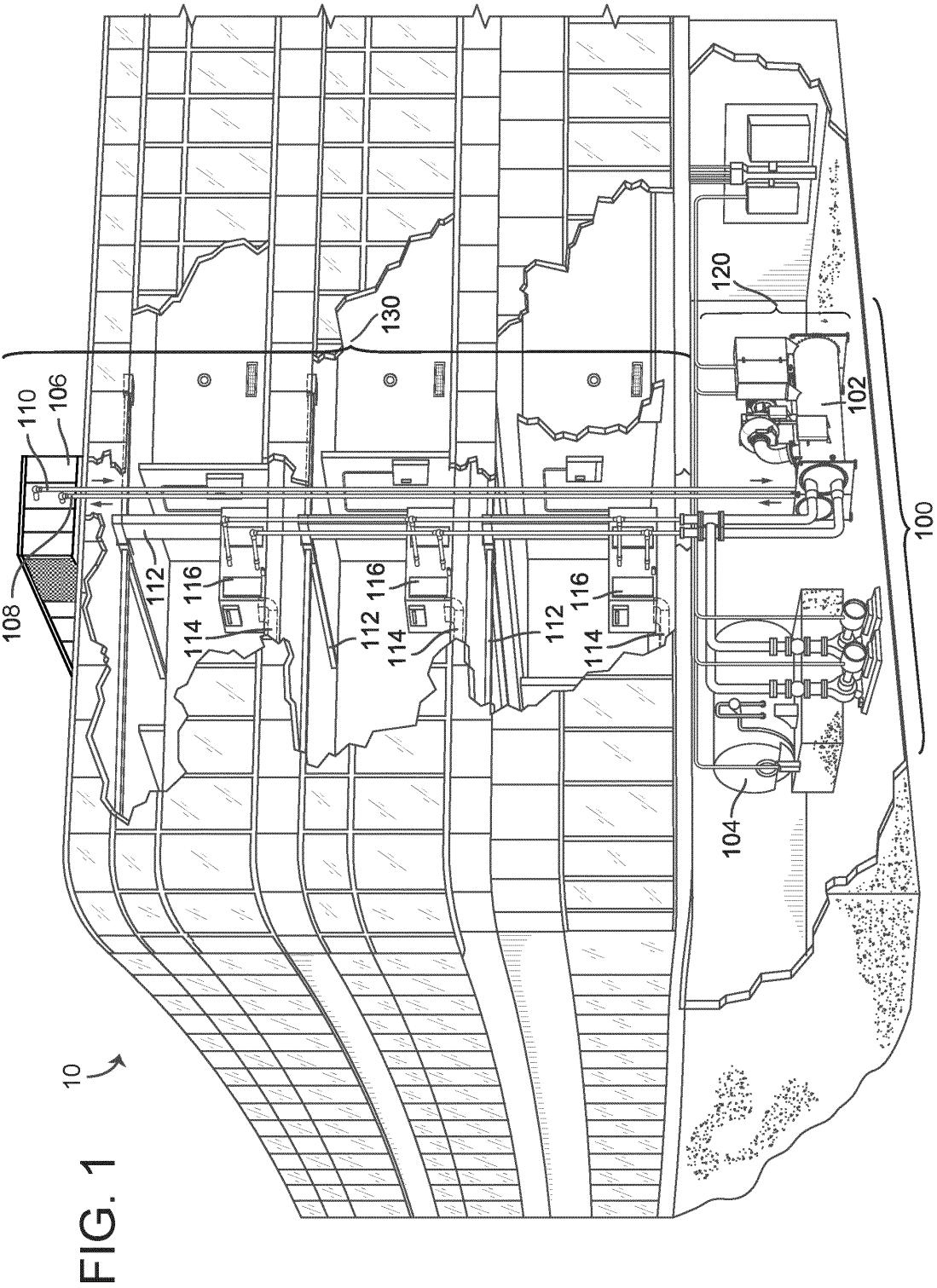




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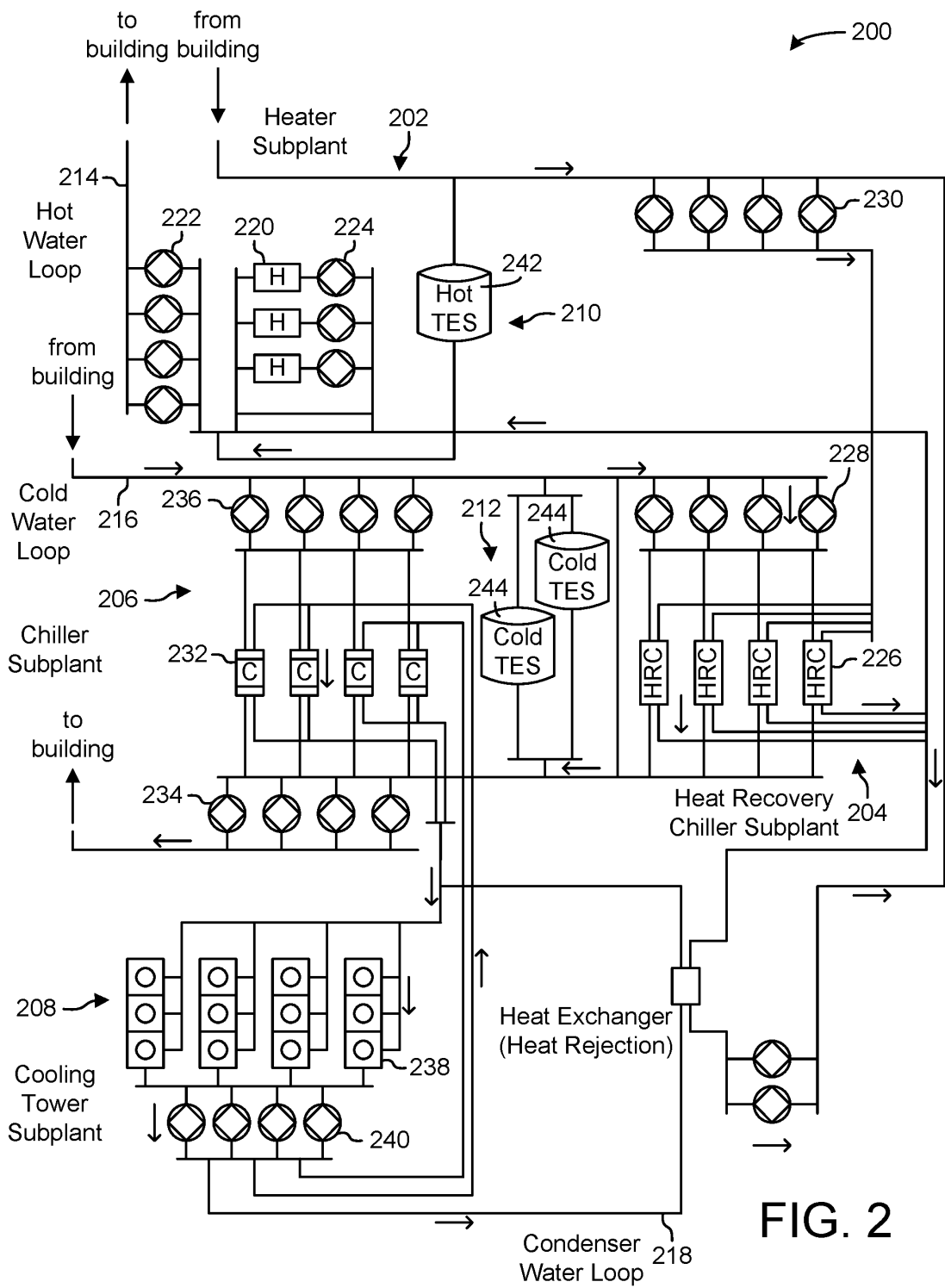


FIG. 2

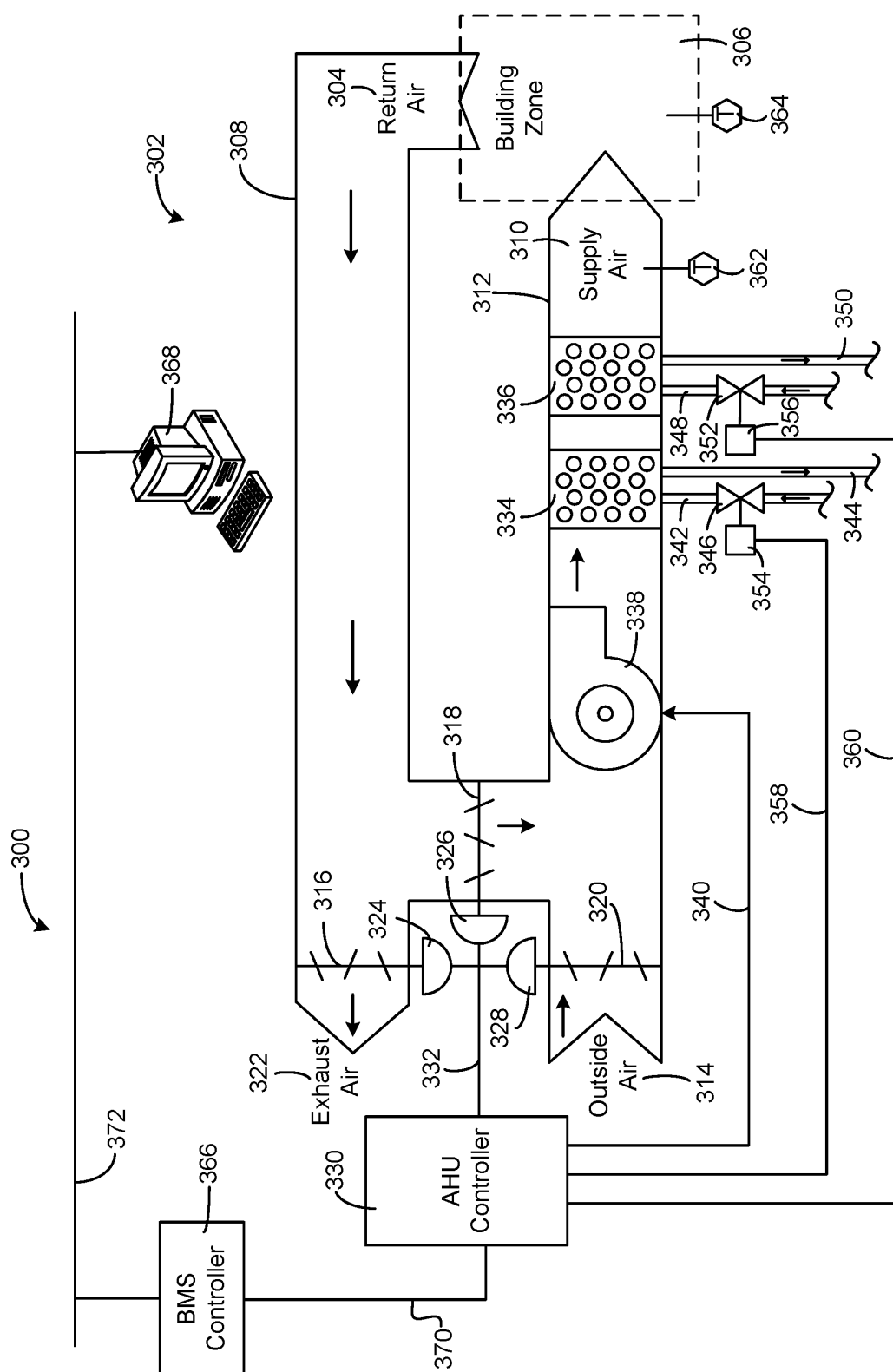
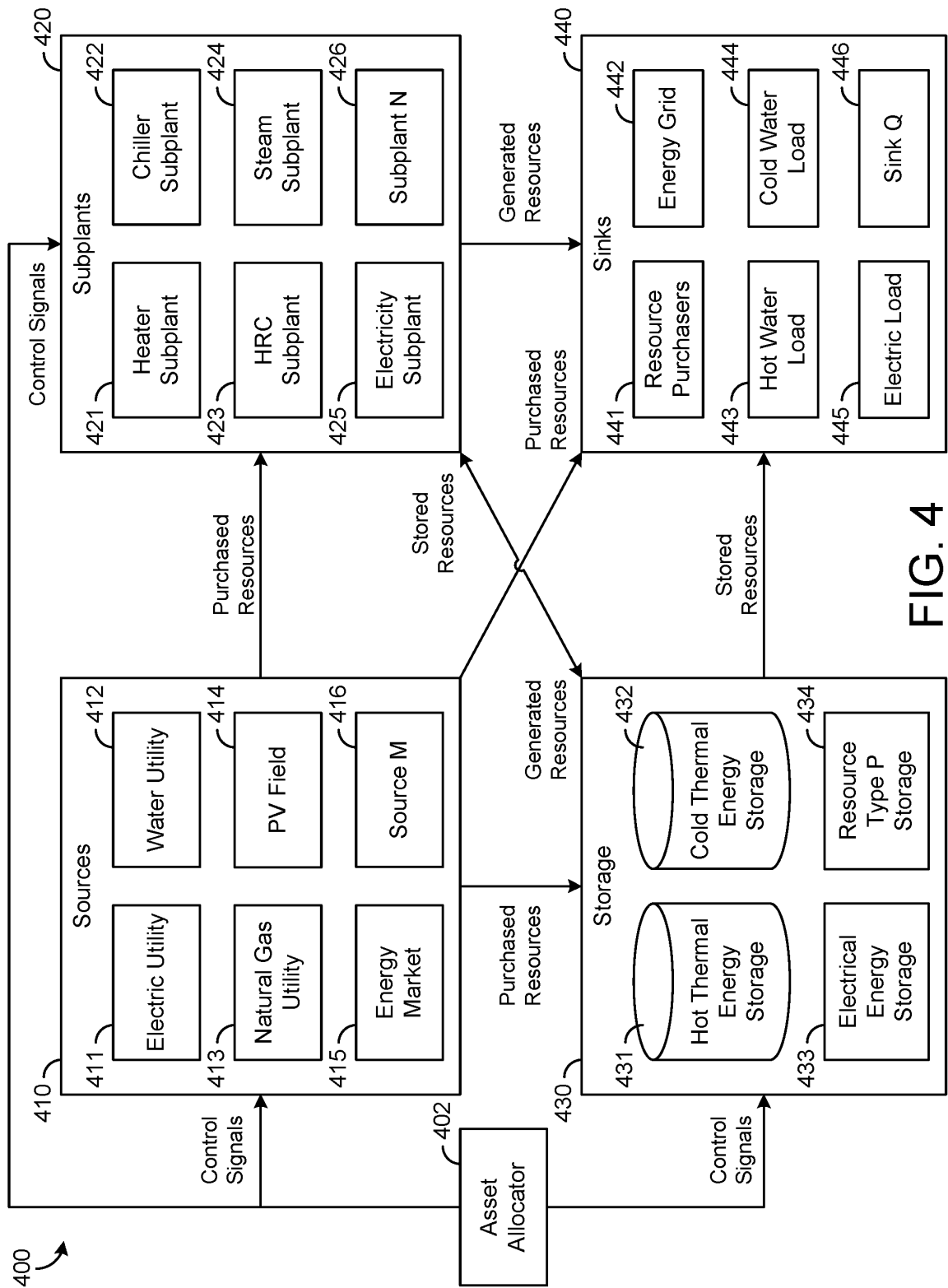


