

FIG. 1

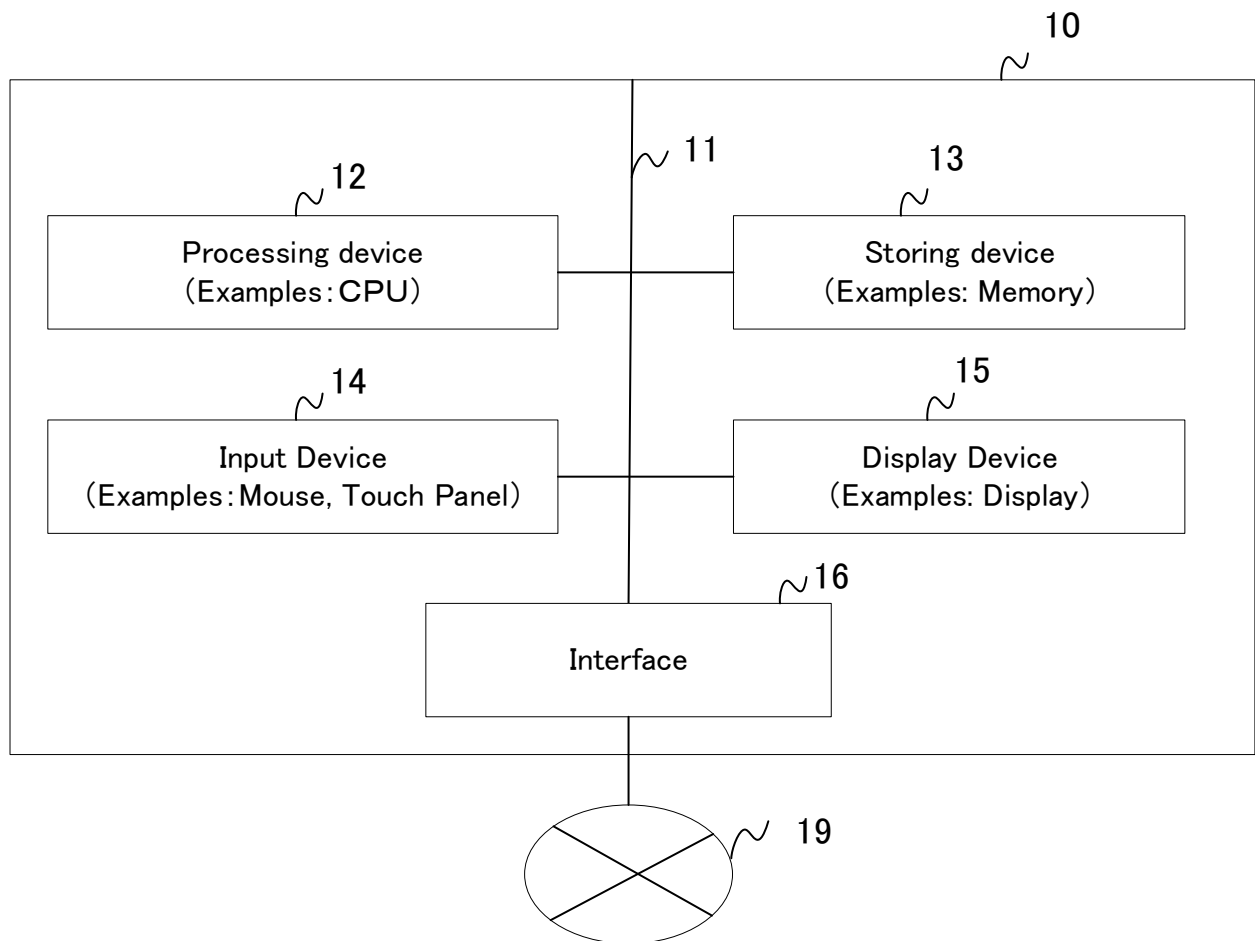


FIG.2

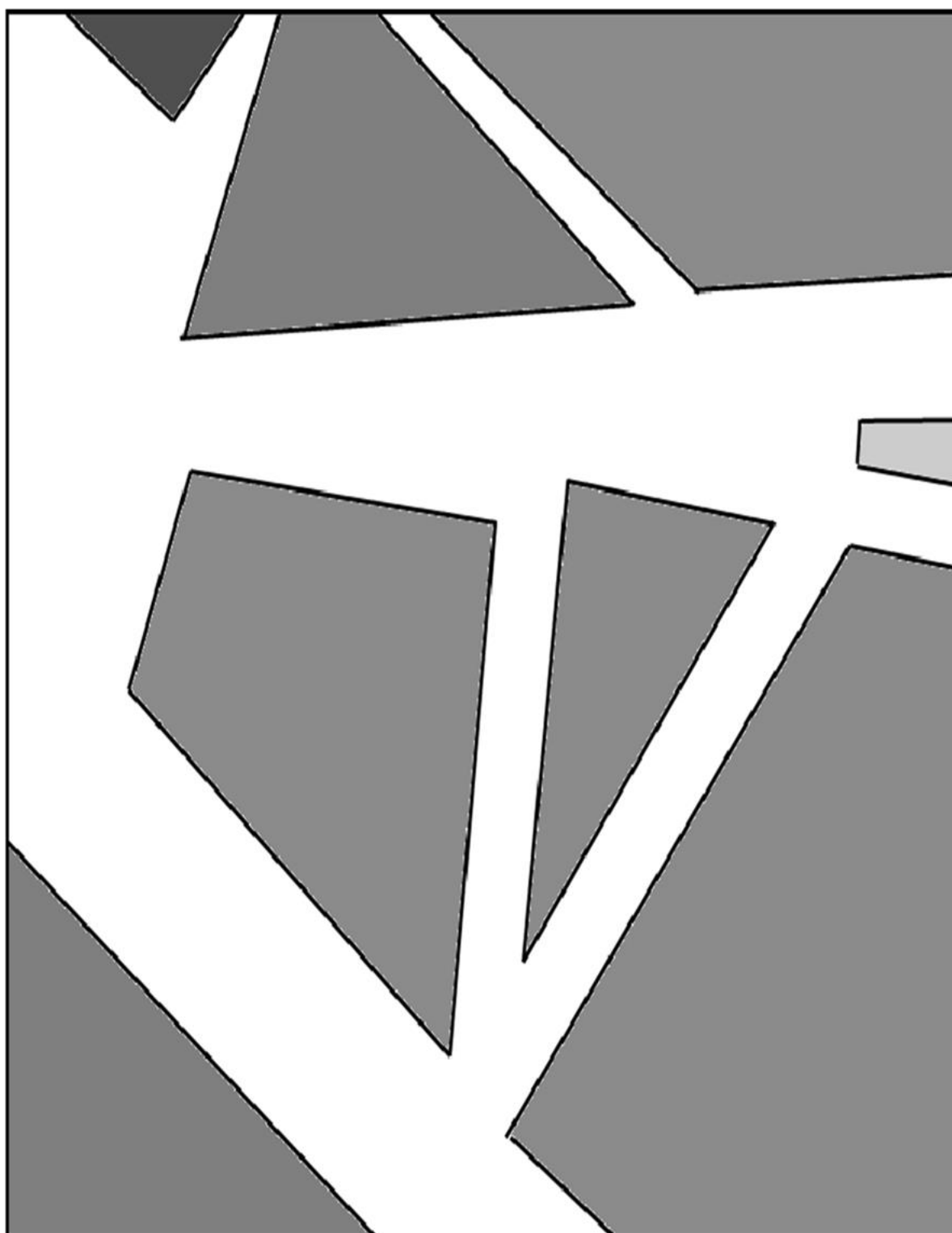


FIG.3

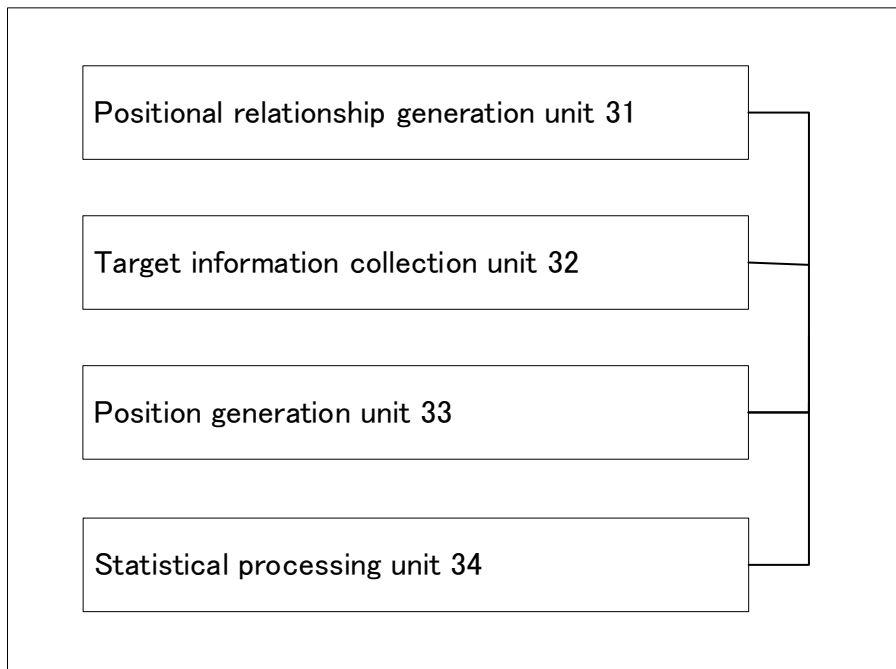


FIG.4

No	Real Image X cordinate	Real Image Y cordinate	Reference Image X cordinate	Reference Image Y cordinate
1	Ax1	Ay1	Atx1	Aty1
2	Ax2	Ay2	Atx2	Aty2
3	Ax3	Ay3	Atx3	Aty3
4	Ax4	Ay4	Atx4	Aty4
5	Ax5	Ay5	Atx5	Aty5
6	Ax6	Ay6	Atx6	Aty6
7	Ax7	Ay7	Atx7	Aty7
8	Ax8	Ay8	Atx8	Aty8
...	...	...	...	...
N	AxN	AyN	AtxN	AtyN

FIG.5

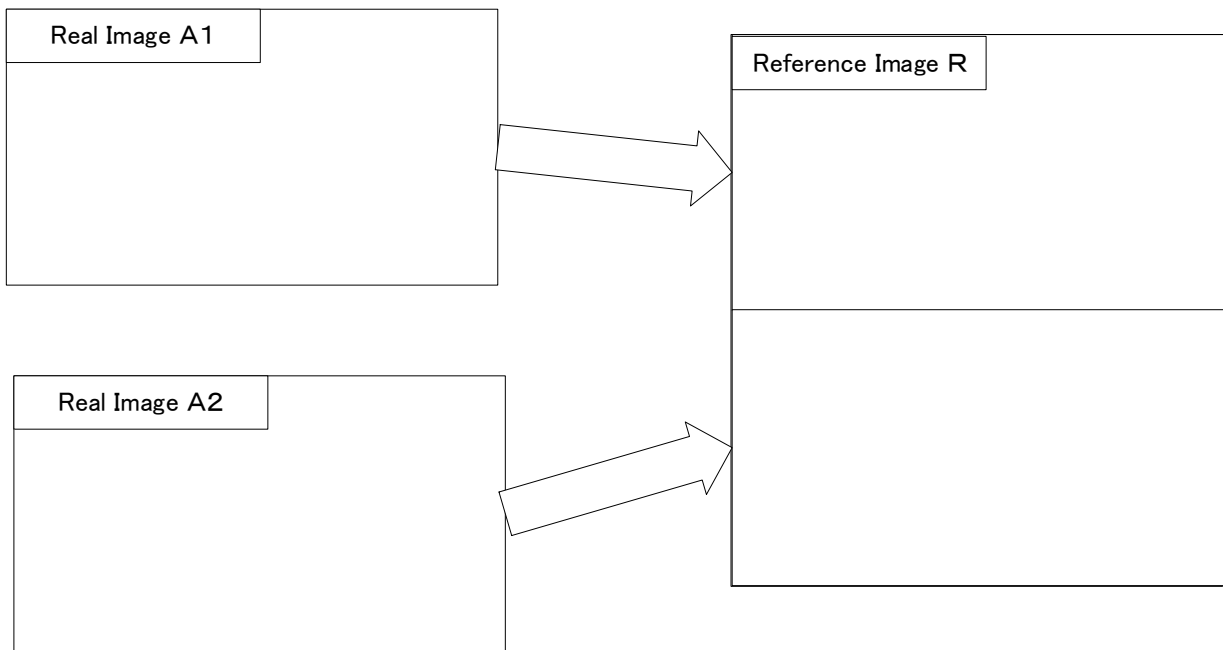


FIG.6

No	Real Image		Reference Image R	
	X cordinate	Y cordinate	X cordinate	Y cordinate
1	A1x1	A1y1	Atx1	Aty1
2	A1x2	A1y2	Atx2	Aty2
3	A1x3	A1y3	Atx3	Aty3
4	A1x4	A1y4	Atx4	Aty4
5	A1x5	A1y5	Atx5	Aty5
6	A1x6	A1y6	Atx6	Aty6
7	A1x7	A1y7	Atx7	Aty7
8	A1x8	A1y8	Atx8	Aty8
...	...	...	...	...
N	A1xN	A1yN	AtxN	AtyN
N+1	A2x1	A2y1	AtxN+1	AtyN+1
...	A2x2	A2y2	...	...
...	A2x3	A2y3	...	...
...	A2x4	A2y4	...	...
...	A2x5	A2y5	...	...
...	A2x6	A2y6	...	...
...	A2x7	A2y7	...	...
...	A2x8	A2y8	...	...
...	...	...	...	...
N+M	A2xN+M	A2yN+M	AtxN+M	AtyN+M

FIG.7

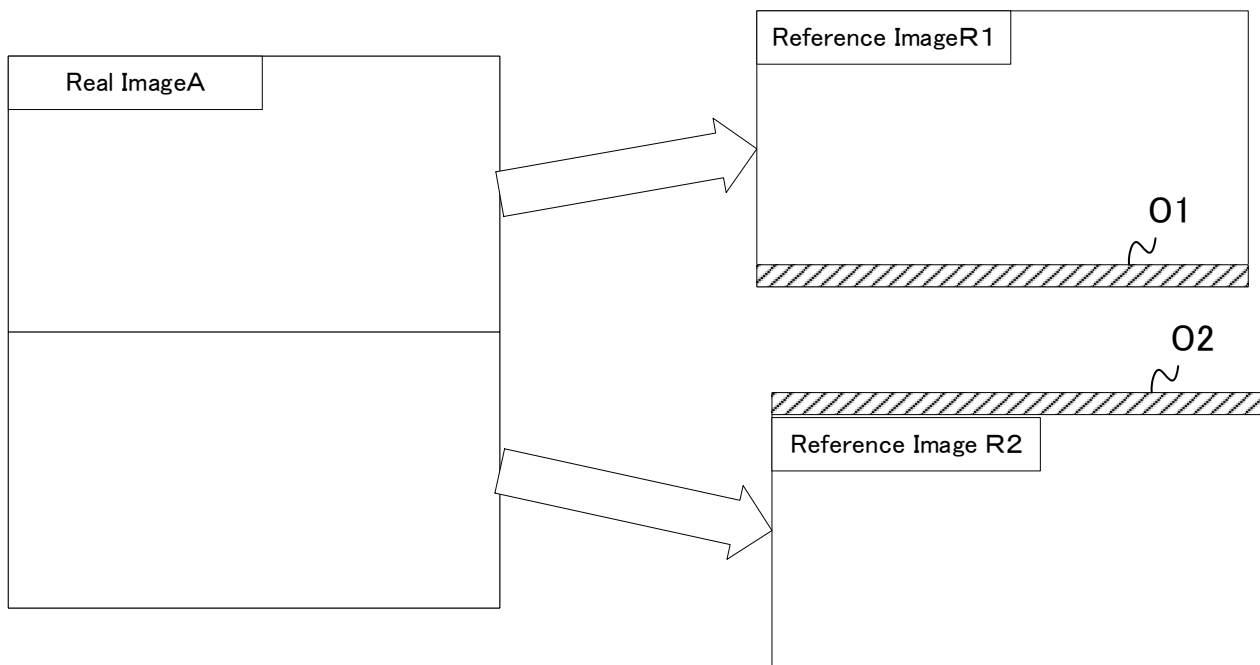


FIG.8

	Real Image A		Reference ImageR	
No	X cordinate	Y cordinate	X cordinate	Y cordinate
1	Ax1	Ay1	A1tx1	A1ty1
2	Ax2	Ay2	A1tx2	A1ty2
3	Ax3	Ay3	A1tx3	A1ty3
4	Ax4	Ay4	A1tx4	A1ty4
5	Ax5	Ay5	A1tx5	A1ty5
6	Ax6	Ay6	A1tx6	A1ty6
7	Ax7	Ay7	A1tx7	A1ty7
8	Ax8	Ay8	A1tx8	A1ty8
...	...	...	...	...
N	AxN	AyN	A1txN	A1tyN
N+1	AxN+1	AyN+1	A2tx1	A2ty1
...	...	...	A2tx2	A2ty2
...	...	...	A2tx3	A2ty3
...	...	...	A2tx4	A2ty4
...	...	...	A2tx5	A2ty5
...	...	...	A2tx6	A2ty6
...	...	...	A2tx7	A2ty7
...	...	...	A2tx8	A2ty8
...	...	...	...	...
N+M	AxN+M	AyN+M	A2txN	A2tyN

