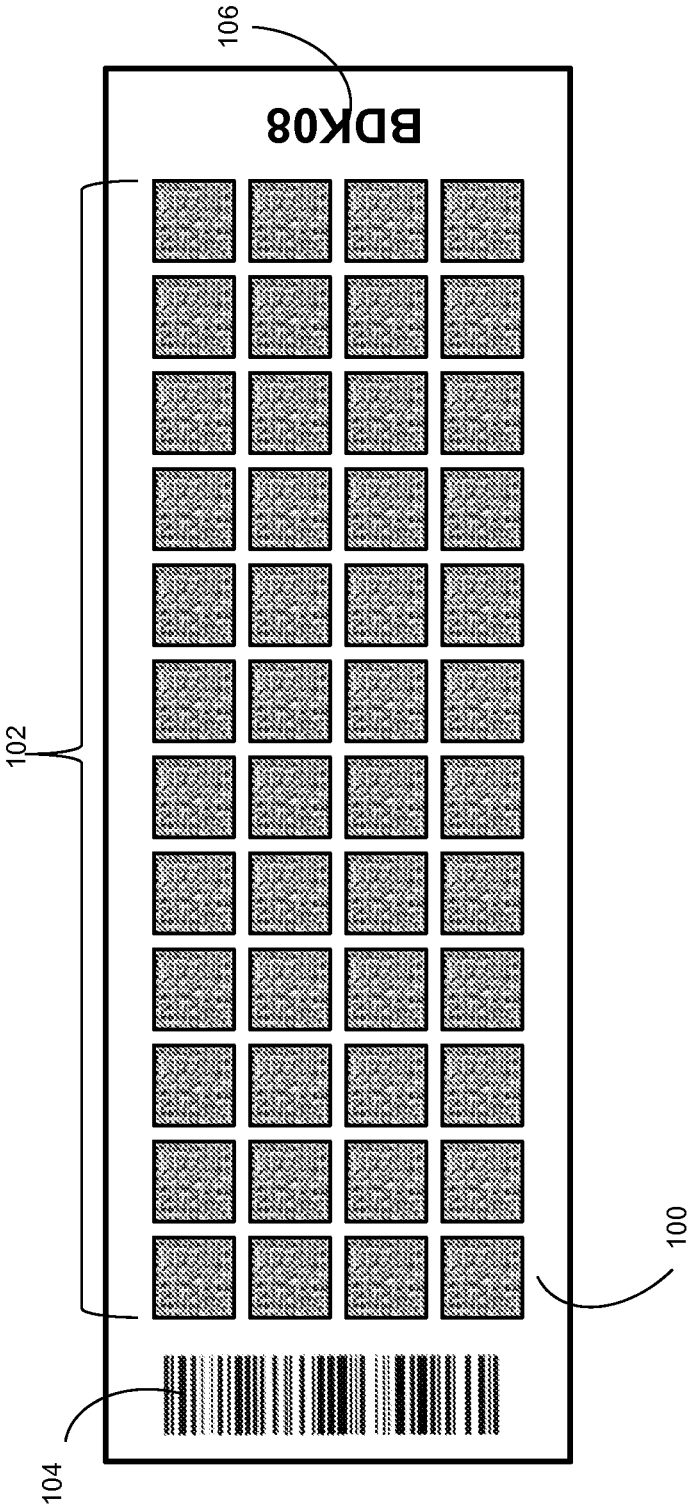


FIG. 1

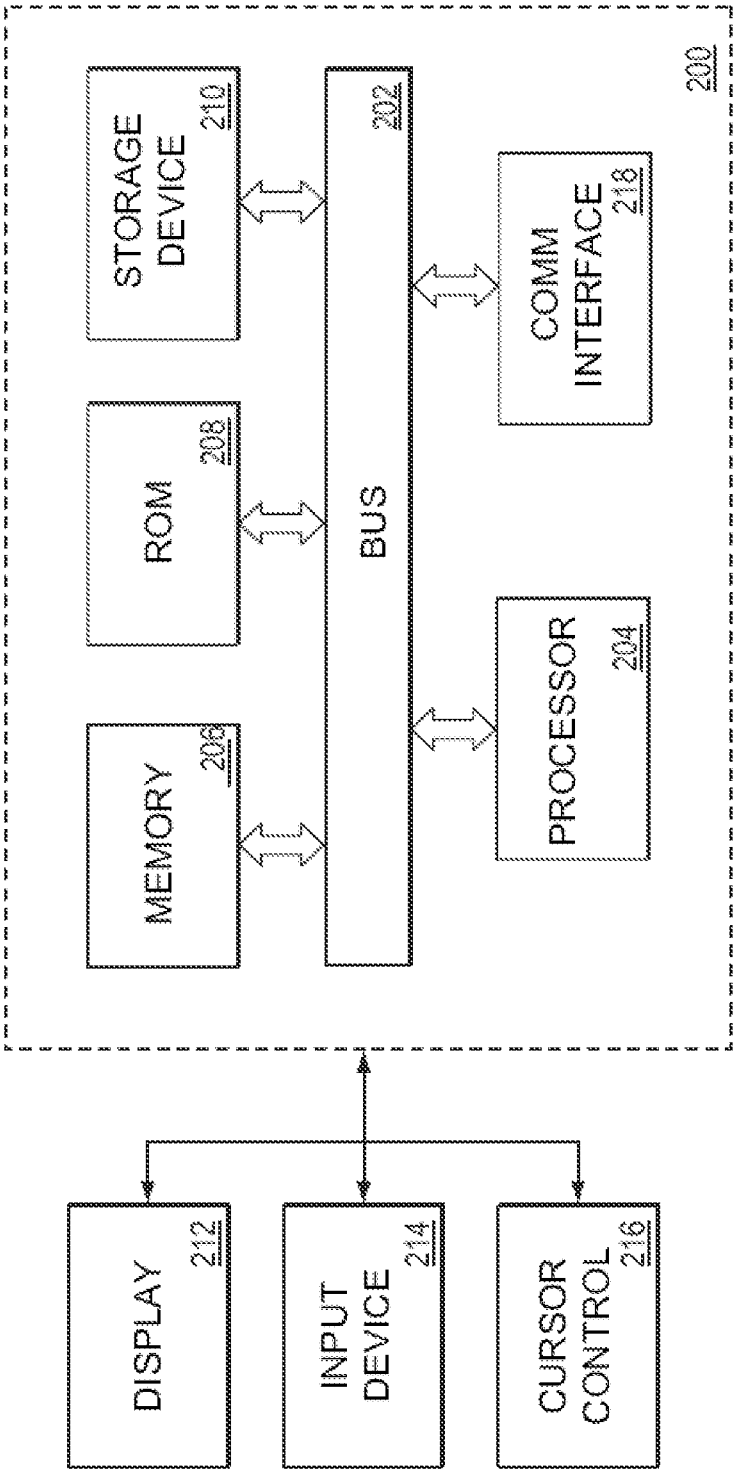

200
STORAGE DEVICE
210
202
COMM INTERFACE
218
ROM
208
BUS
MEMORY
206
PROCESSOR
204
DISPLAY
212
INPUT DEVICE
214
CURSOR CONTROL
216