FIG. 3



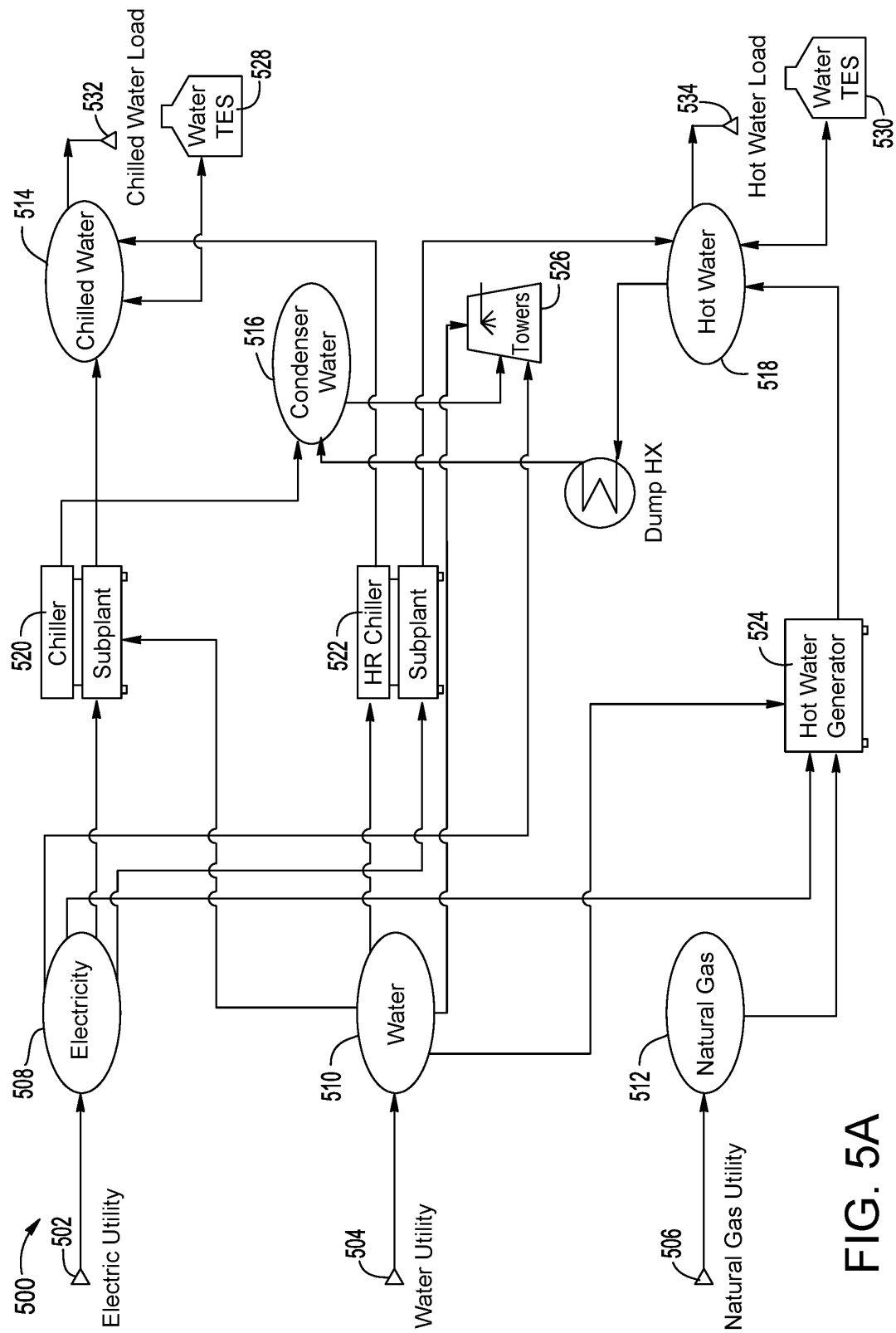


FIG. 5A

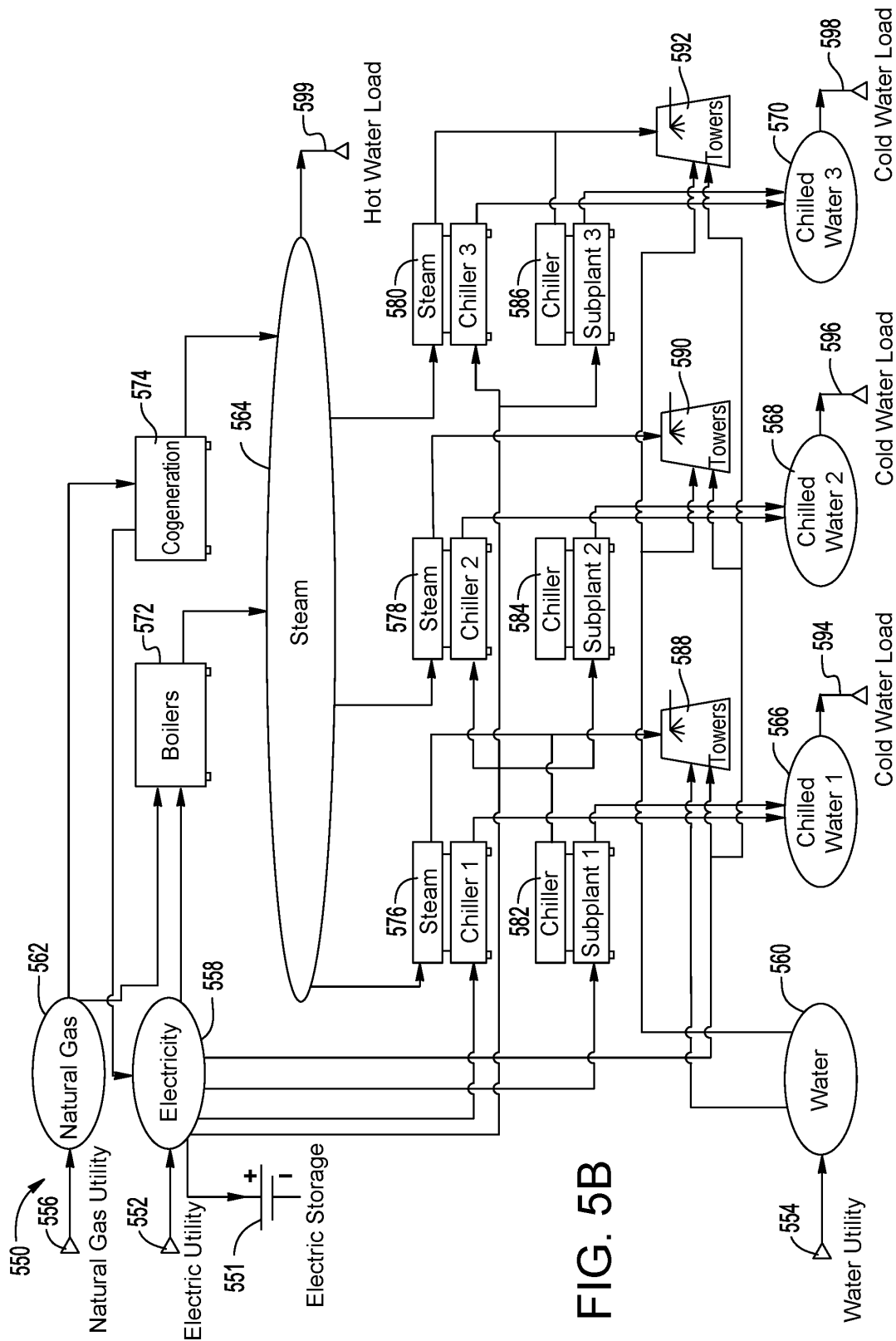


FIG. 5B

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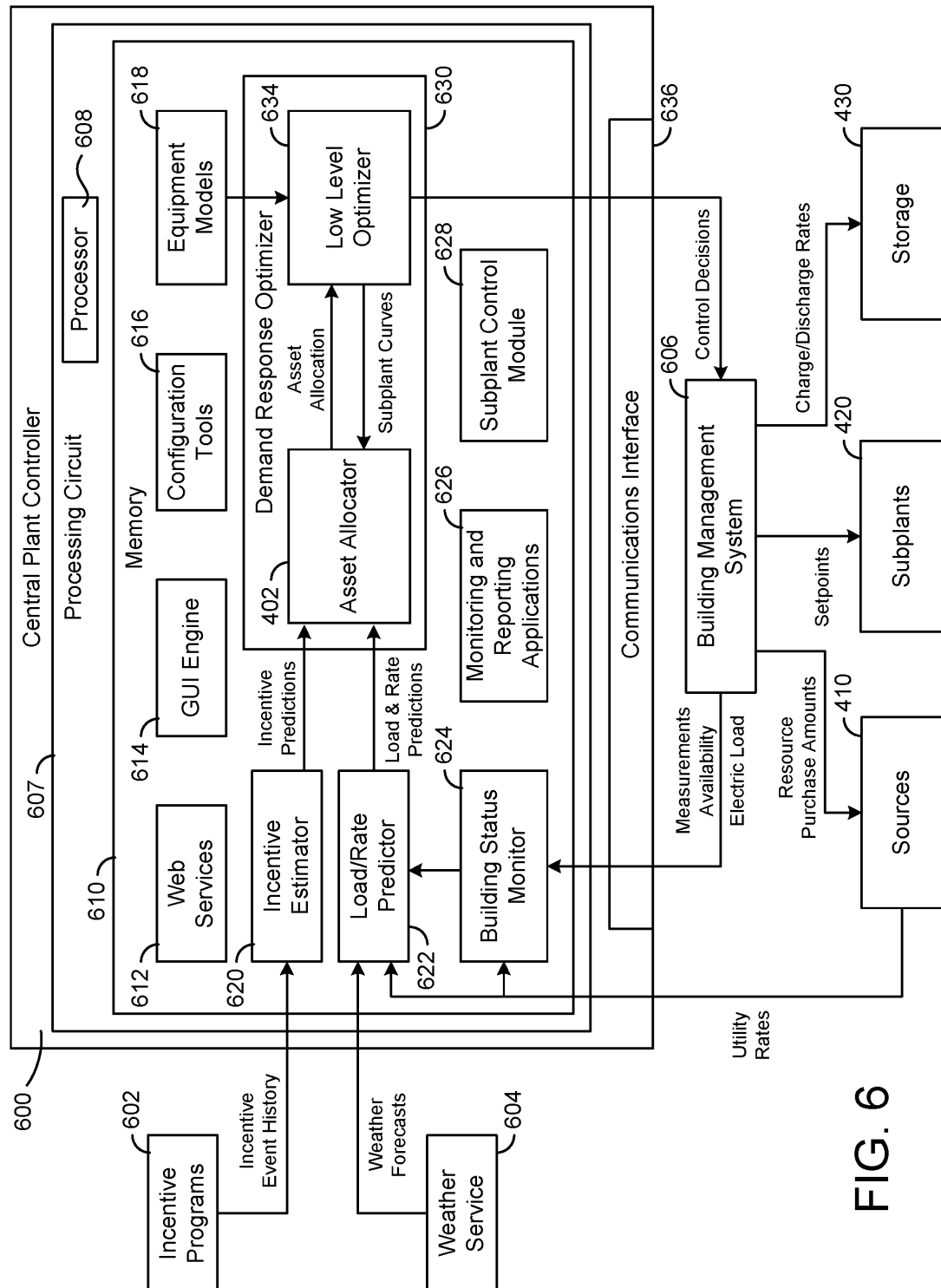


FIG. 6

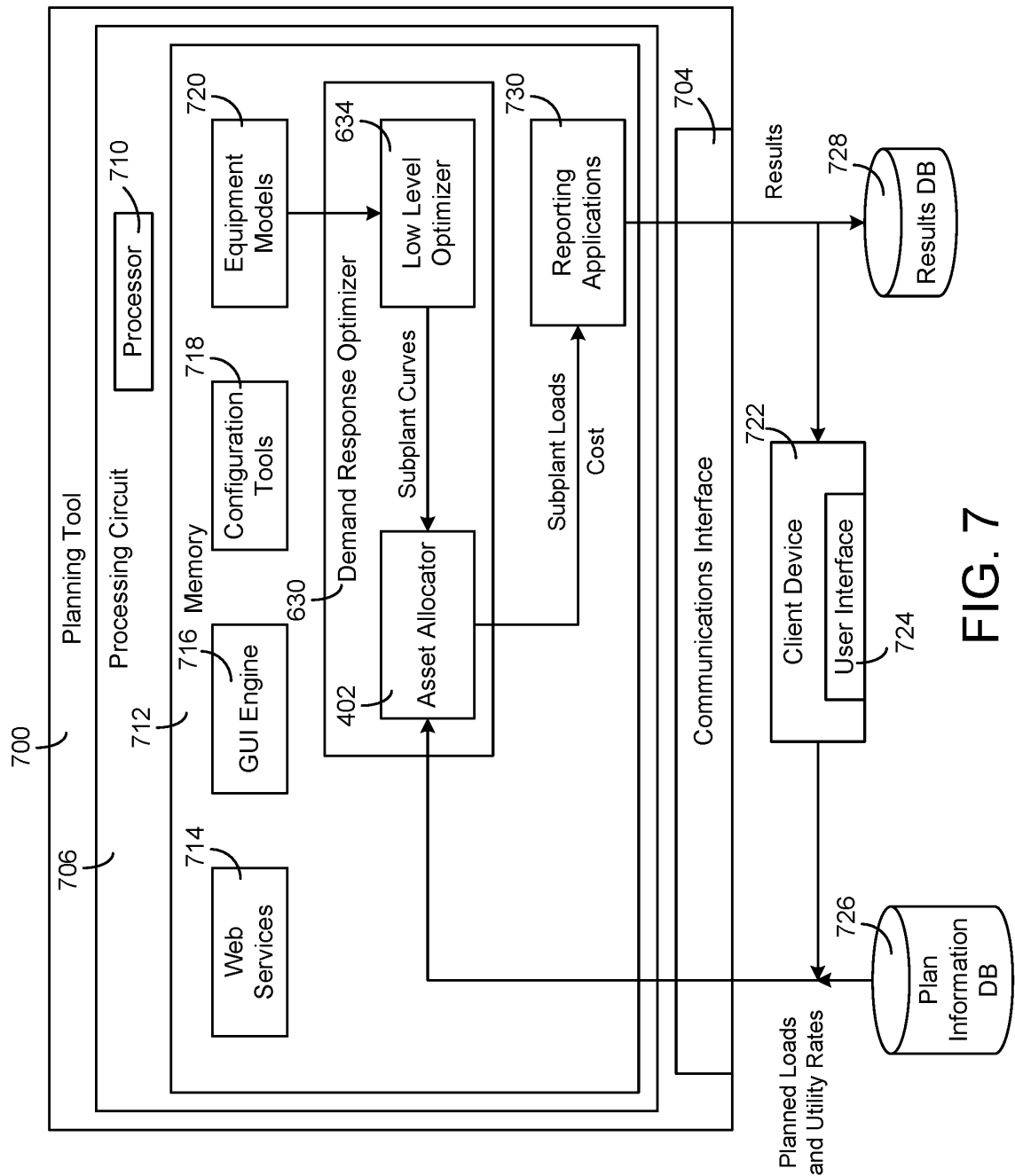
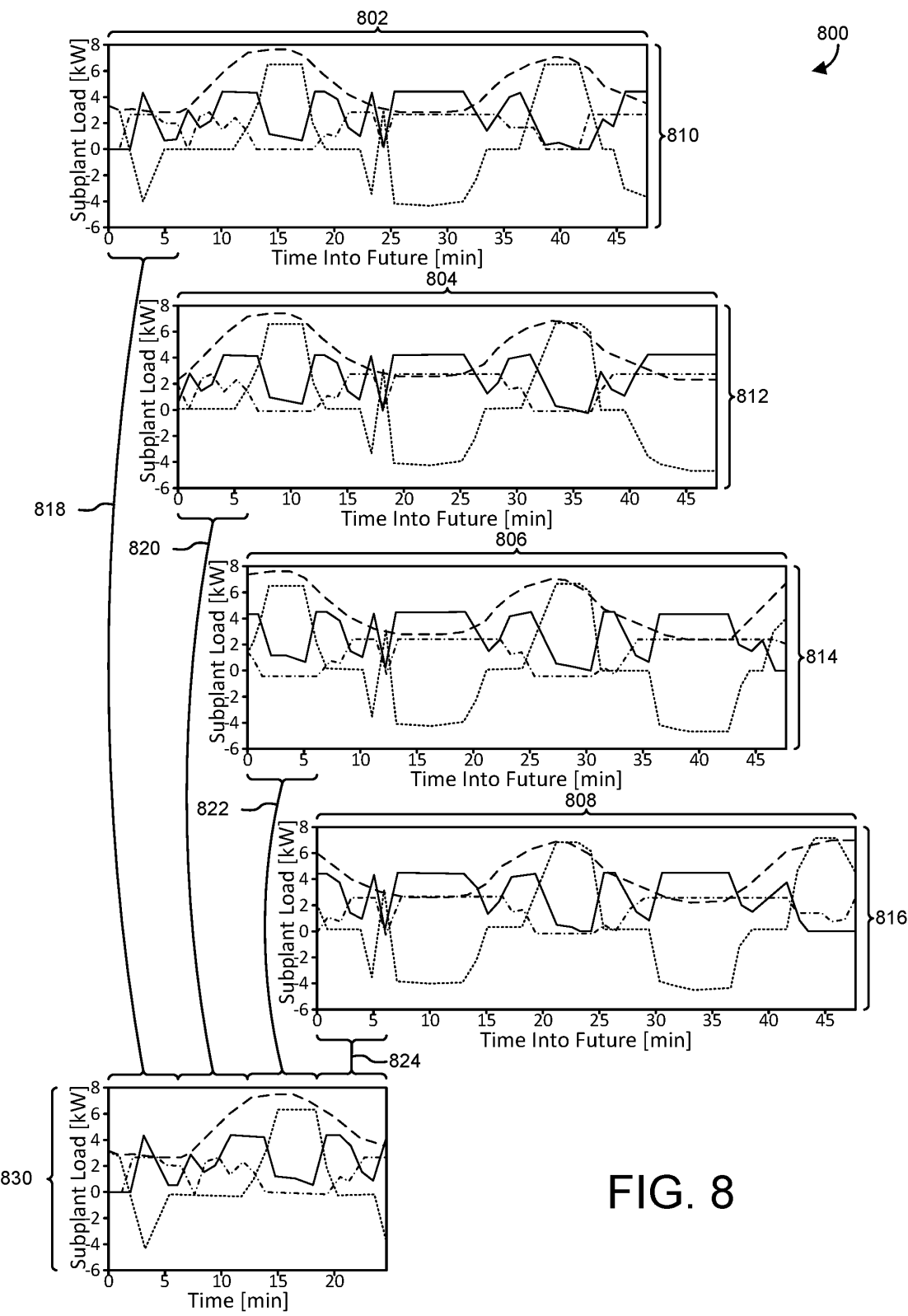


