

Fig. 1

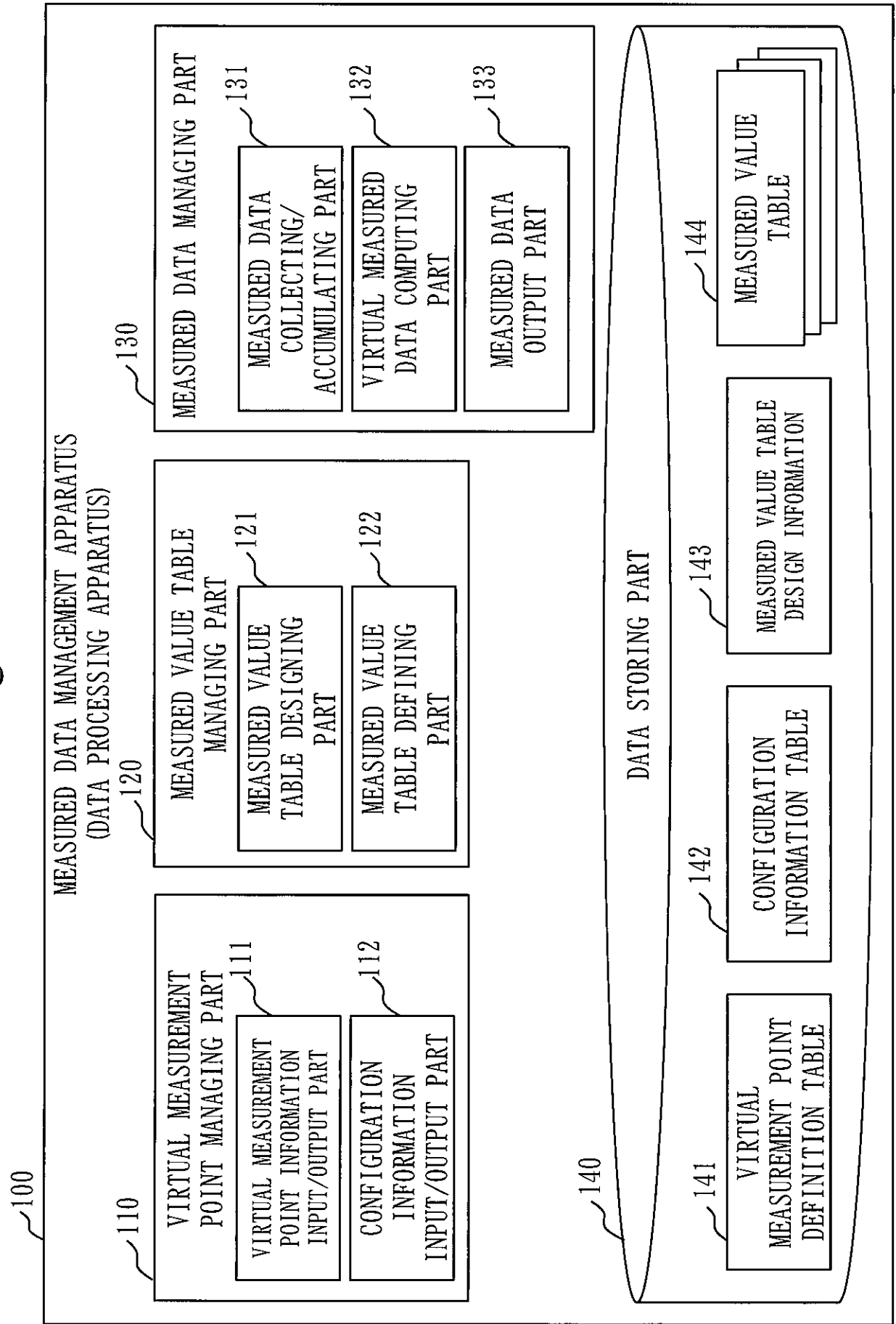


Fig. 2

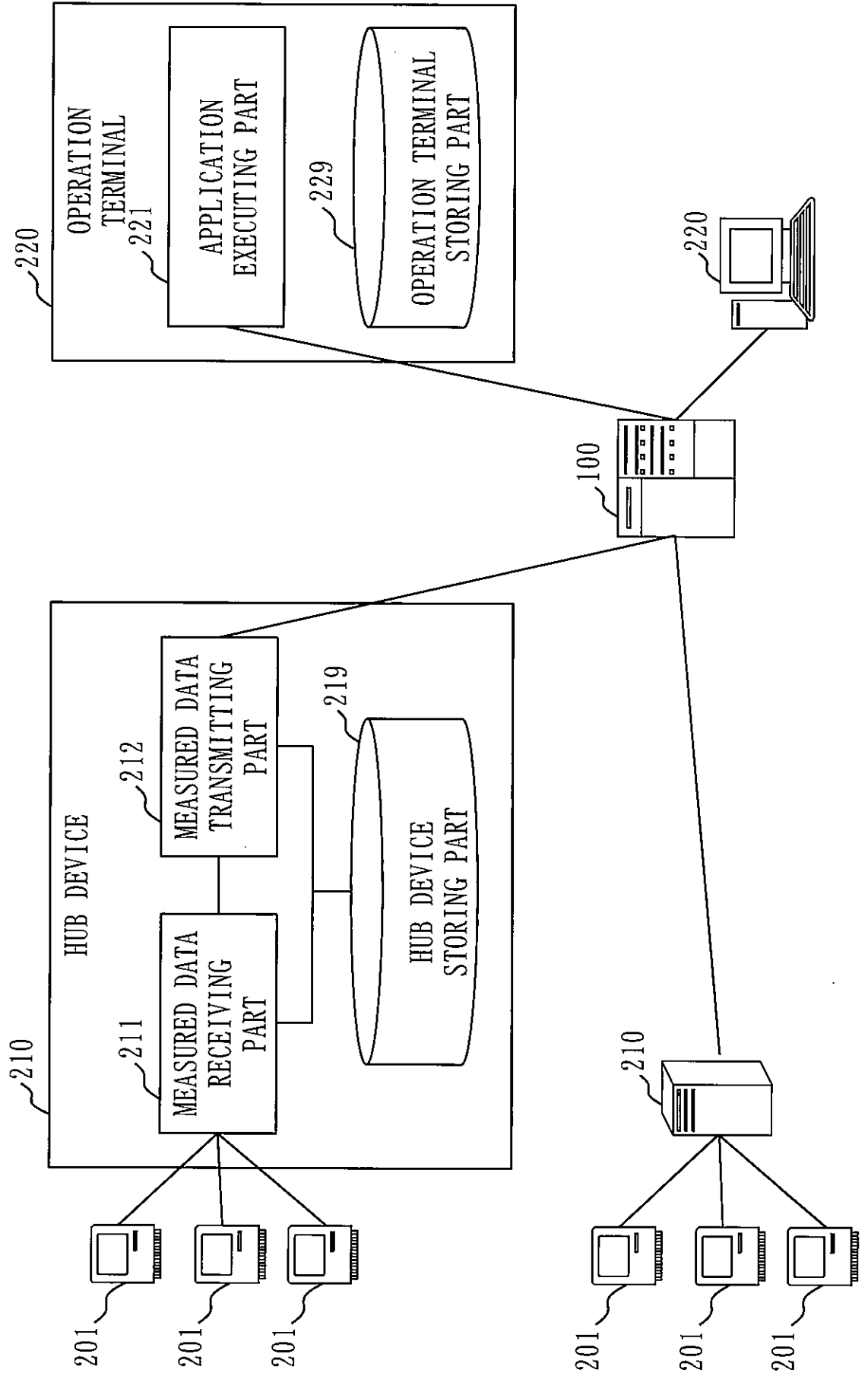


Fig. 3

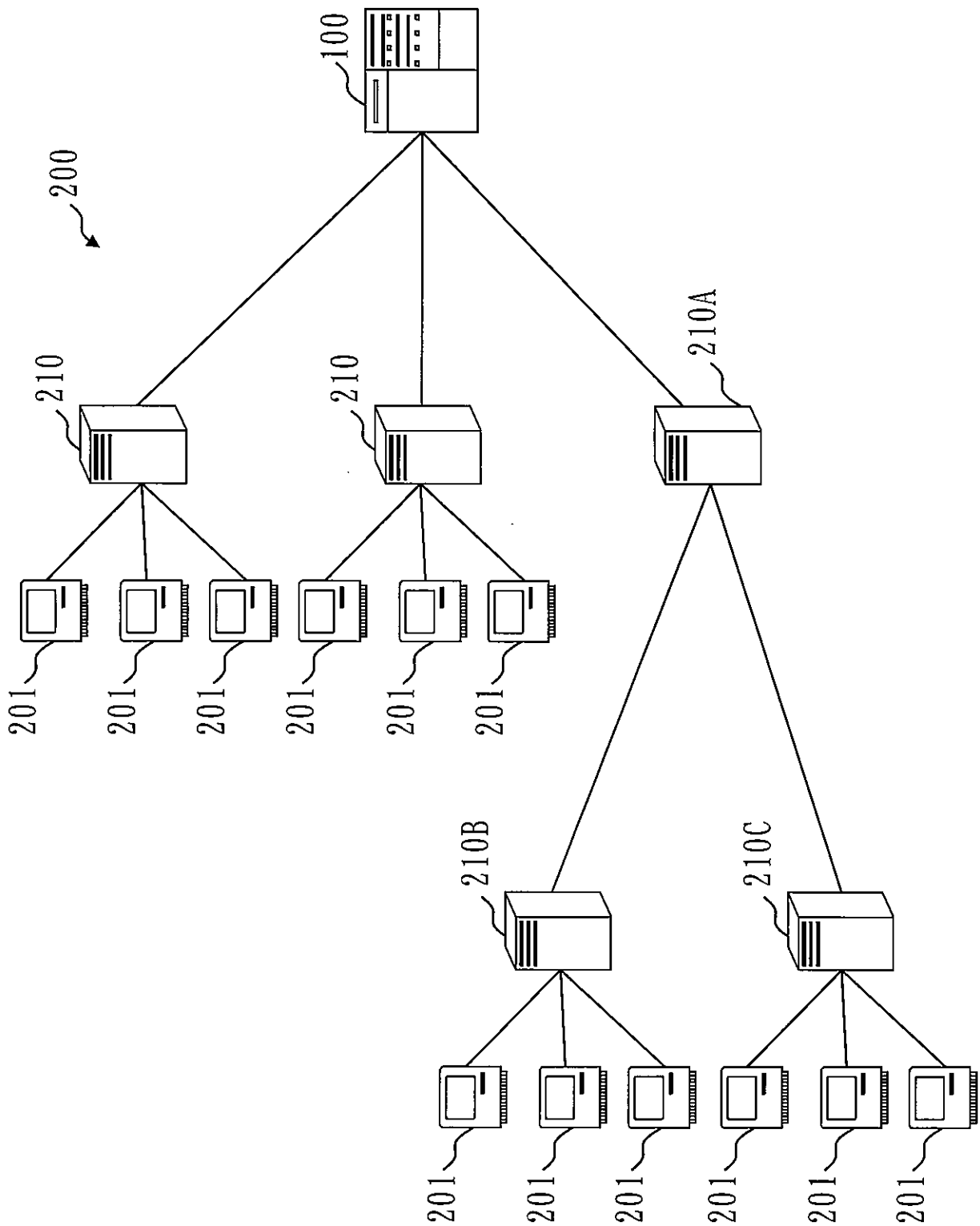


Fig. 4

400		
401		
\$1	2013/04/01 18:00:00.000	16.2
	402	403

Fig. 5

144 ↗

ROW NUMBER	MEASUREMENT TIME	MEASURED VALUE 1	MEASURED VALUE 2	MEASURED VALUE 3	MEASURED VALUE 4	...	MEASURED VALUE 1000
1	2013/04/01 18 : 00 : 00.000	16.2	5.4	1	100.1	...	-0.3
2	2013/04/01 18 : 00 : 00.100	16.0	4.9	0	100.1	...	-0.9
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
100	2013/04/01 18 : 00 : 01.000	16.7	4.7	1	102.3	...	-0.3
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
501	502	503A	503B	503C	503D	503E	503E

