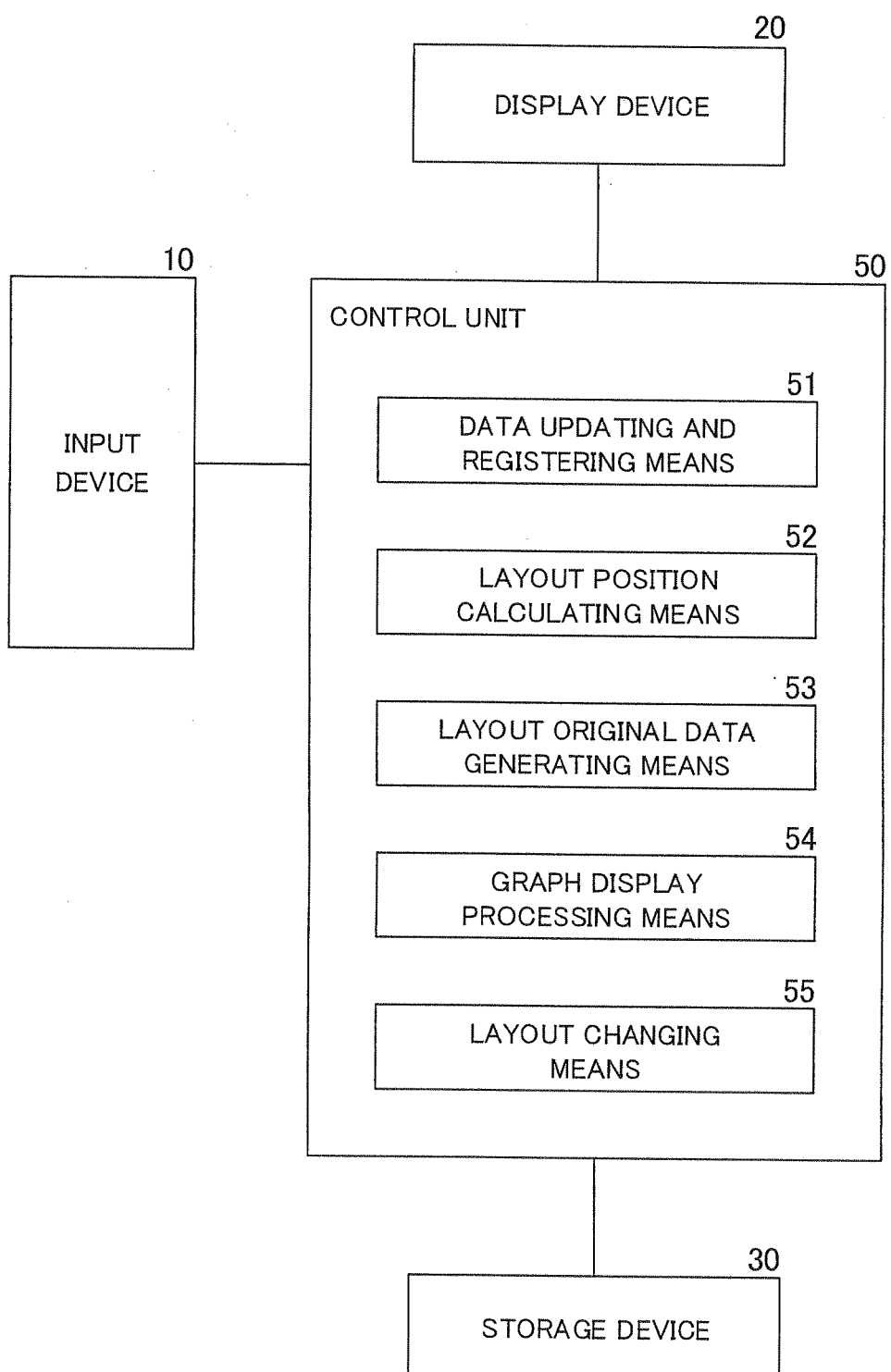


FIG. 1

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GRAPH STRUCTURE DATA G1

NODE DATA

NODE	GRAPHIC DEFINITION INFORMATION
1	CIRCLE WITH RADIUS r
2	CIRCLE WITH RADIUS r
3	CIRCLE WITH RADIUS r
4	CIRCLE WITH RADIUS r
5	CIRCLE WITH RADIUS r
6	CIRCLE WITH RADIUS r
7	CIRCLE WITH RADIUS r
8	CIRCLE WITH RADIUS r
9	CIRCLE WITH RADIUS r
10	CIRCLE WITH RADIUS r
11	CIRCLE WITH RADIUS r