FIG. 7

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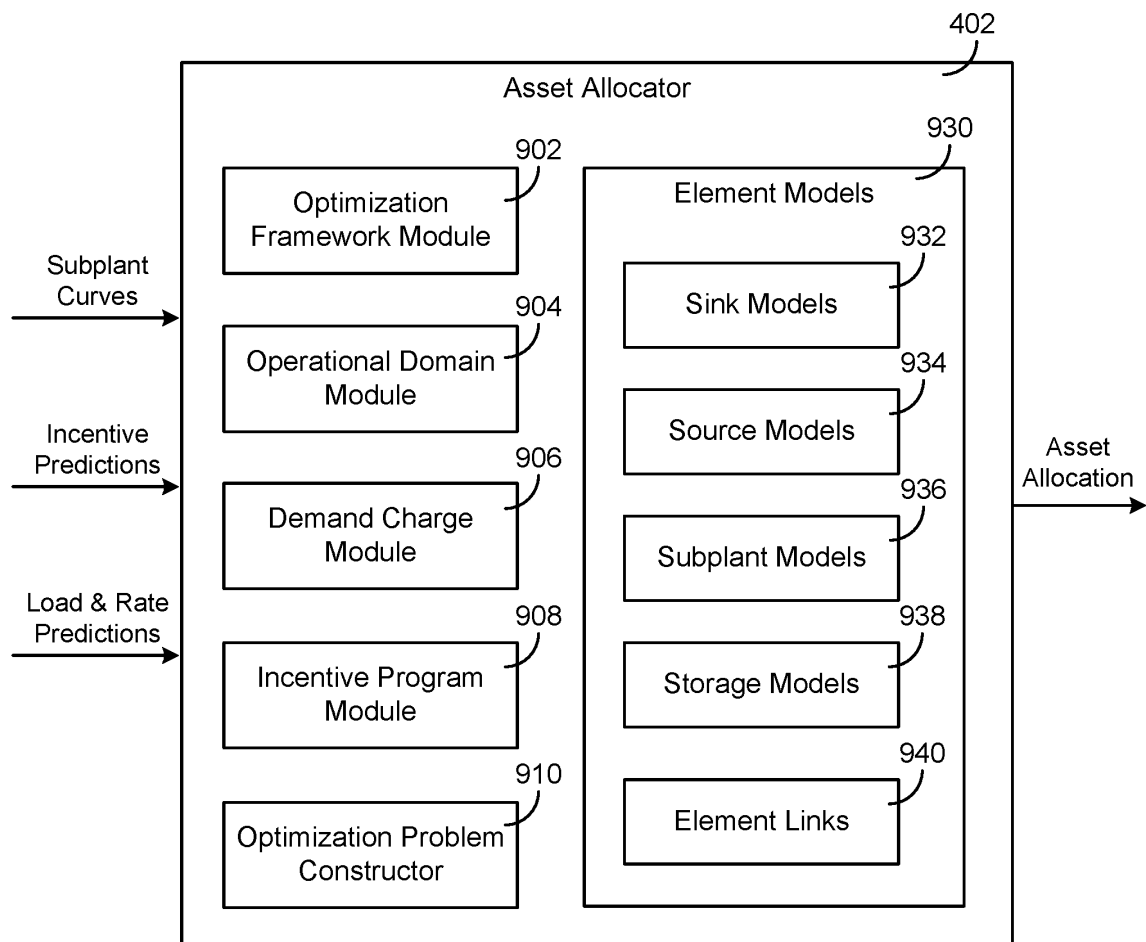


FIG. 9

724

Search...

Projects

Project A

Project B

Project C

Project D

Project E

Model Editor

Plant Design A

Plant Design B

Plant Design C

Plant Design D

Data Editor

Scenario Editor

Simulation Editor

1010

Project E

MODEL LIST

Create Model

Model Name

Plant Design A

Plant Design B

Plant Design C

Plant Design D

Create Model

Model Name *
Plant Design E

Tag
Chillers

Description
Enter description

Cancel Save

1002

USER 1 1020

Search

Status

Action

Incomplete

Incomplete

Complete

Complete

10

First

Prev

1

Next

Last

FIG. 10

724 ↗

Q Search...		USER 1 1020				
≡		Project E / Model Editor				
Project A		MODEL LIST				
Project B		Create Model + Plant Design E 1004				
Project C		Model Name Date Created By Model By Description Status Action				
Project D		Plant Design A 23 Mar 2018 admin Chillers Incomplete				
Project E		Plant Design B 23 Mar 2018 admin Chillers Incomplete				
Model Editor		Plant Design C 23 Mar 2018 admin Chillers Complete				
Plant Design A		Plant Design D 06 Mar 2018 admin Complete				
Plant Design B		Plant Design E 06 Mar 2018 admin Complete				
Plant Design C						
Plant Design D						
Data Editor						
Scenario Editor						
Simulation Editor						
1010		10 First Prev 1 Next Last				

FIG. 11

724 →

Search...		USER1 1020	
Project E / Model Editor / Plant Design E			
1300		Symbols 1200	
		Supplier 1210	
		Electricity Supplier 1211	
		Water Supplier 1212	
		Plant 1220	
		Loads 1230	
		Storage 1240	
		Cancel Save	

FIG. 12

724 →

Search...

Project E / Model Editor / Plant Design E

Project A

Project B

Project C

Project D

Project E

Model Editor

Plant Design A

Plant Design B

Plant Design C

Plant Design D

Data Editor

Scenario Editor

Simulation Editor

1010

USER1 1020

1300

1311

1312

Electricity Supplier

Water Supplier

Electricity Supplier

Water Supplier

Plant 1220

Loads 1230

Storage 1240

Cancel Save

FIG. 13

724

Search...

Project E / Model Editor / Plant Design E

1300

1311

1312

1313

1402

1010

Simulation Editor

Scenario Editor

Data Editor

Plant Design D

Plant Design C

Plant Design B

Plant Design A

Model Editor

Project E

Project D

Project C

Project B

Project A

Projects

USER1 1020

1211

Electricity Supplier

1212

Water Supplier

Plant 1220

Loads 1230

Storage 1240

Cancel

Save

FIG. 14

724 →

Search...

Projects

Project A

Project B

Project C

Project D

Project E

Model Editor

Plant Design A

Plant Design B

Plant Design C

Plant Design D

Data Editor

Scenario Editor

Simulation Editor

1010

Project E

1502

USER1 1020

Property Panel

Electricity Supplier T

Demand Constraint (kW)

January* 10.4 February* 10.4

March* 10.4 April* 10.4

May* 10.4 June* 10.4

July* 10.4 August* 10.4

September* 10.4 October* 10.4

November* 10.4 December* 10.4

Cancel Save

1300

1311

1312

1313

Electricity Supplier 2

Symbols 1200

Supplier 1210

Electricity Supplier 1211

Water Supplier 1212

Plant 1220

Loads 1230

Storage 1240

Cancel Save

FIG. 15

724 →

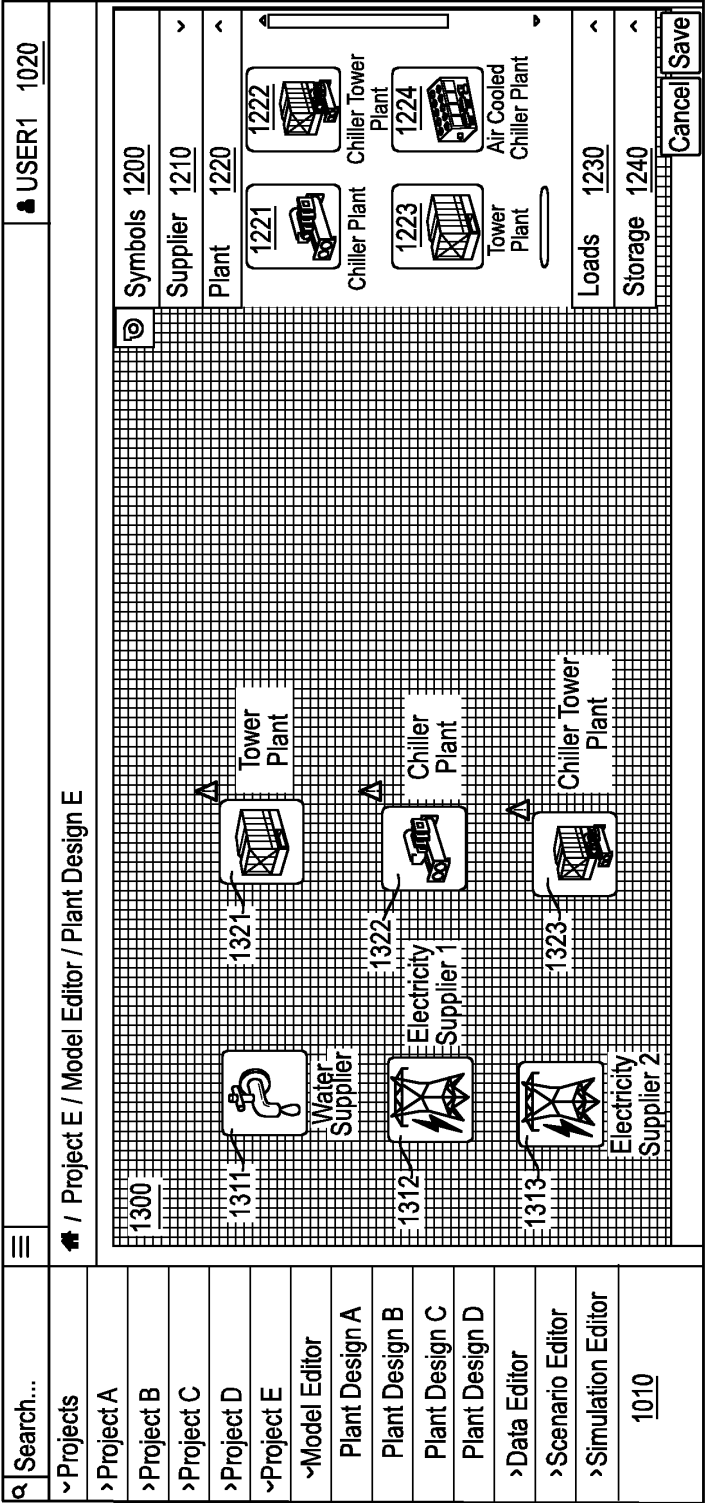
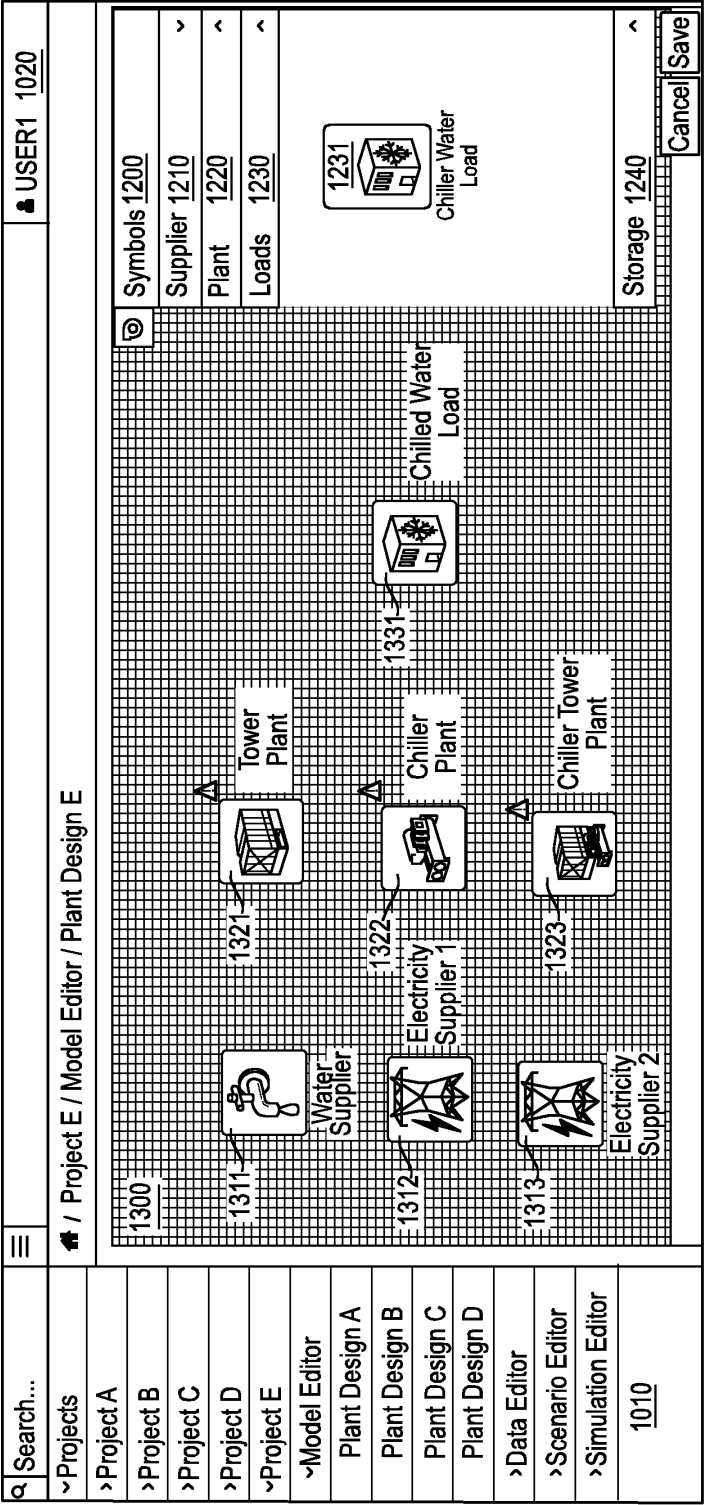


FIG. 16

724 →



724 ↗

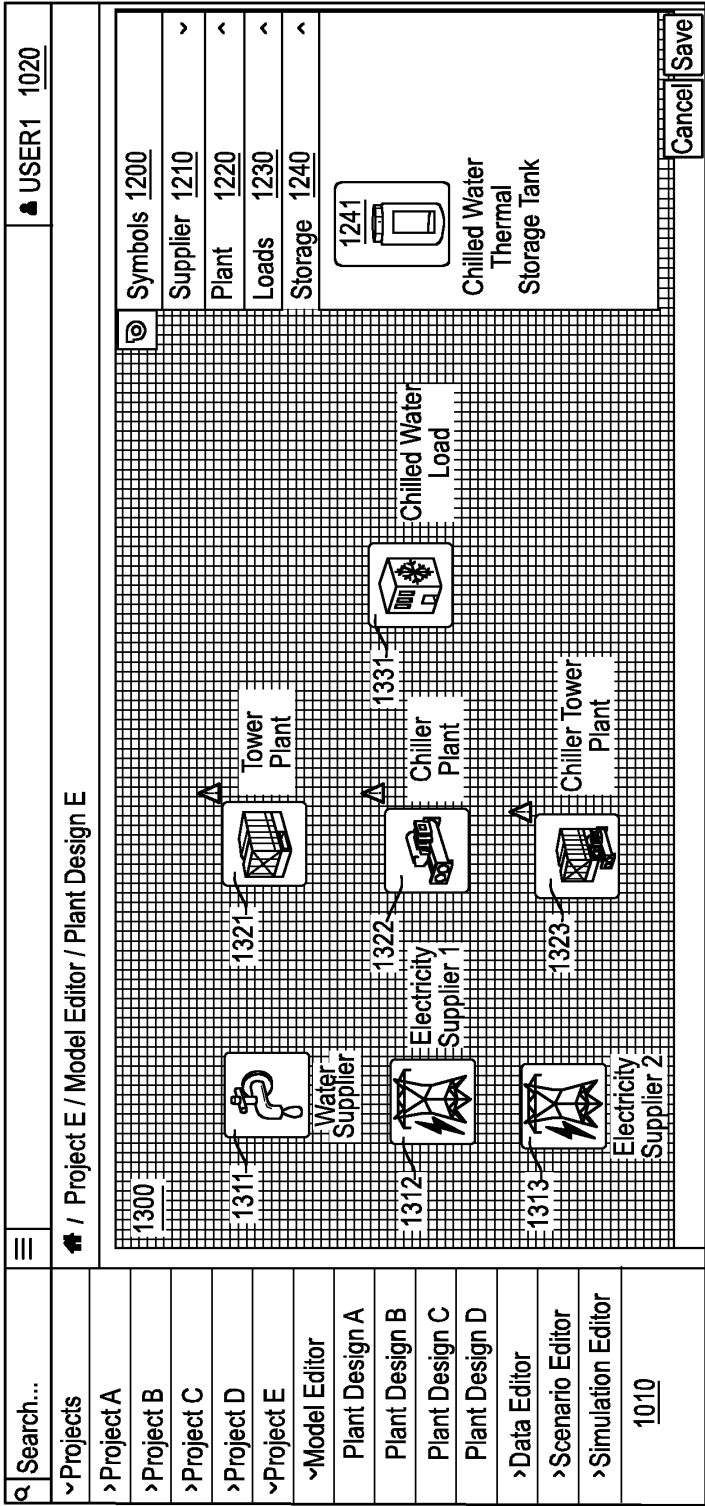


FIG. 18

724

Search...