FIG. 2

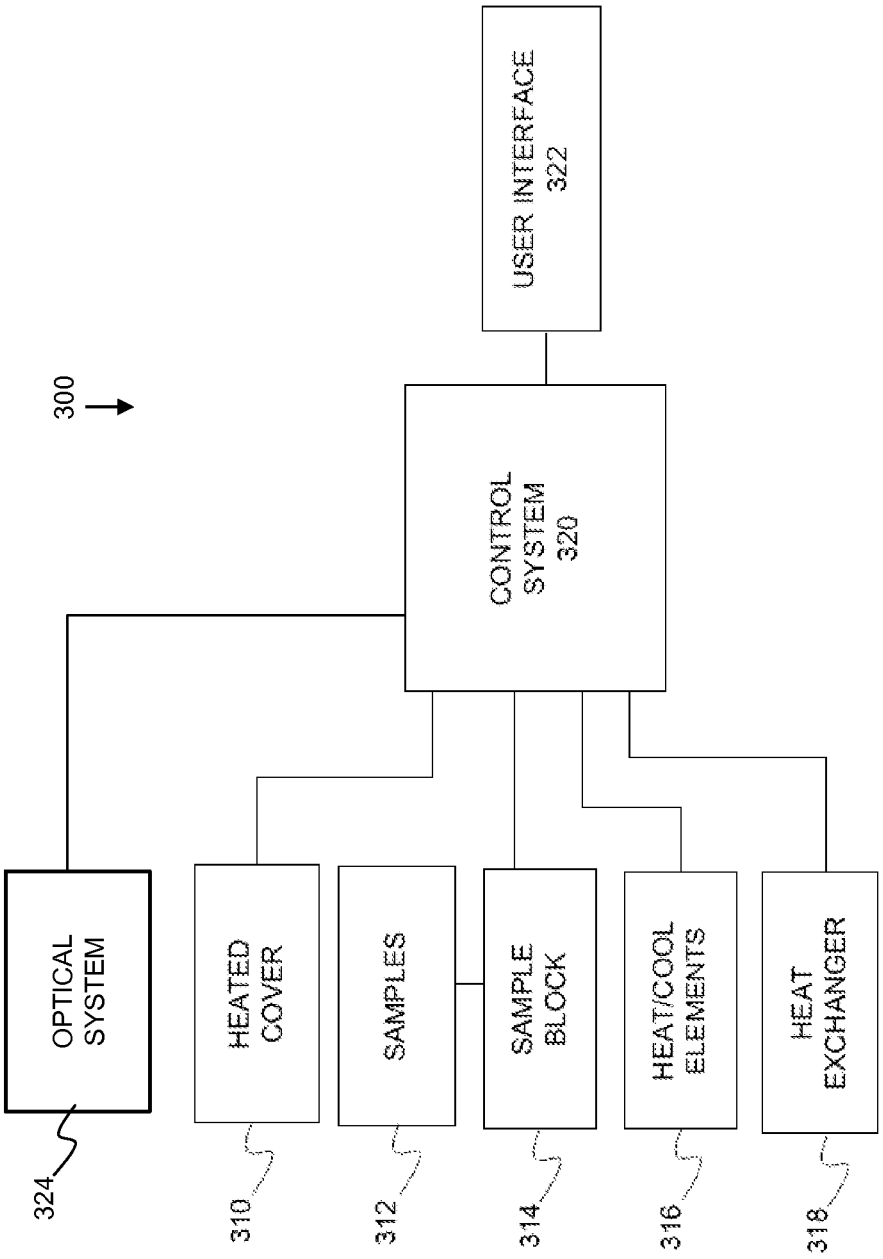

300
USER INTERFACE
322
CONTROL
SYSTEM
320
OPTICAL
SYSTEM
HEATED
COVER
SAMPLES
SAMPLE
BLOCK
HEAT/COOL
ELEMENTS
HEAT
EXCHANGER
324
310
312
314
316
318