EDGE DATA

EDGE	STARTING POINT NODE	END POINT NODE
e1	1	3
e2	3	5
e3	3	6
e4	5	8
e5	2	4
e6	4	7
e7	4	11
e8	9	10

FIG. 3

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LAYOUT ORIGINAL DATA L1

NODE	HIERARCHY	ORDER WITHIN HIERARCHY	LAYOUT POSITION COORDINATE	GRAPHIC DEFINITION INFORMATION
1	FIRST HIERARCHY	THIRD POSITION	(X1, Y1)	CIRCLE WITH RADIUS r
2	FIRST HIERARCHY	SECOND POSITION	(X2, Y2)	CIRCLE WITH RADIUS r
3	SECOND HIERARCHY	THIRD POSITION	(X3, Y3)	CIRCLE WITH RADIUS r
4	SECOND HIERARCHY	SECOND POSITION	(X4, Y4)	CIRCLE WITH RADIUS r
5	THIRD HIERARCHY	FOURTH POSITION	(X5, Y5)	CIRCLE WITH RADIUS r
6	THIRD HIERARCHY	THIRD POSITION	(X6, Y6)	CIRCLE WITH RADIUS r
7	THIRD HIERARCHY	SECOND POSITION	(X7, Y7)	CIRCLE WITH RADIUS r
8	FOURTH HIERARCHY	FIRST POSITION	(X8, Y8)	CIRCLE WITH RADIUS r
9	FIRST HIERARCHY	FIRST POSITION	(X9, Y9)	CIRCLE WITH RADIUS r
10	SECOND HIERARCHY	FIRST POSITION	(X10, Y10)	CIRCLE WITH RADIUS r
11	THIRD HIERARCHY	FIRST POSITION	(X11, Y11)	CIRCLE WITH RADIUS r

FIG. 4

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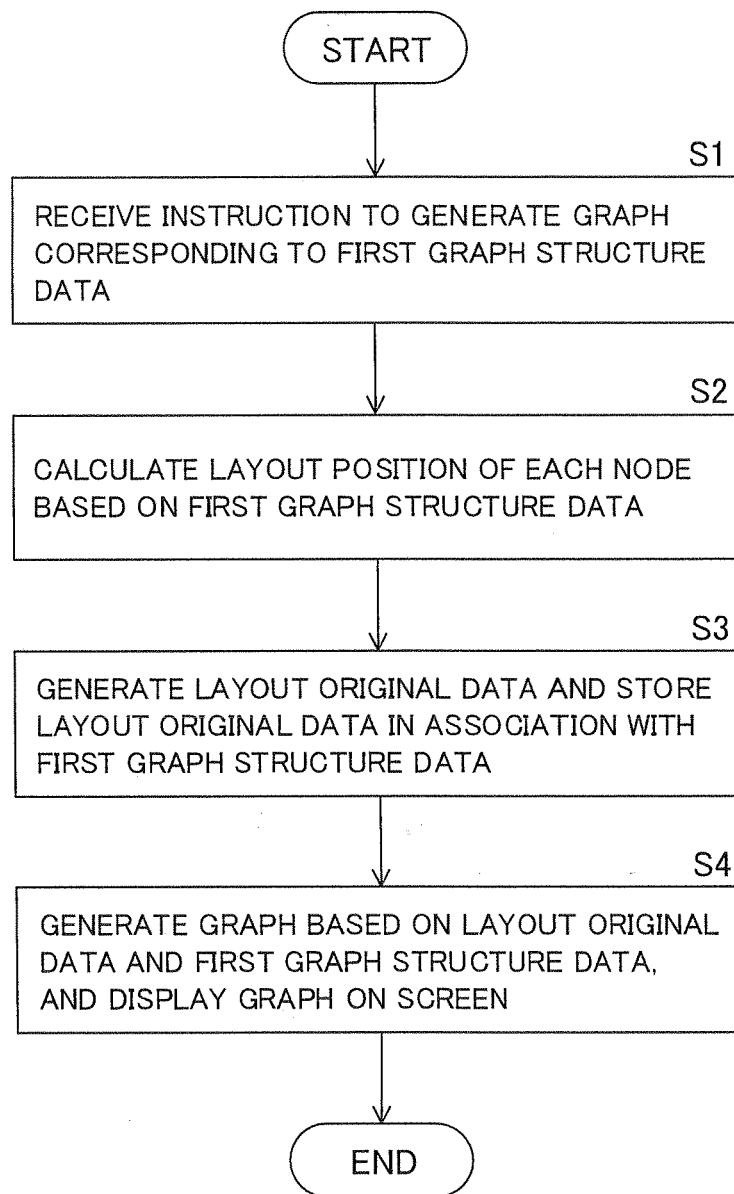