Projects

Project A

Project B

Project C

Project D

Project E

Model Editor

Plant Design A

Plant Design B

Plant Design C

Plant Design D

Data Editor

Scenario Editor

Simulation Editor

1010

Project E / Model Editor / Plant Design E

USER11020

1300

1311

1911

1912

1321

1312

1322

1313

1323

1331

1331

1241

1240

Water Supplier

Electricity Supplier 1

Electricity Supplier 2

Tower Plant

Chiller Plant

Chiller Tower Plant

Chilled Water Load

Chilled Water Load

Symbols1200

Supplier1210

Plant1220

Loads1230

Storage1240

CancelSave

FIG. 19

724 ↗

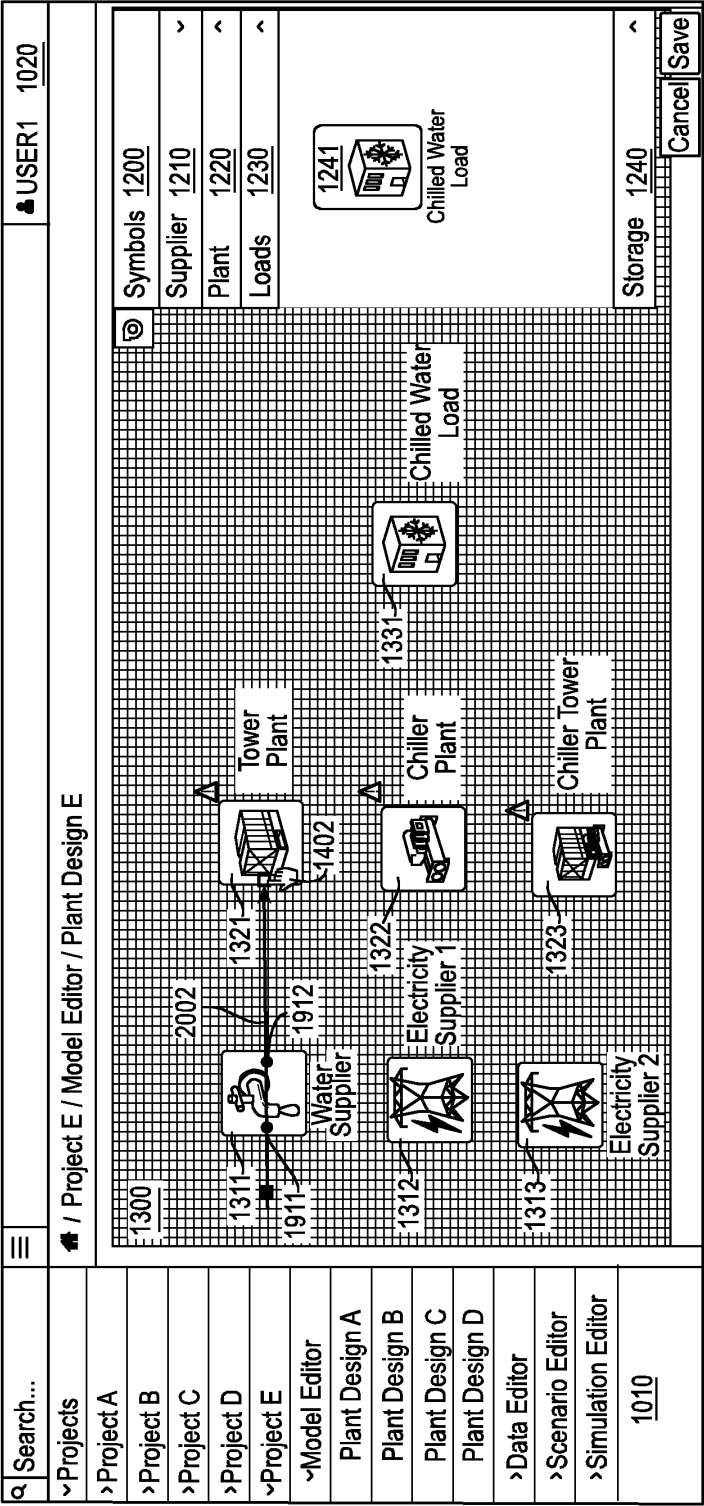


FIG. 20

724 ↗

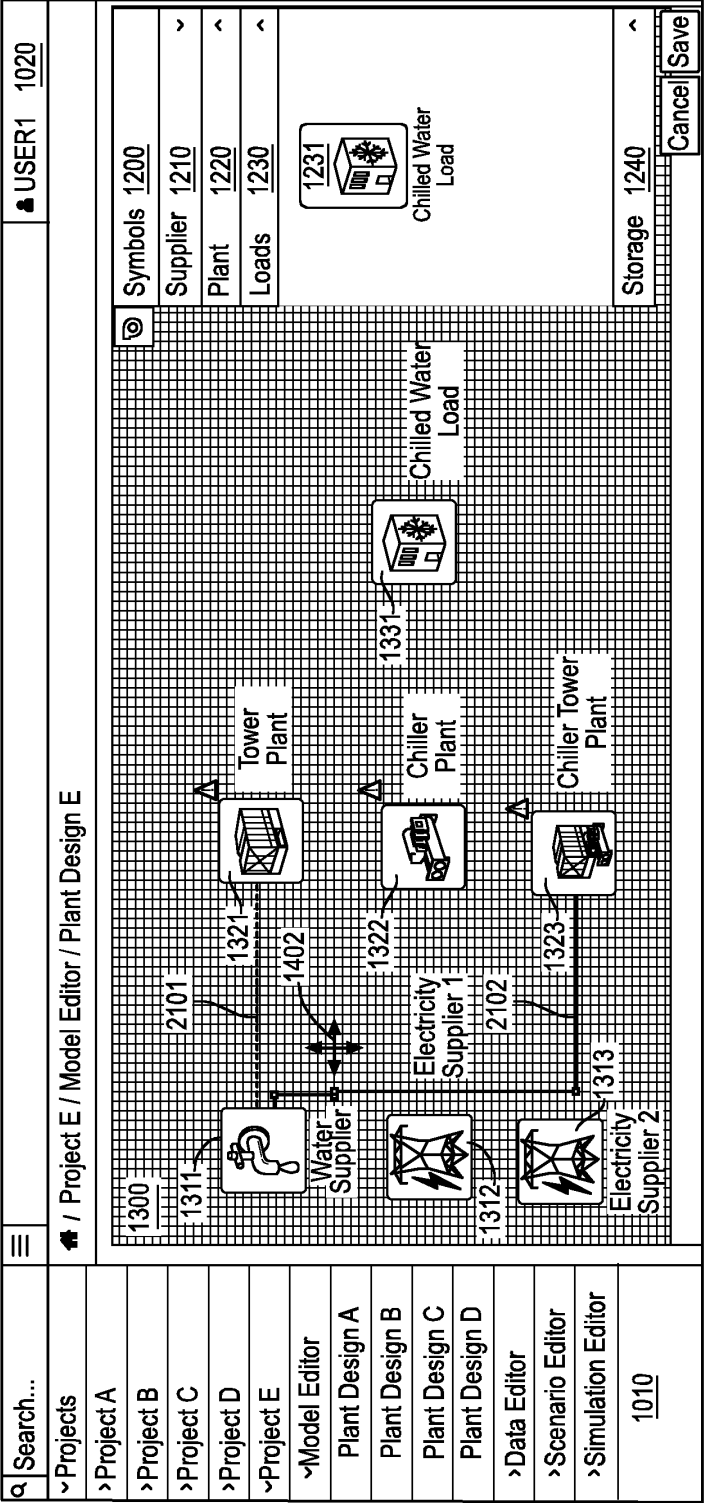


FIG. 21

724

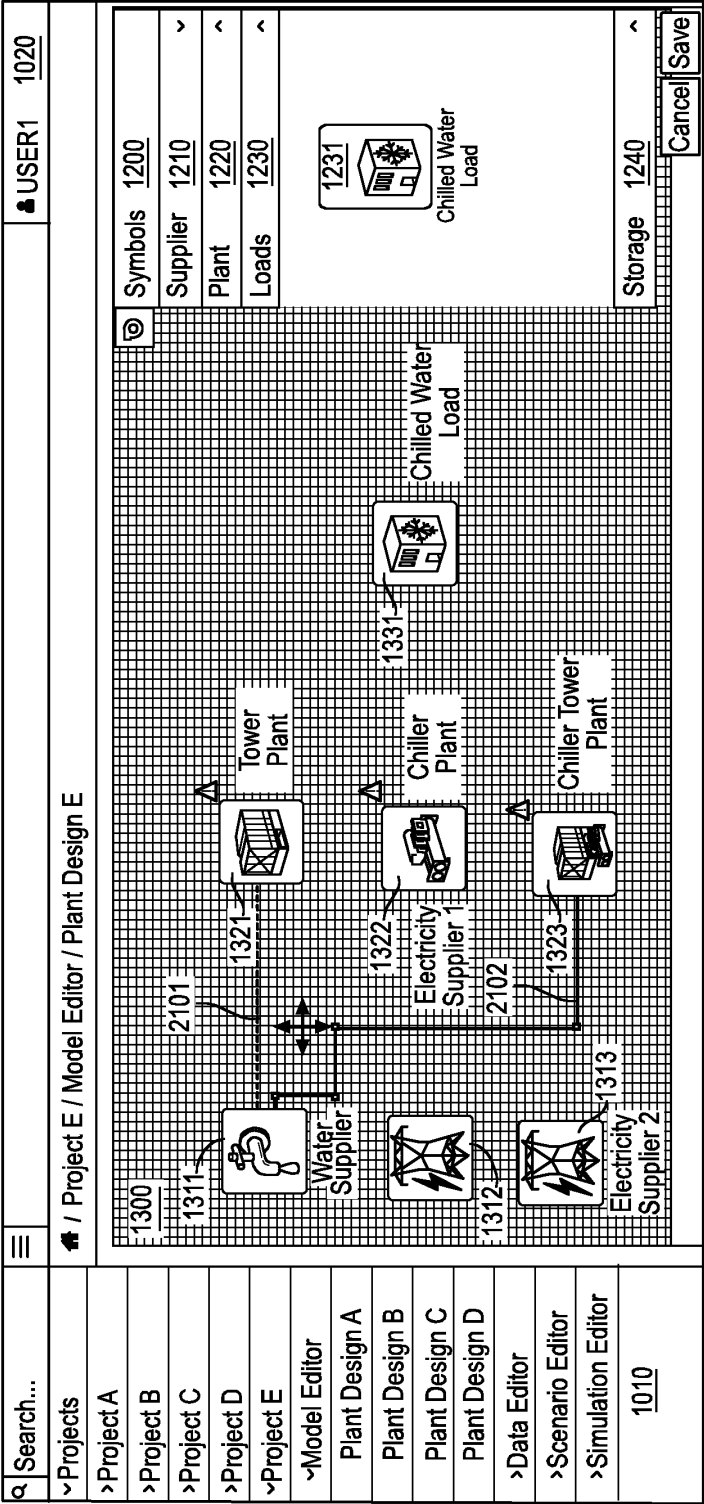


FIG. 22

724 →

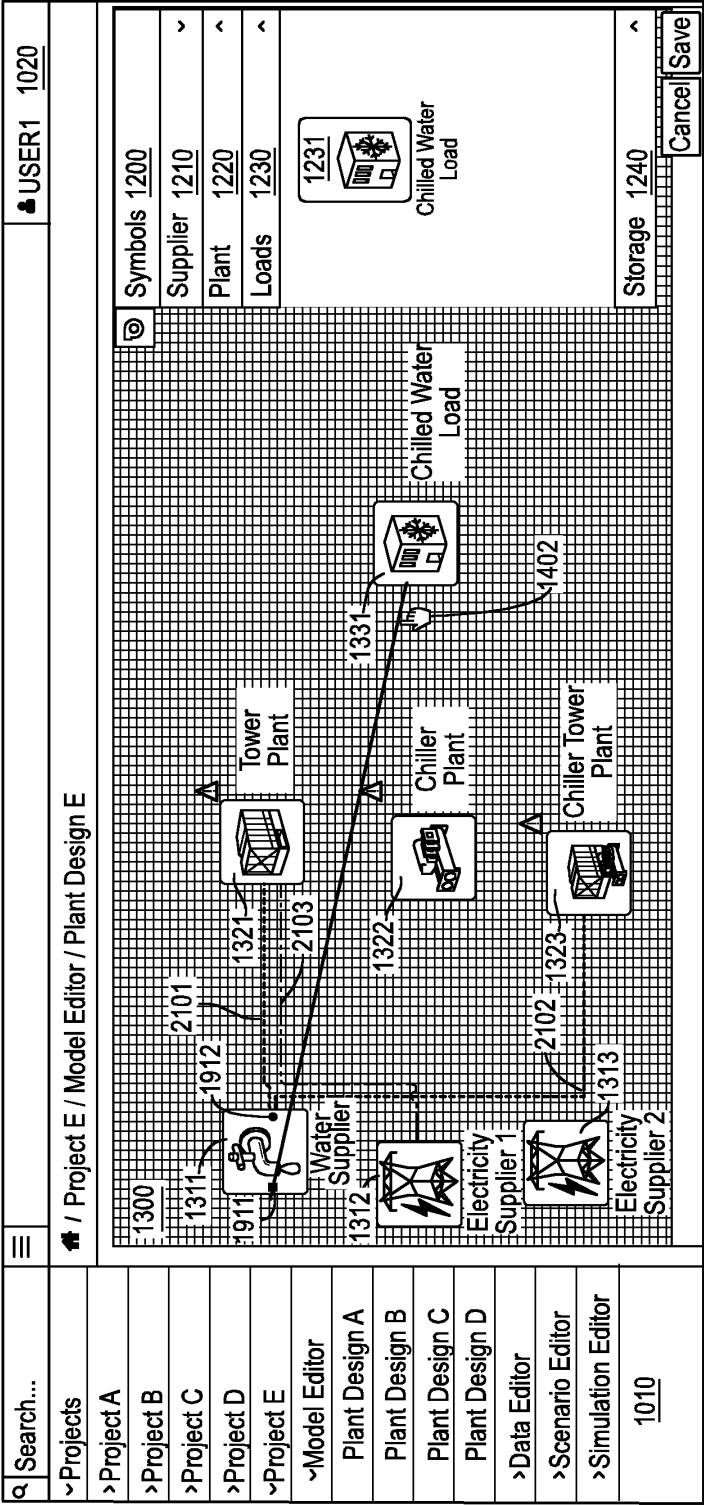


FIG. 23

724 ↗

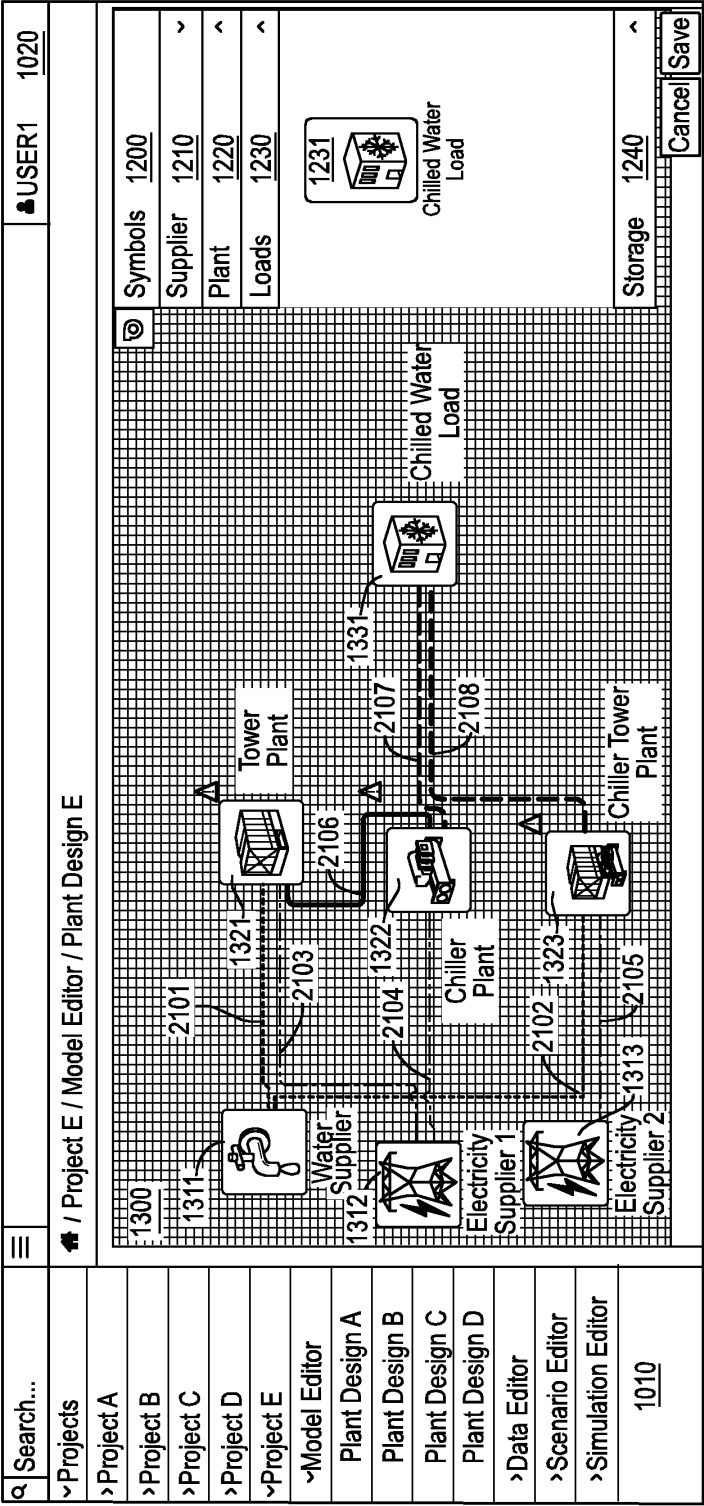


FIG. 24

724

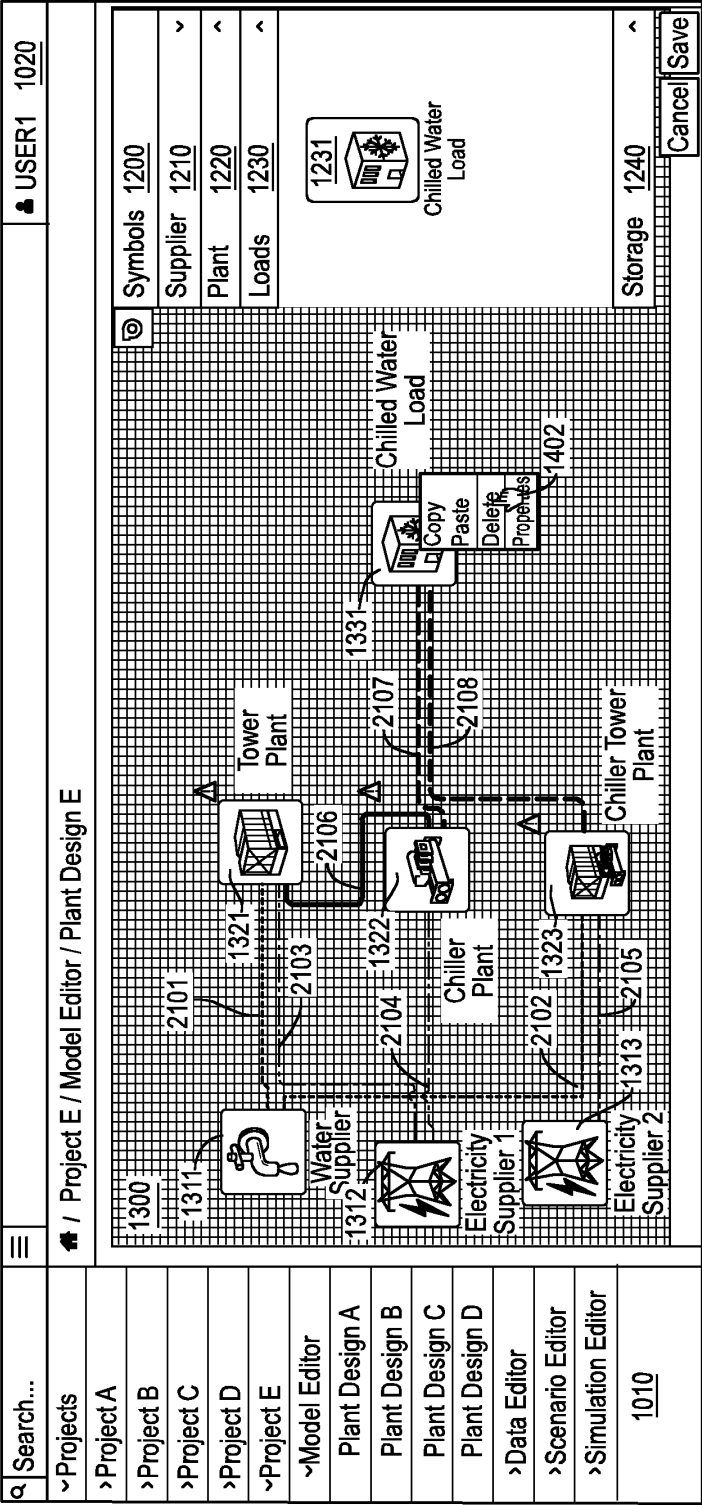


FIG. 25

724

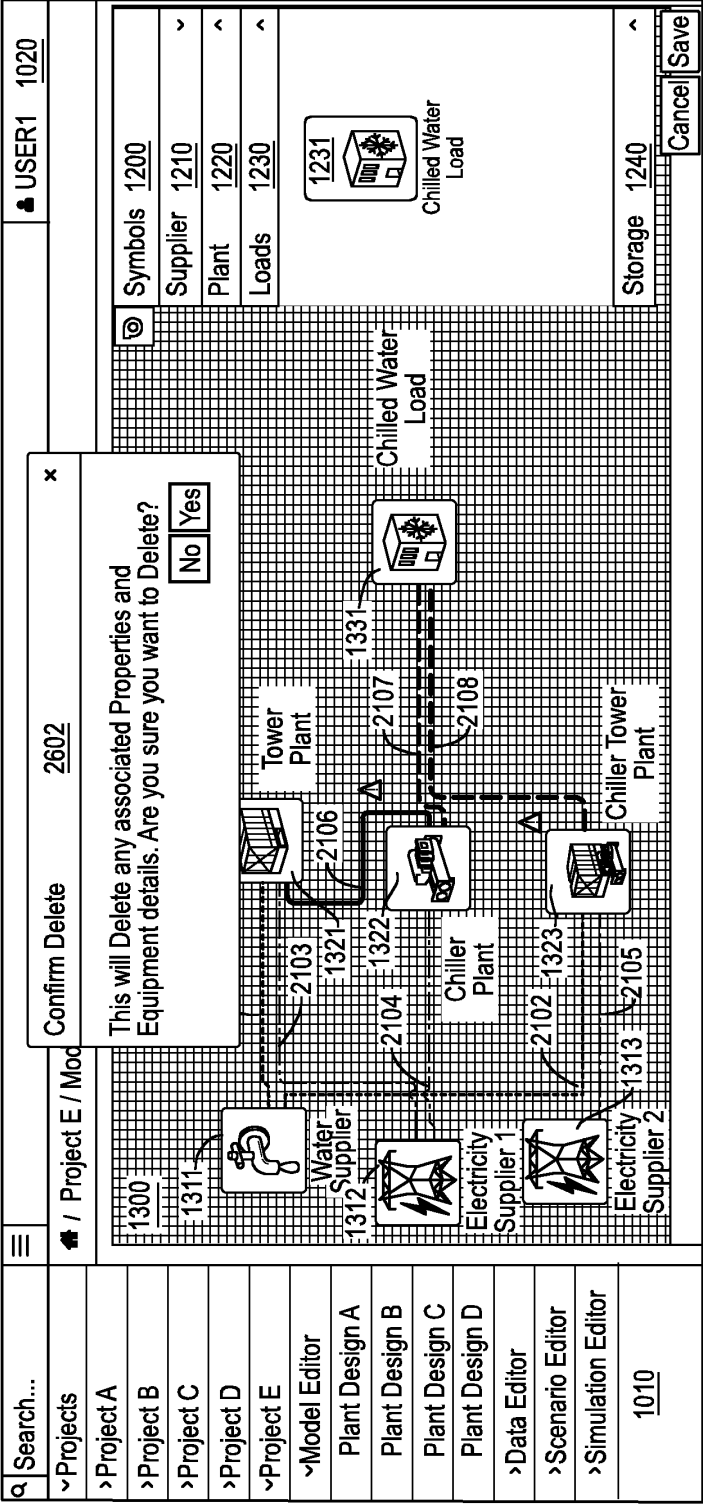


FIG. 26

724

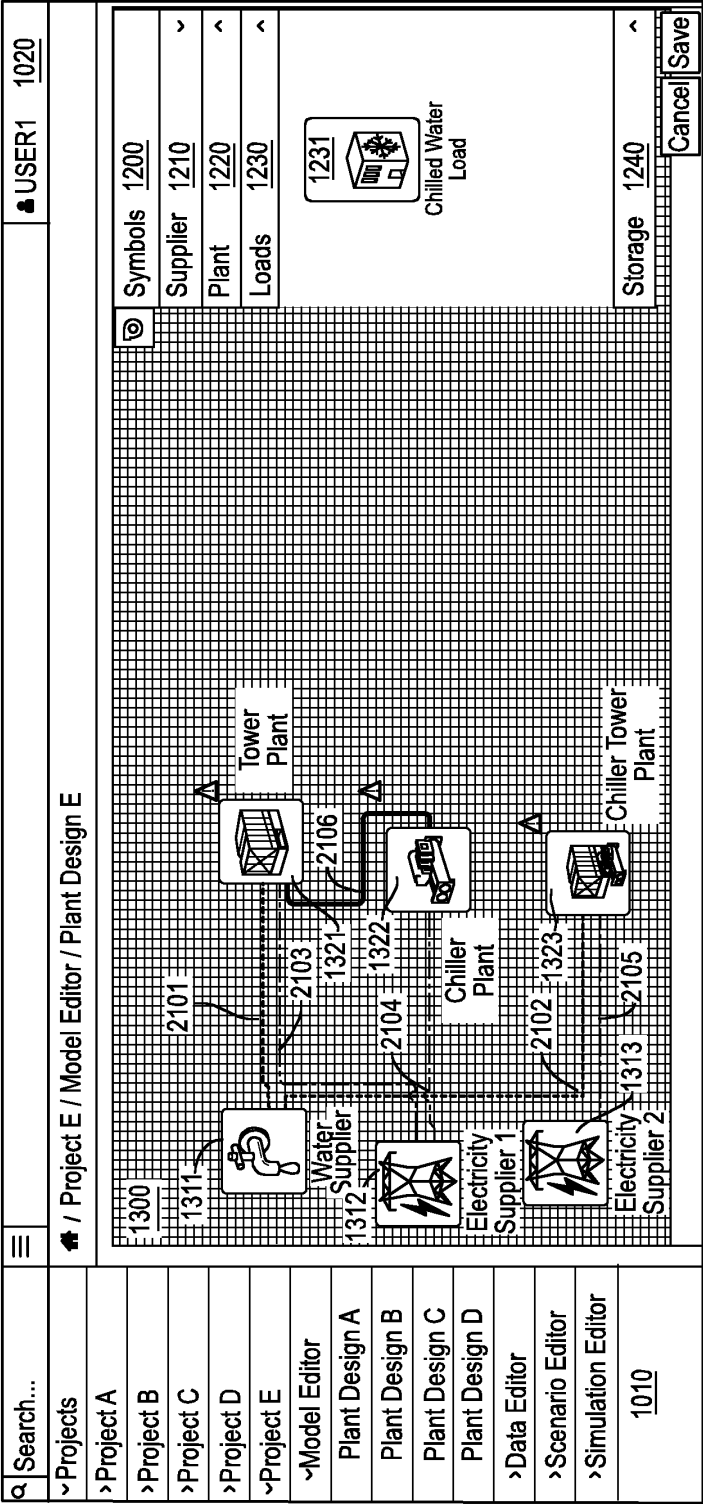
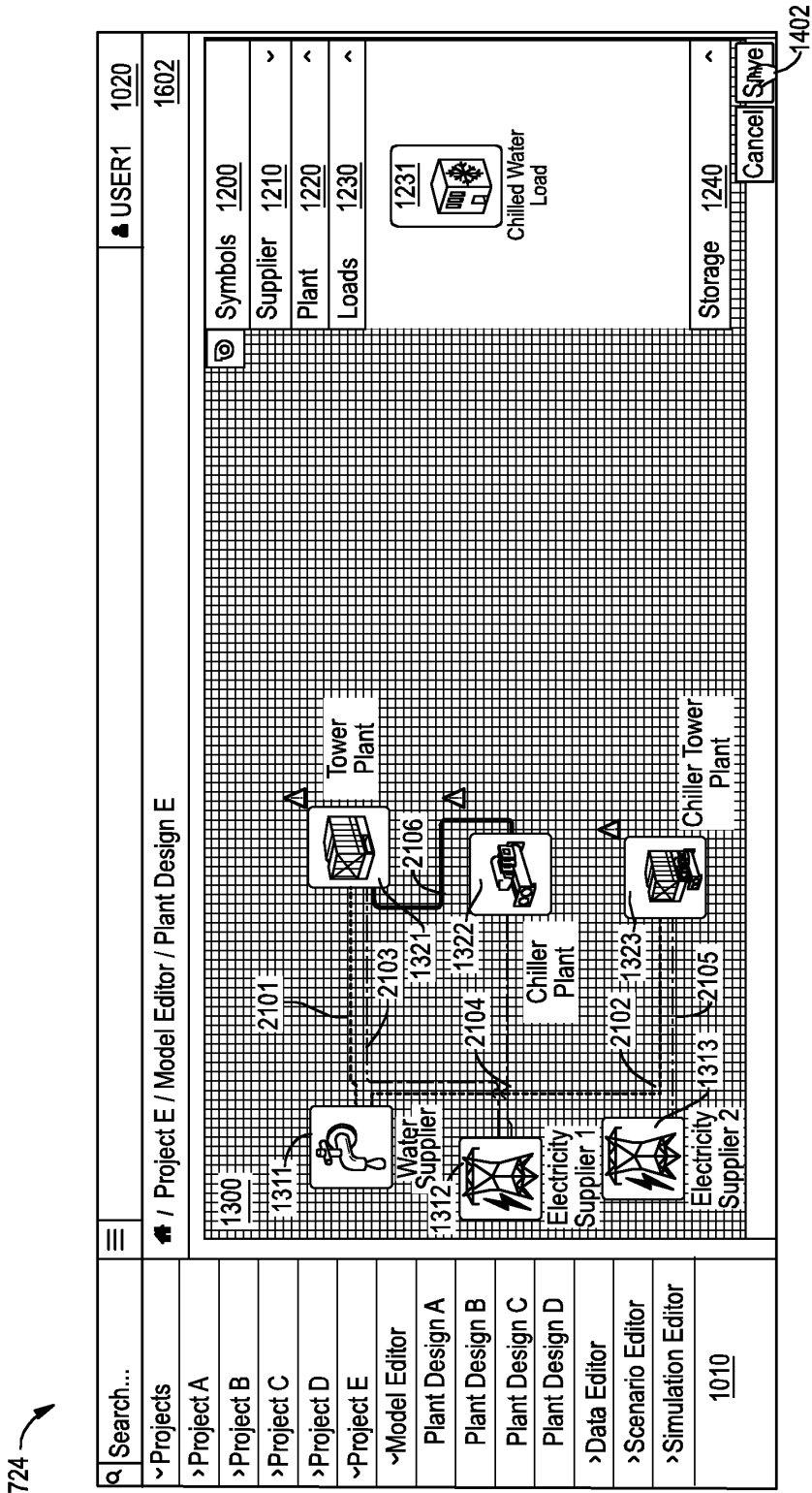