FIG.9

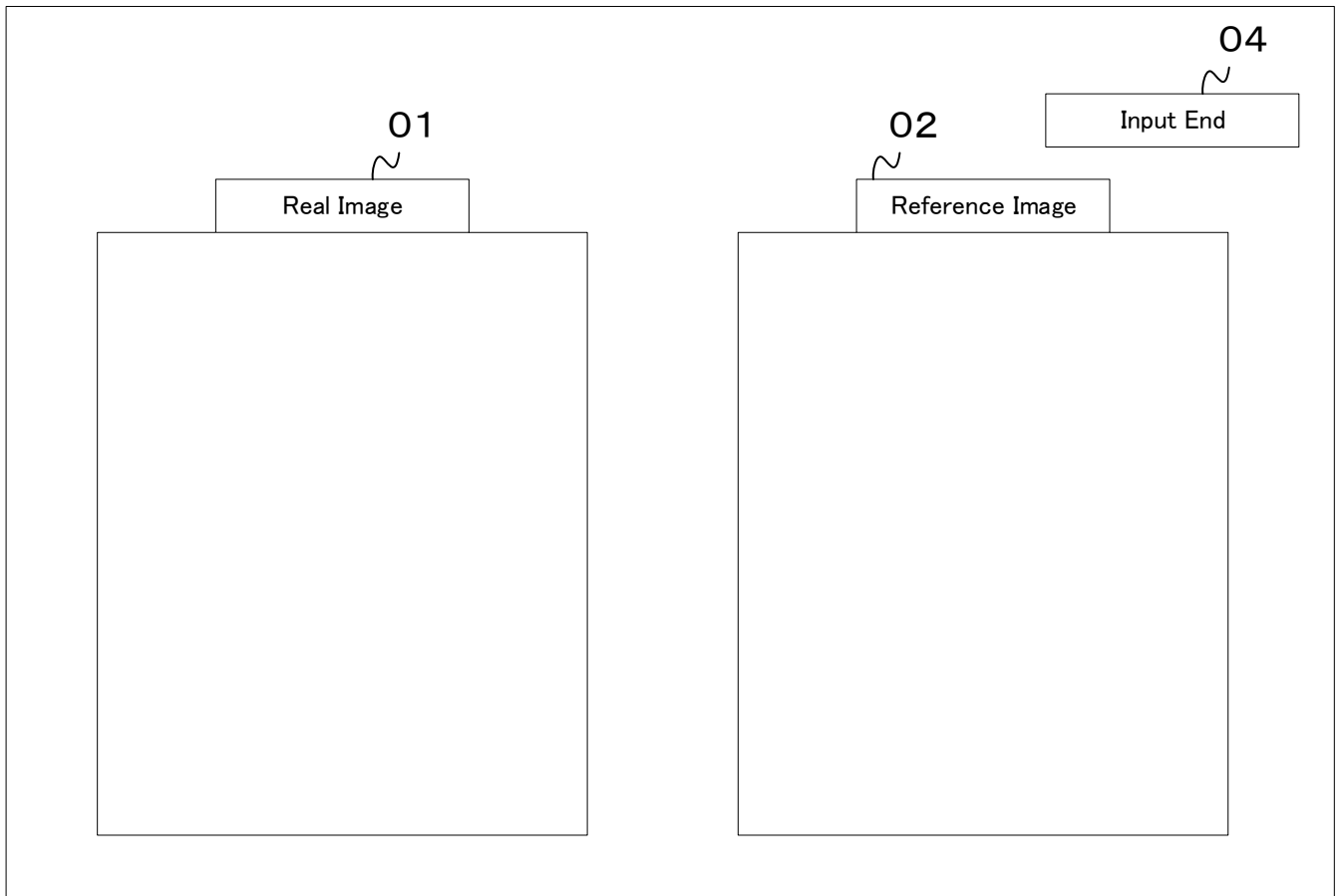


FIG.10

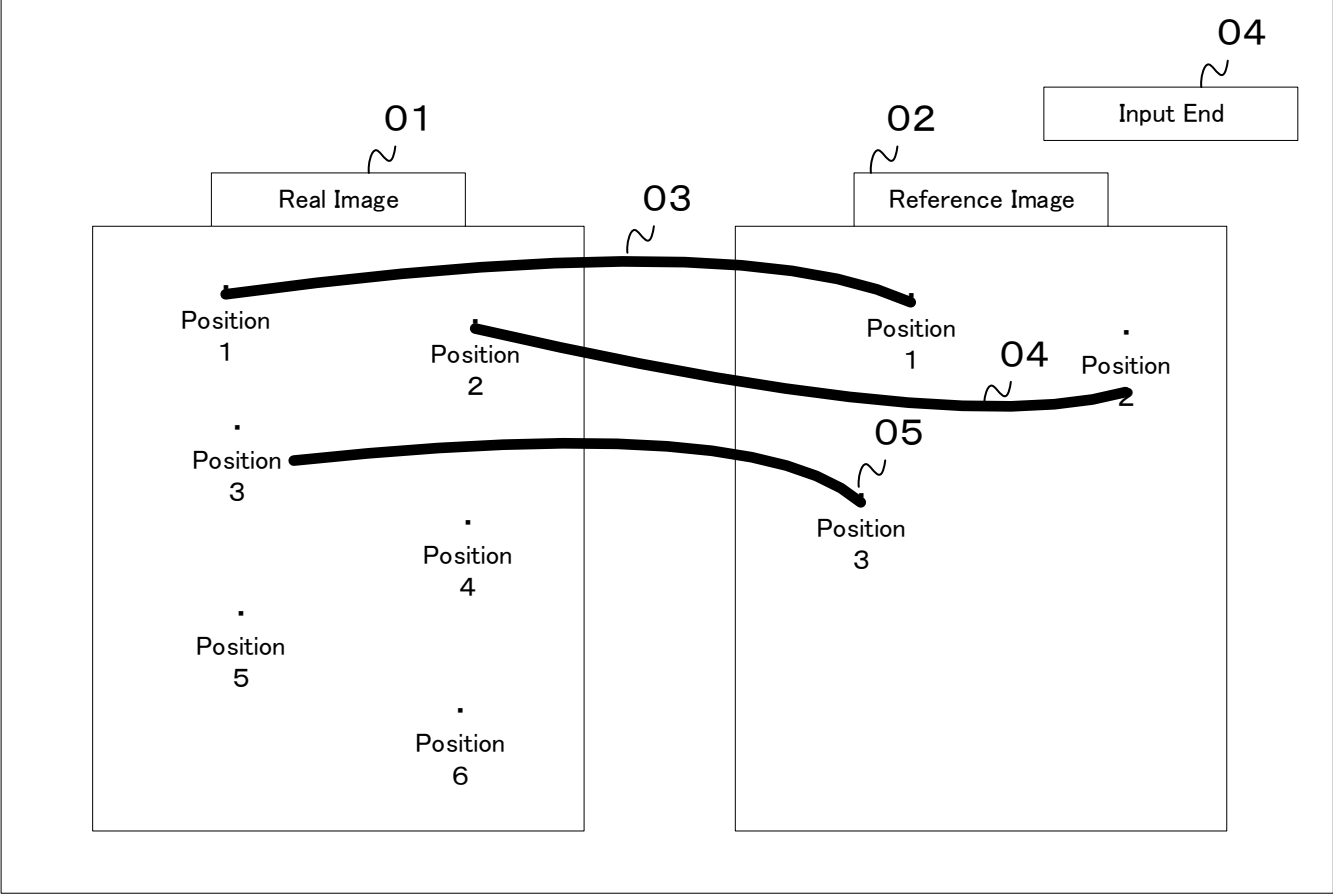


FIG.11

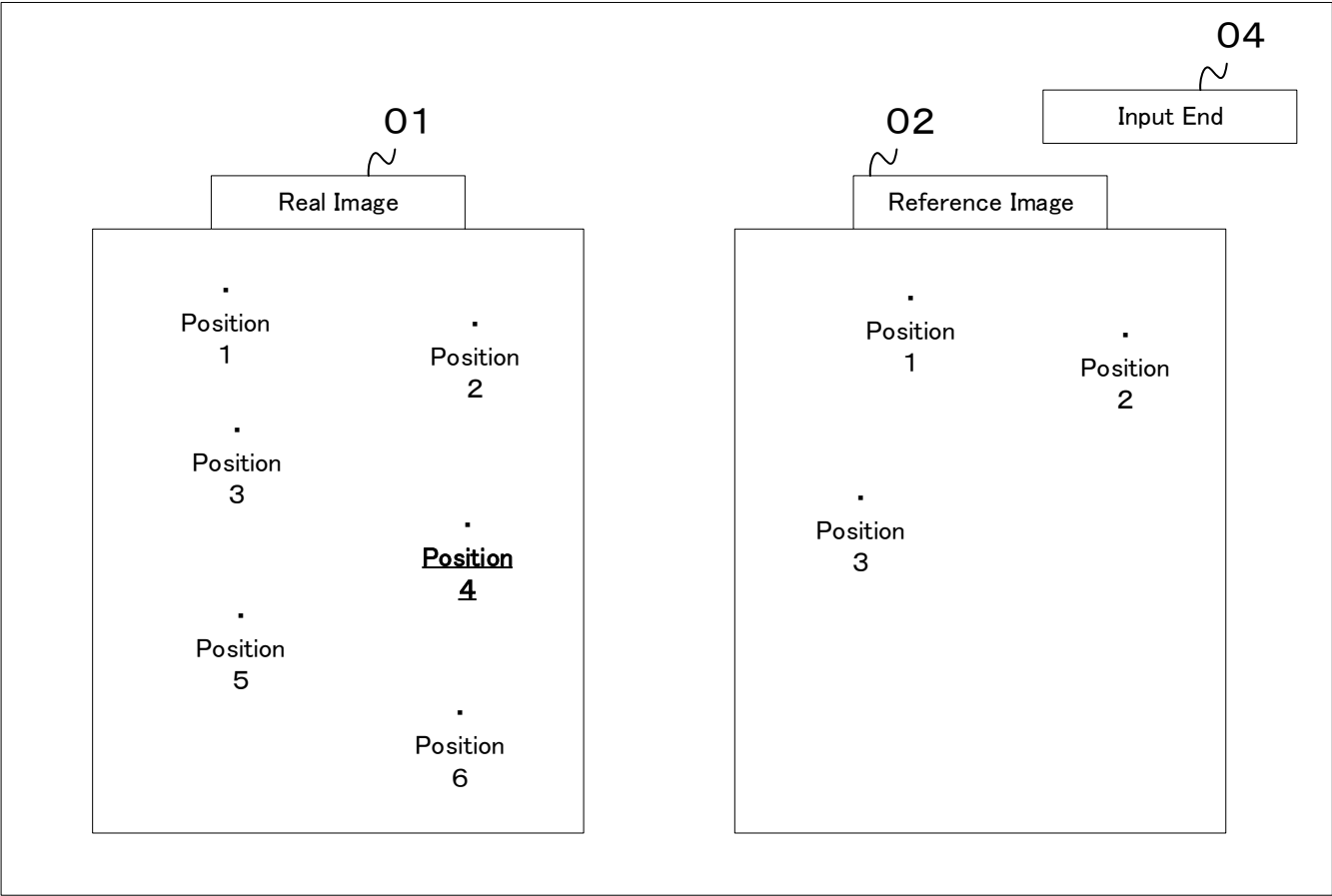


FIG.12

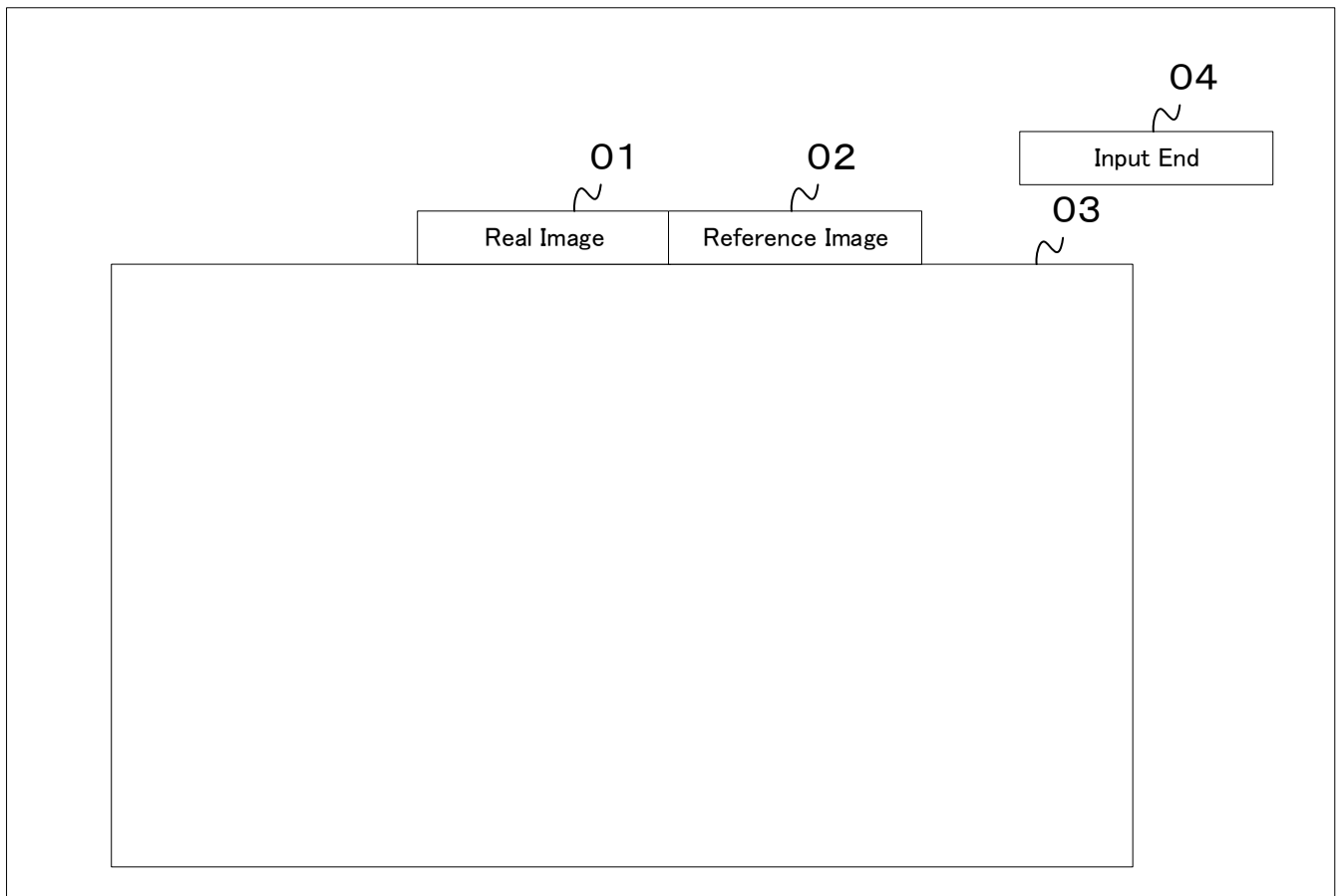


FIG.13

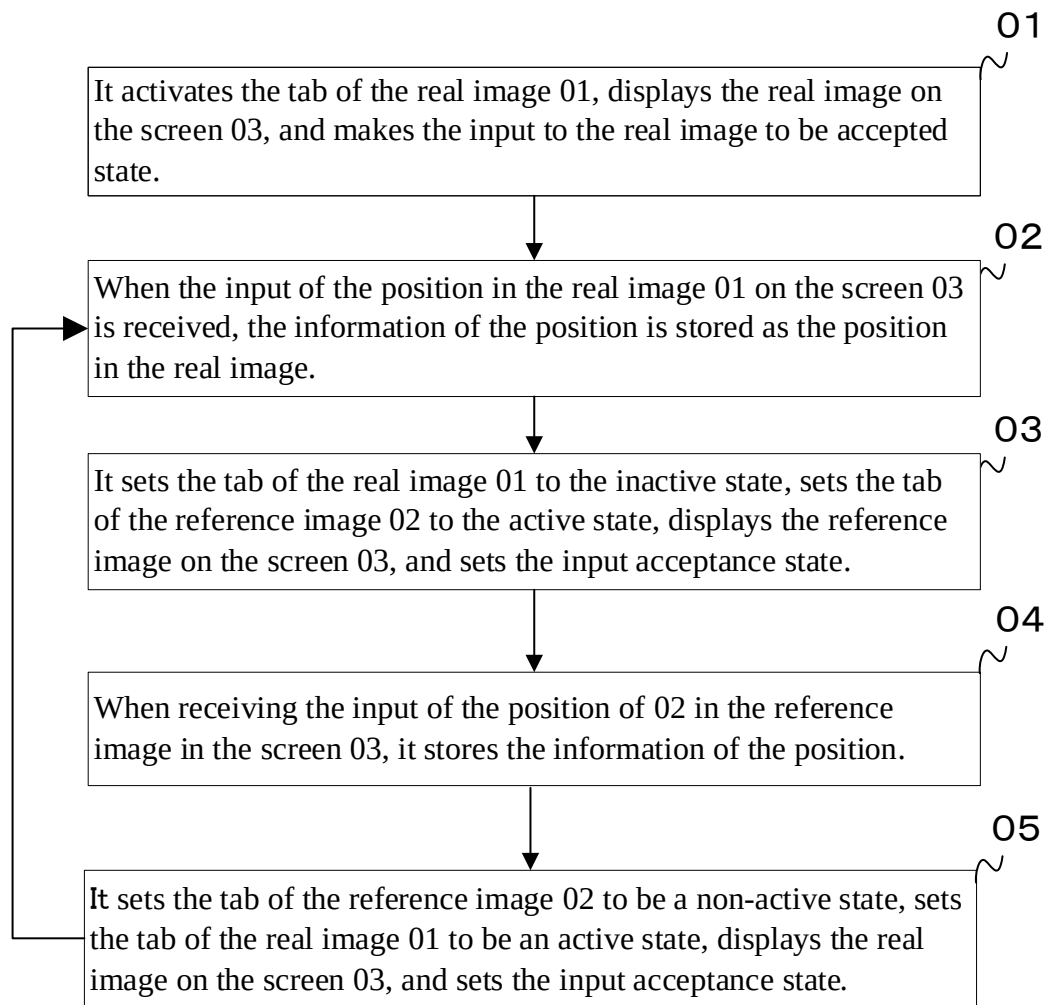


FIG.14

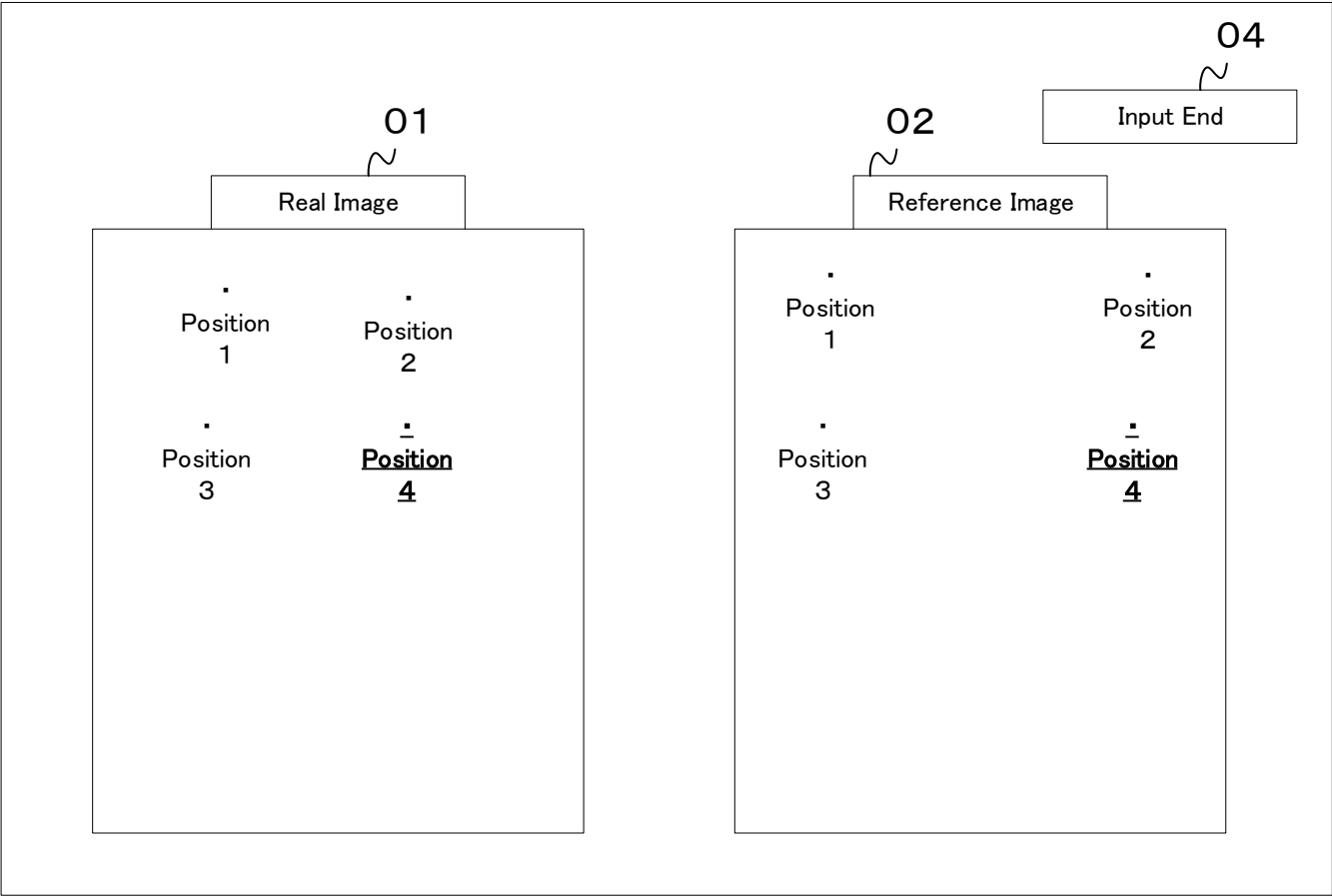


FIG.15

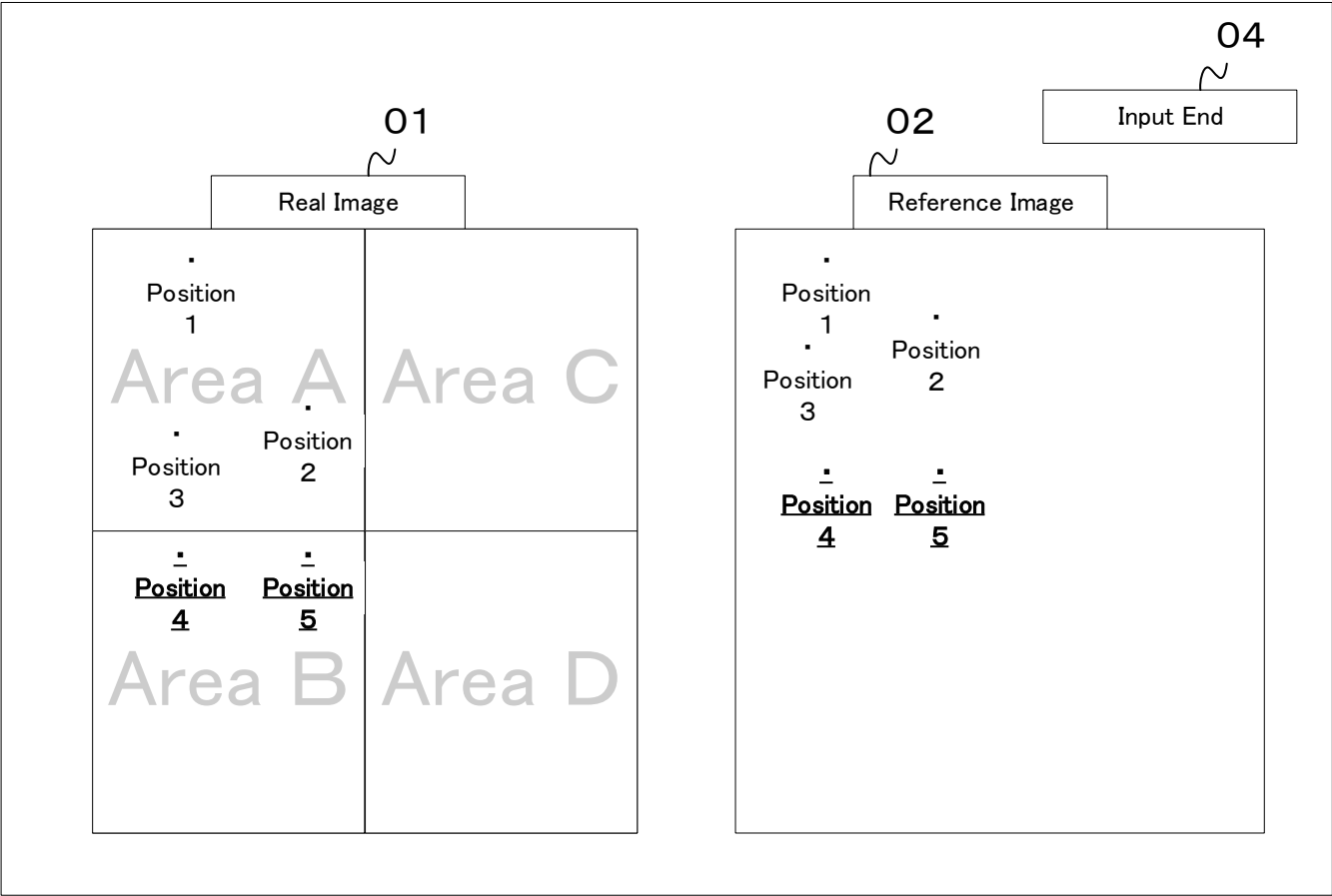


FIG.16

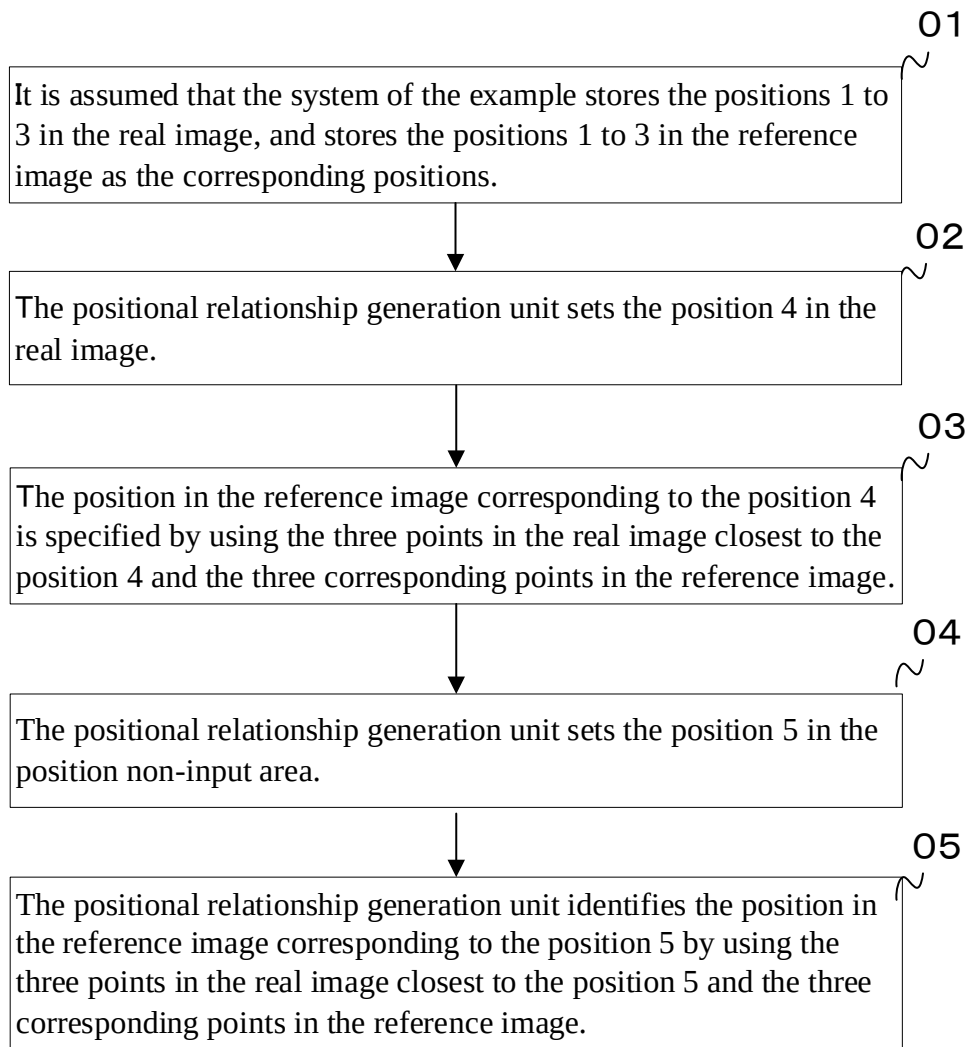


FIG.17

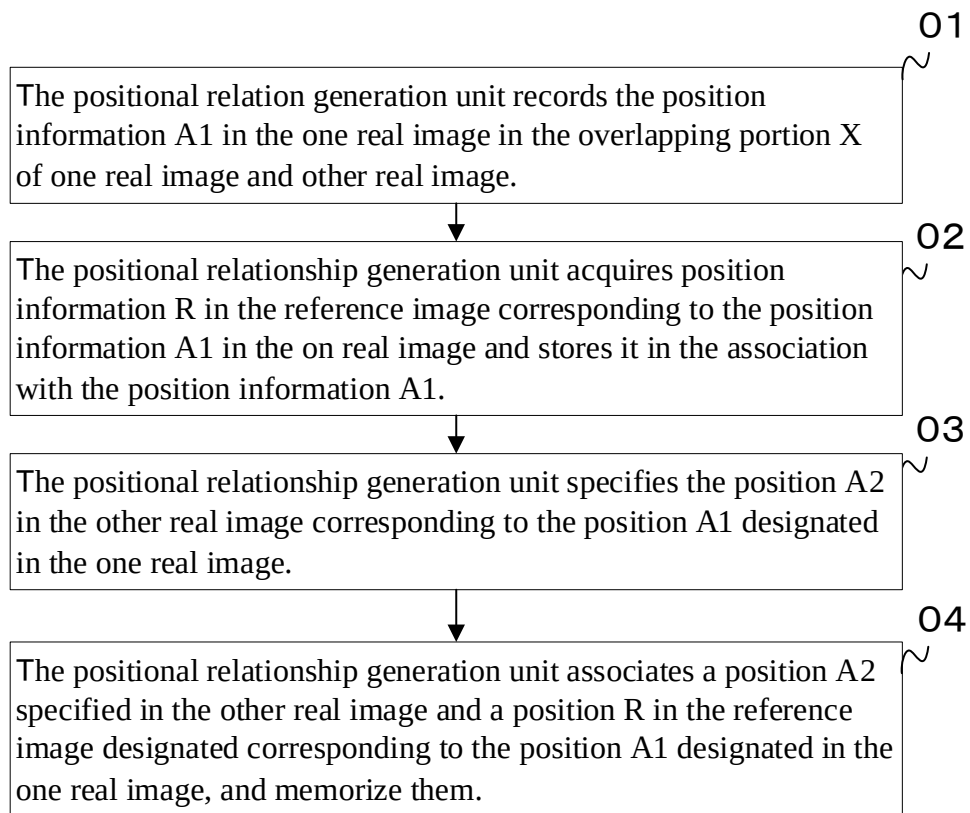


FIG.18

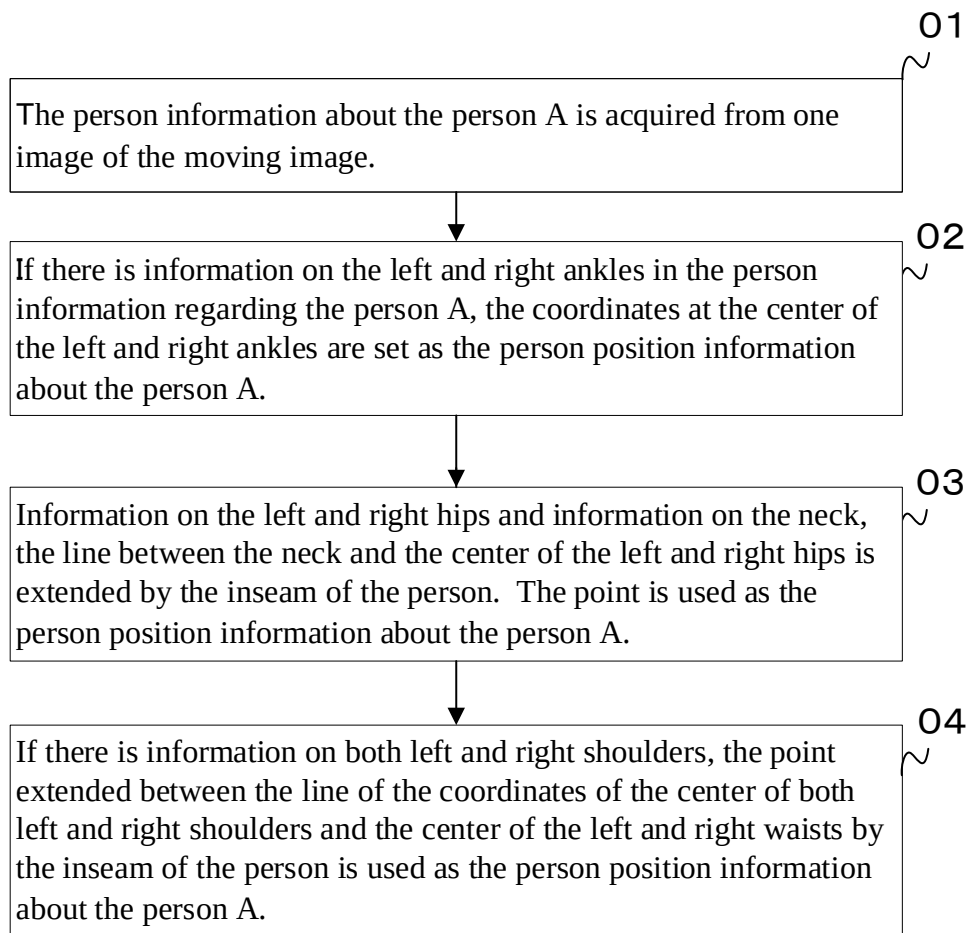


FIG.19

- 1) the directions of the eyes and nose are the same,
- 2) reaching out by hand,
- 3) returning a hand,
- 4) putting hands on the shoulder for a certain period of time, and
- 5) bringing the neck and ankle closer to each other.
- 6) The neck, hips and ankles are close to each other.

FIG.20

		Right										Left				
Person ID	Slide ID	Neck	Noise	Wrist	Elbow	Shoulder	Waist	Knee	Ankle	Wrist	Elbow	Shoulder	Waist	Knee	Ankle	
001	0023	(xn,yn)	(xno,yno)	(xne,yne)	(xe,ye)	(xs,ys)	(xh,yh)	(xk,yk)	(xa,ya)	...	...	...	...	...	...	
001	0024	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
001	0025	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

FIG.21

1. 1. . . .