FIG. 5

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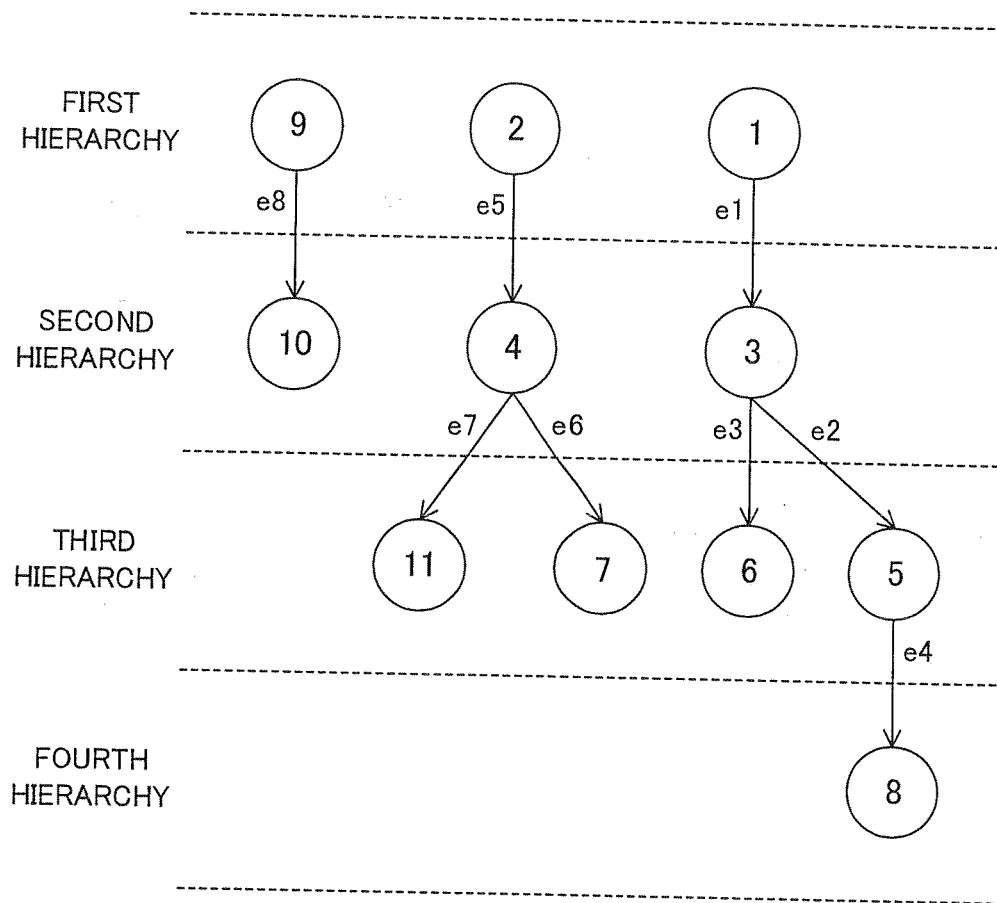
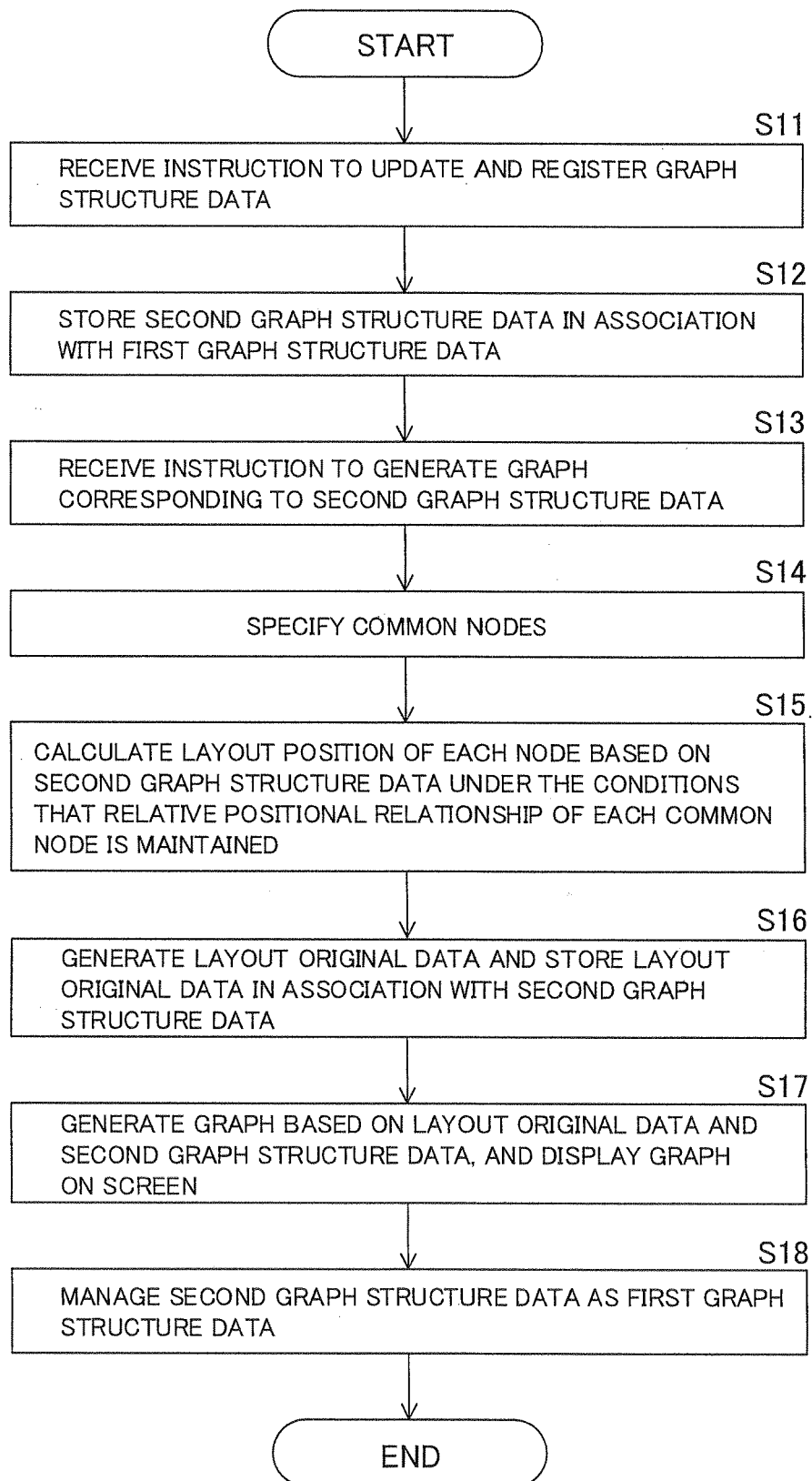


