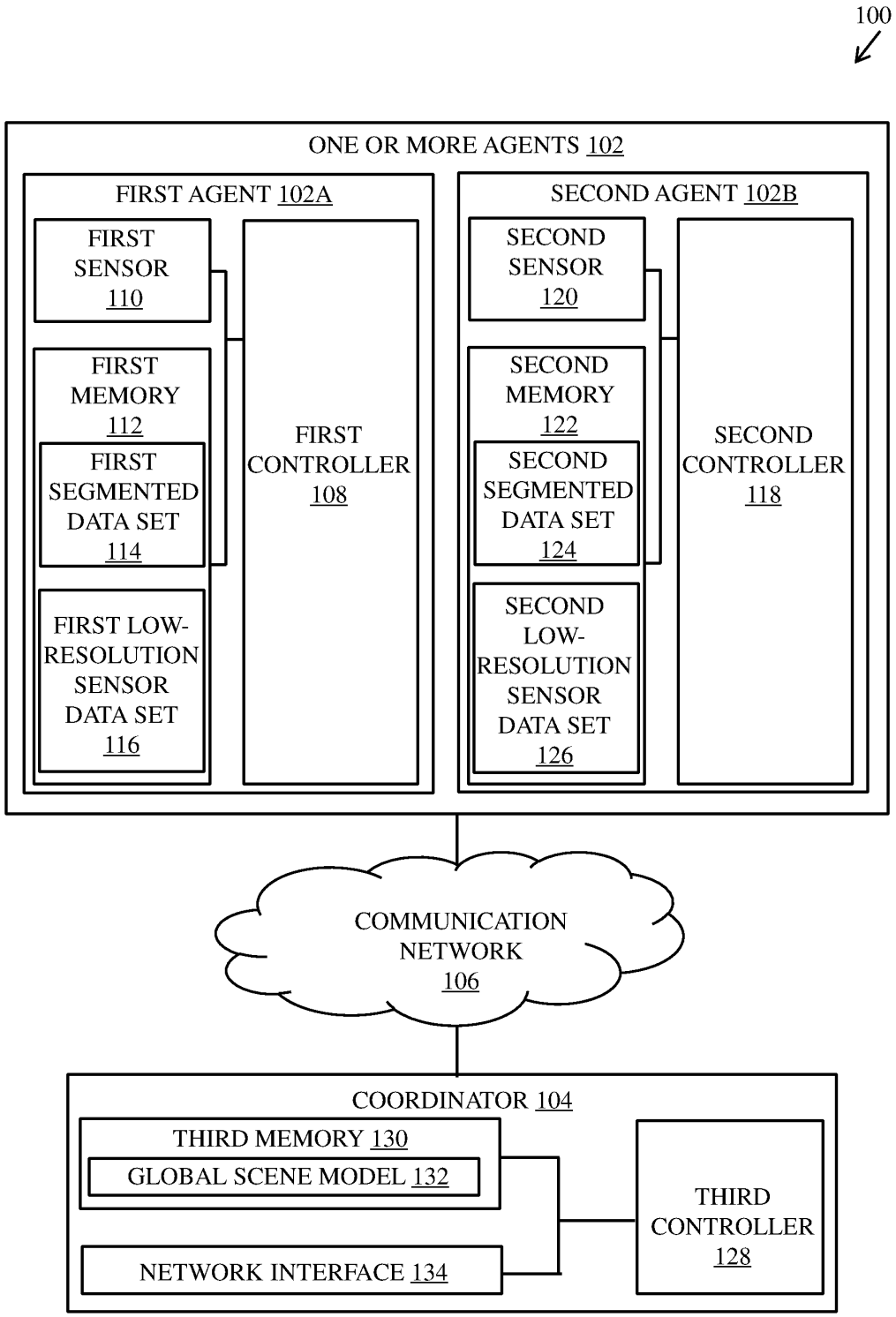

100
ONE OR MORE AGENTS 102
FIRST AGENT 102A
FIRST SENSOR 110
FIRST MEMORY 112
FIRST SEGMENTED DATA SET 114
FIRST LOW-RESOLUTION SENSOR DATA SET 116
FIRST CONTROLLER 108
SECOND AGENT 102B
SECOND SENSOR 120
SECOND MEMORY 122
SECOND SEGMENTED DATA SET 124
SECOND LOW-RESOLUTION SENSOR DATA SET 126
SECOND CONTROLLER 118
COMMUNICATION NETWORK 106
COORDINATOR 104
THIRD MEMORY 130
GLOBAL SCENE MODEL 132
NETWORK INTERFACE 134
THIRD CONTROLLER 128