Fig. 6

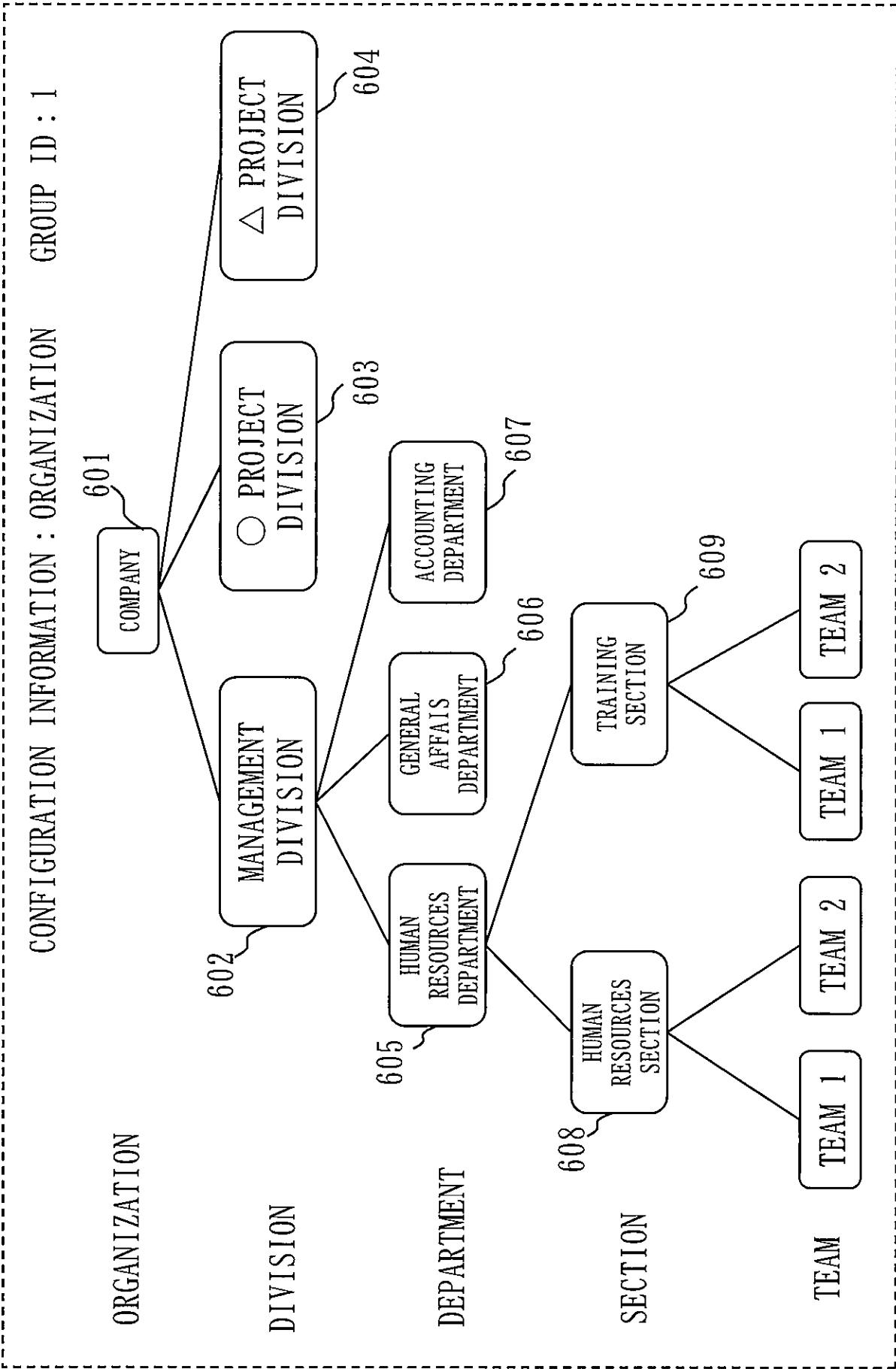


Fig. 7

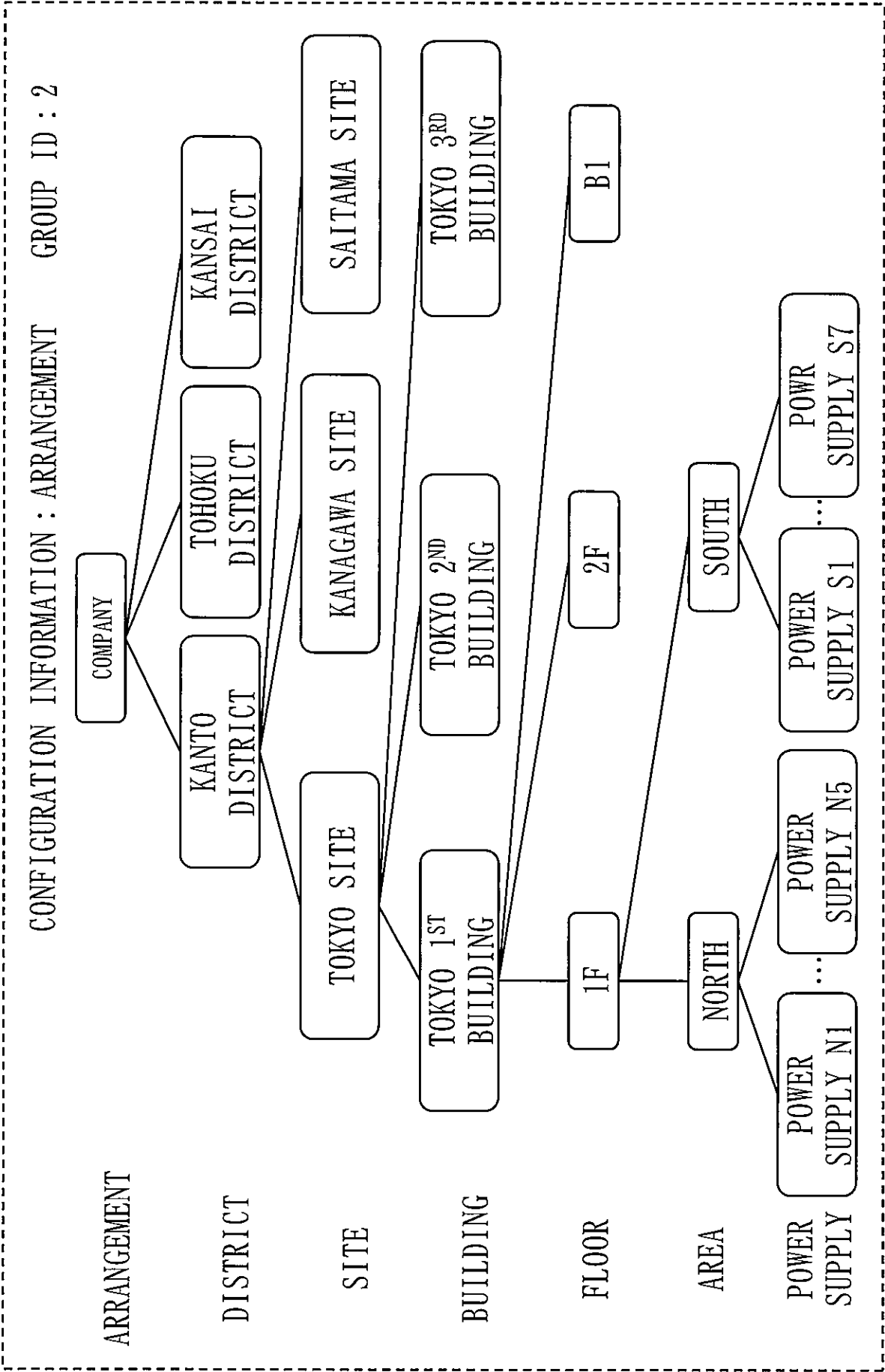


Fig. 8

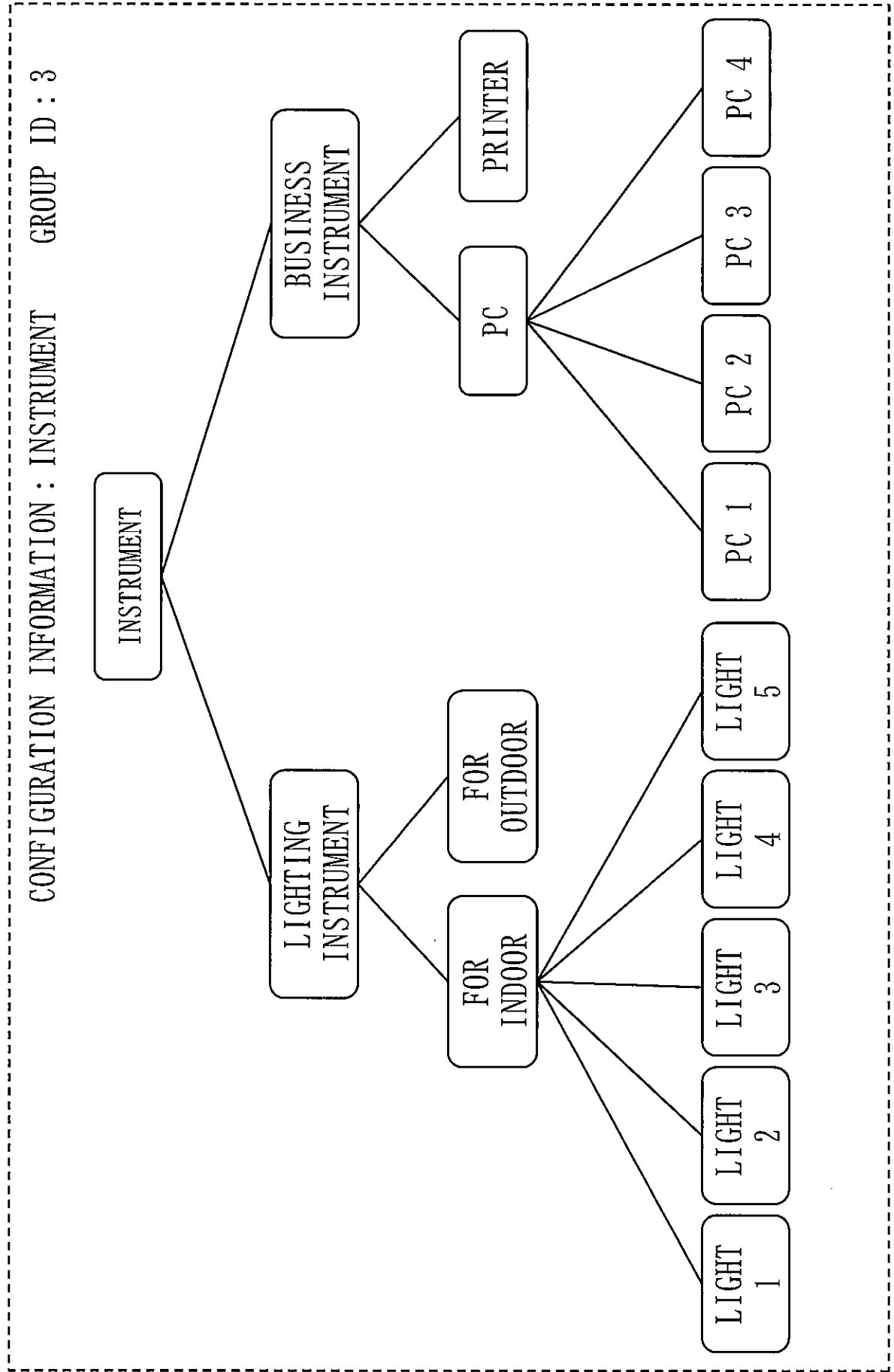


Fig. 9

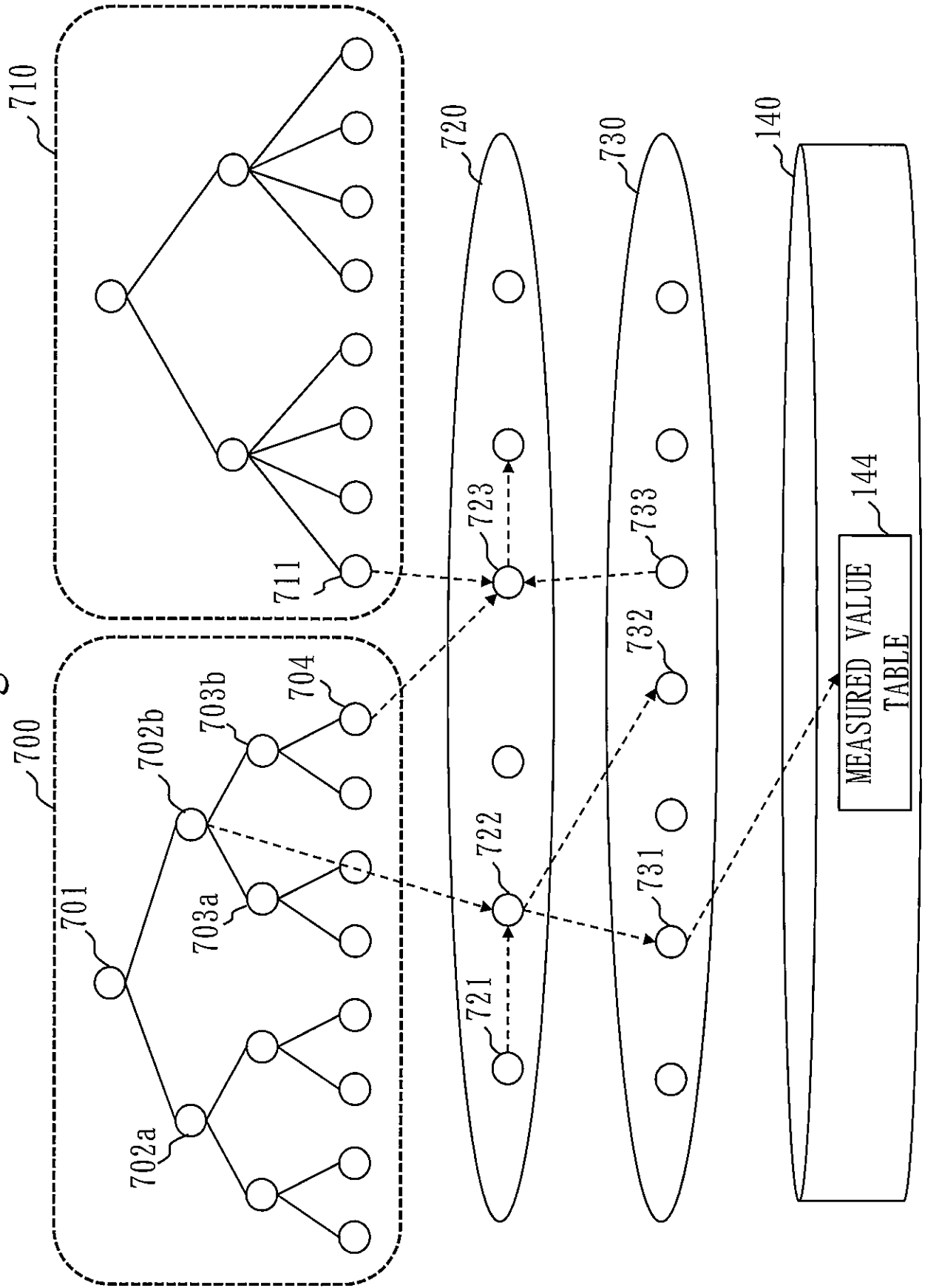


Fig. 10

142

NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
1	null	1	1	#1	COMPANY
2	1	1	2	#2	MANAGEMENT DIVISION
3	2	1	3	#3	HUMAN RESOURCES DEPARTMENT
4	3	1	4	#4	HUMAN RESOURCES SECTION
⋮	⋮	⋮	⋮	⋮	⋮
10	1	1	2	#10	○ PROJECT DIVISION
⋮	⋮	⋮	⋮	⋮	⋮
201	200	2	4	#201	TOKYO 1ST BUILDING
202	201	2	5	#202	1F
203	202	2	6	#203	NORTH
204	202	2	6	#204	SOUTH
⋮	⋮	⋮	⋮	⋮	⋮

801

802

803

804

805

806

Fig. 11

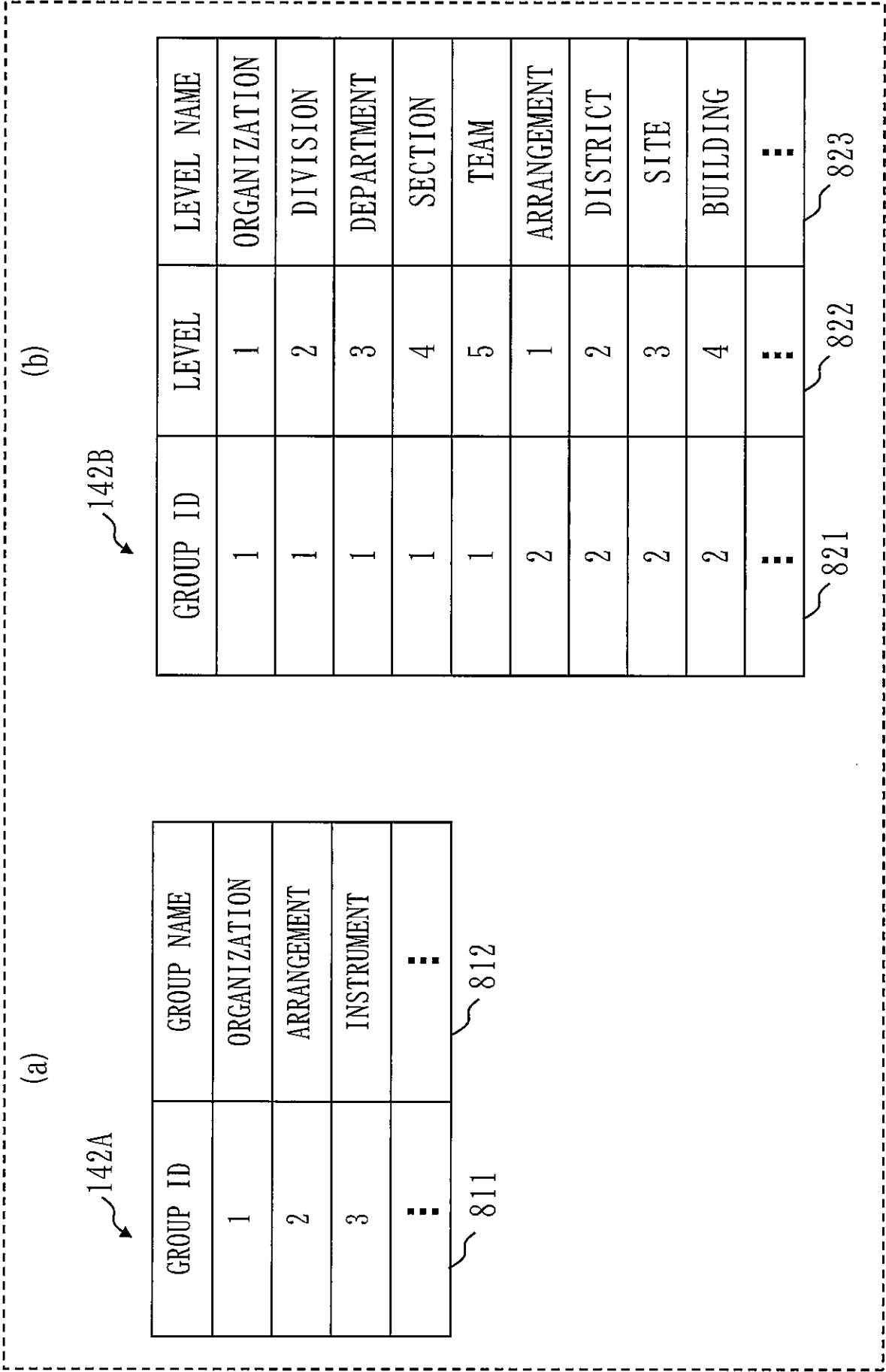


Fig. 12

141

VIRTUAL MEASUREMENT POINT ID	VIRTUAL MEASUREMENT POINT NAME	VIRTUAL MEASUREMENT POINT DEFINITION	SUBSTITUTE MEASUREMENT POINT FLAG
#1	POWER AT WHOLE COMPANY	#2+#10+#20、%1	1
#2	POWER AT MANAGEMENT DIVISION	#202+#210+#220、%2	1
#3	POWER AT HUMAN RESOURCES DEPARTMENT	#202	0
#4	POWER AT HUMAN RESOURCES SECTION	#202×0.6	0
⋮	⋮	⋮	⋮
#10	POWER AT ○ PROJECT DIVISION	#302+#310+#320	0
#20	POWER AT △ PROJECT DIVISION	#402+#410+#420	0
⋮	⋮	⋮	⋮