FIG. 6

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GRAPH STRUCTURE DATA G2

NODE DATA

NODE	GRAPHIC DEFINITION INFORMATION
2	CIRCLE WITH RADIUS r
3	CIRCLE WITH RADIUS r
4	CIRCLE WITH RADIUS r
5	CIRCLE WITH RADIUS r
6	CIRCLE WITH RADIUS r
7	CIRCLE WITH RADIUS r
8	CIRCLE WITH RADIUS r
9	CIRCLE WITH RADIUS r
10	CIRCLE WITH RADIUS r
12	CIRCLE WITH RADIUS r

EDGE DATA

EDGE	STARTING POINT NODE	END POINT NODE
e2	3	5
e3	3	6
e4	5	8
e5	2	4
e6	4	7
e8	9	10
e9	4	8
e10	10	12

MODIFIED EDGE DATA

EDGE	STARTING POINT NODE	END POINT NODE
e2	3	5
e3	3	6
e4	5	8
e5	2	4
e6	4	7
e8	9	10
e9'	4	d1
e9''	d1	8
e10	10	12

FIG. 9

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(a)

NODE	HIERARCHY
2	FIRST HIERARCHY
3	SECOND HIERARCHY
4	SECOND HIERARCHY
5	THIRD HIERARCHY
6	THIRD HIERARCHY
7	THIRD HIERARCHY
8	FOURTH HIERARCHY
9	FIRST HIERARCHY
10	SECOND HIERARCHY
12	THIRD HIERARCHY
d1	THIRD HIERARCHY

(b)

NODE	HIERARCHY	ORDER WITHIN HIERARCHY
2	FIRST HIERARCHY	SECOND POSITION
3	SECOND HIERARCHY	THIRD POSITION
4	SECOND HIERARCHY	SECOND POSITION
5	THIRD HIERARCHY	FIFTH POSITION
6	THIRD HIERARCHY	FOURTH POSITION
7	THIRD HIERARCHY	SECOND POSITION
8	FOURTH HIERARCHY	FIRST POSITION
9	FIRST HIERARCHY	FIRST POSITION
10	SECOND HIERARCHY	FIRST POSITION
12	THIRD HIERARCHY	FIRST POSITION
d1	THIRD HIERARCHY	THIRD POSITION

LAYOUT ORIGINAL DATA L2

NODE	HIERARCHY	ORDER WITHIN HIERARCHY	LAYOUT POSITION COORDINATE	GRAPHIC DEFINITION INFORMATION
2	FIRST HIERARCHY	SECOND POSITION	(X2', Y2')	CIRCLE WITH RADIUS r
3	SECOND HIERARCHY	THIRD POSITION	(X3', Y3')	CIRCLE WITH RADIUS r
4	SECOND HIERARCHY	SECOND POSITION	(X4', Y4')	CIRCLE WITH RADIUS r
5	THIRD HIERARCHY	FIFTH POSITION	(X5', Y5')	CIRCLE WITH RADIUS r
6	THIRD HIERARCHY	FOURTH POSITION	(X6', Y6')	CIRCLE WITH RADIUS r
7	THIRD HIERARCHY	SECOND POSITION	(X7', Y7')	CIRCLE WITH RADIUS r
8	FOURTH HIERARCHY	FIRST POSITION	(X8', Y8')	CIRCLE WITH RADIUS r
9	FIRST HIERARCHY	FIRST POSITION	(X9', Y9')	CIRCLE WITH RADIUS r
10	SECOND HIERARCHY	FIRST POSITION	(X10', Y10')	CIRCLE WITH RADIUS r
12	THIRD HIERARCHY	FIRST POSITION	(X12', Y12')	CIRCLE WITH RADIUS r
d1	THIRD HIERARCHY	THIRD POSITION	(Xd1', Yd1')	