FIG. 1

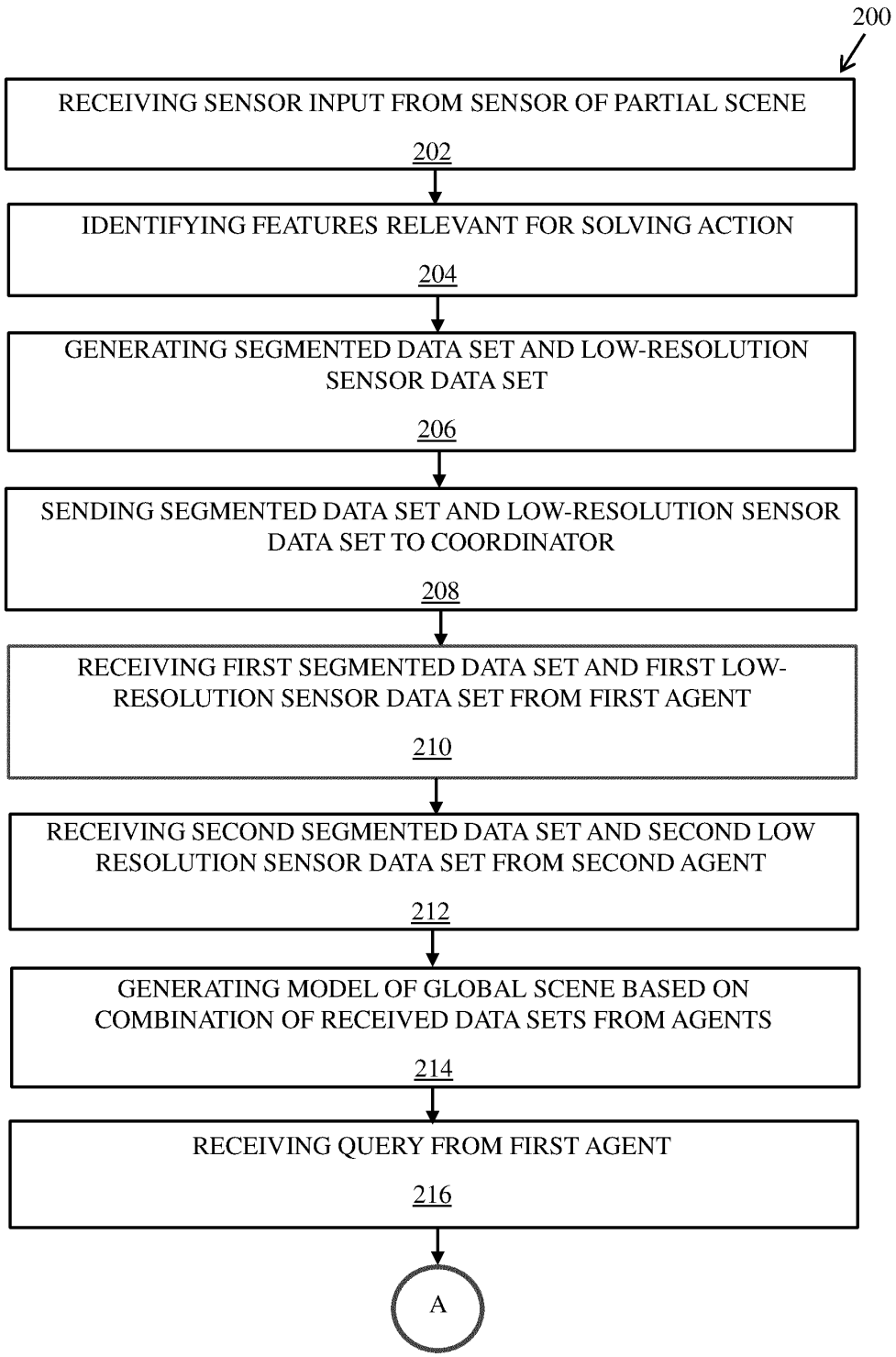

200
RECEIVING SENSOR INPUT FROM SENSOR OF PARTIAL SCENE
202
IDENTIFYING FEATURES RELEVANT FOR SOLVING ACTION
204
GENERATING SEGMENTED DATA SET AND LOW-RESOLUTION SENSOR DATA SET
206
SENDING SEGMENTED DATA SET AND LOW-RESOLUTION SENSOR DATA SET TO COORDINATOR
208
RECEIVING FIRST SEGMENTED DATA SET AND FIRST LOW-RESOLUTION SENSOR DATA SET FROM FIRST AGENT
210
RECEIVING SECOND SEGMENTED DATA SET AND SECOND LOW RESOLUTION SENSOR DATA SET FROM SECOND AGENT
212
GENERATING MODEL OF GLOBAL SCENE BASED ON COMBINATION OF RECEIVED DATA SETS FROM AGENTS
214
RECEIVING QUERY FROM FIRST AGENT
216
A