#201	POWER TRANSFORMER FACILITY OF TOKYO 1 ST BUILDING	\$1	0
#202	1F DISTRIBUTION PANEL	\$2	0
#203	NORTH DISTRIBUTION PANEL	\$3、%3	1
#204	SOUTH DISTRIBUTION PANEL	\$4、%4	1
⋮	⋮	⋮	⋮

901

902

903

904

Fig. 13

143 : MEASURED VALUE TABLE DESIGN INFORMATION

MEASUREMENT POINT ID	DB SERVER NAME	DATABASE NAME	TABLE NAME	COLUMN NAME	DATA TYPE
\$1	DB Server_1	E_CONSUMP	SENSOR_1	MEASURED VALUE 1	NUMERICAL VALUE
\$2	DB Server_1	E_CONSUMP	SENSOR_1	MEASURED VALUE 2	NUMERICAL VALUE
\$3	DB Server_1	E_CONSUMP	SENSOR_1	MEASURED VALUE 3	NUMERICAL VALUE
\$4	DB Server_1	E_CONSUMP	SENSOR_1	MEASURED VALUE 4	NUMERICAL VALUE
⋮	⋮	⋮	⋮	⋮	⋮
\$101	DB Server_2	E_CONSUMP	SENSOR_4	MEASURED VALUE 1	NUMERICAL VALUE
\$102	DB Server_2	E_CONSUMP	SENSOR_4	MEASURED VALUE 2	BIT
\$103	DB Server_2	E_CONSUMP	SENSOR_4	MEASURED VALUE 3	CHARACTER STRING
⋮	⋮	⋮	⋮	⋮	⋮
%1	DB Server_2	E_CONSUMP	SENSOR_9	MEASURED VALUE 1	NUMERICAL VALUE
%2	DB Server_2	E_CONSUMP	SENSOR_9	MEASURED VALUE 2	NUMERICAL VALUE
%3	DB Server_2	E_CONSUMP	SENSOR_9	MEASURED VALUE 3	NUMERICAL VALUE
%4	DB Server_2	E_CONSUMP	SENSOR_9	MEASURED VALUE 4	NUMERICAL VALUE