FIG. 11

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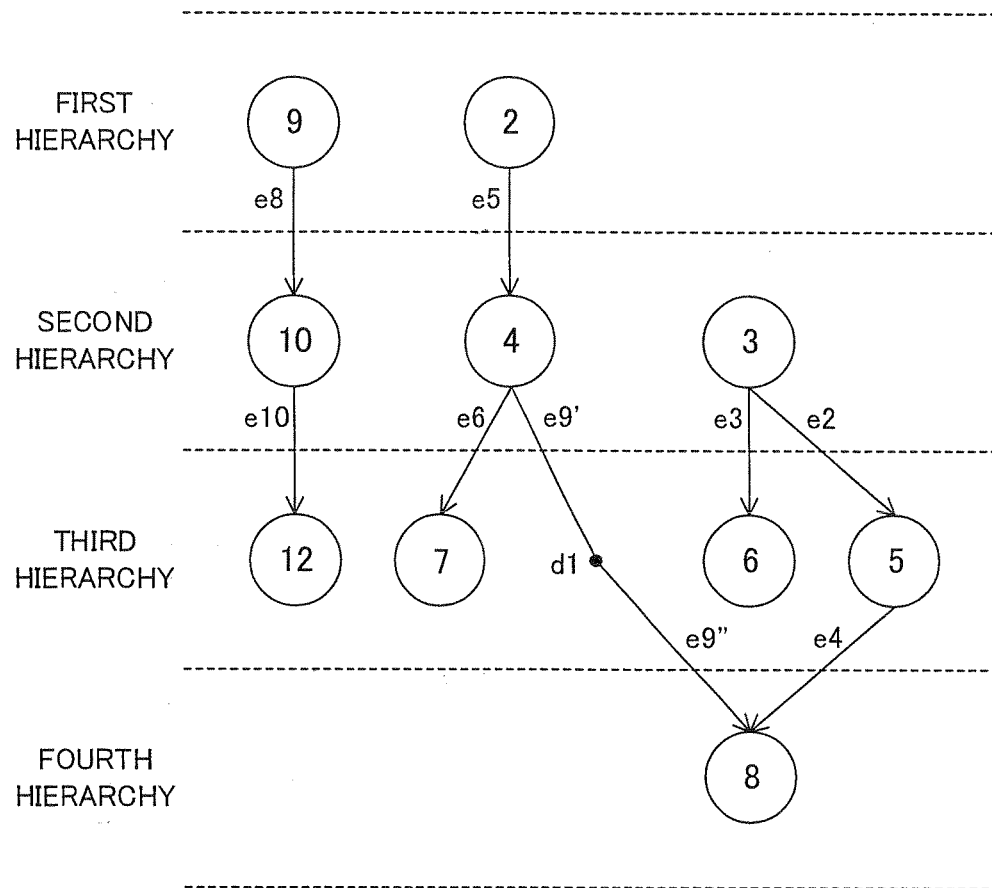