FIG. 3

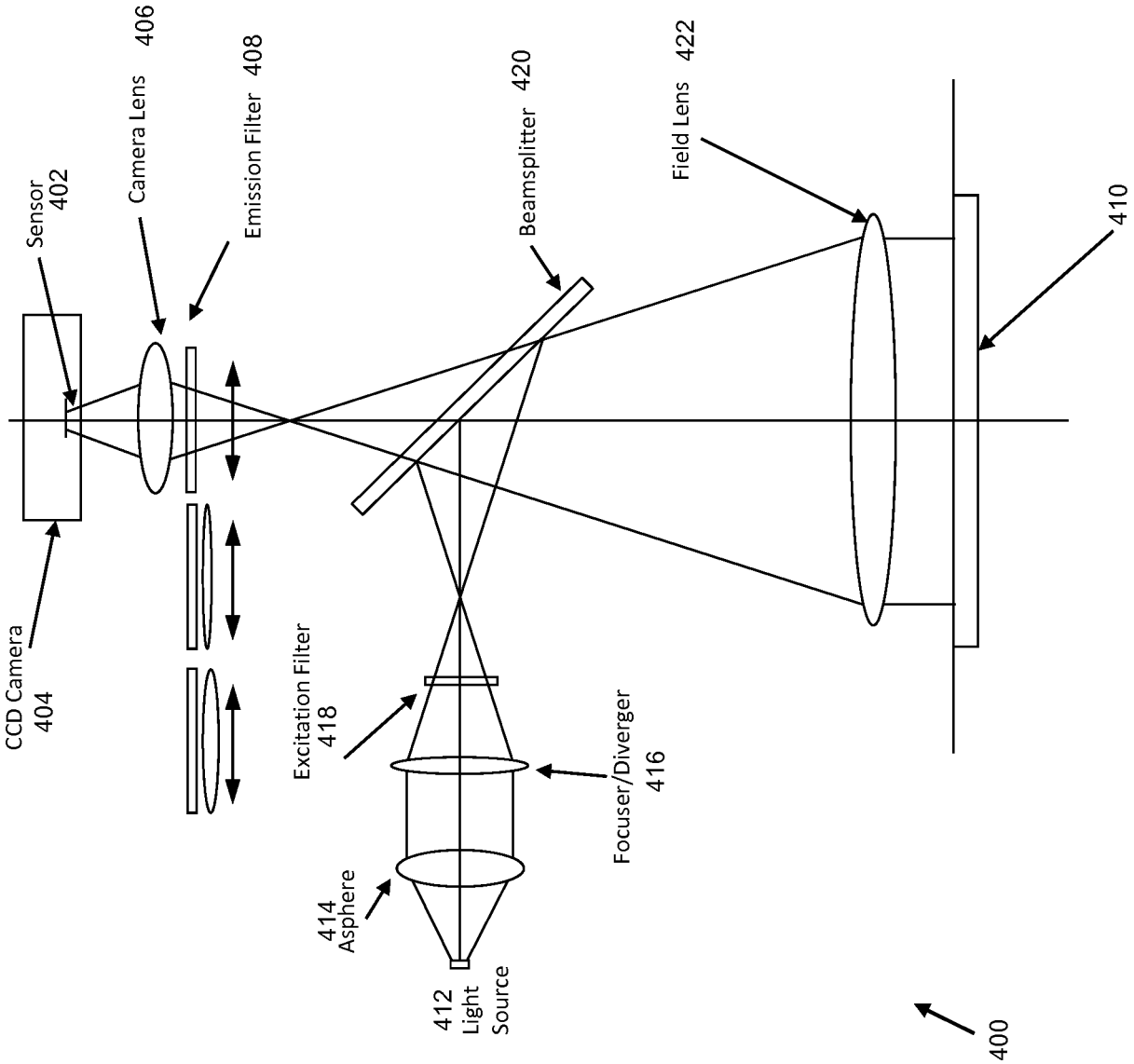

Sensor
402
Camera Lens
406
Emission Filter
408
Beamsplitter
420
Field Lens
422
410
CCD Camera
404
Excitation Filter
418
Focuser/Diverger
416
414
Asphere
412
Light
Source
400