2. 2. The position of both wrists and the position of each corresponding shoulder fluctuate from a predetermined range to outside a predetermined range within a predetermined period.
3. 3. The position of both wrists and the position of each corresponding shoulder fluctuate from outside a predetermined range to within a predetermined range within the specified period.
4. 4. The position of the left wrist and the position of the left shoulder are within the predetermined range, and the position of the right wrist and the position of the right shoulder are within the predetermined range for a predetermined time.
5. 5. The position of the neck and the positions of the left ankle and the right ankle fluctuate from outside the predetermined range to within the predetermined range, and the fluctuation of the waist position during these fluctuation periods is within the predetermined range.
6. 6. The position of the neck and the positions of the left ankle and the right ankle fluctuate from outside the predetermined range to within the predetermined range, and during these fluctuation periods, the position of the waist, the position of the left ankle and the position of the right ankle fluctuate from out of the predetermined range to within the predetermined range.

FIG.22

Time range	Person ID	Person Position Information	Person Behavior Information	Person Behavior Supplemental Information
10:00~10:05	001	t1x1、t1y1	pattern 1)	30 degrees
	002	t1x2、t1y2	pattern 3)	50 degrees
	003	t1x3、t1y3	pattern 5)	20 degrees
	001	t1x4、t1y4	pattern 2)	50 degrees
10:05~10:10	001	t2x1、t2y1	pattern 3)	180 degrees
	002	t2x2、t2y2	pattern 2)	0 degrees
	003	t2x3、t2y3	pattern 1)	30 degrees
	003	t2x4、t2y4	pattern 1)	40 degrees
...	...	...	...	...

FIG.23

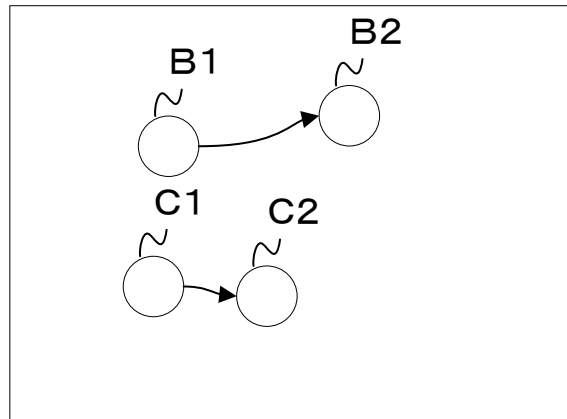


FIG.24

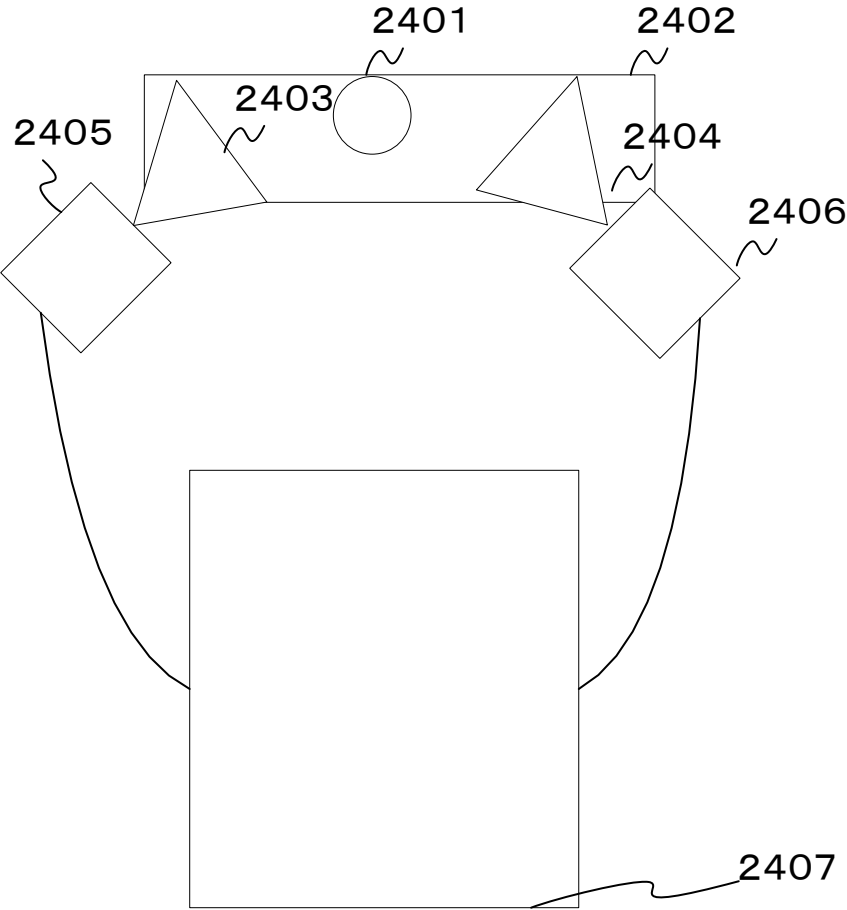


FIG.26

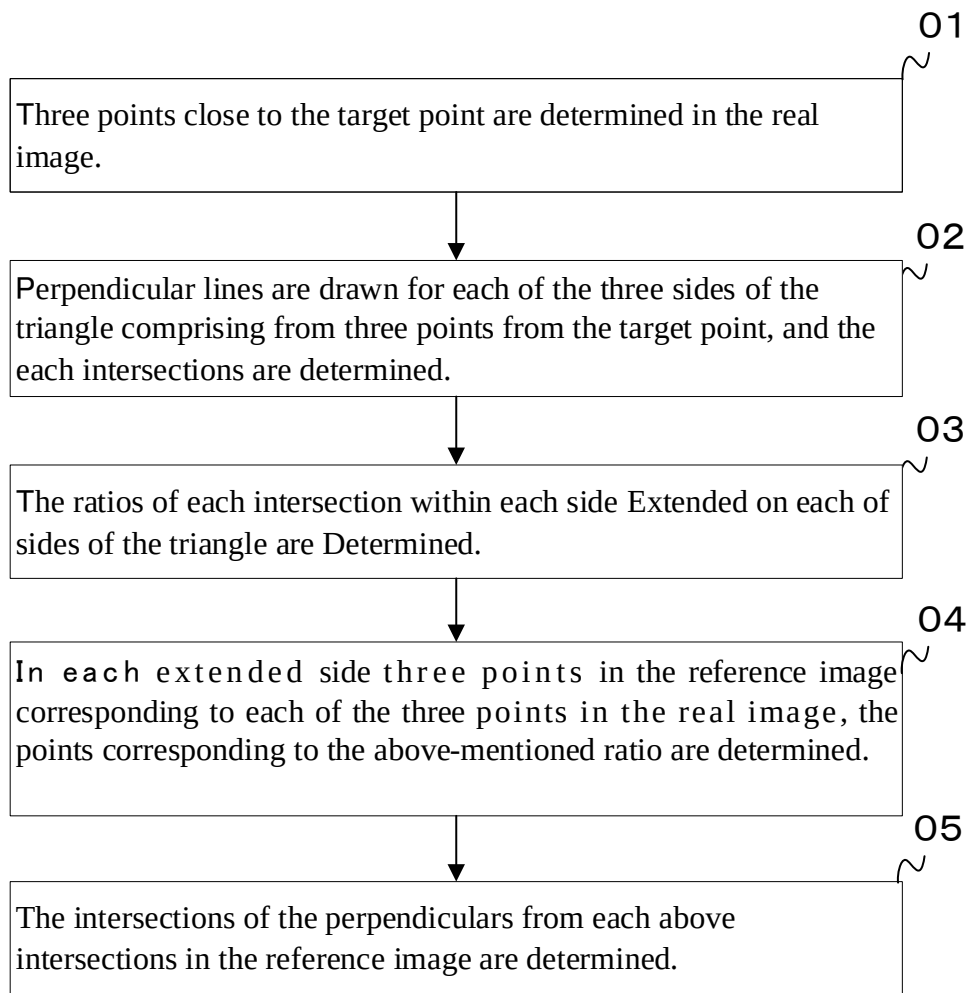


FIG.27

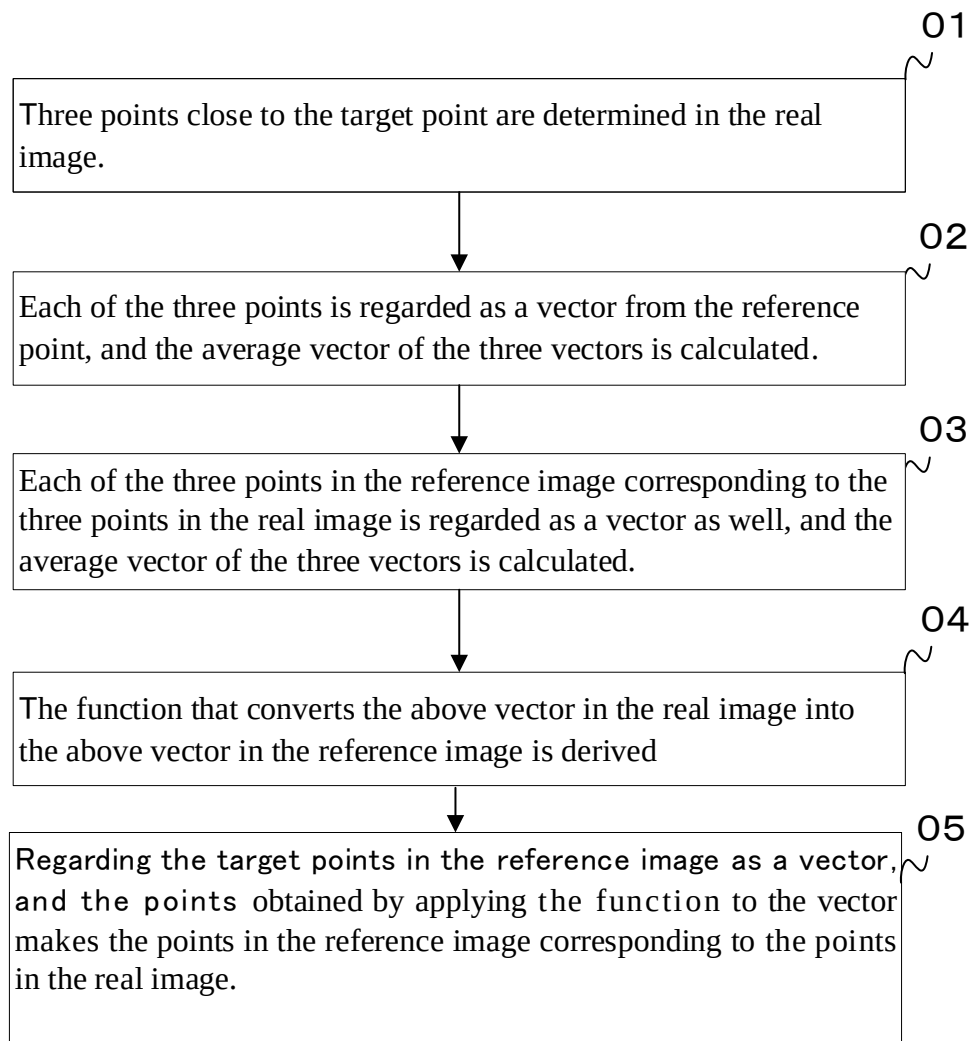


FIG.28

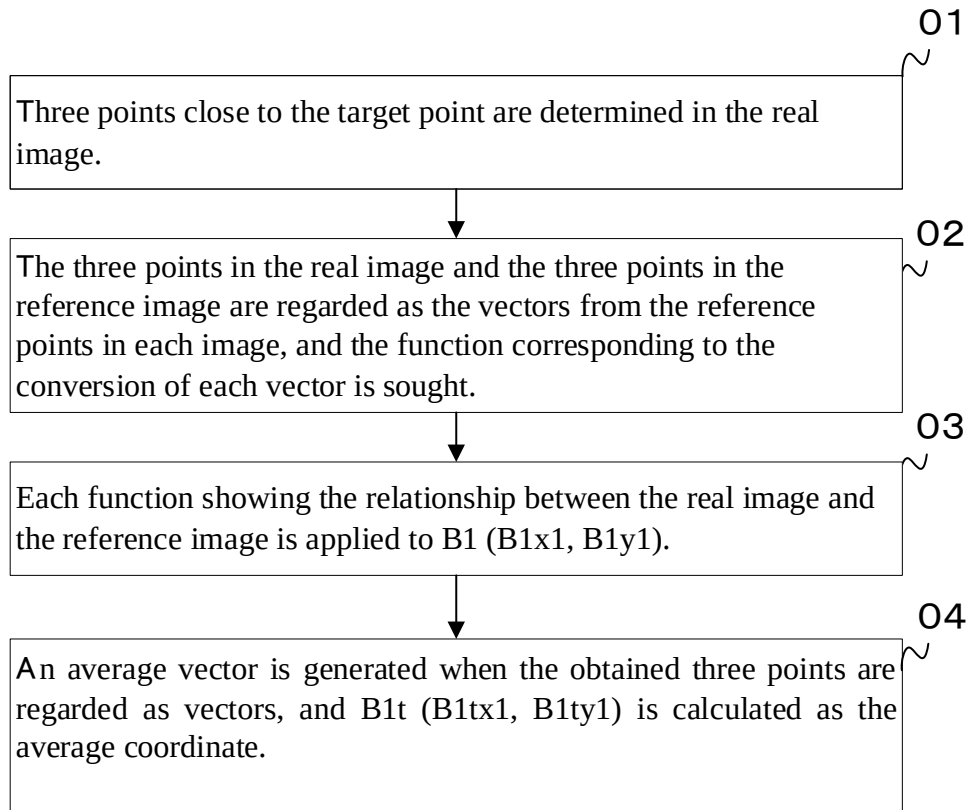


FIG.29

Area ID	Area positional information			
	X lower limit	X upper limit	Y lower limit	Y upper limit
1	1xL	1xU	1yL	1yU
2	2xL	2xU	2yL	2yU
3	3xL	3xU	3yL	3yU
4	4xL	4xU	4yL	4yU

FIG.30

Area ID	Area positional information
	The values taken by an area are shown by the variables x and y, and let a, b, and c be coefficients.
1	$X^2 + y^2 \leq a1$
2	$x \geq b$
3	$X \leq c1 \quad \wedge \quad y \geq c2$
4	...