FIG. 2A

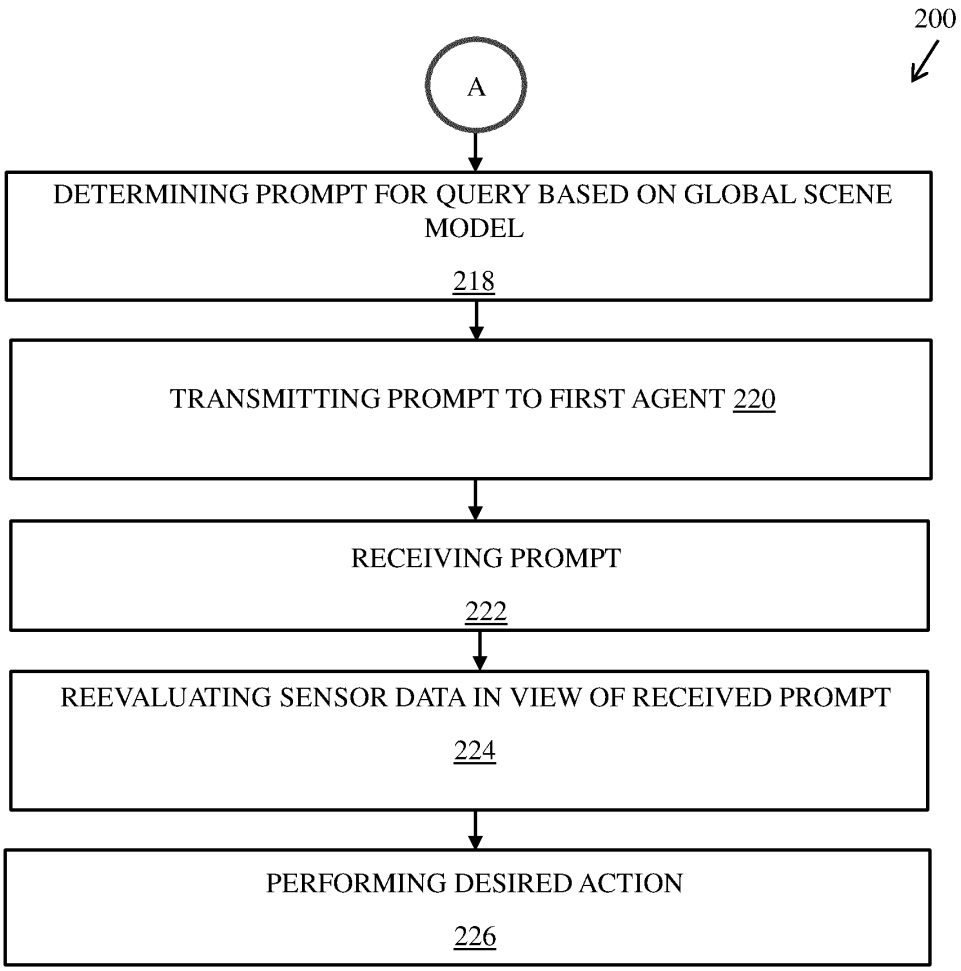

200
A
DETERMINING PROMPT FOR QUERY BASED ON GLOBAL SCENE MODEL
218
TRANSMITTING PROMPT TO FIRST AGENT 220
RECEIVING PROMPT
222
REEVALUATING SENSOR DATA IN VIEW OF RECEIVED PROMPT
224
PERFORMING DESIRED ACTION
226