FIG. 4

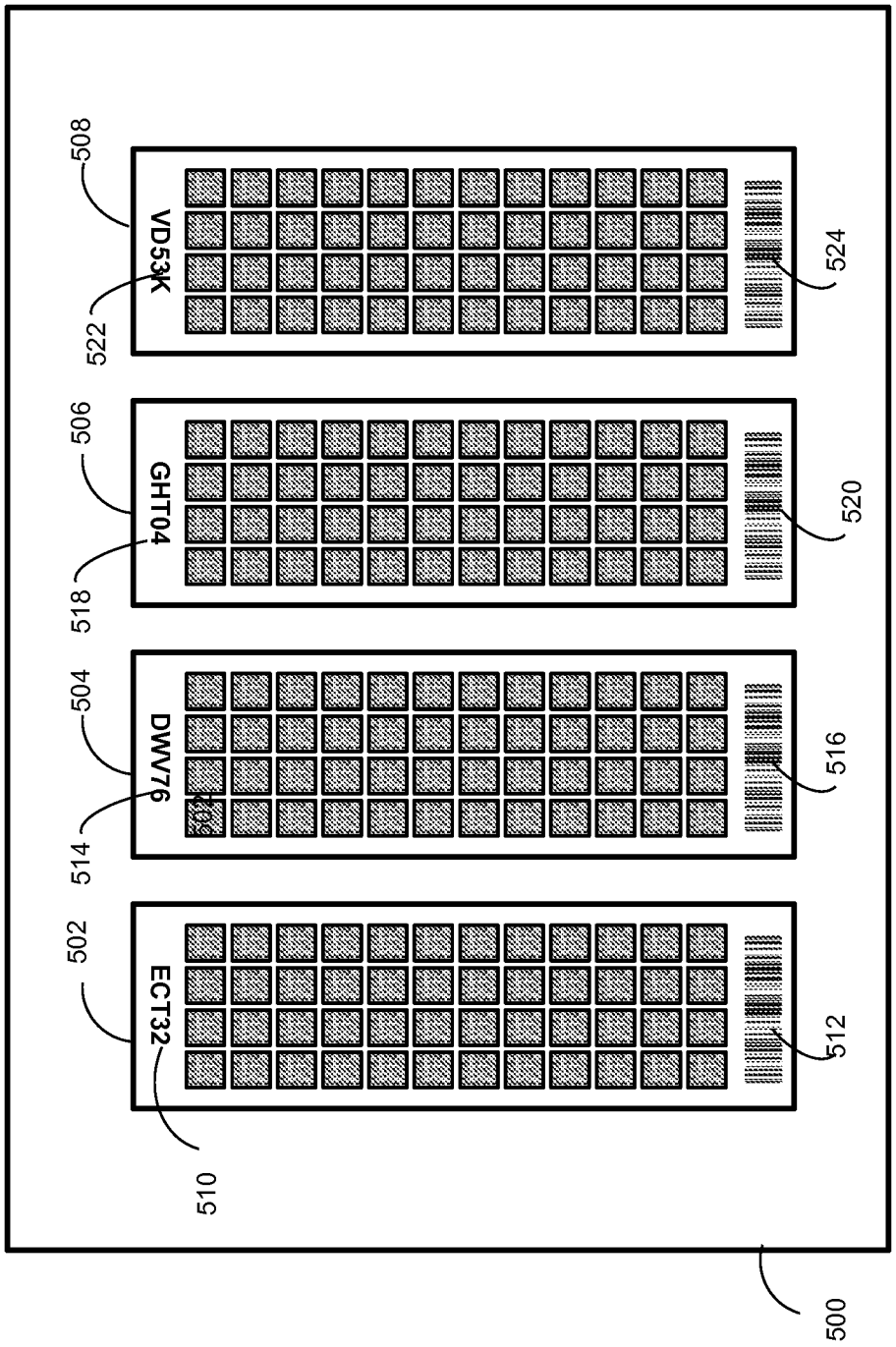

508
VD53K
522
524
506
GHT04
518
520
504
DWV76
514
516
502
ECT32
510
512
500

FIG. 5

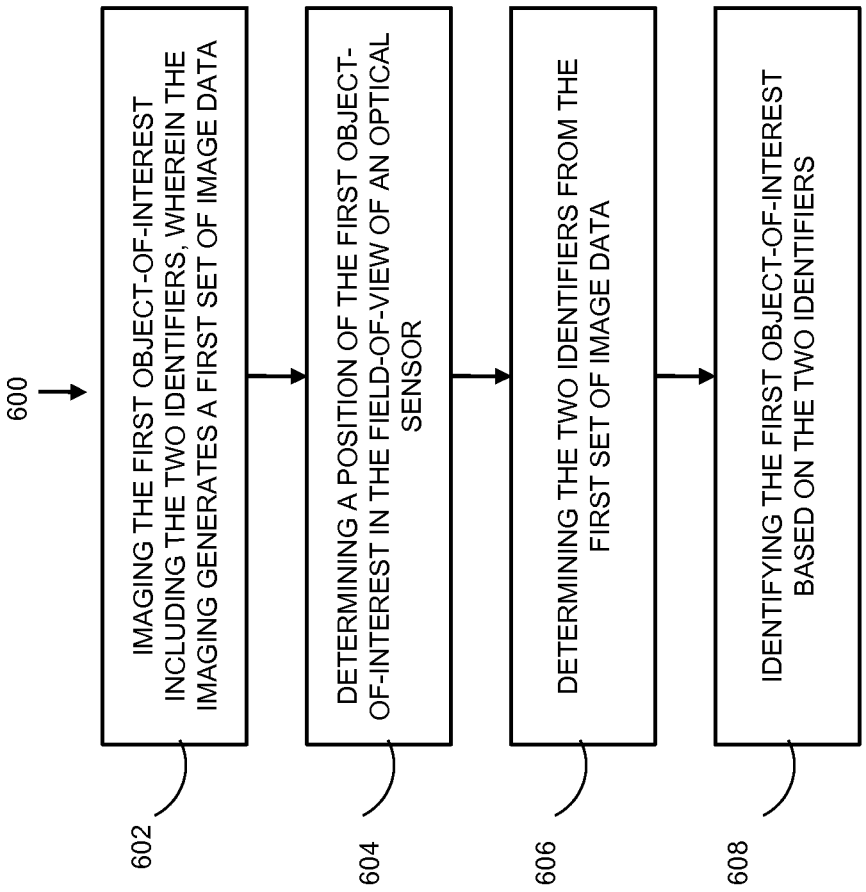

600
IMAGING THE FIRST OBJECT-OF-INTEREST INCLUDING THE TWO IDENTIFIERS, WHEREIN THE IMAGING GENERATES A FIRST SET OF IMAGE DATA
602
DETERMINING A POSITION OF THE FIRST OBJECT-OF-INTEREST IN THE FIELD-OF-VIEW OF AN OPTICAL SENSOR
604
DETERMINING THE TWO IDENTIFIERS FROM THE FIRST SET OF IMAGE DATA
606
IDENTIFYING THE FIRST OBJECT-OF-INTEREST BASED ON THE TWO IDENTIFIERS
608