FIG. 27



724 →

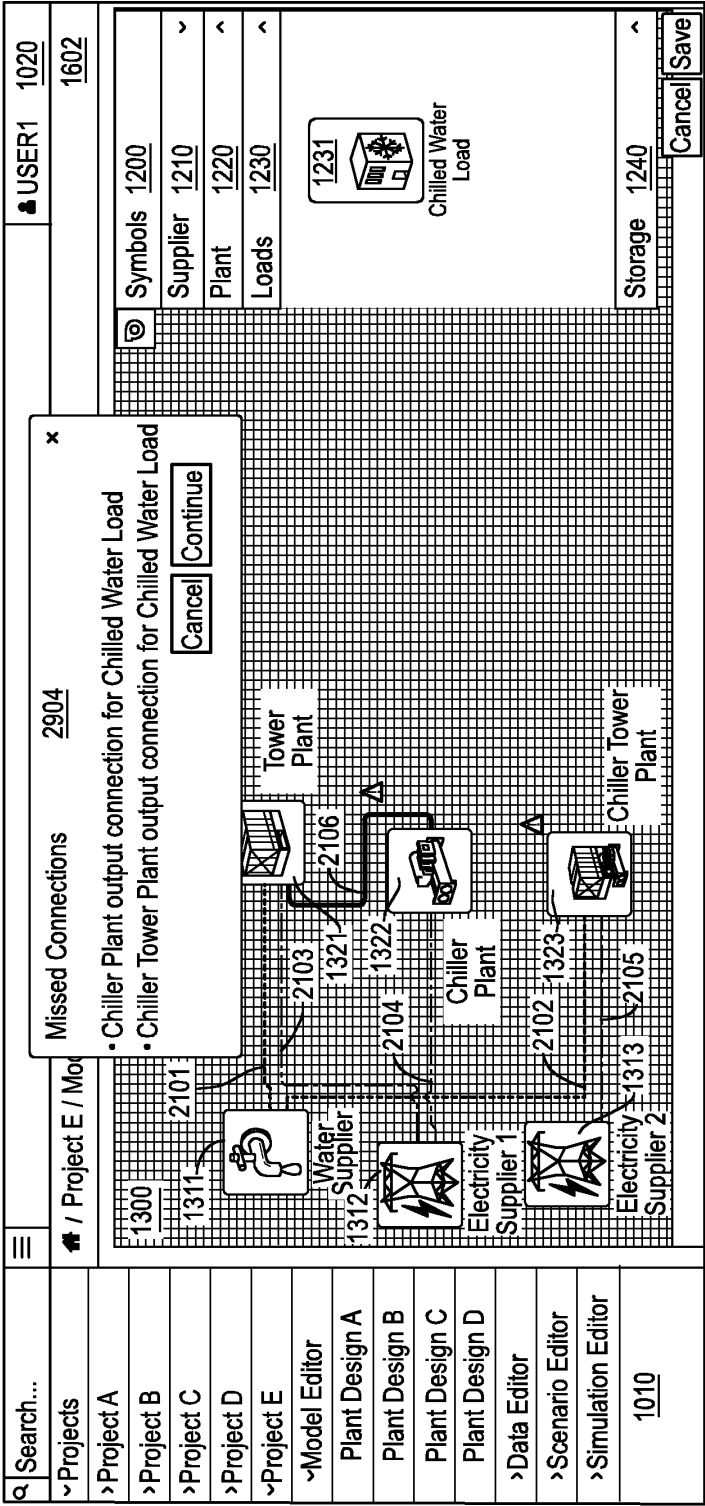


FIG. 29

724

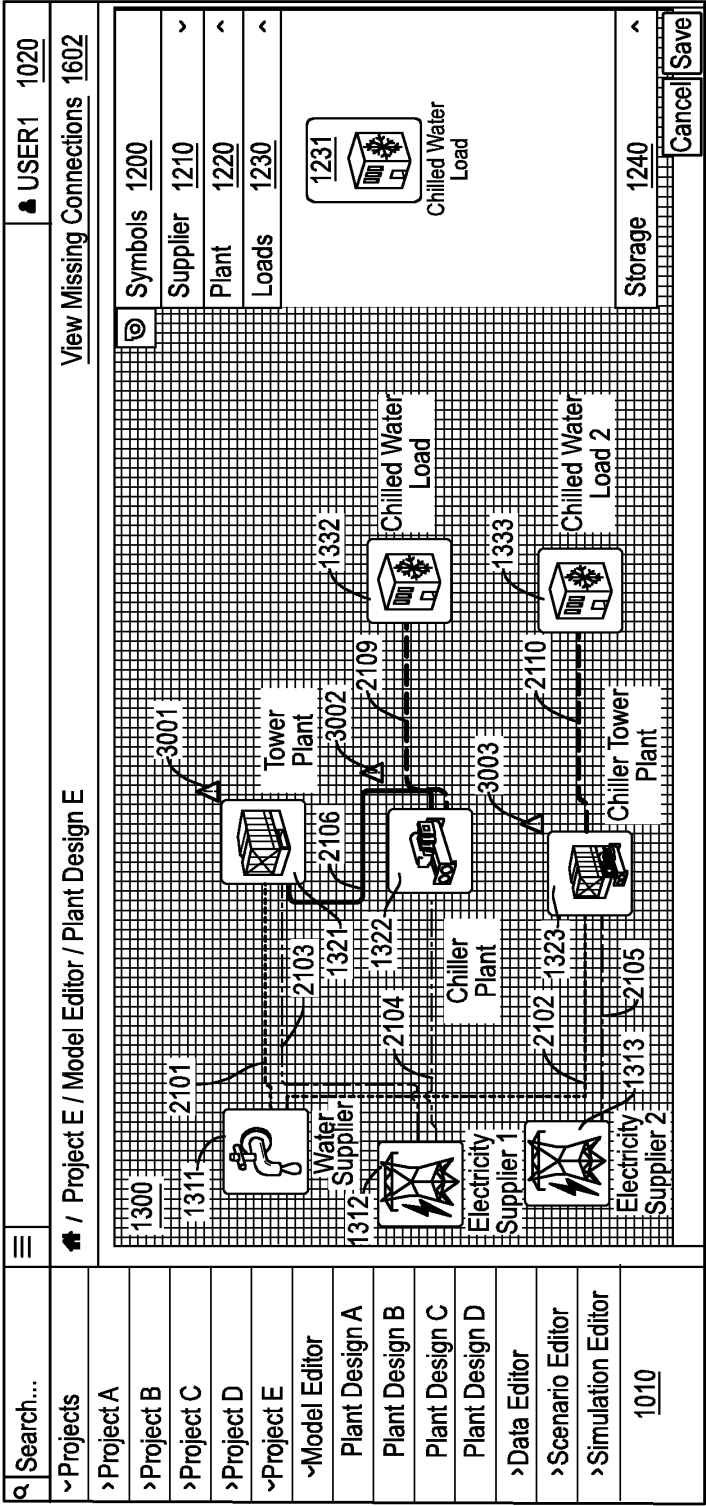


FIG. 30

724 ↗

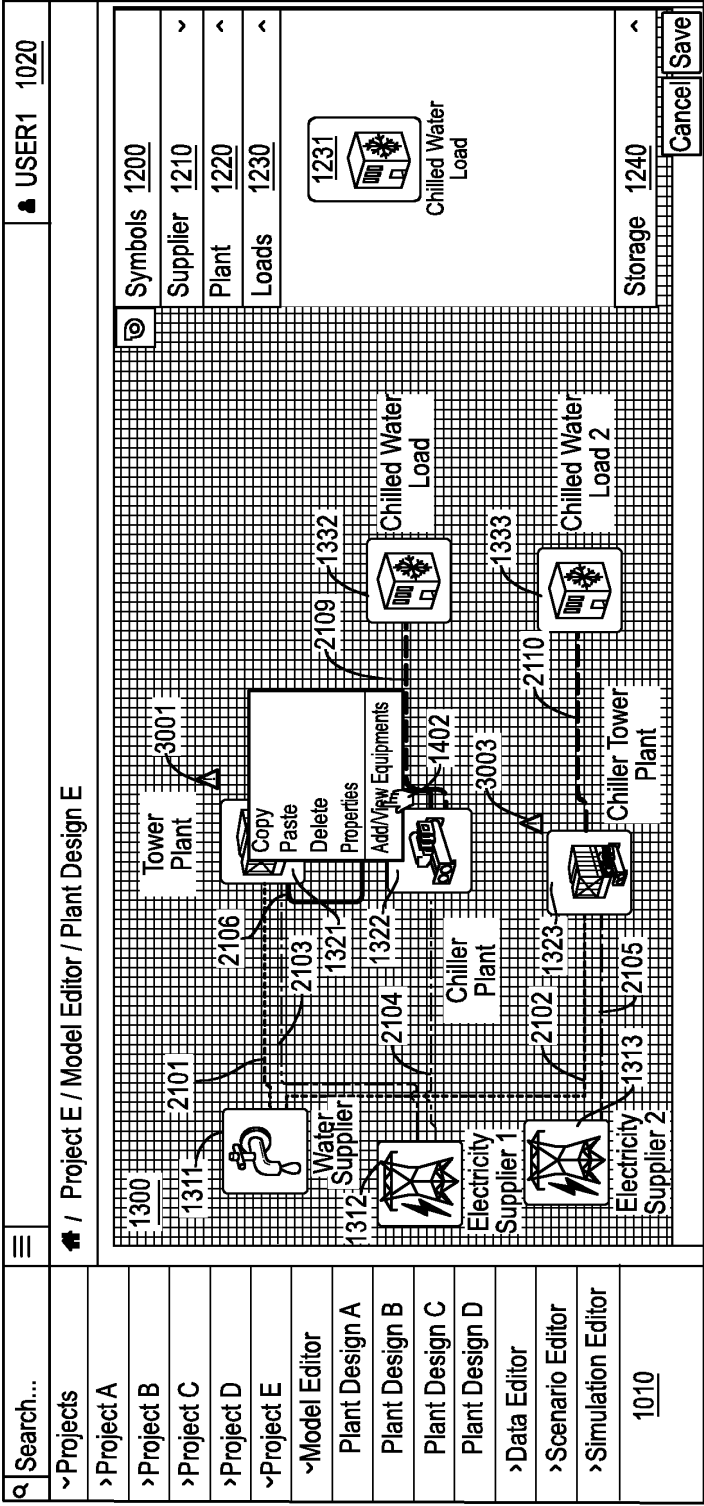


FIG. 31

724 ↗

q Search...		USER1 1020	
☰			
🏠 / Project E / Model Editor / Plant Design E			
~Projects	☉ 3200 3261 1261 Cooling Tower		
>Project A			
>Project B			
>Project C			
>Project D			
>Project E			
~Model Editor			
Plant Design A			
Plant Design B			
Plant Design C			
Plant Design D			
>Data Editor			
>Scenario Editor			
>Simulation Editor			
1010		Cancel Save	

FIG. 32

724

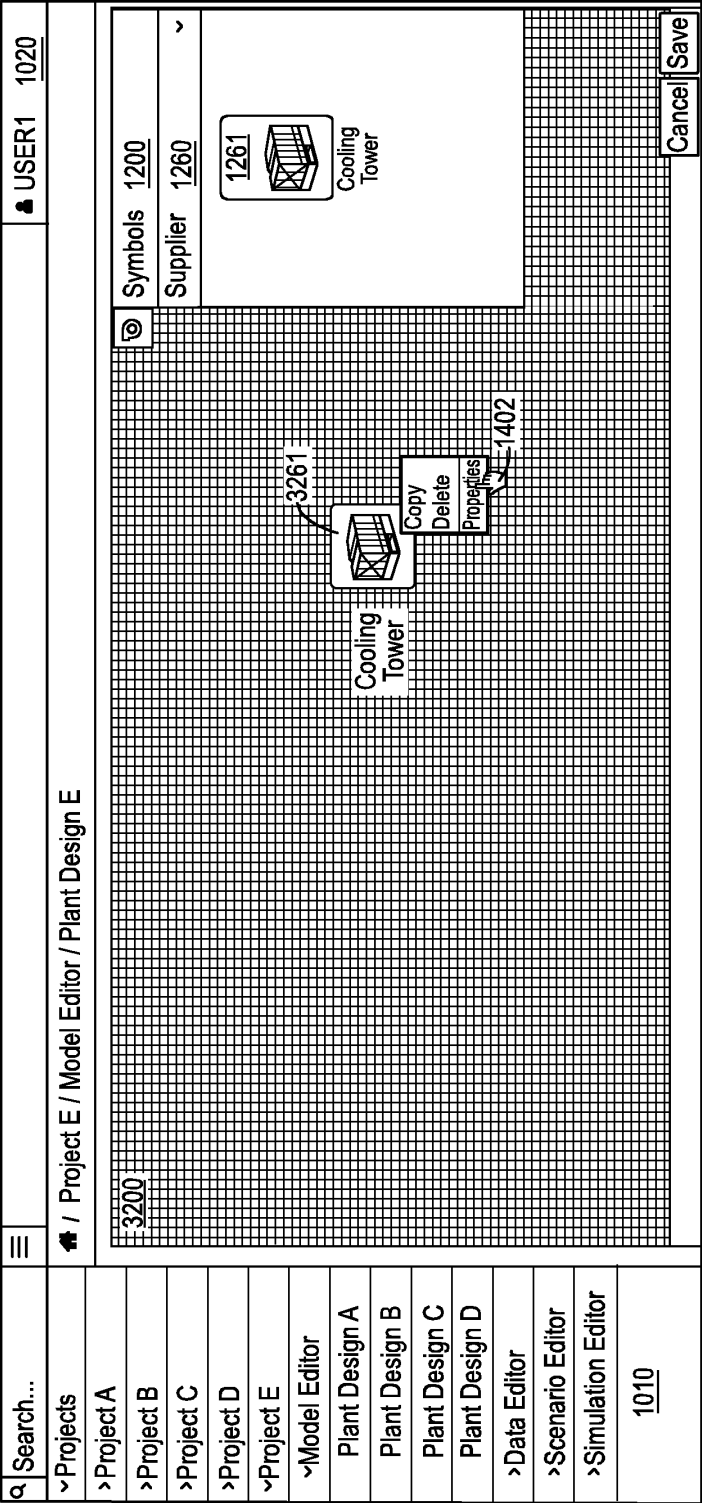


FIG. 33

724 ↗

Search...