FIG.31

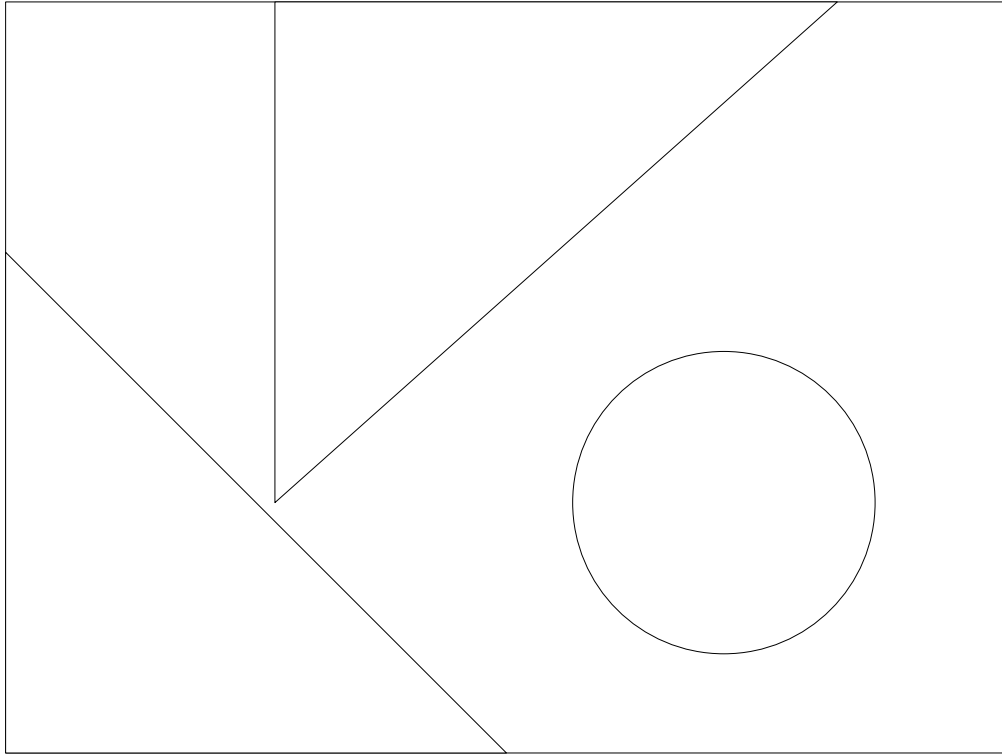


FIG32

Target ID	Area information belonged to
1	Area 3
2	Area 2
3	Area 5
4	Area 3
5	...

FIG.33

Target ID	Area information belonging to	Area information belonging to	Area information belonging to
1	Area 1	Area 1.2	
2	Area 2	Area 2.1	
3	Area 1	Area 1.3	Area 1.3.2
4	Area 3		
5	...		

FIG.34

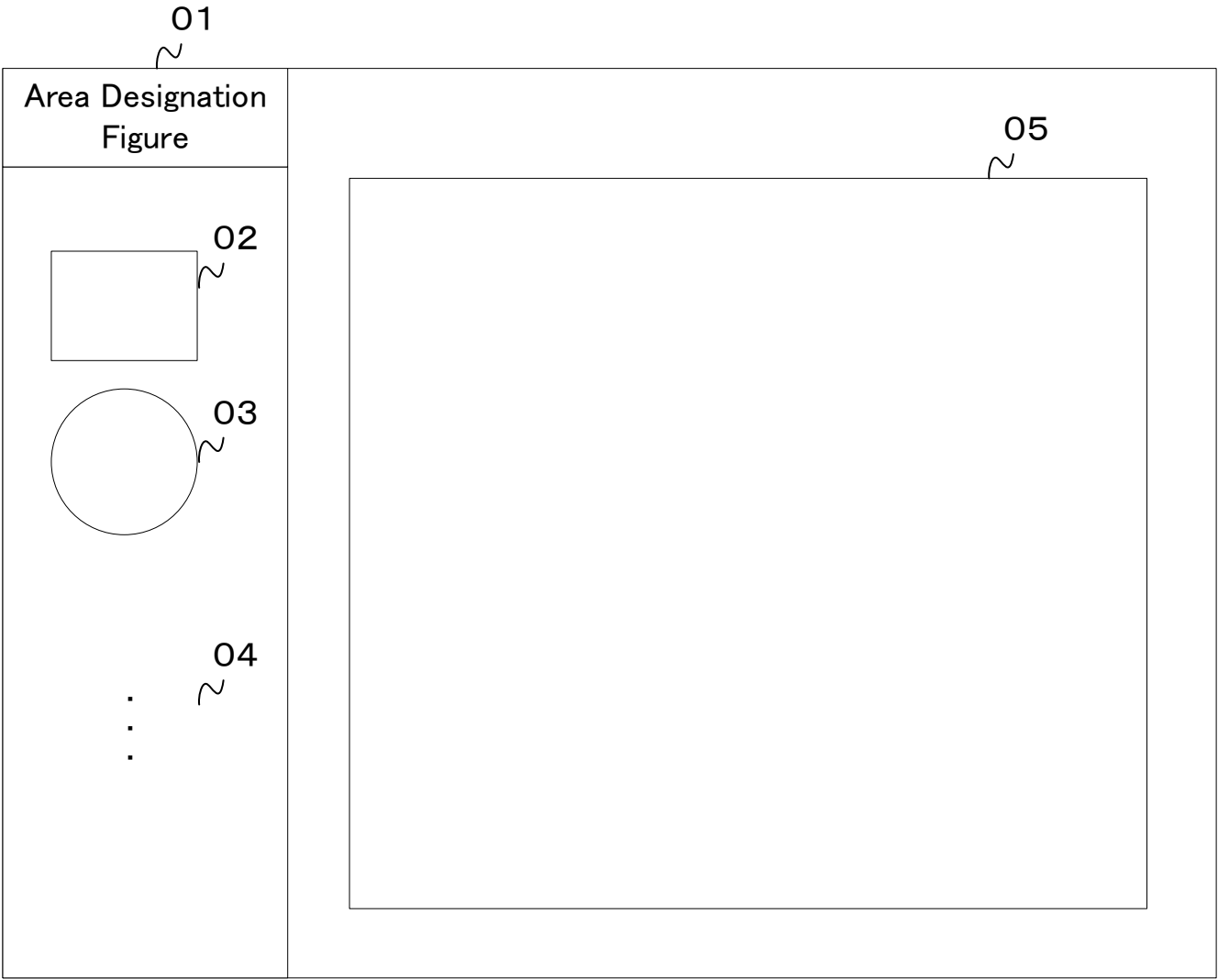


FIG.35

Target ID	Reference Image		Area
	x coordinate	y coordinate	
1	x1	y1	F1
2	x2	y2	F2
3	x3	y3	F1
4	x4	y4	F4
5	x5	y5	F2
6	x6	y6	F2
7	x7	y7	F3
8	x8	y8	F5
...	...	...	...

FIG.36

Time	F1	F2	F3	F4
t1	2	3	0	1
t2	2	2	1	1
t3	4	1	0	2
...	...	...	...	...

FIG.37

Target ID	Reference Image				Area
	types	time	x coordinate	y coordinate	
1	1	t1	t1x1	t1y1	F1
2	2	t1	t1x2	t1y2	F2
3	1	t1	t1x3	t1y3	F1
4	1	t1	t1x4	t1y4	F4
5	1	t1	t1x5	t1y5	F2
6	2	t1	t1x6	t1y6	F2
1	1	t2	t2x1	t2y1	F1
2	2	t2	t2x2	t2y2	F2
3	1	t2	t2x3	t2y3	F1
4	1	t2	t2x4	t2y4	F4
5	1	t2	t2x5	t2y5	F2
6	2	t2	t2x6	t2y6	F3
1	1	t3	t3x1	t3y1	F1
2	2	t3	t3x2	t3y2	F2
3	1	t3	t3x3	t3y3	F1
4	1	t3	t3x4	t3y4	F4
5	1	t3	t3x5	t3y5	F1
6	2	t3	t3x6	t3y6	F4
7	1	t3	t3x7	t3y7	F1
...	...	...	...	...	...

FIG.38

[illegible]