1001 1002 1003 1004 1005 1006

Fig. 14

143A

SUBSTITUTE MEASUREMENT POINT ID	SUBSTITUTE MEASUREMENT POINT DEFINITION
% 1	
% 2	
% 3	\$ 3
% 4	\$ 4
⋮	⋮

1011 1012

Fig. 15

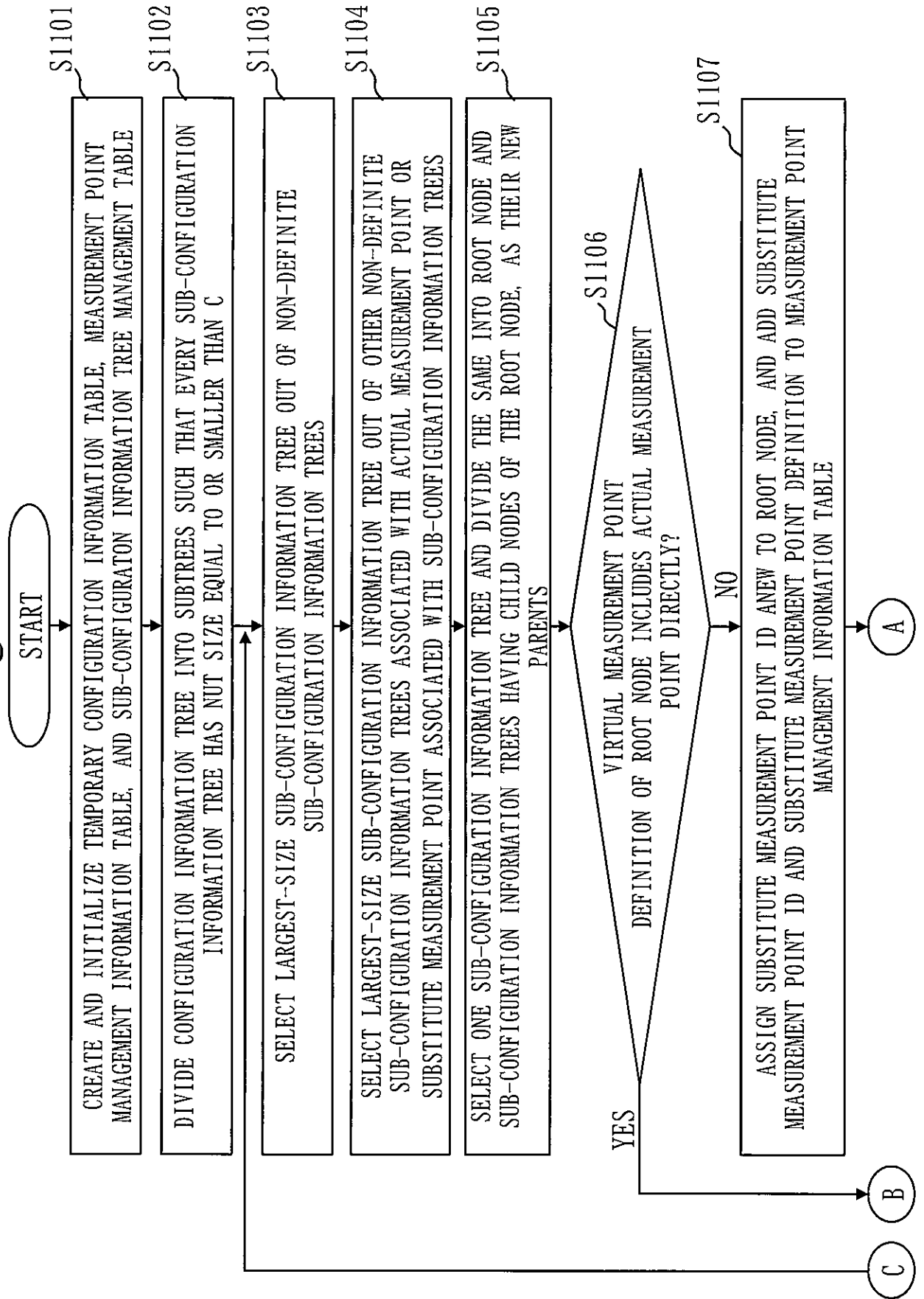


Fig. 16

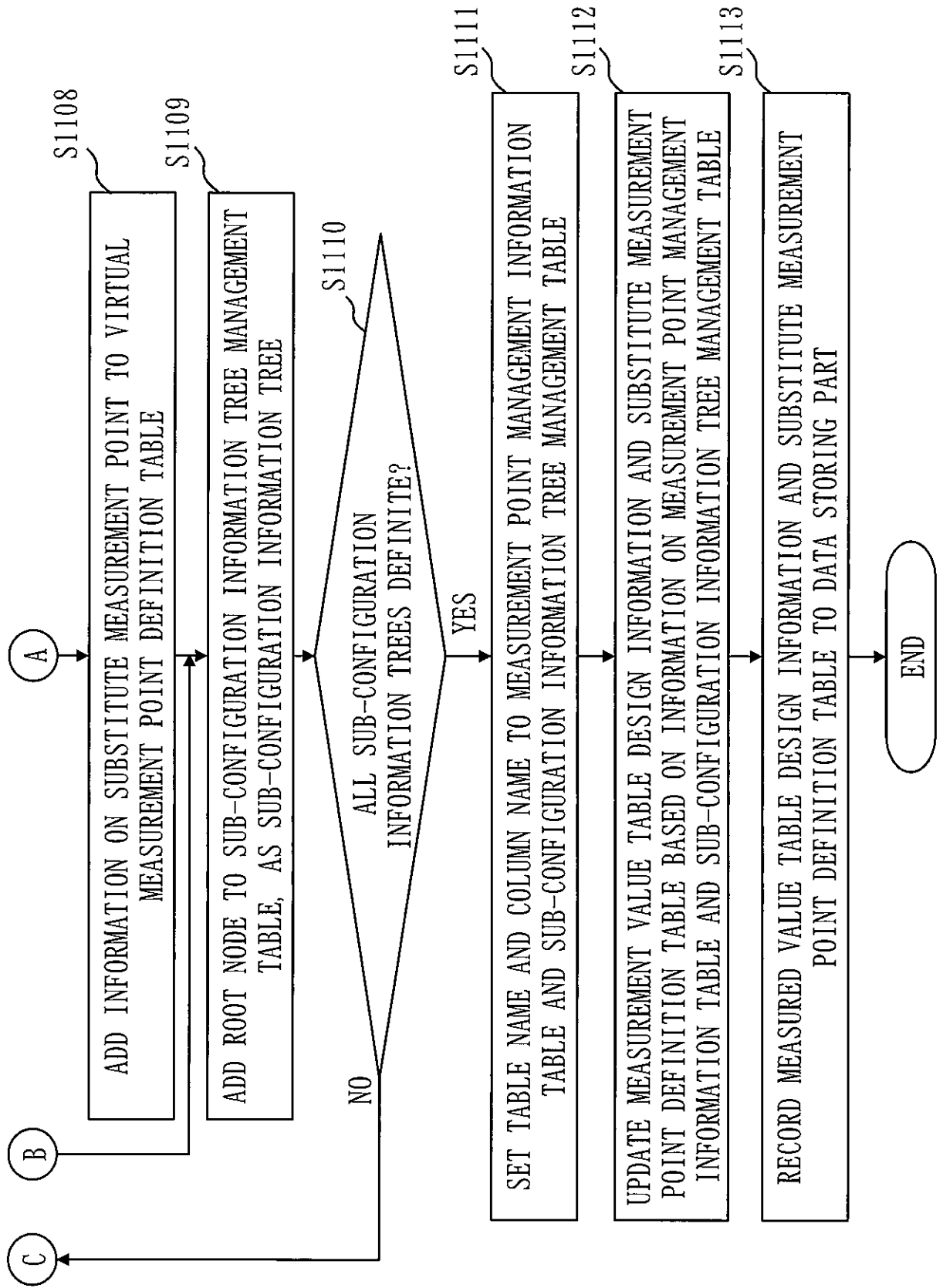


Fig. 17

1200

MEASUREMENT POINT ID	OWN NODE ID	ROOT NODE ID	COLUMN NAME	SUBSTITUTE MEASUREMENT POINT DEFINITION
\$ 1	201	1		
\$ 2	202	1		
⋮	⋮	⋮	⋮	⋮
% 1		1		
% 2		1		
% 3		1		\$3
% 4		1		\$4

Fig. 18

1210

SUB- CONFIGURATION INFORMATION TREE ID	ROOT NODE ID	SUB-CONFIGURATION INFORMATION TREE GROUP ID	DEFINITE FLAG	DB SERVER NAME	DATABASE NAME	TABLE NAME
1	1	1	0	null	null	null
2	100	2	0	null	null	null
⋮	⋮		⋮	⋮	⋮	⋮