FIG. 2B

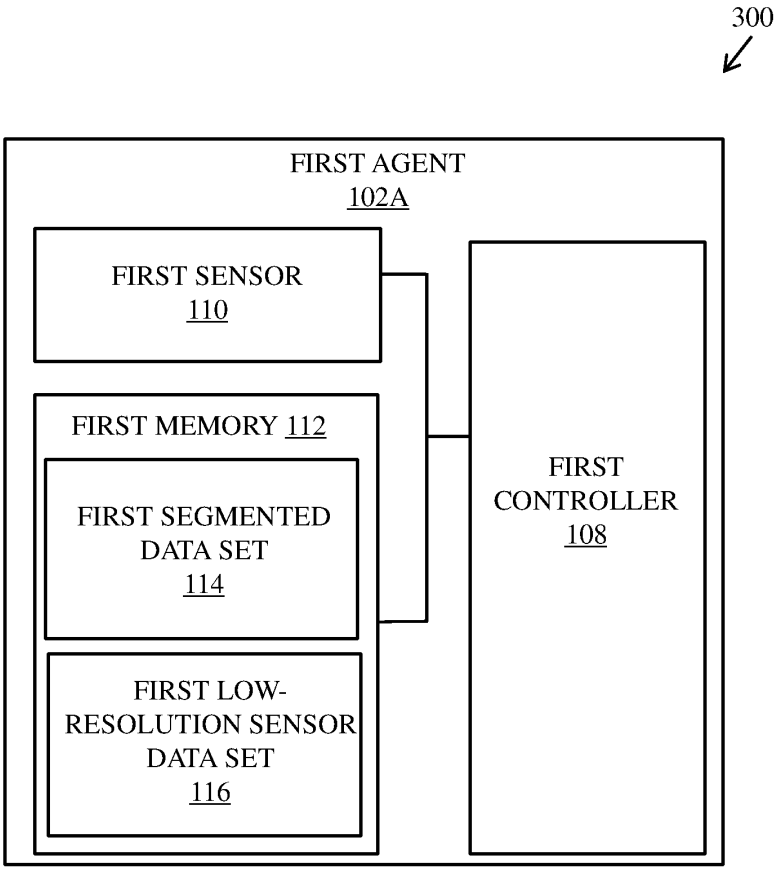

300
FIRST AGENT
102A
FIRST SENSOR
110
FIRST MEMORY 112
FIRST SEGMENTED DATA SET
114
FIRST LOW-RESOLUTION SENSOR DATA SET
116
FIRST CONTROLLER
108