FIG.39

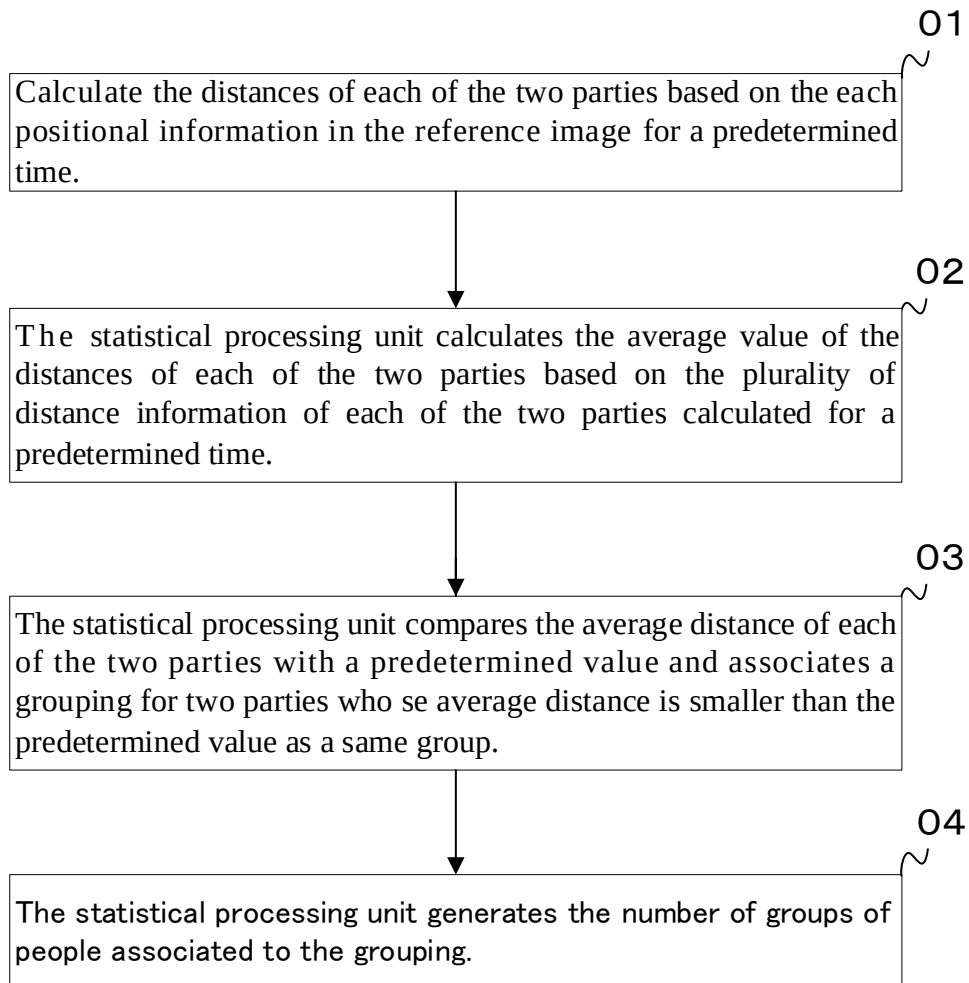


FIG.40

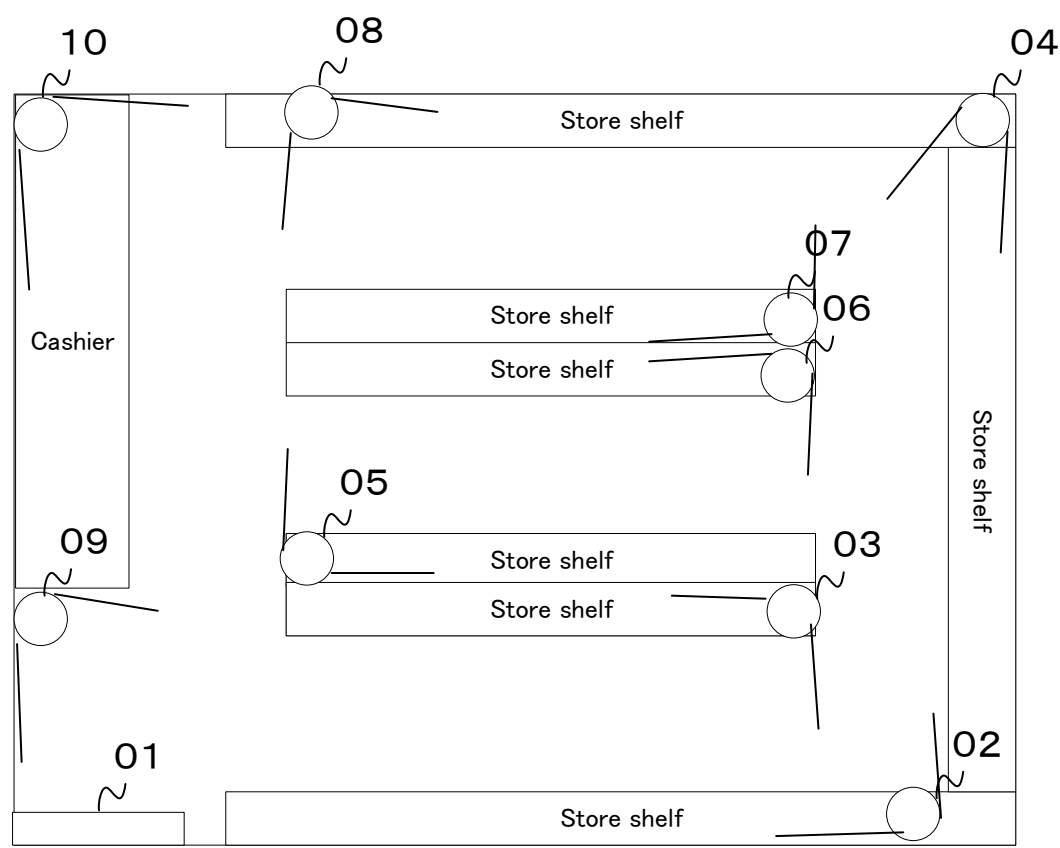


FIG.41

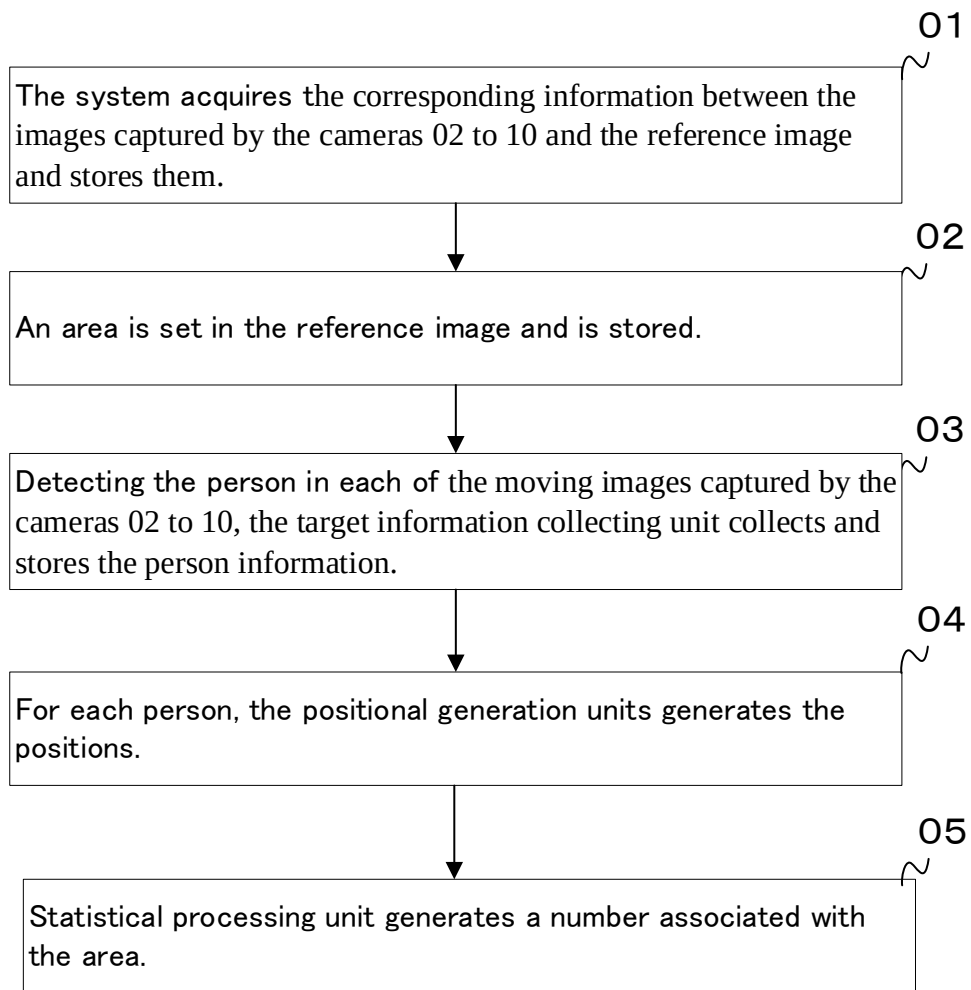


FIG.42

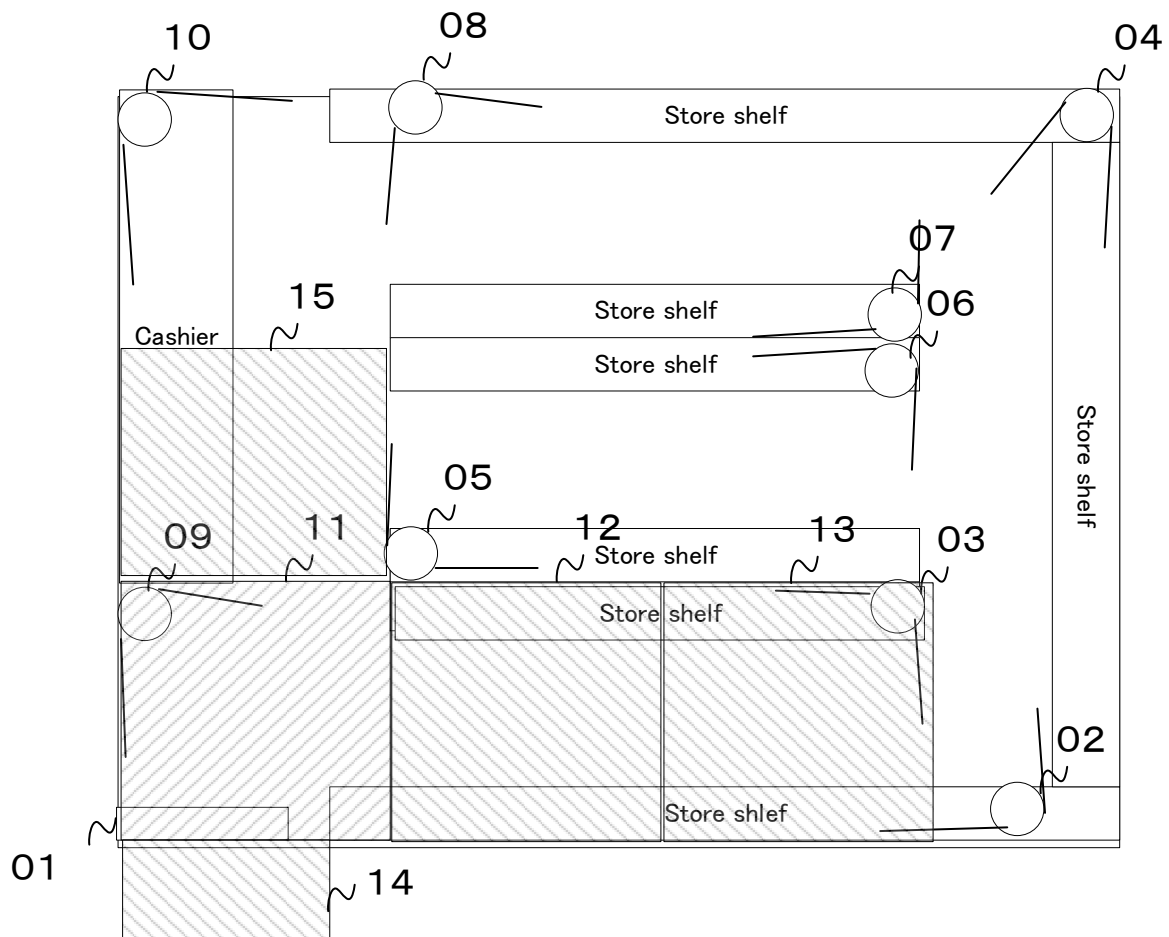


FIG.43

Item	Time	Area	Person ID	Person Position
1	10:00. 00. 1	11	1	xt1、yt1
2	10:00. 00. 1	11	2	xt2、yt2
3	10:00. 00. 1	13	3	xt3、yt3
4	10:00. 00. 1	13	4	xt4、yt4
...	...	...	...	...