1211
1212
1213
1214
1215
1216
1217

Fig. 19

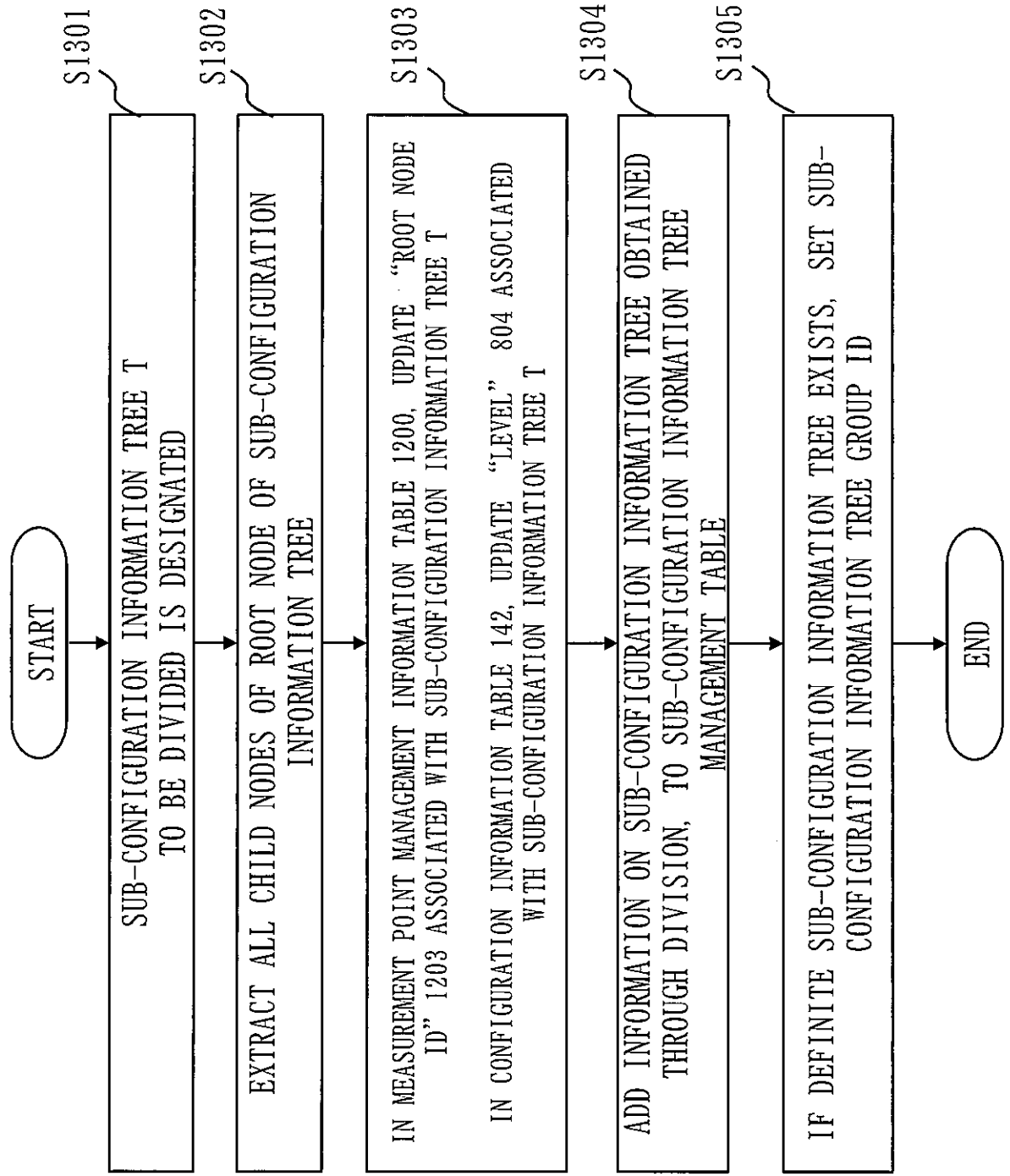


Fig. 20

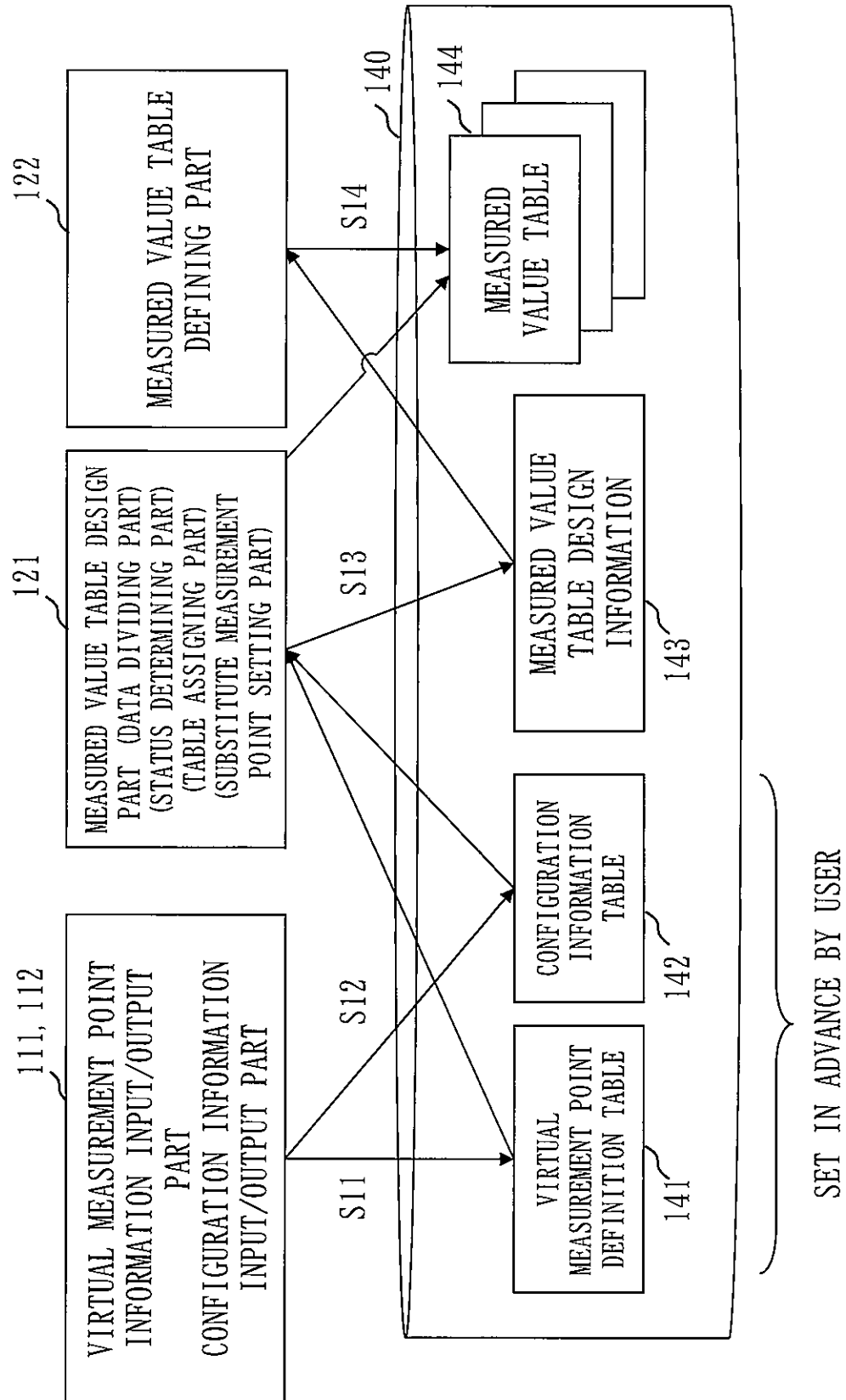


Fig. 21

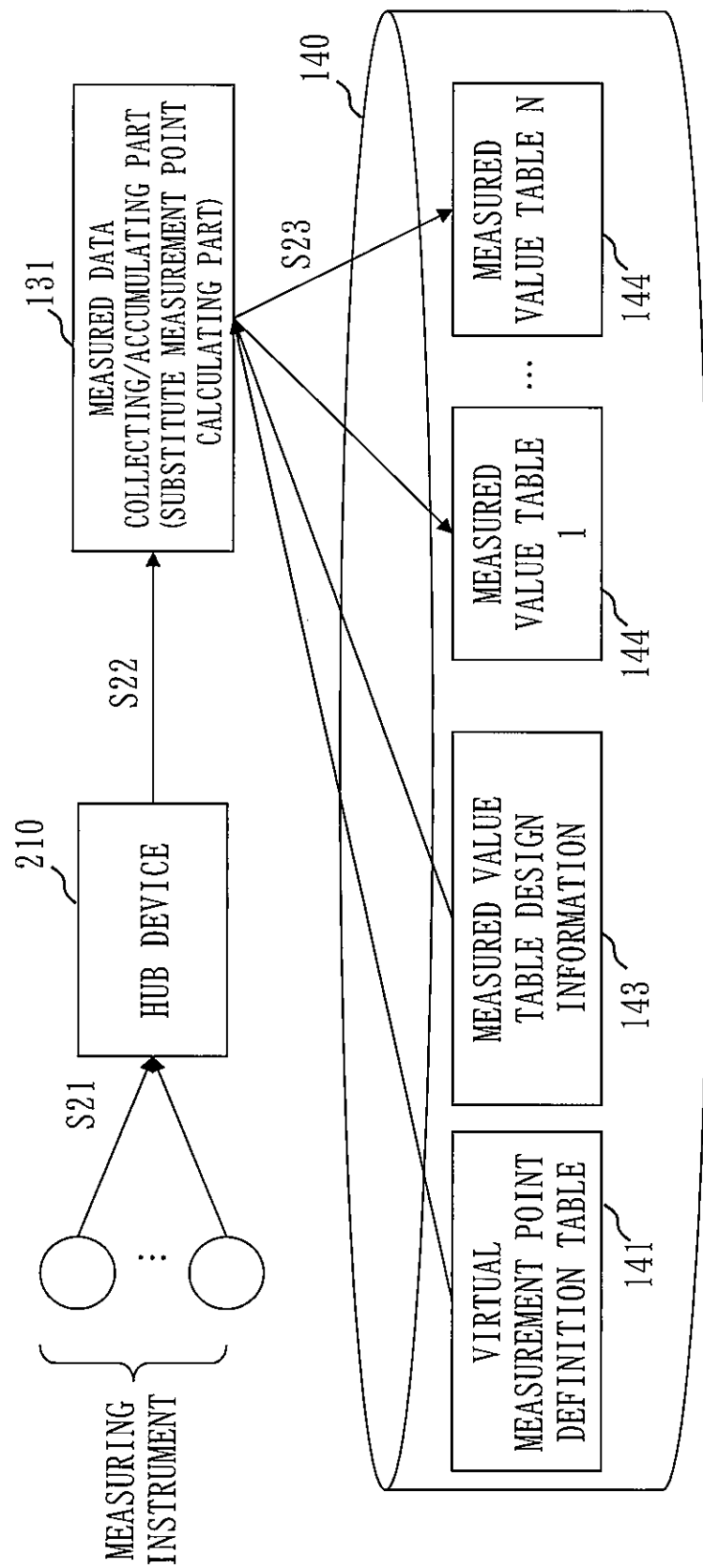


Fig. 22

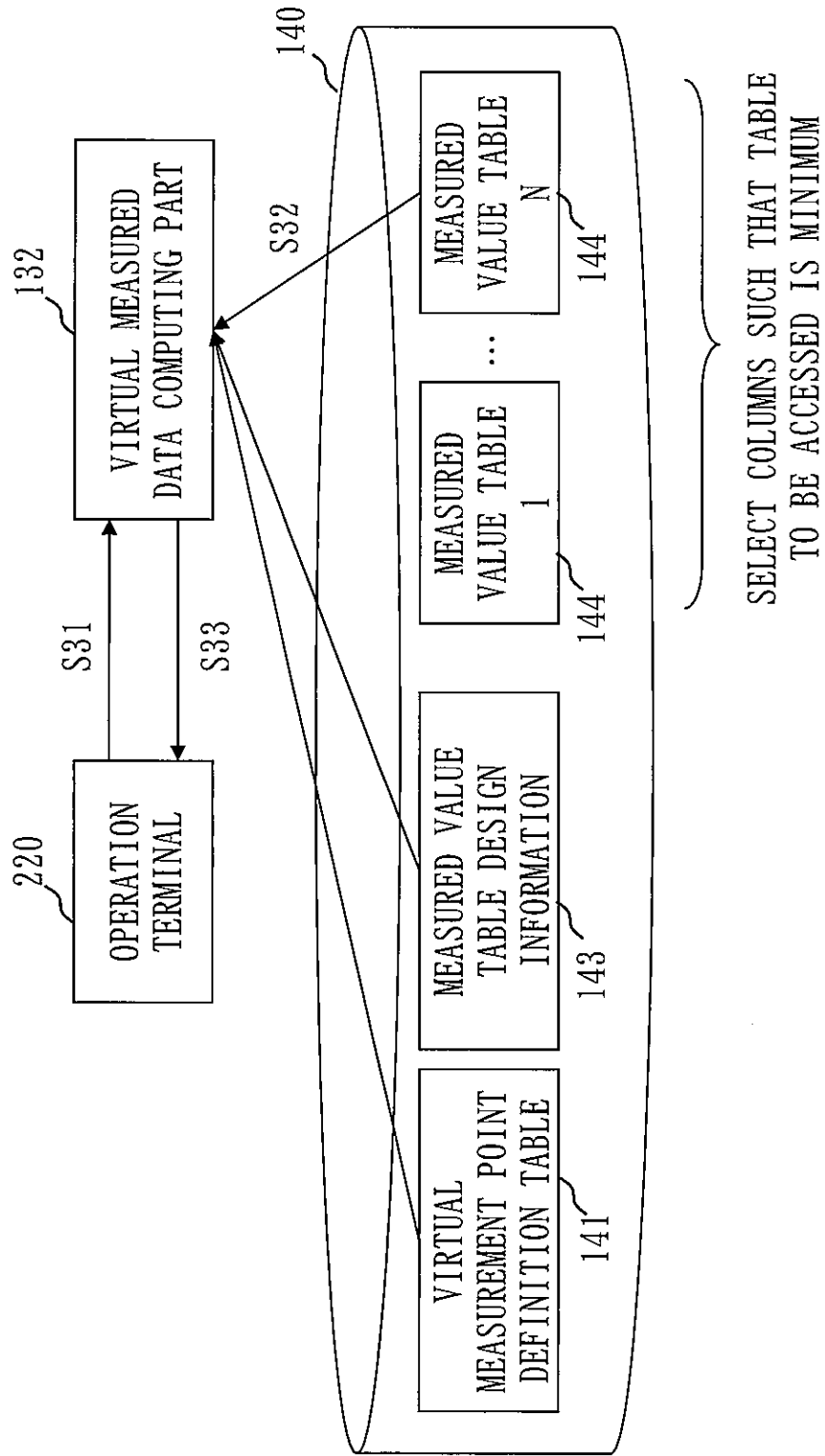


Fig. 23