Projects

Project A

Project B

Project C

Project D

Project E

Model Editor

Plant Design A

Plant Design B

Plant Design C

Plant Design D

Data Editor

Scenario Editor

Simulation Editor

1010

Project E / Model Editor

3200

Property Panel

3402

Name*

Cooling Tower

Capacity (ton)*

2

Minimum Turndown (ton)*

Cancel

Save

USER1

1020

1200

Symbols

1260

Supplier

1261

Cooling Tower

Cancel

Save

FIG. 34

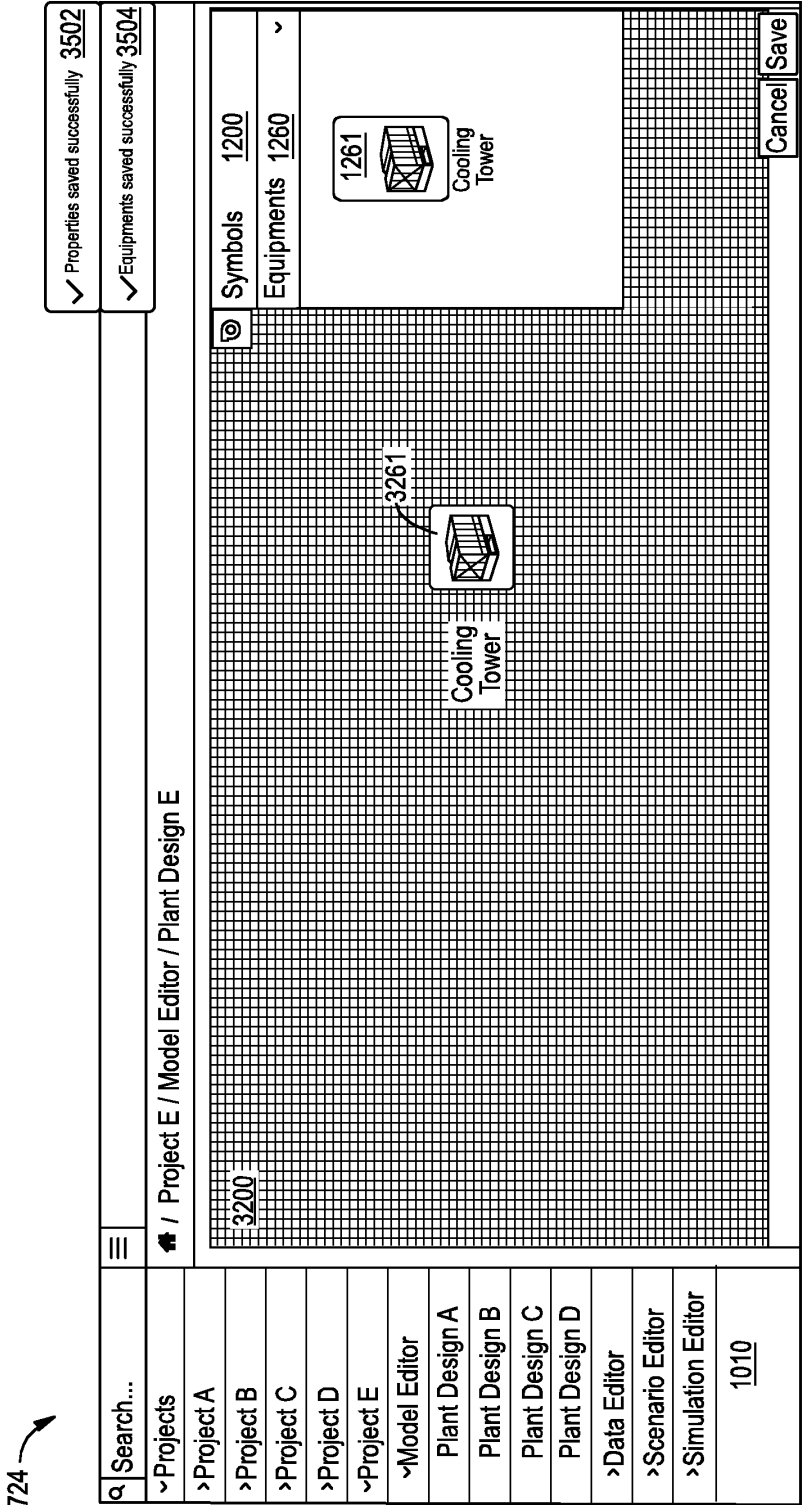


FIG. 35

724 →

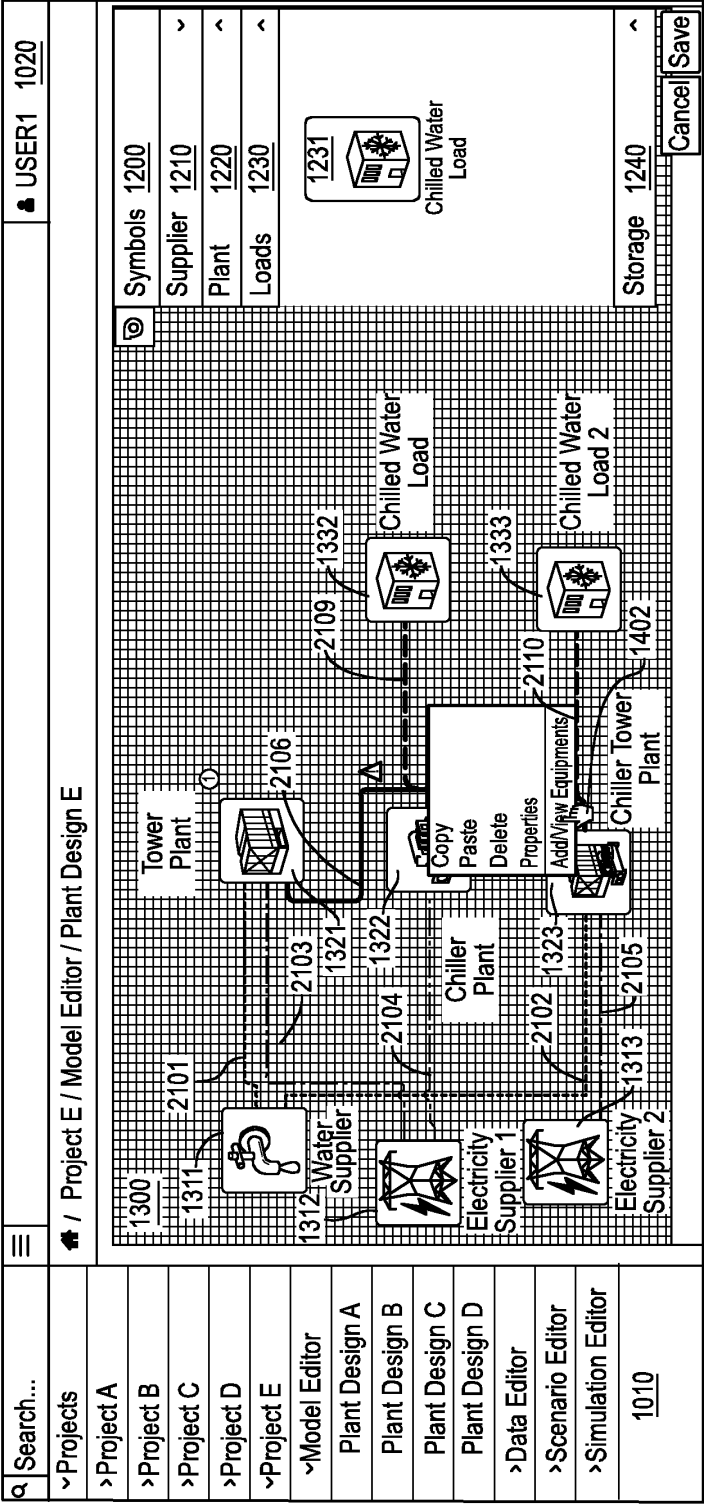


FIG. 36

724 ↗

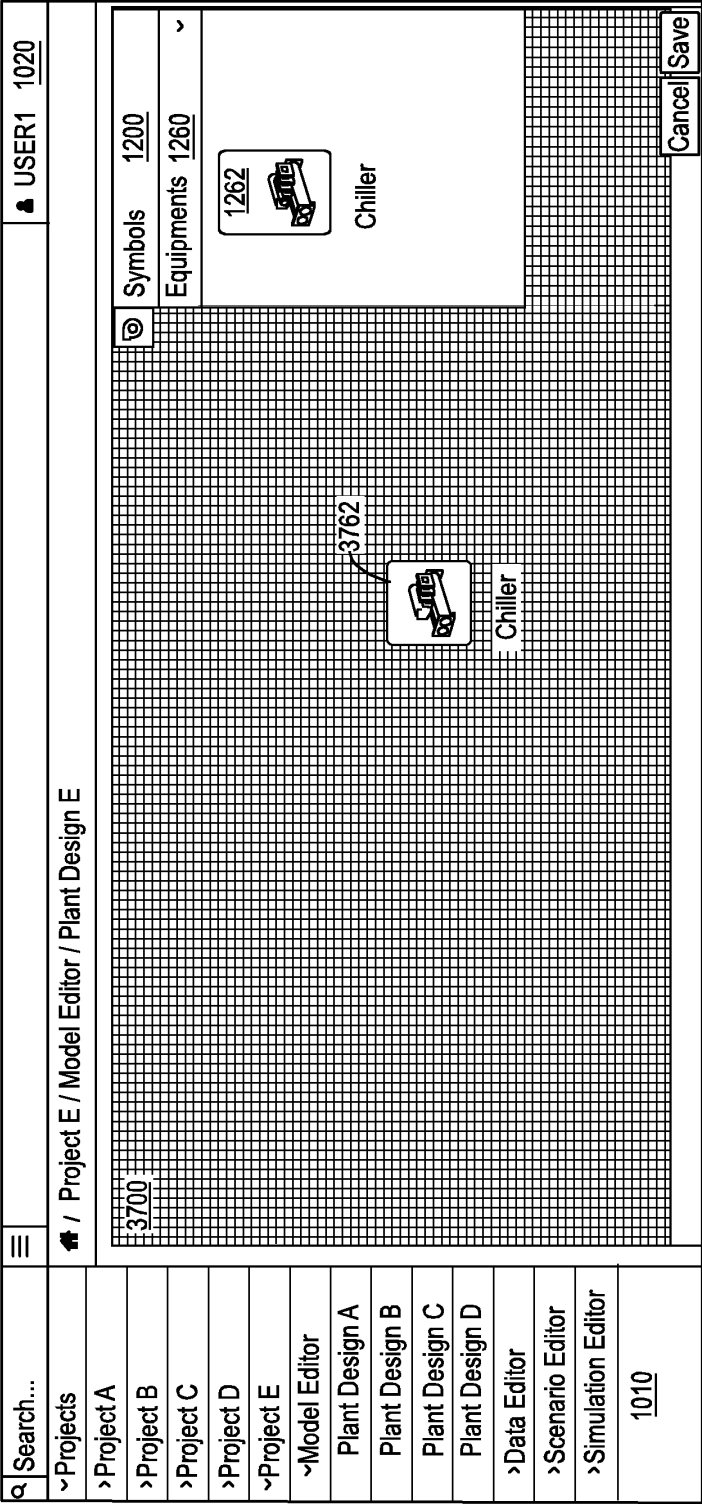


FIG. 37

724 ↗

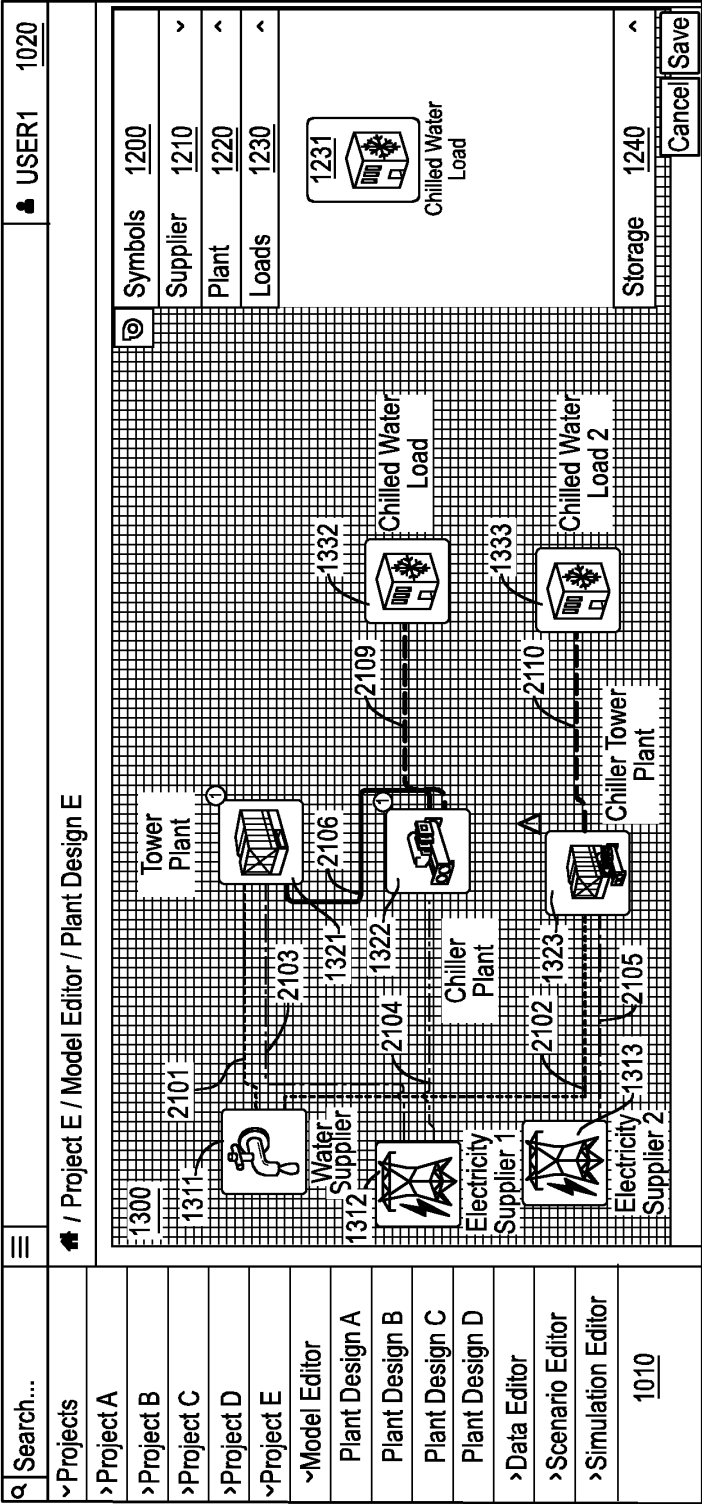
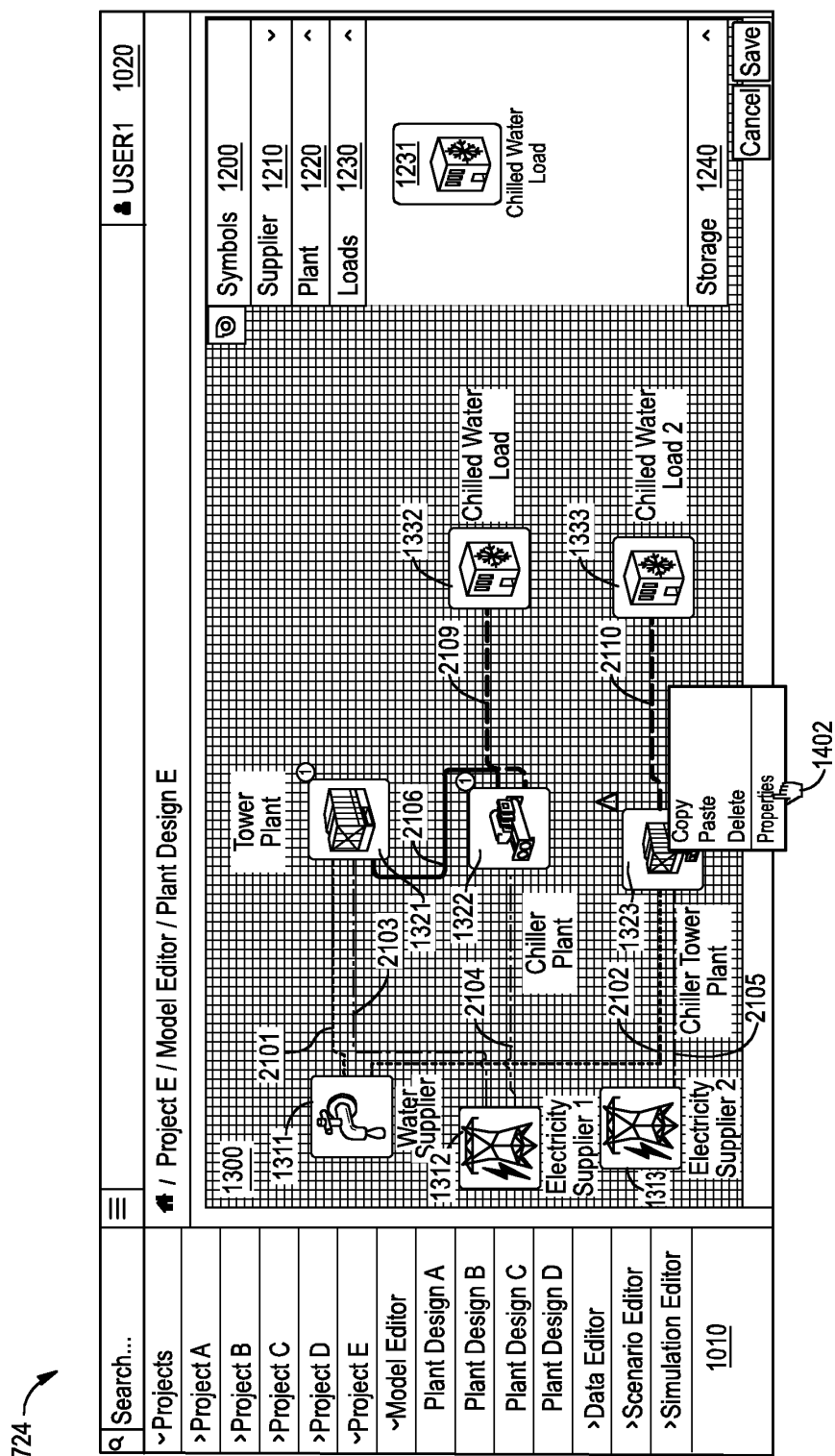