FIG. 3

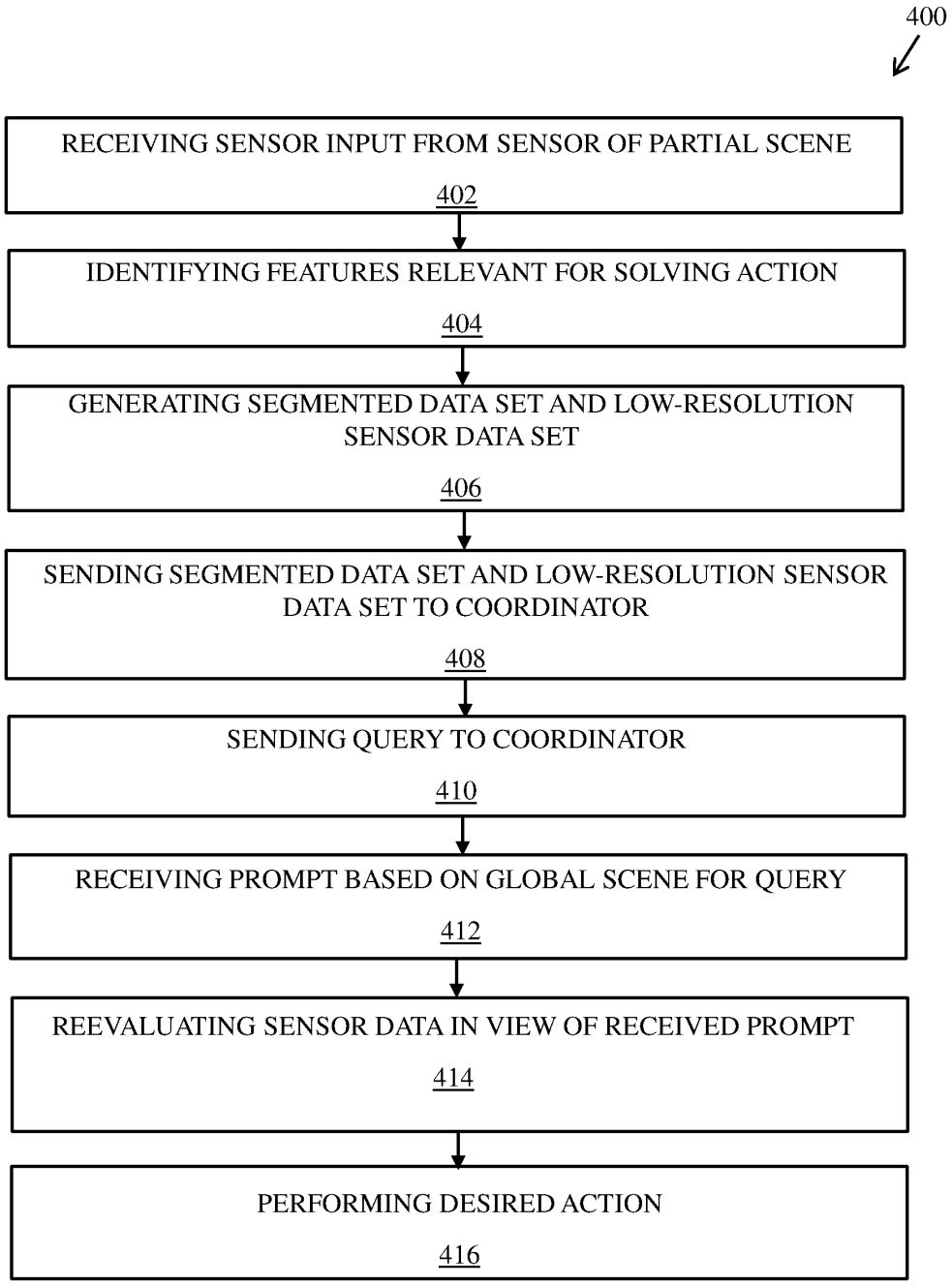

400
RECEIVING SENSOR INPUT FROM SENSOR OF PARTIAL SCENE
402
IDENTIFYING FEATURES RELEVANT FOR SOLVING ACTION
404
GENERATING SEGMENTED DATA SET AND LOW-RESOLUTION SENSOR DATA SET
406
SENDING SEGMENTED DATA SET AND LOW-RESOLUTION SENSOR DATA SET TO COORDINATOR
408
SENDING QUERY TO COORDINATOR
410
RECEIVING PROMPT BASED ON GLOBAL SCENE FOR QUERY
412
REEVALUATING SENSOR DATA IN VIEW OF RECEIVED PROMPT
414
PERFORMING DESIRED ACTION
416