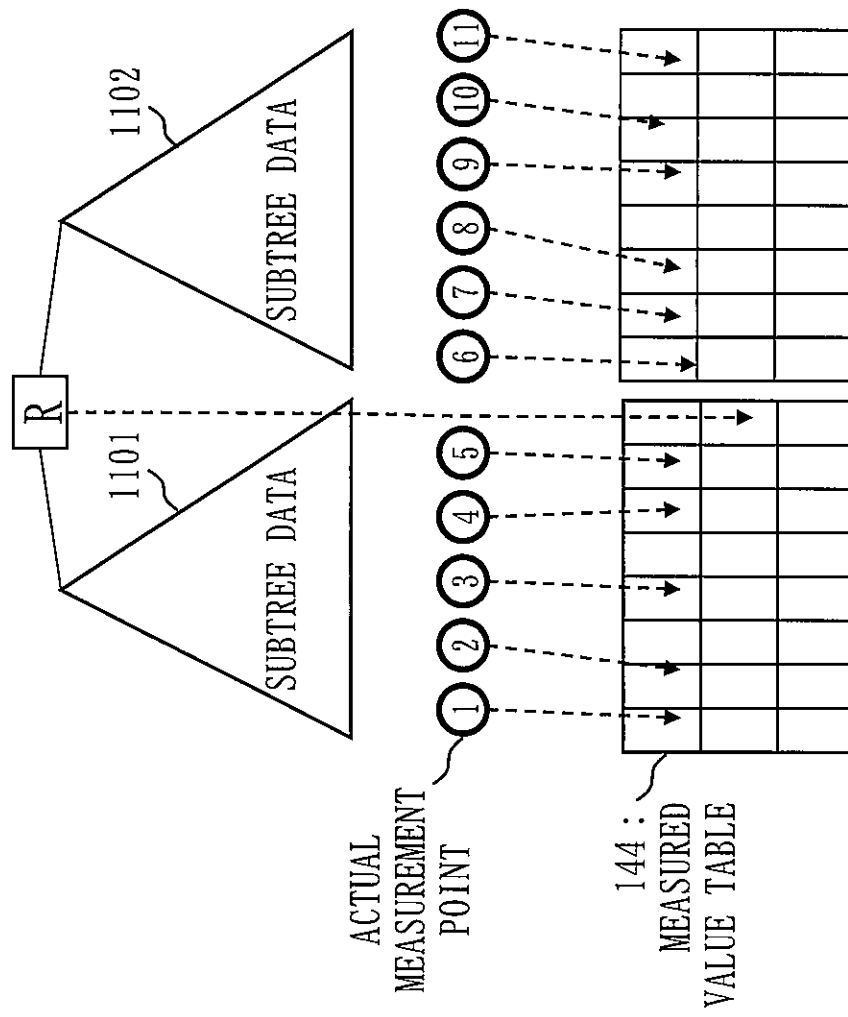


Fig. 24

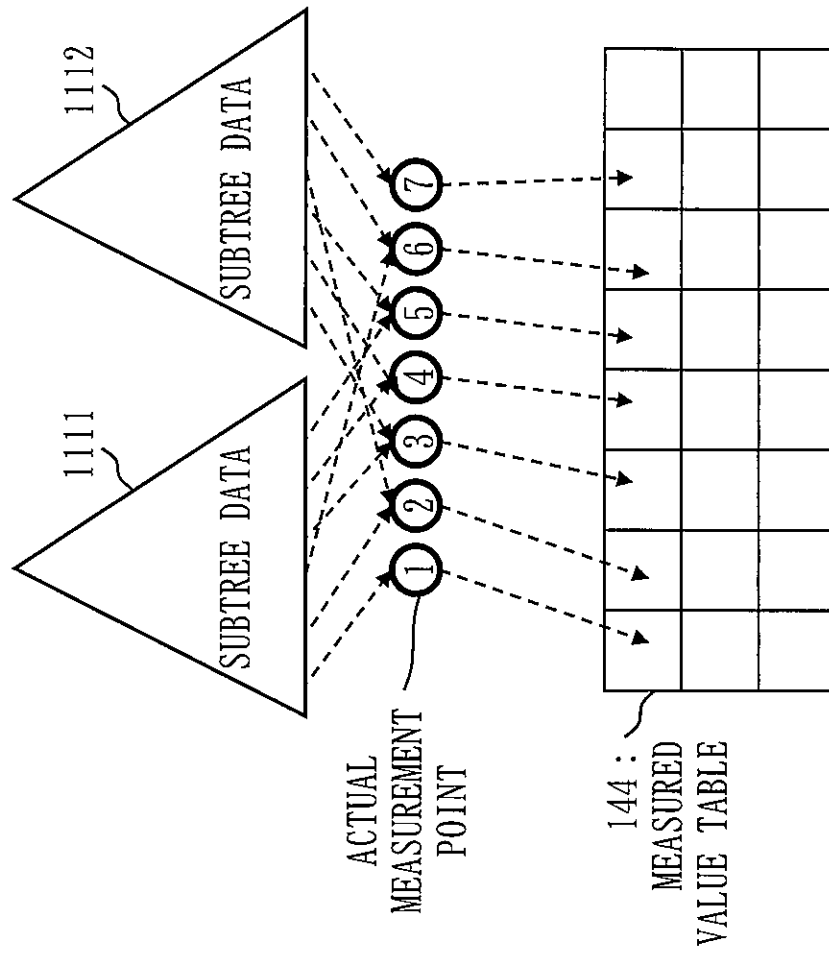


Fig. 25

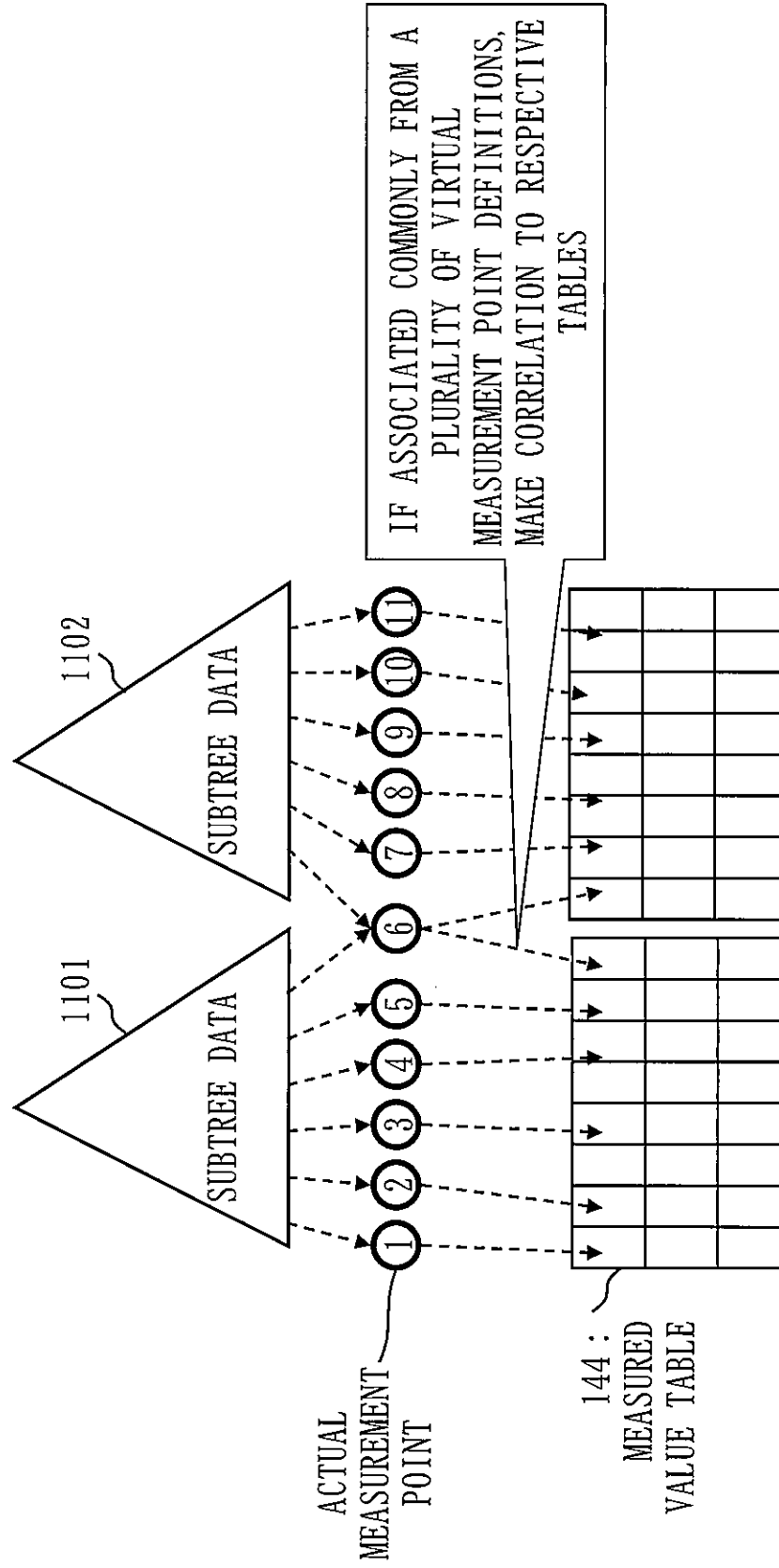


Fig. 26

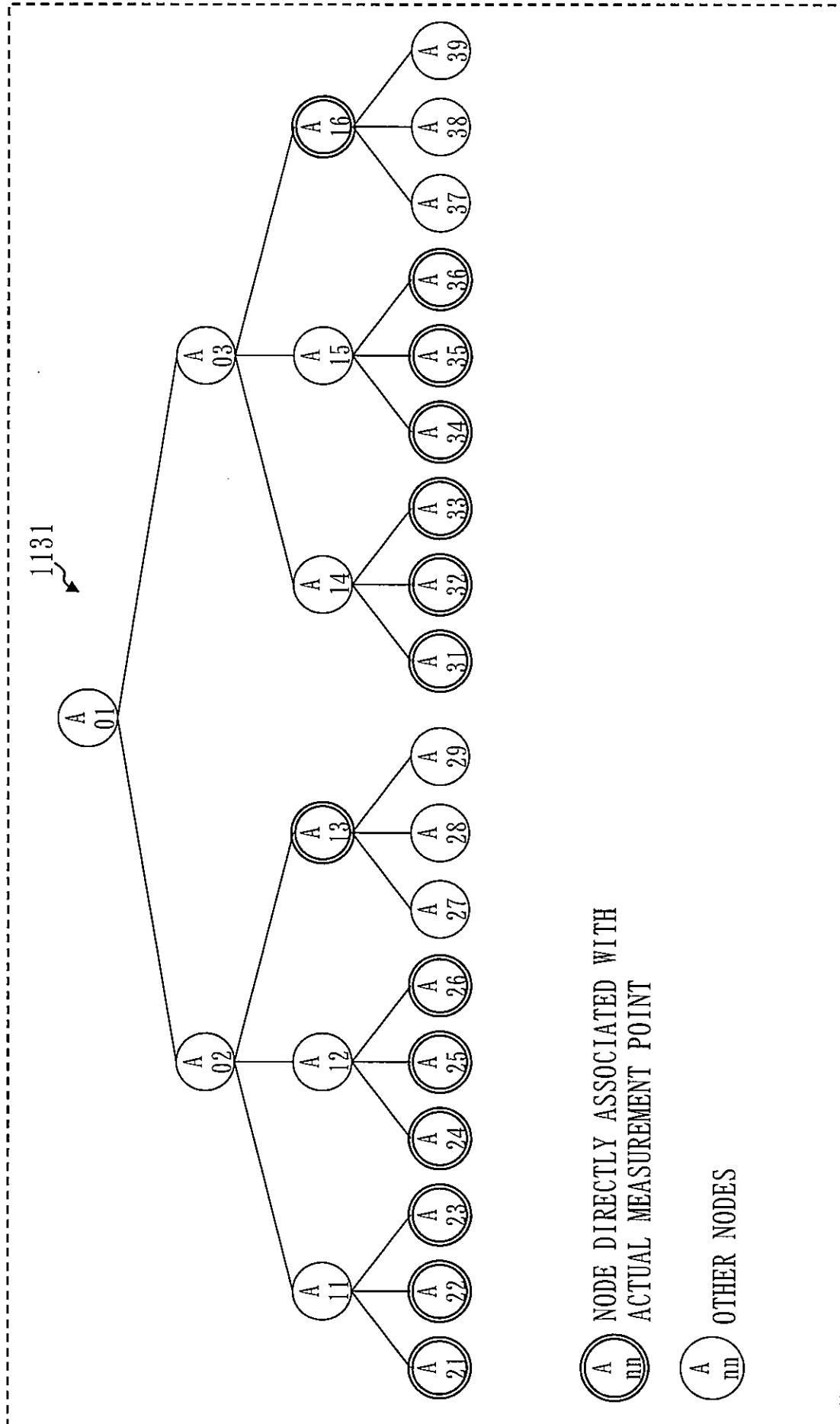


Fig. 27

CONFIGURATION INFORMATION TABLE 142 (FOR GROUP ID=1)

NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
1	null	1	1	#1	A01
2	1	1	2	#2	A02
3	1	1	2	#3	A03
11	2	1	3	#11	A11
12	2	1	3	#12	A12
13	2	1	3	#13	A13
14	3	1	3	#14	A14
15	3	1	3	#15	A15
16	3	1	3	#16	A16
21	11	1	4	#21	A21
22	11	1	4	#22	A22
23	11	1	4	#23	A23
24	12	1	4	#24	A24
25	12	1	4	#25	A25
26	12	1	4	#26	A26
27	13	1	4	#27	A27
28	13	1	4	#28	A28
29	13	1	4	#29	A29
31	14	1	4	#31	A31
32	14	1	4	#32	A32
33	14	1	4	#33	A33
34	15	1	4	#34	A34
35	15	1	4	#35	A35
36	15	1	4	#36	A36
37	16	1	4	#37	A37
38	16	1	4	#38	A38
39	16	1	4	#39	A39

Fig. 28

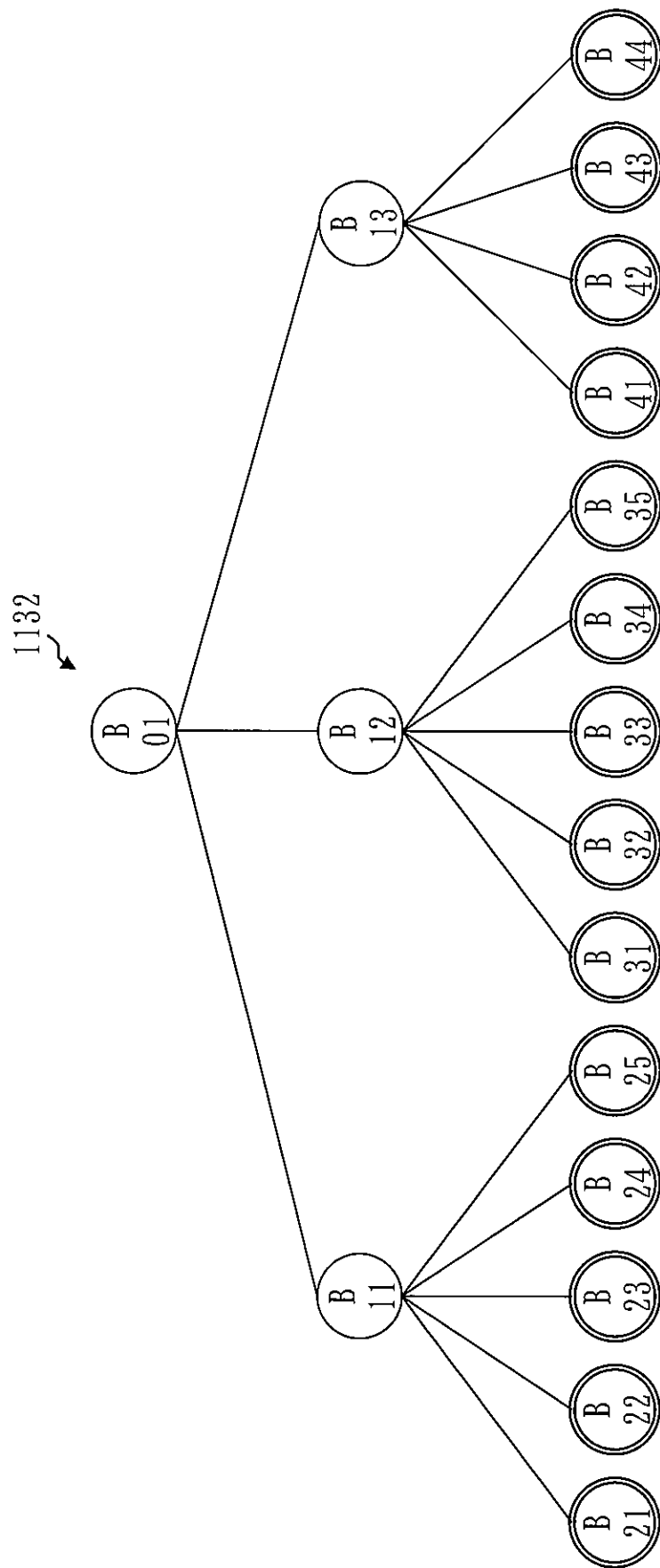


Fig. 29

CONFIGURATION INFORMATION TABLE 142 (FOR GROUP ID=2)

NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
101	null	2	1	#101	B01
111	101	2	2	#111	B11
112	101	2	2	#112	B12
113	101	2	2	#113	B13
121	111	2	3	#121	B21
122	111	2	3	#122	B22
123	111	2	3	#123	B23
124	111	2	3	#124	B24
125	111	2	3	#125	B25
131	112	2	3	#131	B31
132	112	2	3	#132	B32
133	112	2	3	#133	B33
134	112	2	3	#134	B34
135	112	2	3	#135	B35
141	113	2	3	#141	B41
142	113	2	3	#142	B42
143	113	2	3	#143	B43
144	113	2	3	#144	B44

Fig. 30

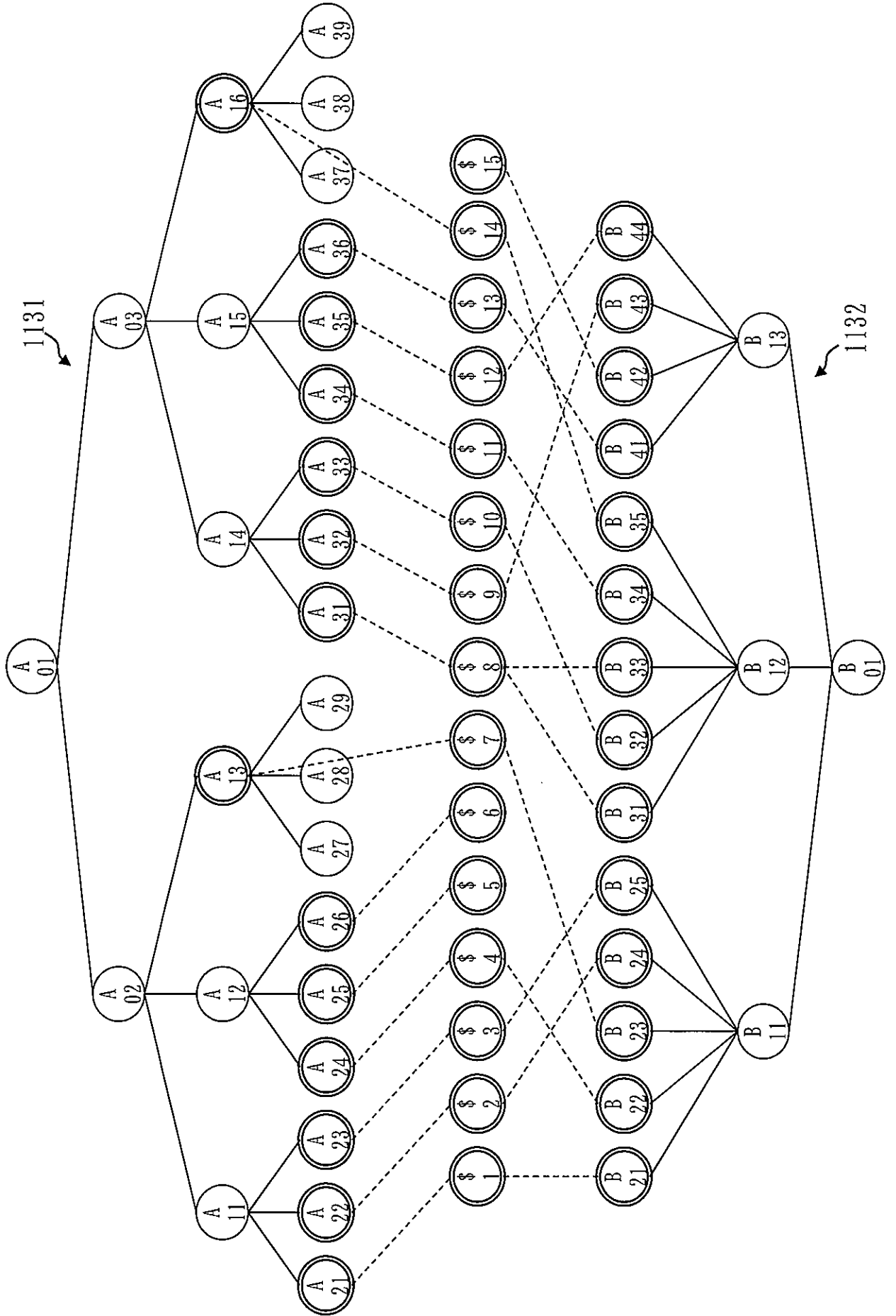


Fig. 31

VIRTUAL MEASUREMENT POINT DEFINITION TABLE

VIRTUAL MEASUREMENT POINT ID	VIRTUAL MEASUREMENT POINT NAME	VIRTUAL MEASUREMENT POINT DEFINITION	SUBSTITUTE MEASUREMENT POINT FLAG
#1	A01	#2+#3	0
#2	A02	#11+#12+#13	0
#3	A03	#14+#15+#16	0
#11	A11	#21+#22+#23	0
#12	A12	#24+#25+#26	0
#13	A13	\$7	0
#14	A14	#31+#32+#33	0
#15	A15	#34+#35+#36	0
#16	A16	\$14	0
#21	A21	\$1	0
#22	A22	\$2	0
#23	A23	\$3	0
#24	A24	\$4	0
#25	A25	\$5	0
#26	A26	\$6	0
#27	A27	#13/2	0
#28	A28	#13/4	0
#29	A29	#13/4	0
#31	A31	\$8	0
#32	A32	\$9	0
#33	A33	\$10	0
#34	A34	\$11	0
#35	A35	\$12	0
#36	A36	\$13	0
#37	A37	#16/2	0
#38	A38	#16/4	0
#39	A39	#16/4	0

Fig. 32

VIRTUAL MEASUREMENT POINT DEFINITION TABLE

VIRTUAL MEASUREMENT POINT ID	VIRTUAL MEASUREMENT POINT NAME	VIRTUAL MEASUREMENT POINT DEFINITION	SUBSTITUTE MEASUREMENT POINT FLAG
#101	B01	#111+#112+#113	0
#111	B11	#121+#122+#123+#124+#125	0
#112	B12	#131+#132+#133+#134+#135	0
#113	B13	#141+#142+#143+#144	0
#121	B21	\$1	0
#122	B22	\$4	0
#123	B23	\$7	0
#124	B24	\$2	0
#125	B25	\$3	0
#131	B31	\$8	0
#132	B32	\$10	0
#133	B33	\$8	0
#134	B34	\$11	0
#135	B35	\$14	0
#141	B41	\$13	0
#142	B42	\$15	0
#143	B43	\$9	0
#144	B44	\$12	0

Fig. 33

TEMPORARY CONFIGURATION INFORMATION TABLE

NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
1	null	1	1	#1	A01
2	1	1	2	#2	A02
3	1	1	2	#3	A03
11	2	1	3	#11	A11
12	2	1	3	#12	A12
13	2	1	3	#13	A13
14	3	1	3	#14	A14
15	3	1	3	#15	A15
16	3	1	3	#16	A16
21	11	1	4	#21	A21
22	11	1	4	#22	A22
23	11	1	4	#23	A23
24	12	1	4	#24	A24
25	12	1	4	#25	A25
26	12	1	4	#26	A26
27	13	1	4	#27	A27
28	13	1	4	#28	A28
29	13	1	4	#29	A29
31	14	1	4	#31	A31
32	14	1	4	#32	A32
33	14	1	4	#33	A33
34	15	1	4	#34	A34
35	15	1	4	#35	A35
36	15	1	4	#36	A36
37	16	1	4	#37	A37
38	16	1	4	#38	A38
39	16	1	4	#39	A39

Fig. 34

TEMPORARY CONFIGURATION INFORMATION TABLE

NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
101	null	2	1	#101	B01
111	101	2	2	#111	B11
112	101	2	2	#112	B12
113	101	2	2	#113	B13
121	111	2	3	#121	B21
122	111	2	3	#122	B22
123	111	2	3	#123	B23
124	111	2	3	#124	B24
125	111	2	3	#125	B25
131	112	2	3	#131	B31
132	112	2	3	#132	B32
133	112	2	3	#133	B33
134	112	2	3	#134	B34
135	112	2	3	#135	B35
141	113	2	3	#141	B41
142	113	2	3	#142	B42
143	113	2	3	#143	B43
144	113	2	3	#144	B44