FIG. 12

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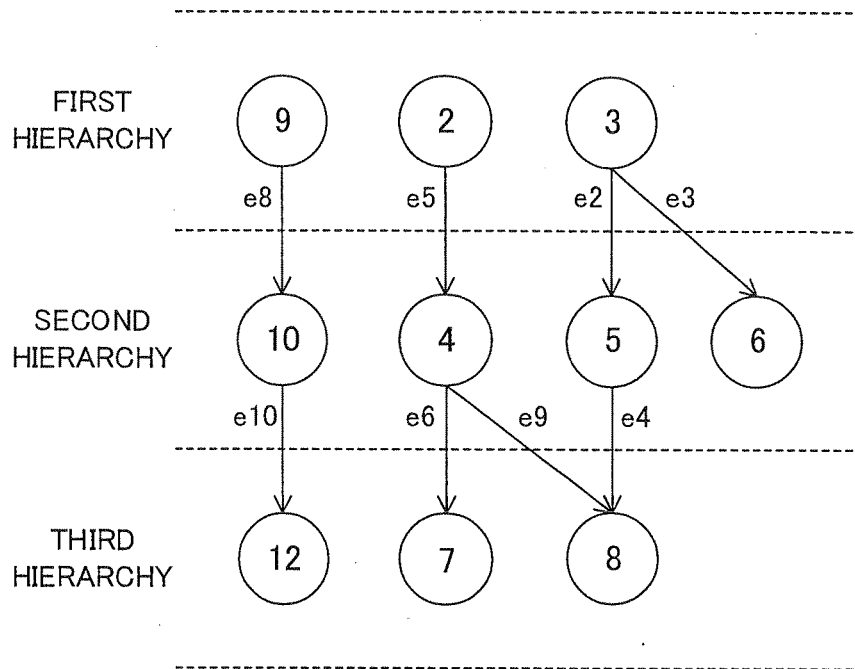
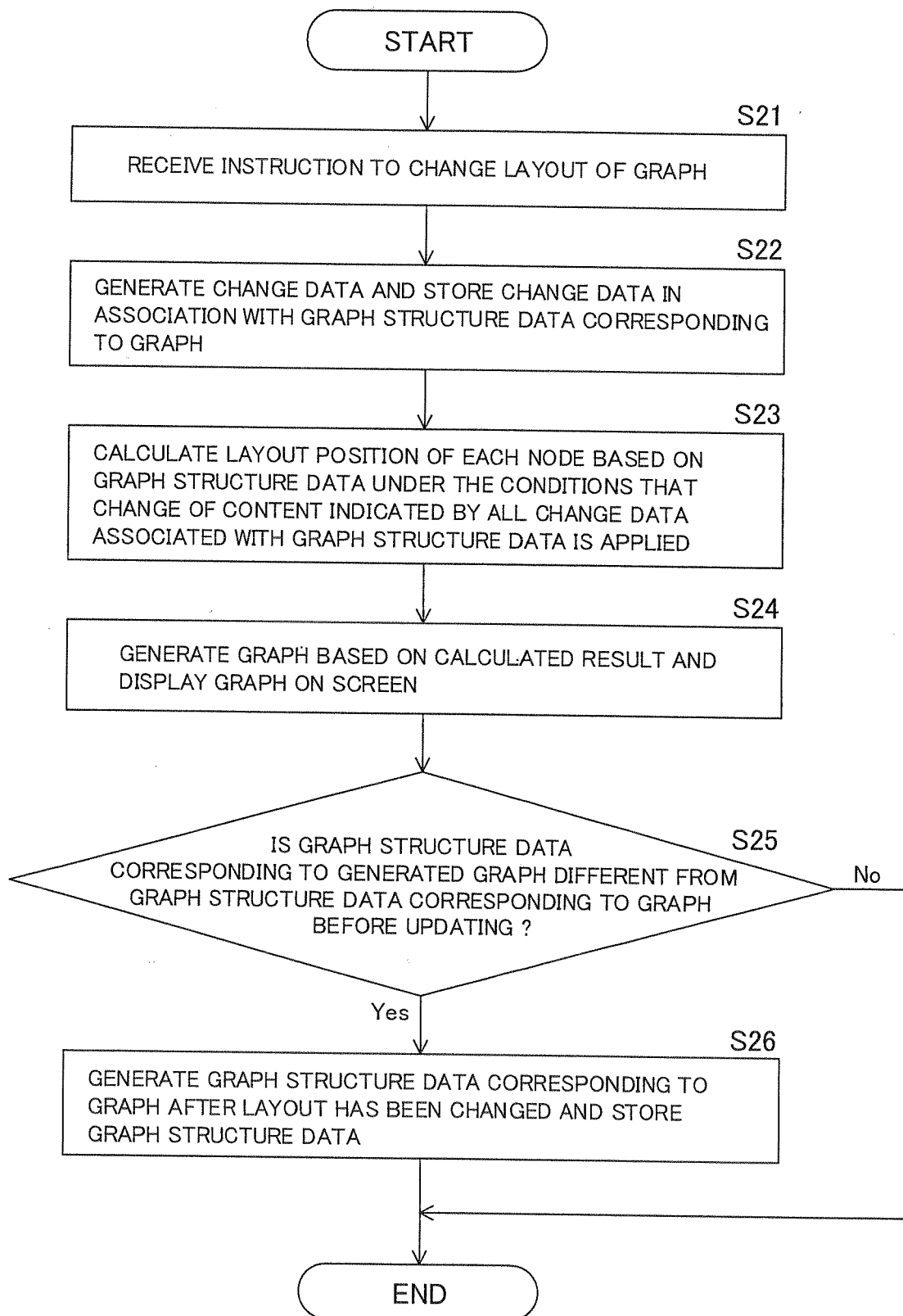


FIG. 13

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SUGIYAMA ALGORITHM