FIG. 6

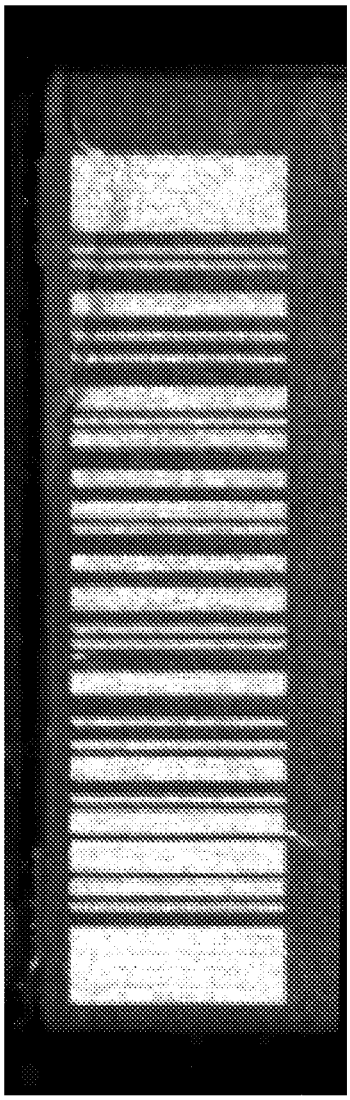


FIG. 7

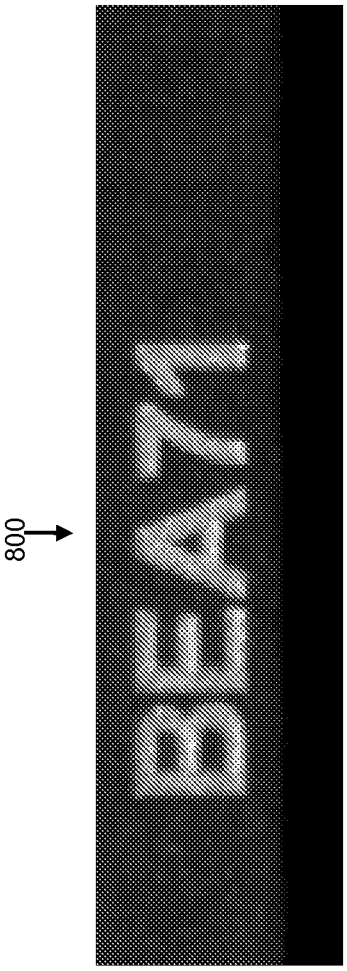


FIG. 8A

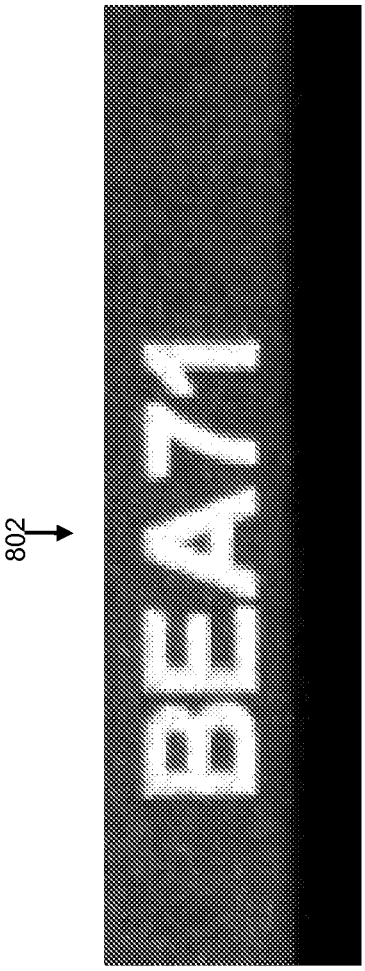


FIG. 8B

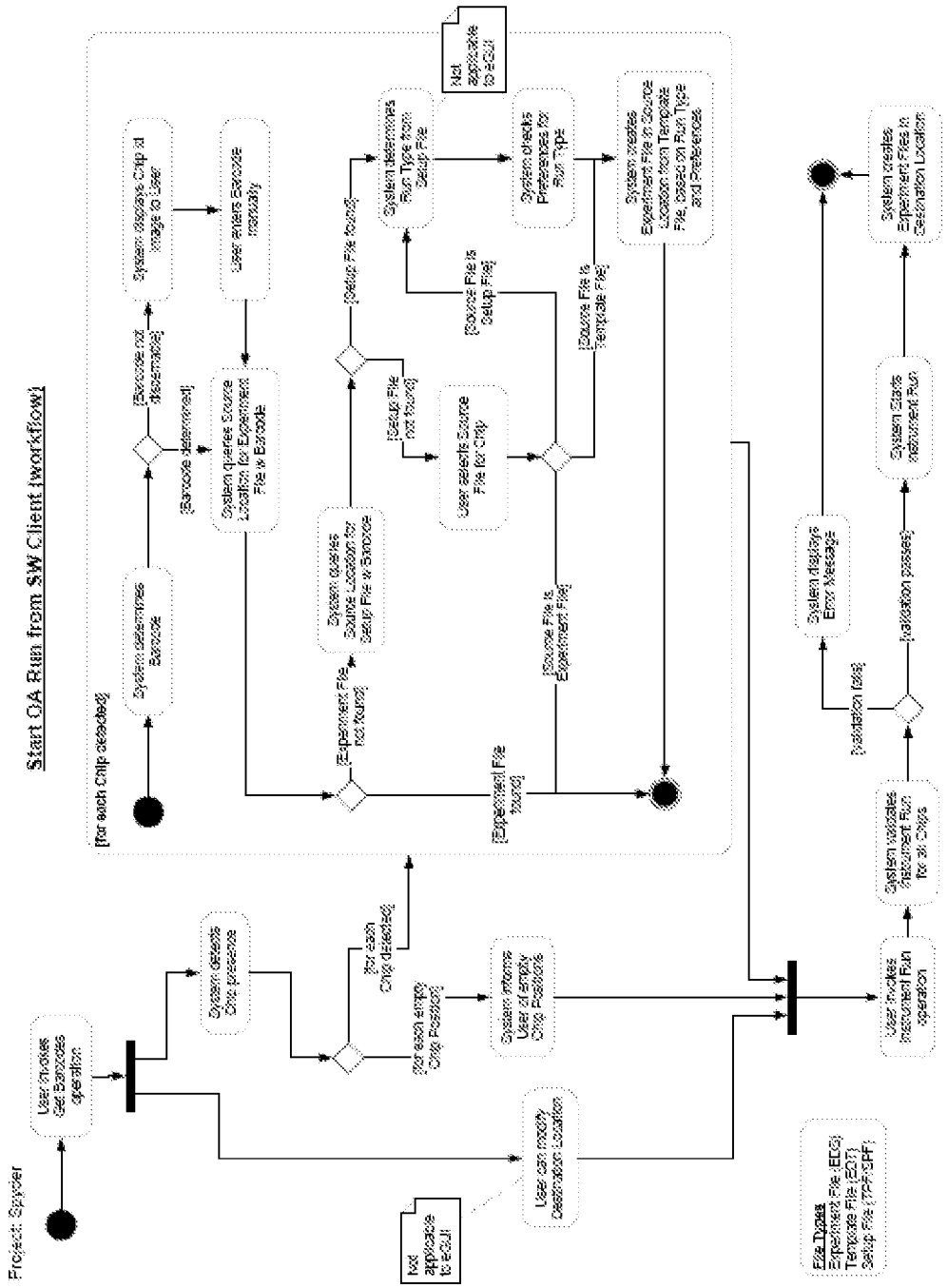

Start QA Run from SW Client (workflow)
Project Spyder
User invokes Set Barcodes operation
System detects Chip presence
For each Chip detected
For each empty Chip Position
System informs User of empty Chip Position
Not applicable to eGui
User can modify destination location
[for each Chip accessed]
System determines Barcode
[Barcode determined]
[Barcode not determined]
System displays Chip id image to User
User enters Barcode manually
System queries Source Location for Experiment File w Barcode
[Experiment File not found]
[Experiment File found]
System queries Source Location for Setup File w Barcode
[Setup File not found]
[Setup File found]
User selects Source File for Chip
[Source File is Experiment File]
[Source File is Setup File]
[Source File is Template File]
System determines Run Type from Setup File
Not applicable to eGui
System checks Preferences for Run Type
System creates Experiment File in Source Location from Template File, based on Run Type and Preferences
File Types
Experiment File (.EDS)
Template File (.EDT)
Setup File (TPP.SPF)
User invokes Instrument Run operation
System validates Instrument Run for all Chips
[validation fails]
System displays Error Message
[validation passes]
System starts Instrument Run
System creates Experiment File in Destination Location

FIG. 9