Fig. 35

MEASUREMENT POINT MANAGEMENT INFORMATION TABLE

MEASUREMENT POINT ID	OWN NODE ID	ROOT NODE ID	COLUMN NAME	SUBSTITUTE MEASUREMENT POINT DEFINITION
\$1	21, 121	1, 101		
\$2	22, 131	1, 101		
\$3	23, 141	1, 101		
\$4	24, 122	1, 101		
\$5	25	1		
\$6	26	1		
\$7	13, 123	1, 101		
\$8	31, 133	1, 101		
\$9	32, 143	1, 101		
\$10	33, 124	1, 101		
\$11	34, 134	1, 101		
\$12	35, 144	1, 101		
\$13	36, 125	1, 101		
\$14	16, 135	1, 101		
\$15	142	101		

Fig. 37

TEMPORARY CONFIGURATION INFORMATION TABLE

NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
1	null	1	1	#1	A01
2	1	1	1	#2	A02
3	1	1	1	#3	A03
11	2	1	2	#11	A11
12	2	1	2	#12	A12
13	2	1	2	#13	A13
14	3	1	2	#14	A14
15	3	1	2	#15	A15
16	3	1	2	#16	A16
21	11	1	3	#21	A21
22	11	1	3	#22	A22
23	11	1	3	#23	A23
24	12	1	3	#24	A24
25	12	1	3	#25	A25
26	12	1	3	#26	A26
27	13	1	3	#27	A27
28	13	1	3	#28	A28
29	13	1	3	#29	A29
31	14	1	3	#31	A31
32	14	1	3	#32	A32
33	14	1	3	#33	A33
34	15	1	3	#34	A34
35	15	1	3	#35	A35
36	15	1	3	#36	A36
37	16	1	3	#37	A37
38	16	1	3	#38	A38
39	16	1	3	#39	A39

Fig. 38

MEASUREMENT POINT MANAGEMENT INFORMATION TABLE

MEASUREMENT POINT ID	OWN NODE ID	ROOT NODE ID	COLUMN NAME	SUBSTITUTE MEASUREMENT POINT DEFINITION
\$1	21, 121	2, 101		
\$2	22, 131	2, 101		
\$3	23, 141	2, 101		
\$4	24, 122	2, 101		
\$5	25	1		
\$6	26	1		
\$7	13, 123	2, 101		
\$8	31, 133	3, 101		
\$9	32, 143	3, 101		
\$10	33, 124	3, 101		
\$11	34, 134	3, 101		
\$12	35, 144	3, 101		
\$13	36, 125	3, 101		
\$14	16, 135	3, 101		
\$15	142	101		

Fig. 40

TEMPORARY CONFIGURATION INFORMATION TABLE					
NODE ID	PARENT ID	GROUP ID	LEVEL	VIRTUAL MEASUREMENT POINT ID	NODE NAME
101	null	2	1	#101	B01
111	101	2	1	#111	B11
112	101	2	1	#112	B12
113	101	2	1	#113	B13
121	111	2	2	#121	B21
122	111	2	2	#122	B22
123	111	2	2	#123	B23
124	111	2	2	#124	B24
125	111	2	2	#125	B25
131	112	2	2	#131	B31
132	112	2	2	#132	B32
133	112	2	2	#133	B33
134	112	2	2	#134	B34
135	112	2	2	#135	B35
141	113	2	2	#141	B41
142	113	2	2	#142	B42
143	113	2	2	#143	B43
144	113	2	2	#144	B44

Fig. 41

MEASUREMENT POINT MANAGEMENT INFORMATION TABLE				
MEASUREMENT POINT ID	OWN NODE ID	ROOT NODE ID	COLUMN NAME	SUBSTITUTE MEASUREMENT POINT DEFINITION
\$1	21, 121	2, 111		
\$2	22, 131	2, 112		
\$3	23, 141	2, 113		
\$4	24, 122	2, 111		
\$5	25	1		
\$6	26	1		
\$7	13, 123	2, 111		
\$8	31, 133	3, 112		
\$9	32, 143	3, 113		
\$10	33, 124	3, 111		
\$11	34, 134	3, 112		
\$12	35, 144	3, 113		
\$13	36, 125	3, 111		
\$14	16, 135	3, 112		
\$15	142	101		

Fig. 44

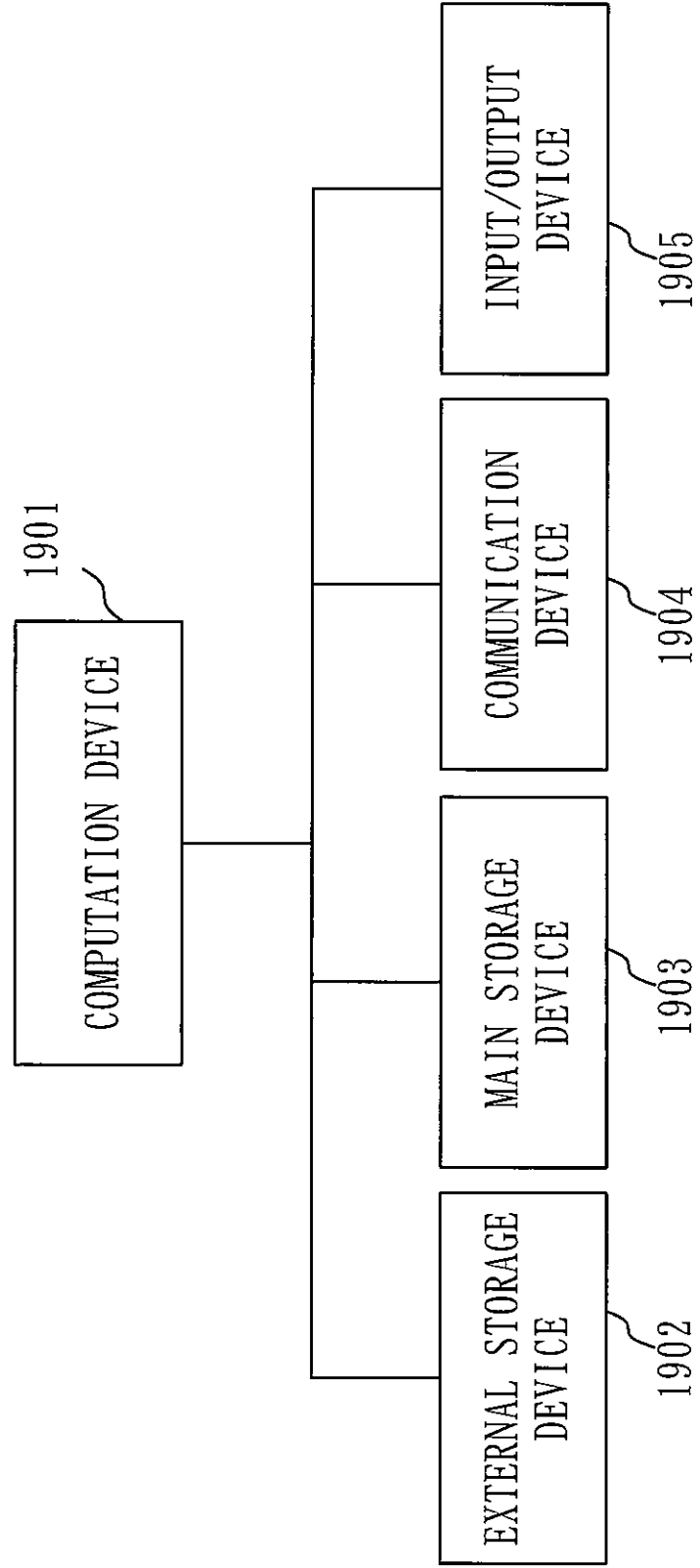


Fig. 45

VIRTUAL MEASUREMENT POINT DEFINITION TABLE

VIRTUAL MEASUREMENT POINT ID	VIRTUAL MEASUREMENT POINT NAME	VIRTUAL MEASUREMENT POINT DEFINITION	SUBSTITUTE MEASUREMENT POINT FLAG
#1	A01	#2+#3, %1	1
#2	A02	#11+#12+#13, %2	1
#3	A03	#14+#15+#16, %3	1
#11	A11	#21+#22+#23	0
#12	A12	#24+#25+#26	0
#13	A13	\$7	0
#14	A14	#31+#32+#33	0
#15	A15	#34+#35+#36	0
#16	A16	\$14	0
#21	A21	\$1	0
#22	A22	\$2	0
#23	A23	\$3	0
#24	A24	\$4	0
#25	A25	\$5	0
#26	A26	\$6	0
#27	A27	#13/2	0
#28	A28	#13/4	0
#29	A29	#13/4	0
#31	A31	\$8	0
#32	A32	\$9	0
#33	A33	\$10	0
#34	A34	\$11	0
#35	A35	\$12	0
#36	A36	\$13	0
#37	A37	#16/2	0
#38	A38	#16/4	0
#39	A39	#16/4	0

Fig. 46

VIRTUAL MEASUREMENT POINT DEFINITION TABLE

VIRTUAL MEASUREMENT POINT ID	VIRTUAL MEASUREMENT POINT NAME	VIRTUAL MEASUREMENT POINT DEFINITION	SUBSTITUTE MEASUREMENT POINT FLAG
#101	B01	#111+#112+#113, %4	1
#111	B11	#121+#122+#123+#124+#125, %5	1
#112	B12	#131+#132+#133+#134+#135, %6	1
#113	B13	#141+#142+#143+#144, %7	1
#121	B21	\$1	0
#122	B22	\$4	0
#123	B23	\$7	0
#124	B24	\$2	0
#125	B25	\$3	0
#131	B31	\$8	0
#132	B32	\$10	0
#133	B33	\$8	0
#134	B34	\$11	0
#135	B35	\$14	0
#141	B41	\$13	0
#142	B42	\$15	0
#143	B43	\$9	0
#144	B44	\$12	0

Fig. 47

MEASUREMENT POINT MANAGEMENT INFORMATION TABLE

MEASUREMENT POINT ID	OWN NODE ID	ROOT NODE ID	COLUMN NAME	SUBSTITUTE MEASUREMENT POINT DEFINITION
\$1	21, 121	2, 111		
\$2	22, 131	2, 112		
\$3	23, 141	2, 113		
\$4	24, 122	2, 111		
\$5	25	1		
\$6	26	1		
\$7	13, 123	2, 111		
\$8	31, 133	3, 112		
\$9	32, 143	3, 113		
\$10	33, 124	3, 111		
\$11	34, 134	3, 112		
\$12	35, 144	3, 113		
\$13	36, 125	3, 111		
\$14	16, 135	3, 112		
\$15	142	101		
%1	1	1	null	\$1+\$2+\$3+\$4+\$5+\$6+\$7+\$8+\$9 +\$10+\$11+\$12+\$13+\$14
%2	101	101	null	\$1+\$2+\$3+\$4+\$7+\$8+\$9 +\$10+\$11+\$12+\$13+\$14+\$15
%3	2	2	null	\$1+\$2+\$3+\$4+\$5+\$6+\$7
%4	3	3	null	\$8+\$9+\$10+\$11+\$12+\$13+\$14
%5	111	111	null	\$1+\$2+\$3+\$4+\$7
%6	112	112	null	\$8+\$10+\$11+\$14
%7	113	113	null	\$9+\$12+\$13+\$15

Fig. 48

STEPS OF DERIVING SUBSTITUTE MEASUREMENT POINT DEFINITION
FOR SUBSTITUTE MEASUREMENT POINT %1

```
#2+#3
↓
(#11+#12+#13) + ( #14+#15+#16)
↓
((#21+#22+#23) + (#24+#25+#26) + ($7) ) + ((#31+#32+#33) + (#34+#35+#36) + ($14) )
↓
(( $1+$2+$3) + ($4+$5+$6) + ($7) ) + ( ($8+$9+$10) + ($11+$12+$13) + ($14) )
↓
$1+$2+$3+$4+$5+$6+$7+$8+$9+$10+$11+$12+$13+$14
```