FIG. 4

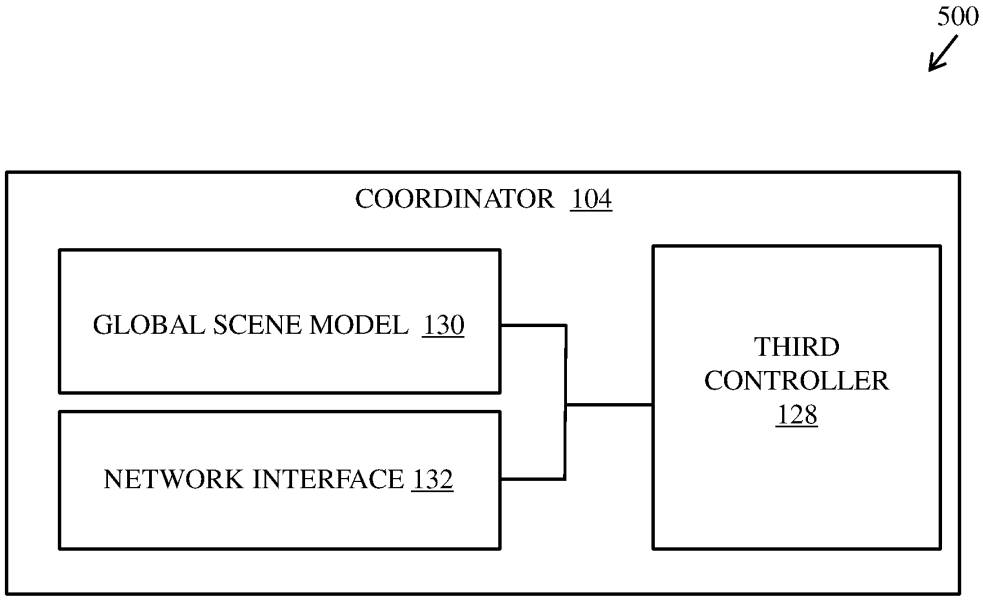

500
COORDINATOR 104
GLOBAL SCENE MODEL 130
NETWORK INTERFACE 132
THIRD CONTROLLER 128

FIG. 5

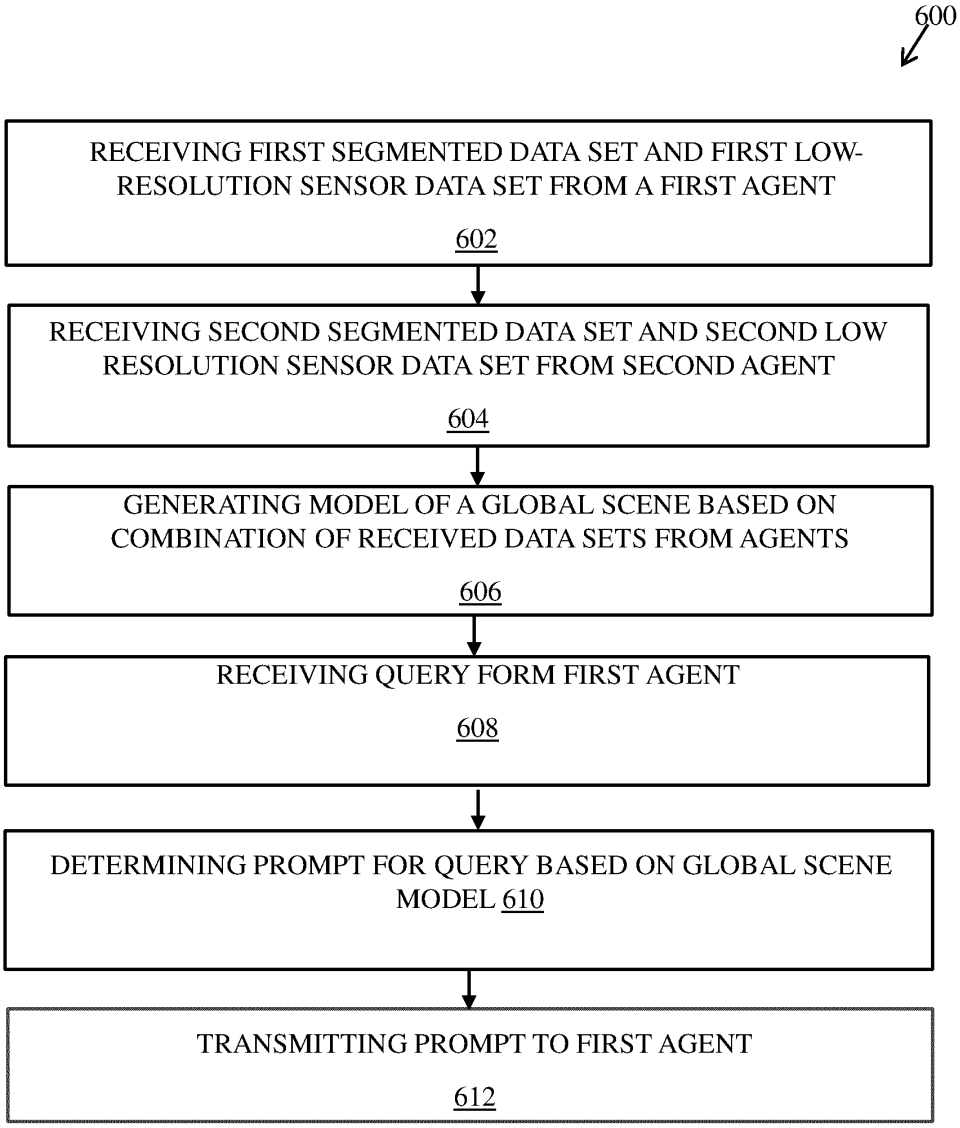

600
RECEIVING FIRST SEGMENTED DATA SET AND FIRST LOW-RESOLUTION SENSOR DATA SET FROM A FIRST AGENT
602
RECEIVING SECOND SEGMENTED DATA SET AND SECOND LOW RESOLUTION SENSOR DATA SET FROM SECOND AGENT
604
GENERATING MODEL OF A GLOBAL SCENE BASED ON COMBINATION OF RECEIVED DATA SETS FROM AGENTS
606
RECEIVING QUERY FORM FIRST AGENT
608
DETERMINING PROMPT FOR QUERY BASED ON GLOBAL SCENE MODEL 610
TRANSMITTING PROMPT TO FIRST AGENT
612