FIG.44

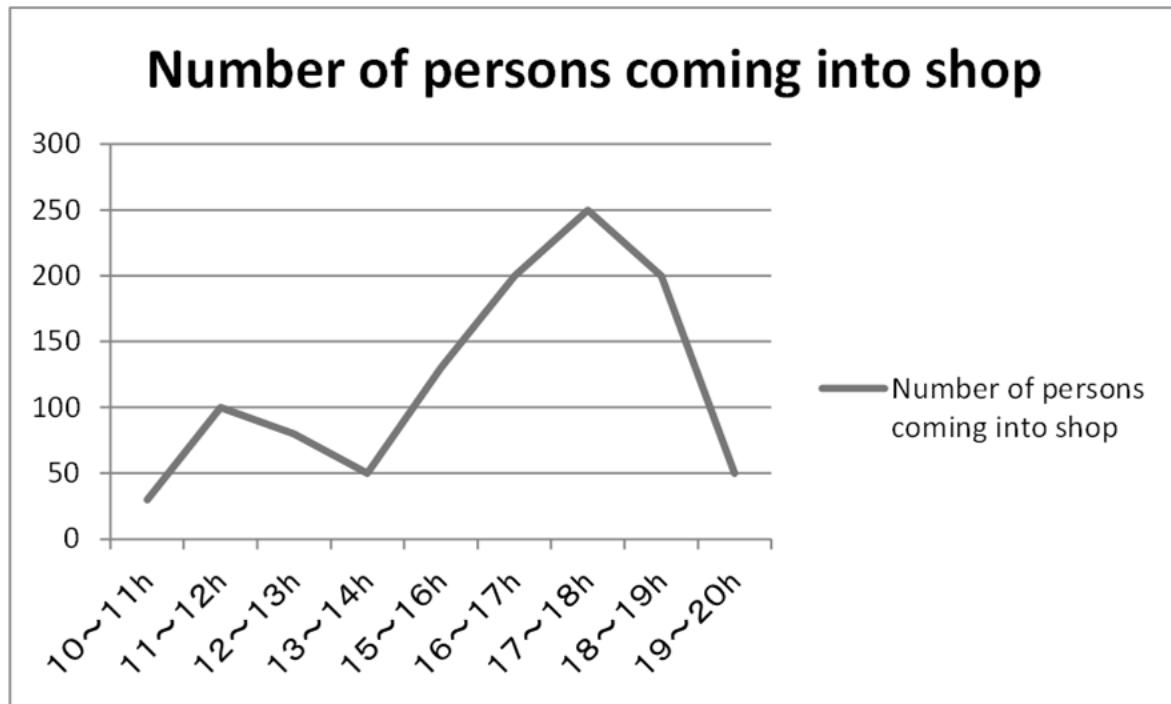


FIG.45

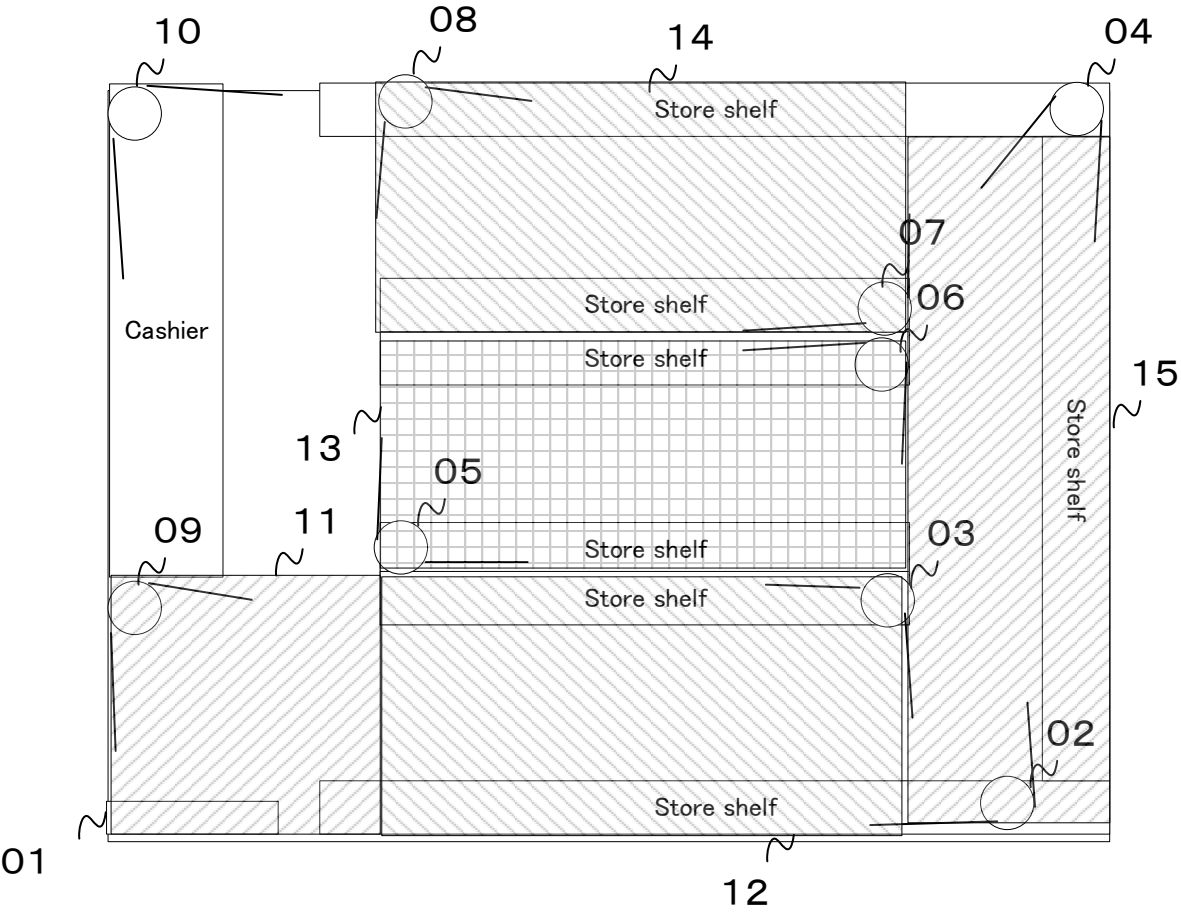


FIG.46

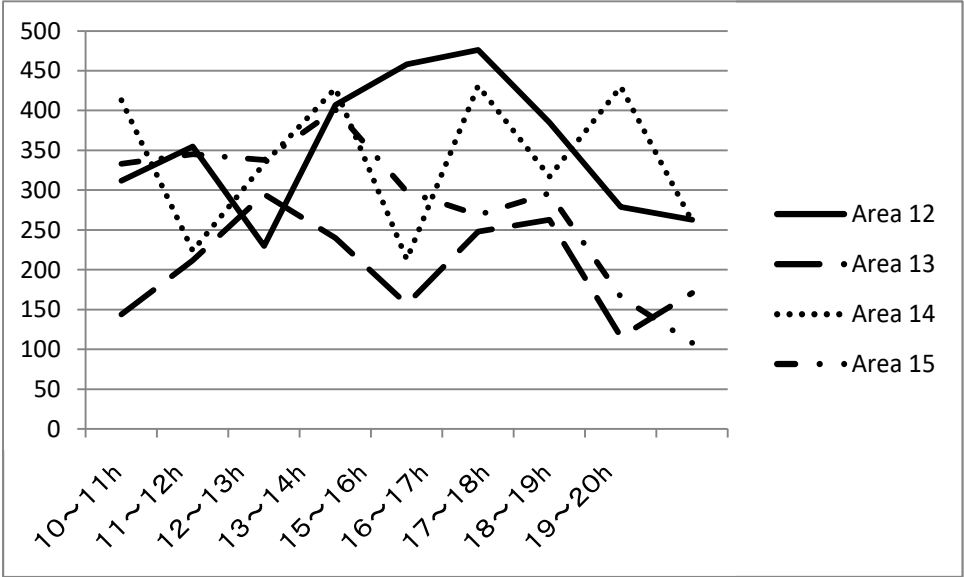


FIG.47

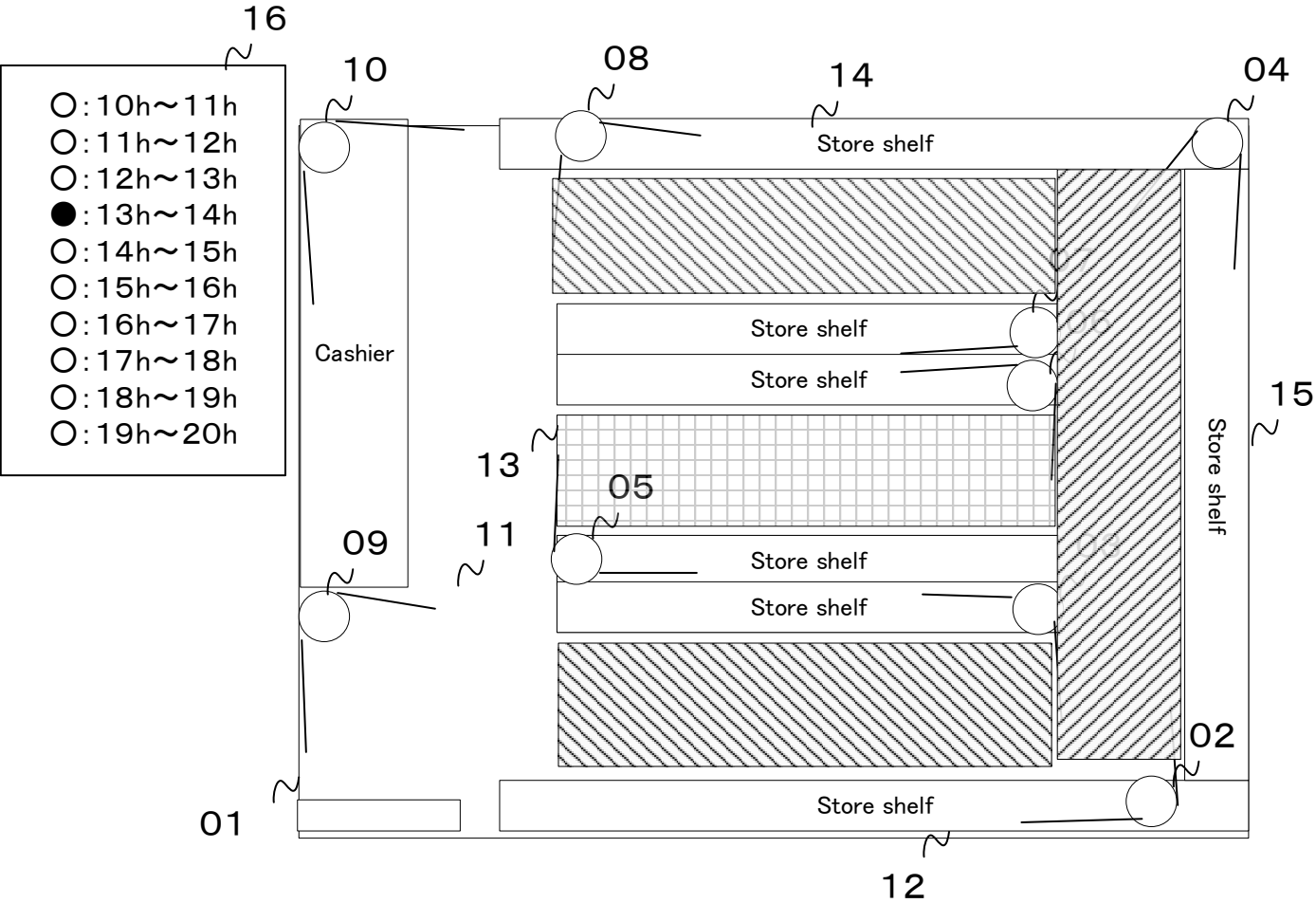


FIG.48

Merchandise ID	Area
001	11
002	12
003	13
004	11
005	12
006	11
...	...

FIG.49

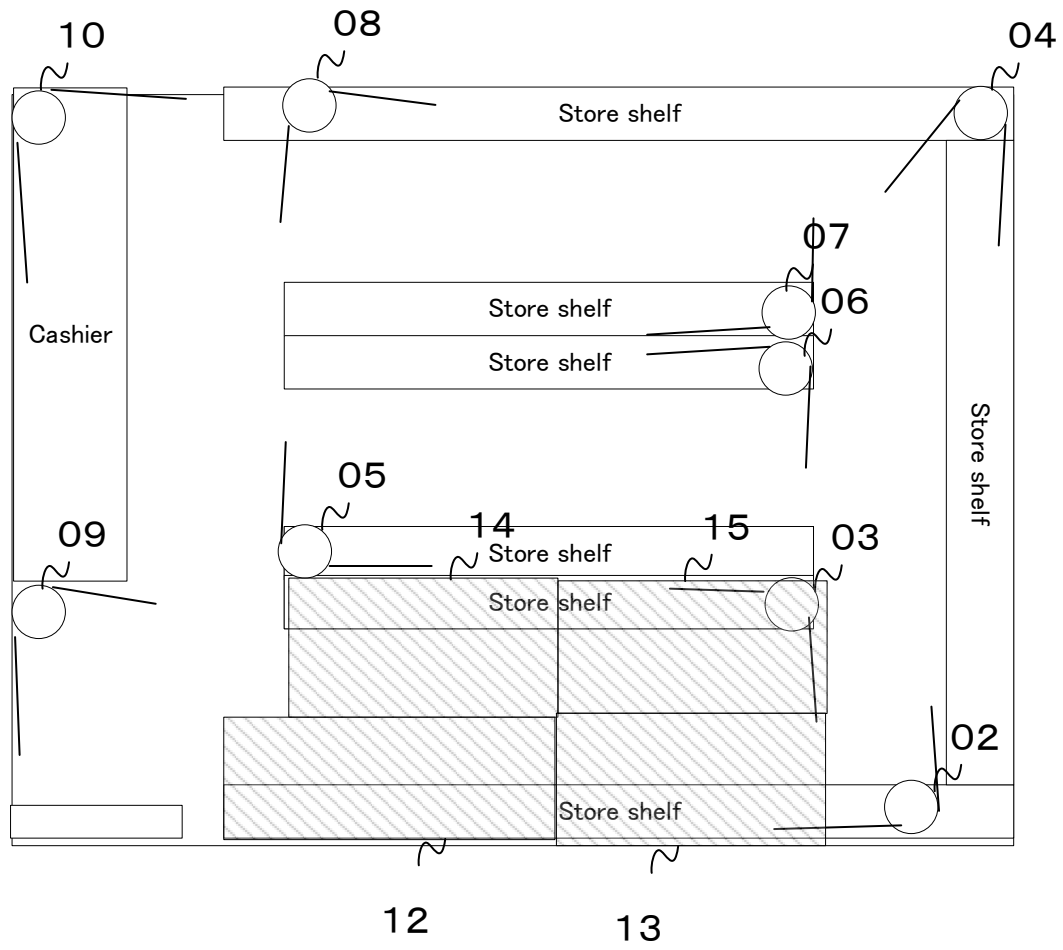


FIG.50

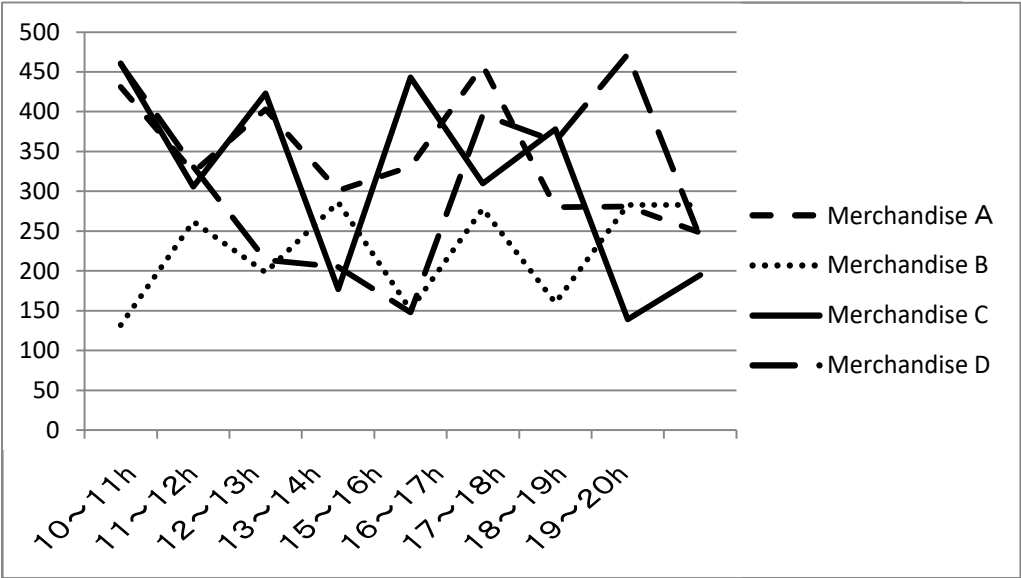


FIG.51

Ranking	Merchandise	Number of people
1	Merchandise ID1	491
2	Merchandise ID2	444
3	Merchandise ID3	436
4	Merchandise ID4	430
5	Merchandise ID5	389
6	Merchandise ID6	232
7	Merchandise ID7	165

FIG.52

Person behavior information	Weighed value
1) The direction of eys and nose are same for a predetermined time	3
2) reaching out by hand,	7
3) returning a hand,	0
4) putting hands on the shoulder for a certain period of time, and	10
5) bringing the neck and ankle closer to each other.	2
6) The neck, hips and ankles are close to each other.	2

FIG.53

Ranking	male/female	age group	a number of people
1	female	20's	330
2	male	20's	320
3	female	30's	317
4	female	10's	284
5	male	30's	237
...	...	...	...

FIG.54

Ranking	male/female	age of group	Fashion time group	Fashion item colour	a number of people
1	female	20's	outing shirt	gray	330
2	male	20's	outing shirt	black	320
3	female	30's	...	...	317
4	female	10's	...	...	284
5	male	30's	...	...	237
...	...	...	...	...	...

FIG.55

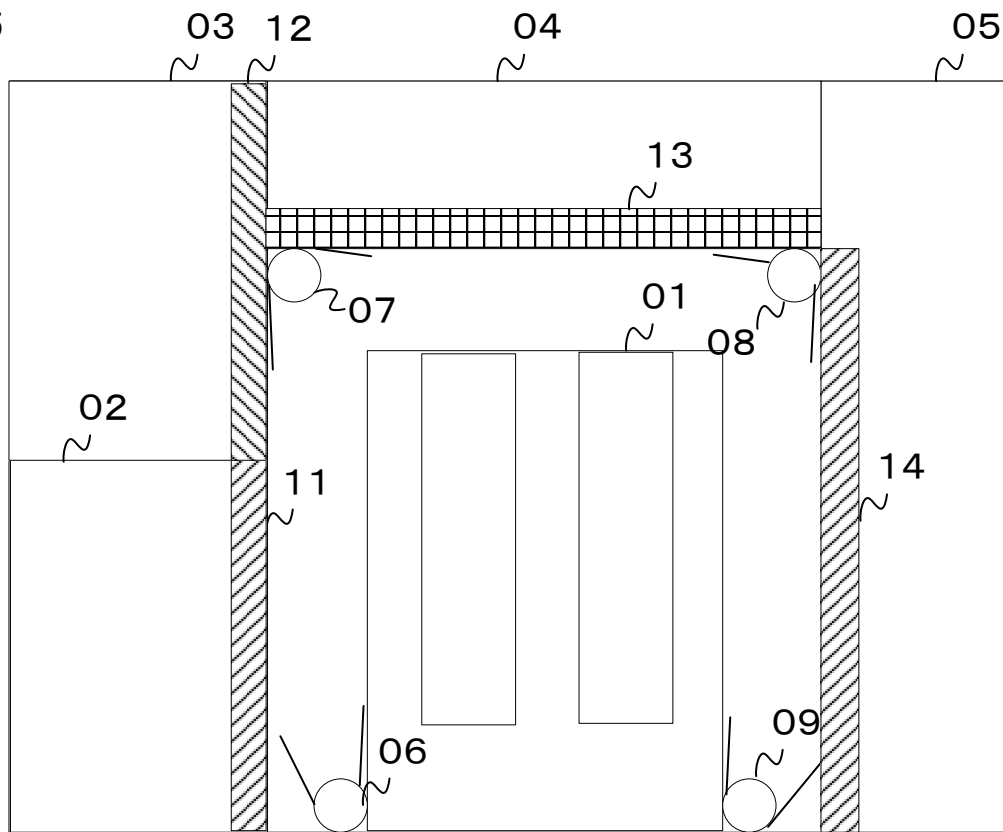


FIG.56

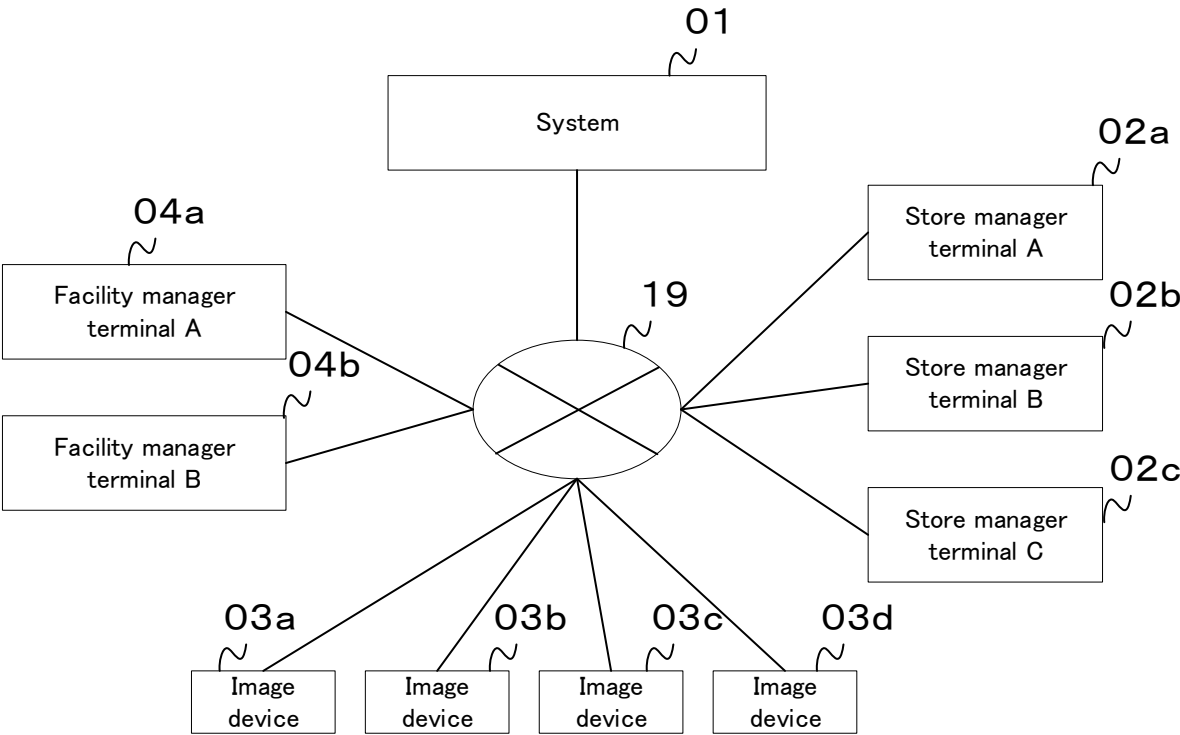


FIG.57

Target ID	Reference image			Area
	time	x coordinate	y coordinate	
1	t1	t1x1	t1y1	F1
1	t2	t2x1	t2y1	F2
1	t3	t3x1	t3y1	F3
1	t4	t4x1	t4y1	F5
1	t5	t5x1	t5y1	F7
1	t6	t6x1	t6y1	F9
1	t7	t7x1	t7y1	F13
1	t8	t8x1	t8y1	F15
...	...	...	...	...
1	tN	tNx1	tNy1	F25