FIG. 6

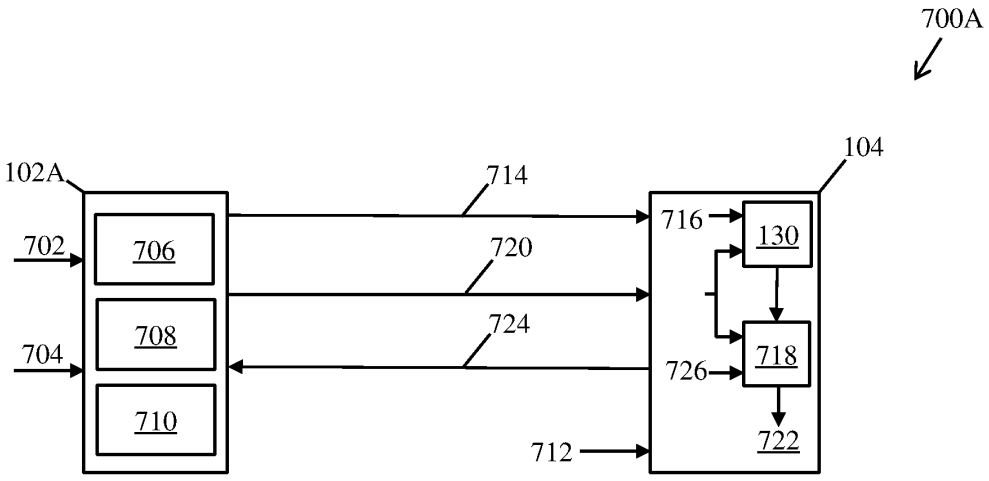

700A
102A
104
714
702
706
716
130
720
708
724
704
718
726
710
722
712

FIG. 7A

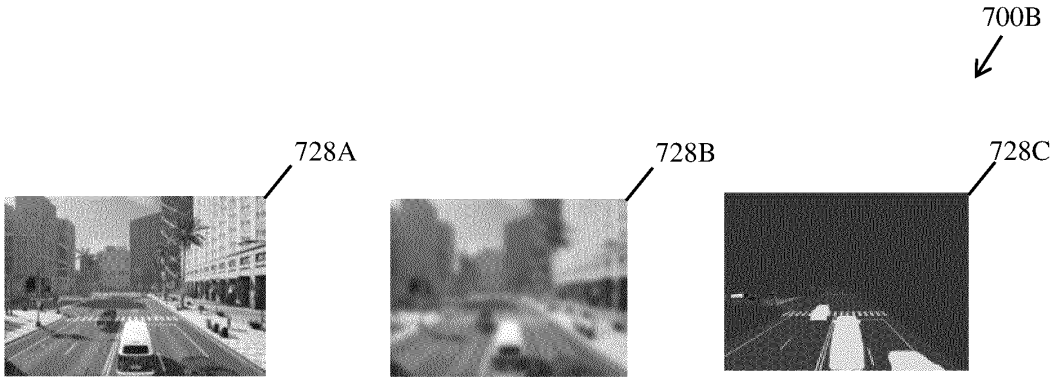

700B
728A
728B
728C

FIG. 7B

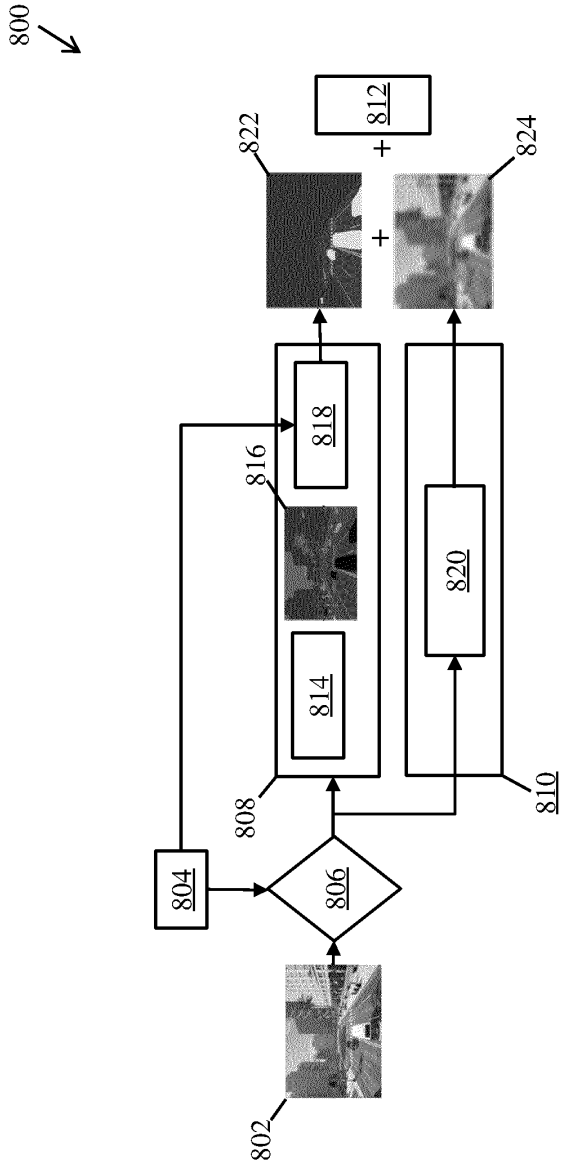


FIG. 8

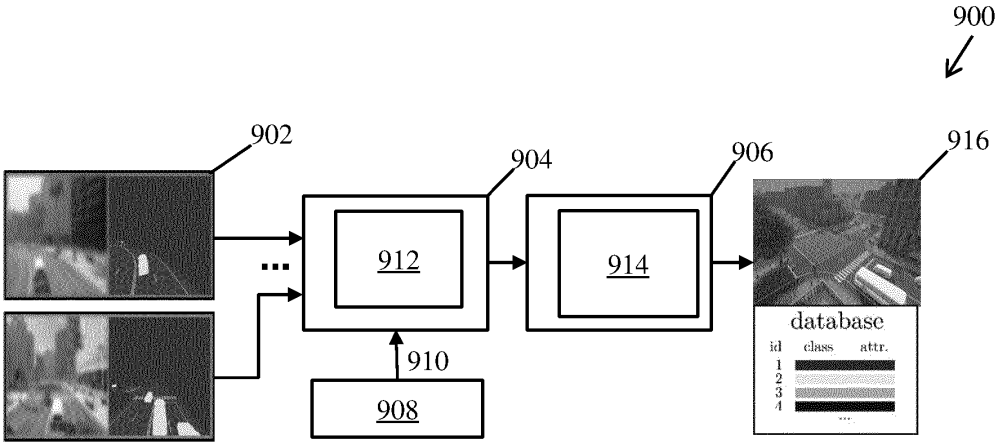