FIG.58

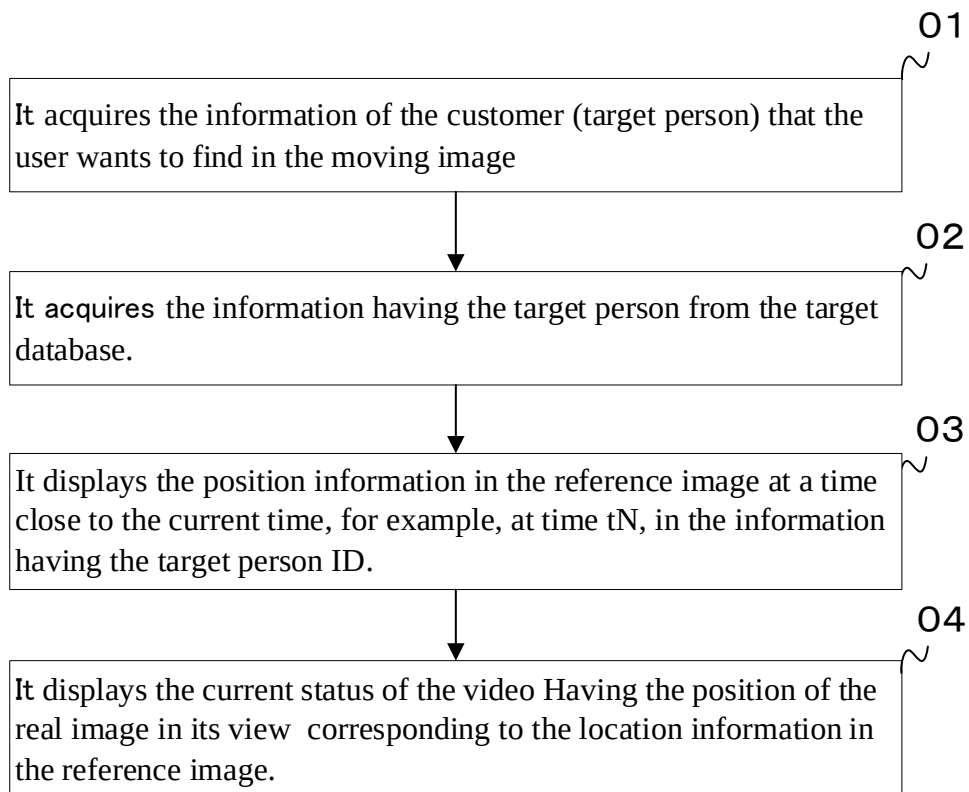


FIG.59

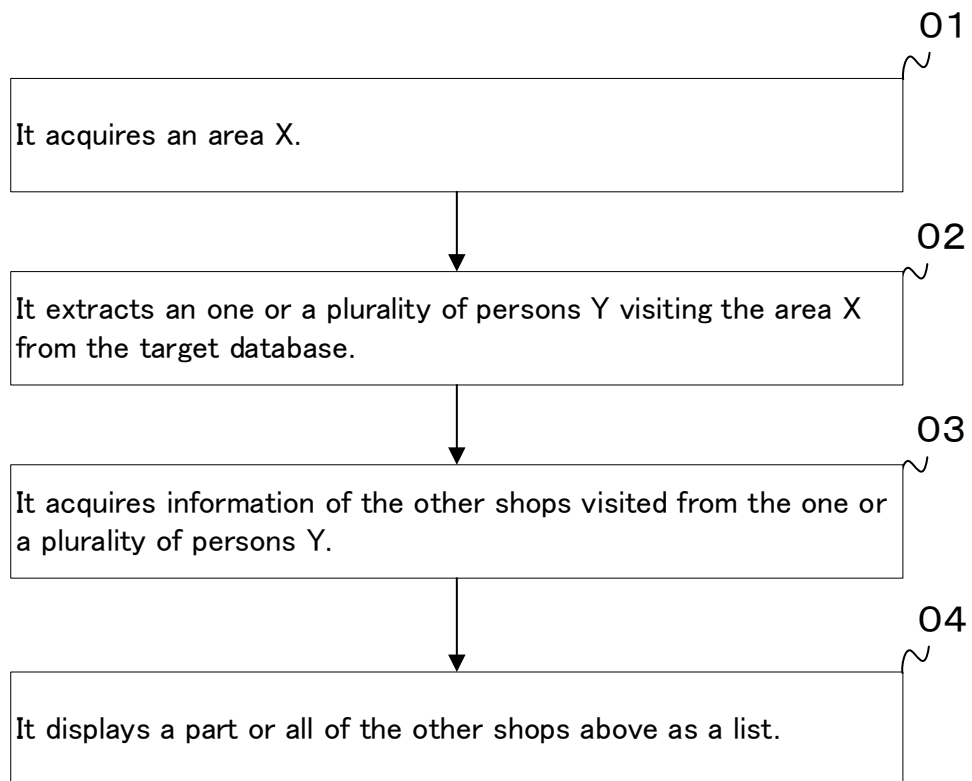


FIG.60

				Distance			
Time	Person ID	Positions		Person ID1	Person ID2	Person ID3	...
001	1	P1X1	P1Y1		D12	D13	...
001	2	P2X1	P2Y1	D21		D23	...
001	3	P3X1	P3Y1	D31	D32		...
001	4	P4X1	P4Y1	D41	D42	D43	...
001	5	P5X1	P5Y1	D51	D52	D53	...
...	...	...	...	...	...	...	...
002	1	P1X2	P1Y2		D12	D13	...
002	2	P2X2	P2Y2	D21		D23	...
002	3	P3X2	P3Y2	D31	D32		...
002	4	P4X2	P4Y2	D41	D42	D43	...
002	5	P5X2	P5Y2	D51	D52	D53	...
...	...	...	...	...	...	...	...

FIG.61

Entry Door	Time	Person ID	Person movinig direction
Entry Door 1	001	001	People coming in
Entry Door 1	001	002	People getting out
Entry Door 1	002	003	People getting out
Entry Door 1	002	...	...
Entry Door 1	003	005	People coming in
...	...	...	...
Entry Door 2	550	...	...
Entry Door 2	550	...	...
Entry Door 2	550	005	People getting out
Entry Door 2	550	001	People coming in
Entry Door 2	550	...	...
...	...	...	...
Entry Door 3	050	...	...
Entry Door 3	050	002	People getting out
Entry Door 3	050	...	...
Entry Door 3	050	...	...
Entry Door 3	050	...	...

FIG.62

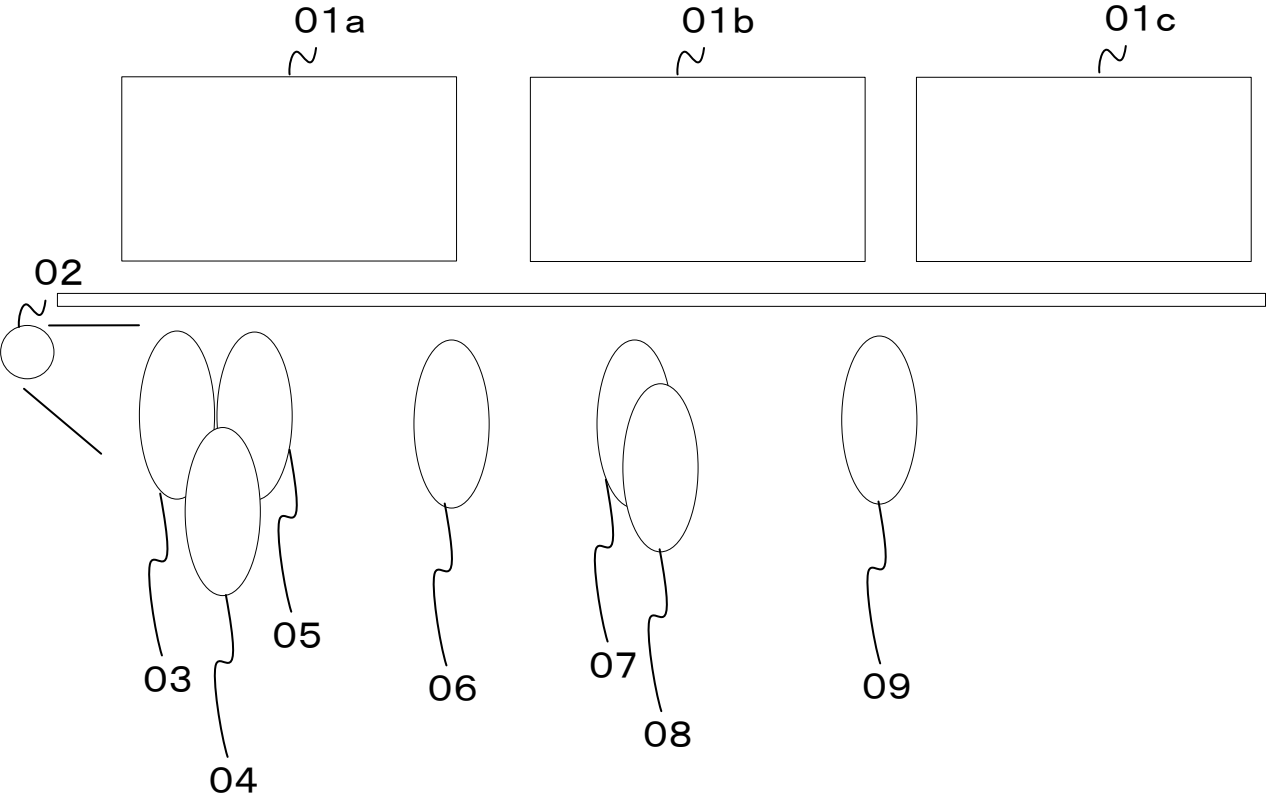


FIG.63

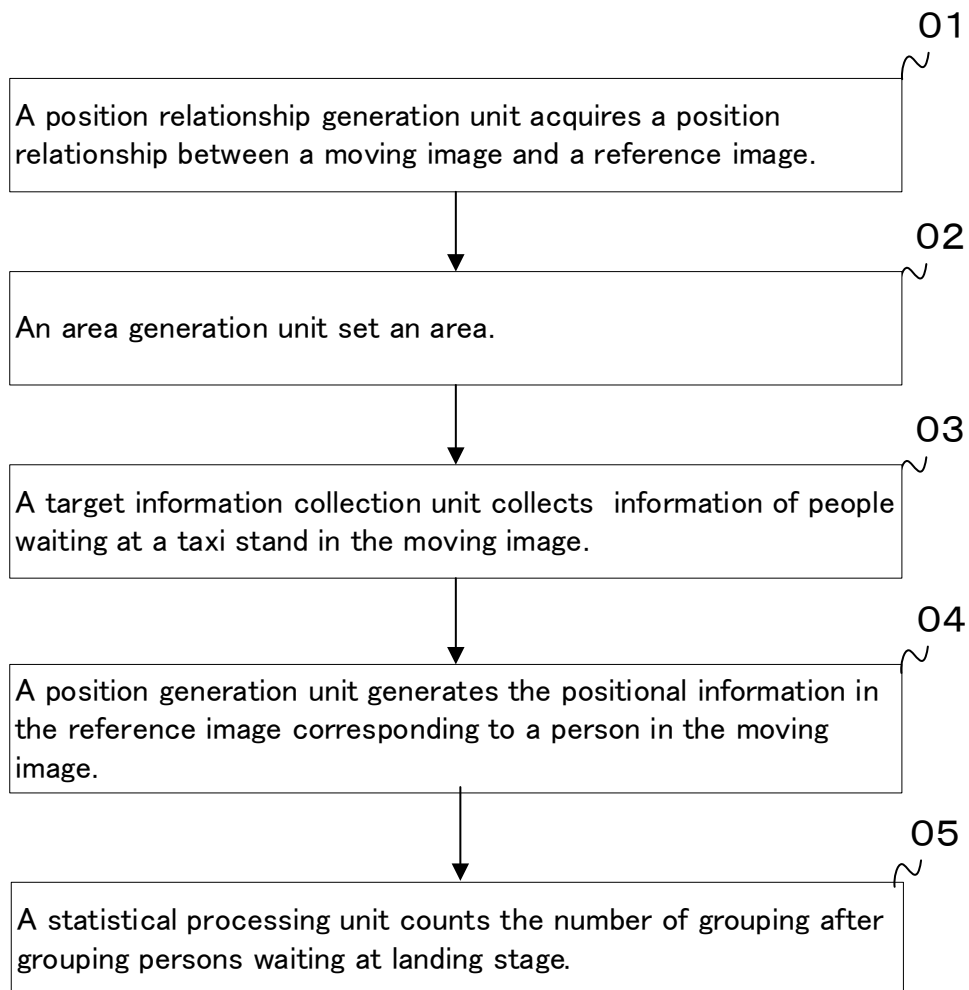


FIG.64

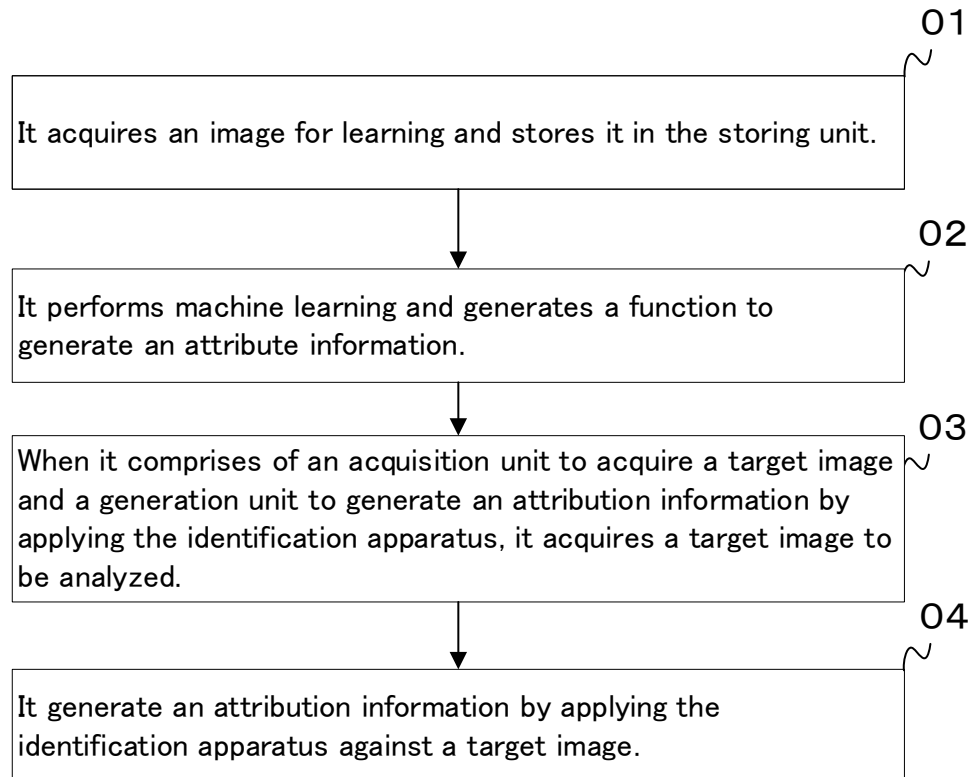


FIG.65

	Fashion Item					
Image for Learning ID	Types	Types detailed 1	Types detailed 2	Colour	Processing	...
ID1001	Upper garment	sweater	sweater 1	Green	Without processing	
ID1002	pants	chino pants		Black	Without processing	
ID1003	Upper garment	sweater	sweater 2	White	Without processing	
...						

FIG.66

	Fashion Item 1				Fashion Item 2			...
Image for Learning ID	Attribute 1	Attribute 2	Attribute 3	...	Attribute 1	Attribute 2	...	...
ID00001001								
ID00001002								
ID00001003								
...								

FIG.67

Image for Learning ID	Person 1		Fashion Item 1			Fashion Item 2			...			Person 1			Fashion Item 1			...			Person 1			Fashion Item 1			...		
	Attribute 1	Attribute 2	...	Attribute 1	Attribute 2	Attribute 3	...	Attribute 1	Attribute 2	...	...	Attribute 1	Attribute 2	...	Attribute 1	Attribute 2	Attribute 3	...	...	...	Attribute 1	Attribute 2	...	Attribute 1	Attribute 2	Attribute 3	...	...	...
ID000001001																													
ID000001002																													
ID000001003																													
...																													

FIG.68

		Person			
Image for Learning ID	Person	Rough Age group	Fine age group	male/female	...
ID1001	1	...	...	...	...
ID1002	1	...	...	...	...
ID1002	2	...	...	...	...
ID1002	3	...	...	...	...
ID1003	1	...	...	...	...
ID1003	2	...	...	...	...
...	...	...	...	...	...

FIG.68(a)

		Fashion Item			
Image for Learning ID	Person	Fashoin Item types	Fashion Item colour	Fashion Item processing	...
ID1001	1	Upper garment	...	...	...
ID1001	1	Bottoms	...	...	...
ID1001	1	Shoes	...	...	...
ID1002	1	Upper garment	...	...	...
ID1002	1	Bottoms	...	...	...
ID1002	1	Hat	...	...	...
ID1002	1	Shoes	...	...	...
ID1002	2	...	...	...	...
ID1002	3	...	...	...	...
ID1003	1	...	...	...	...
ID1003	2	...	...	...	...
...	...	...	...	...	...

FIG.68(b)

FIG.69

Person 1		Fashion Item 1		Fashion Item 2		...	
Attribute 1	Attribute 2	...	Attribute 1	Attribute 2	Attribute 1	Attribute 2	...

FIG.70

Person 1			Fashion Item 1			Fashion Item 2			Person 2			Fashion Item 1			Fashion Item 2			...		
Attribute 1	Attribute 1	...	Attribute 1	Attribute 2	Attribute 3	...	Attribute 1	Attribute 2	Attribute 1	Attribute 2	...	Attribute 1	Attribute 2	Attribute 3	...	Attribute 1	Attribute 2	Attribute 3	...	...