900
902
904
906
916
912
914
910
908
database
id class attr.

FIG. 9

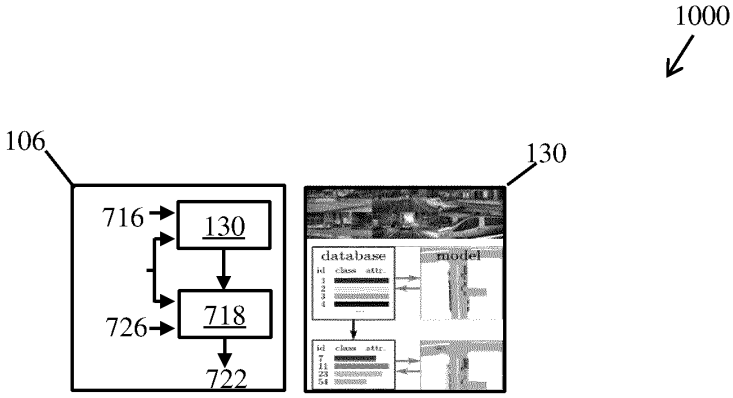

1000
106
130
716
130
726
718
722
database
model

FIG. 10

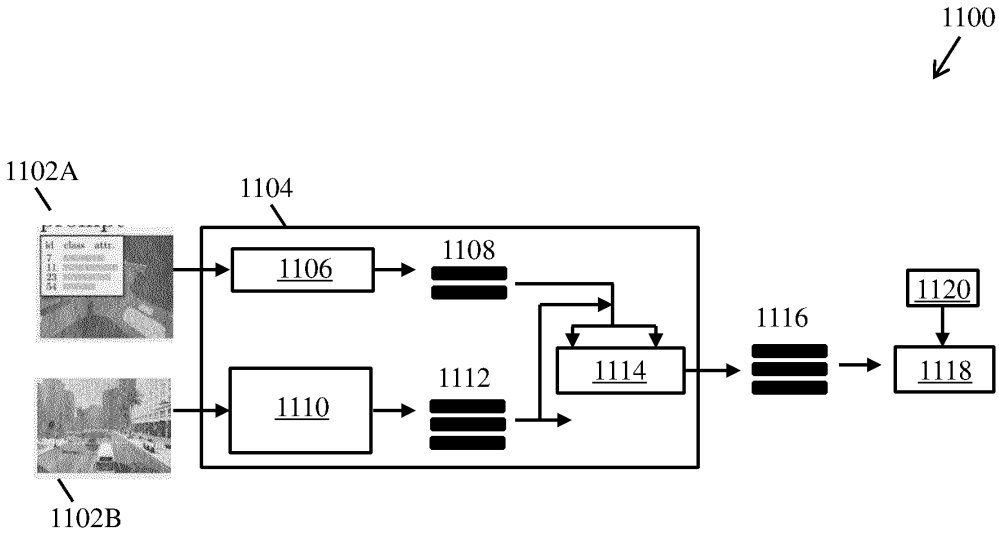

1100
1102A
1104
1106
1108
1110
1112
1114
1116
1118
1120
1102B

FIG. 11