FIG. 38



724

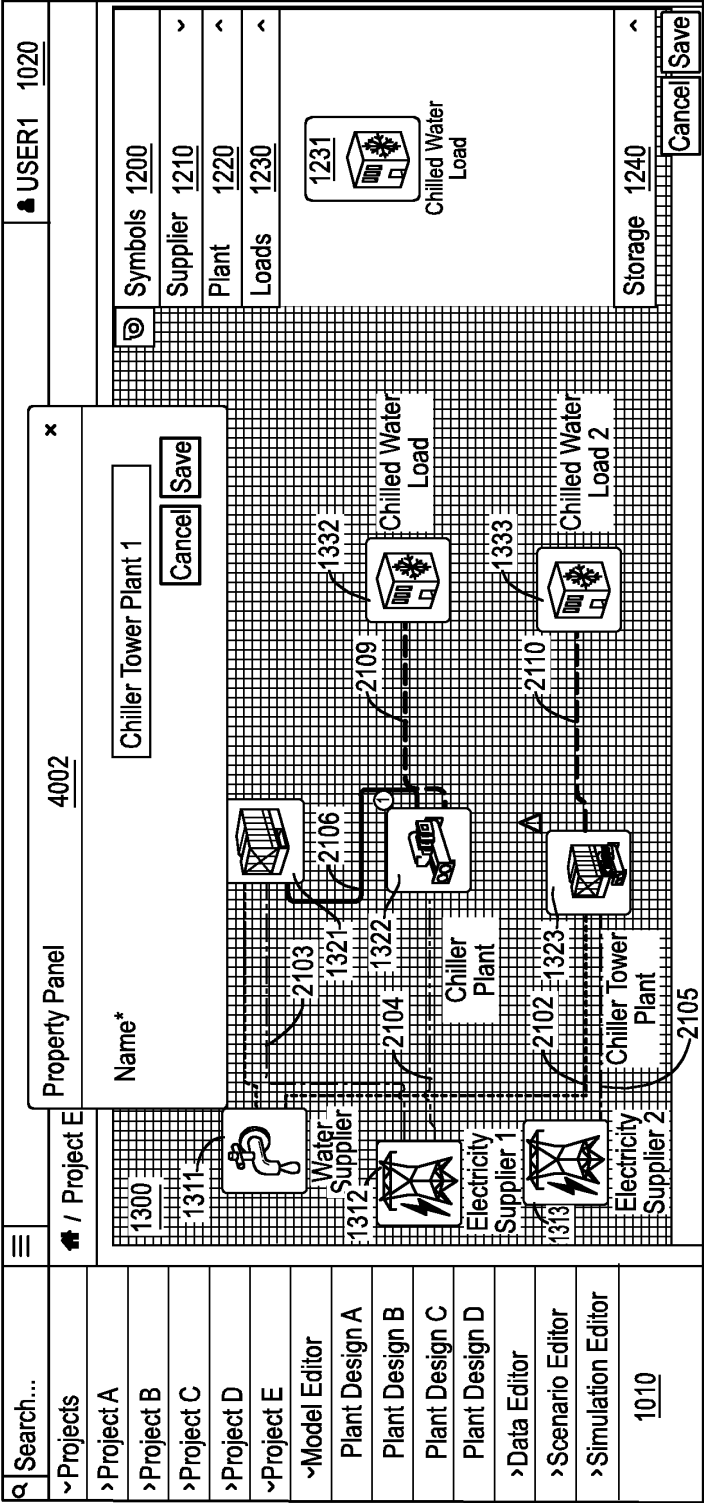


FIG. 40

724

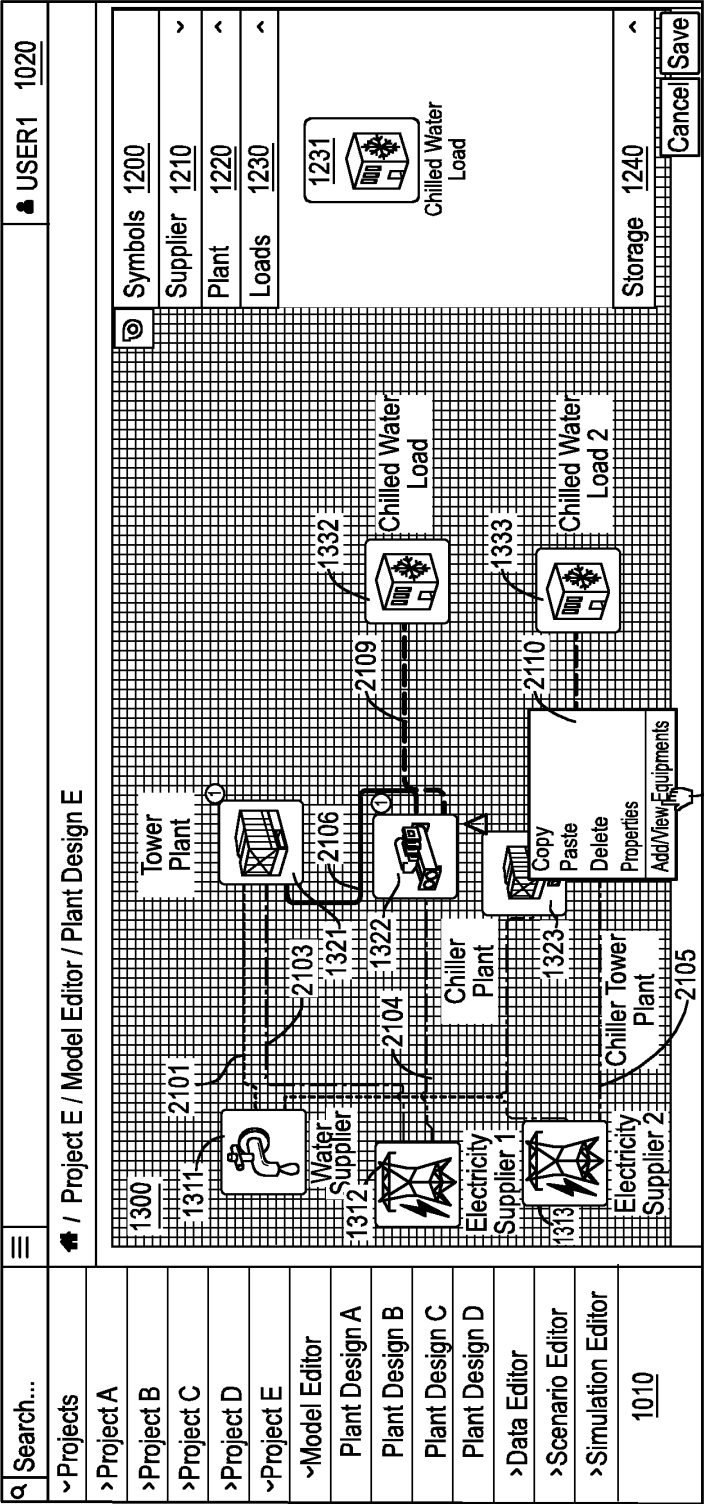


FIG. 41

724 →

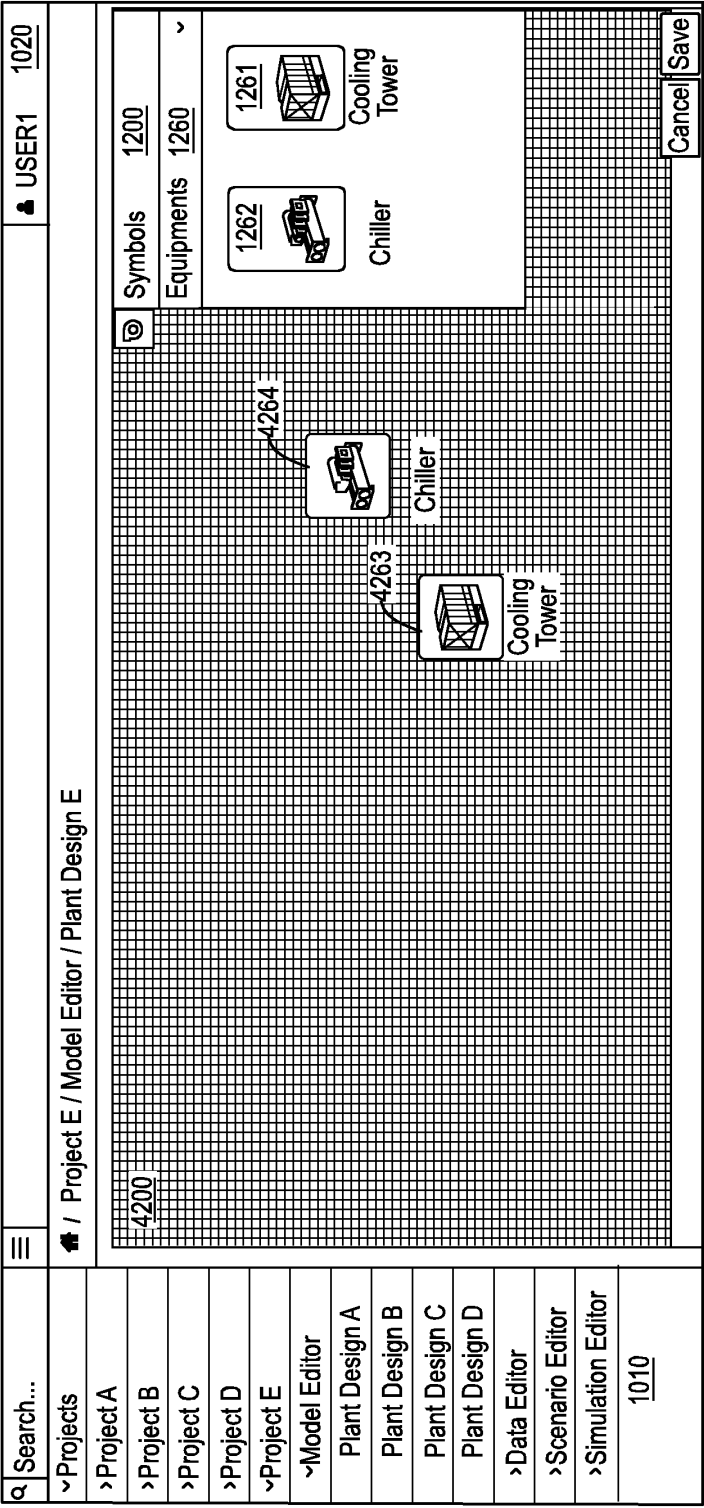


FIG. 42

724 ↗

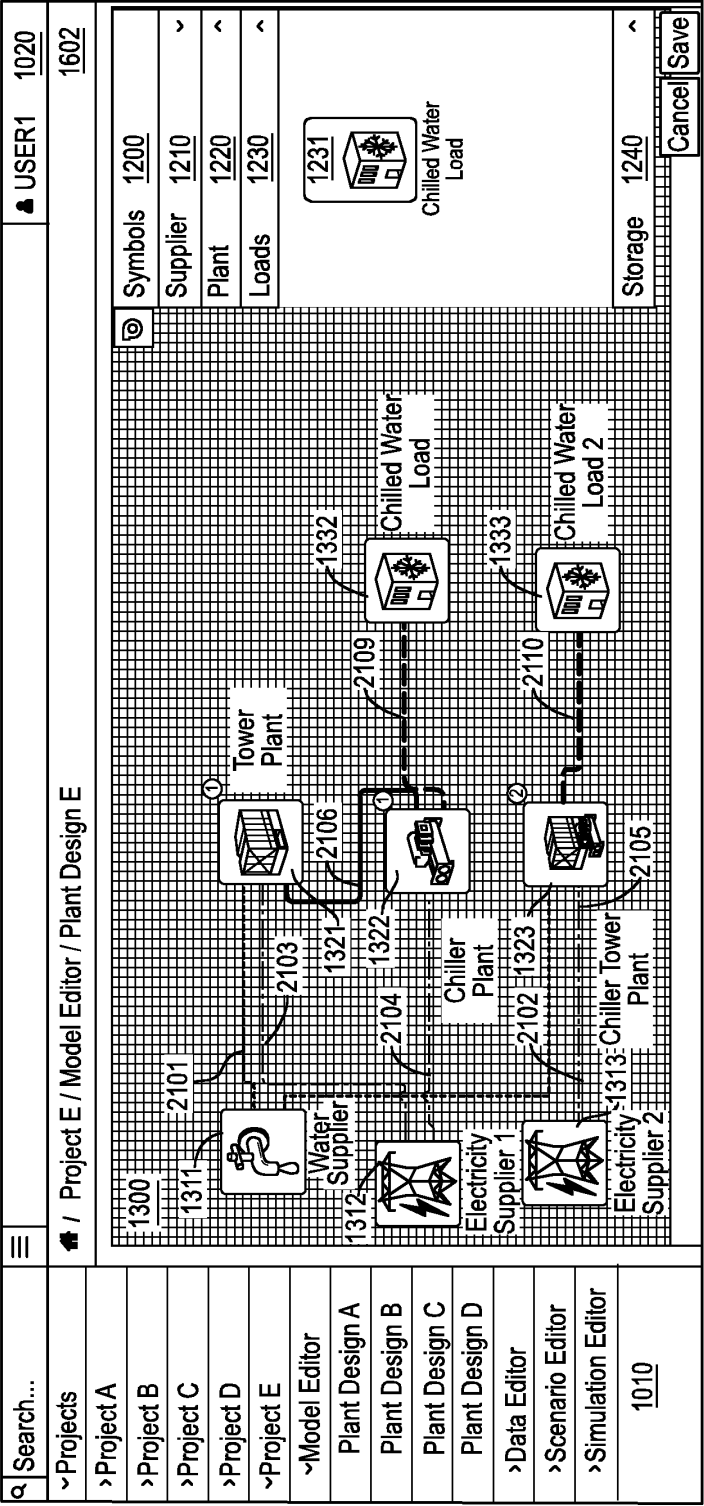
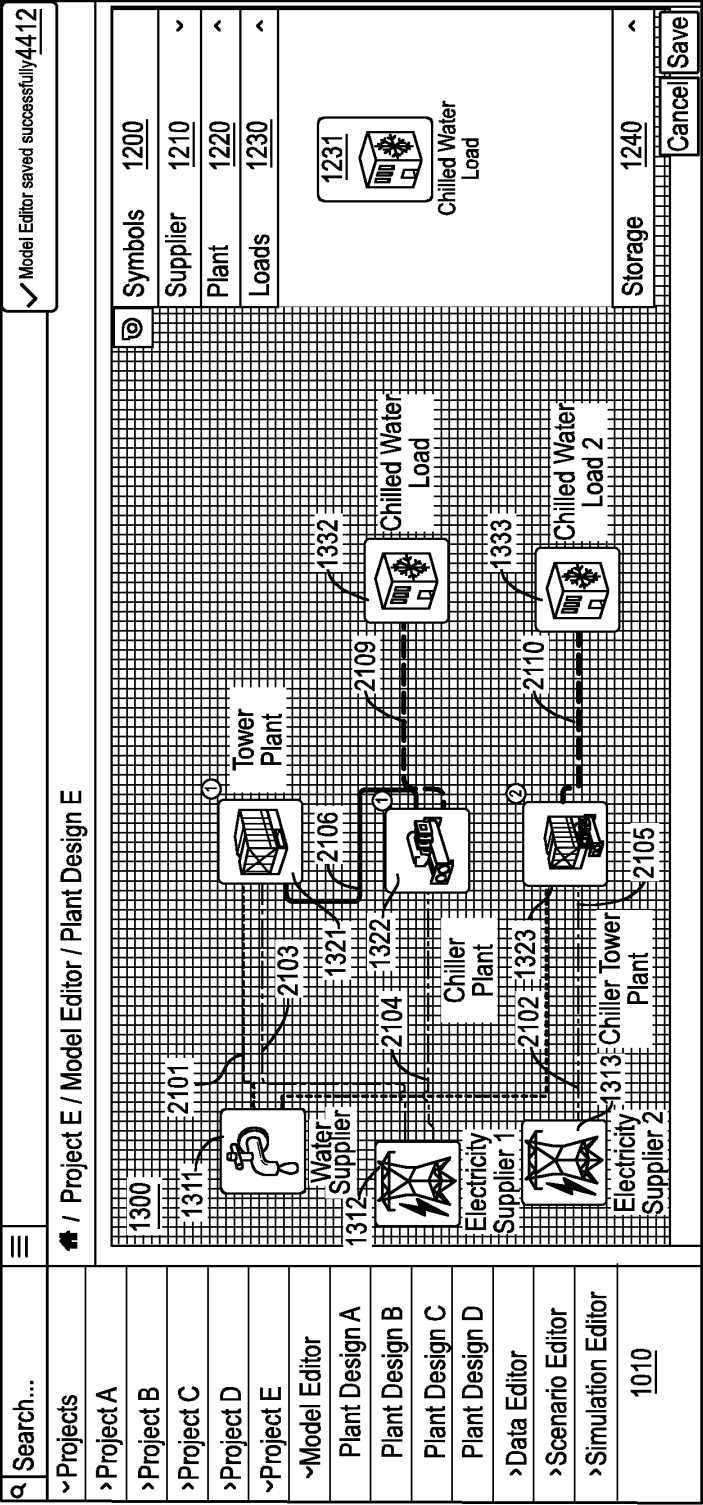


FIG. 43

724



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Component Name	Category	Equipment within Component	Input Component	Required/Optional Input	Input Type	Input Color	Output Component	Required/Optional Output
Chilled Water Load	Load	NA	Chiller Plant Air-Cooled Chiller Plant Water-Side Economizer HX Plant Chiller Tower Plant Chilled water Thermal Storage Tank	At least 1	Chilled water	Blue	NA	NA
Chilled Water Thermal Storage Tank	Storage	NA	Chiller Plant Air-Cooled Chiller Plant Water-Side Economizer HX Plant Chiller Tower Plant	At least 1	Chilled water	Blue	Chilled Water Load	Required
Chiller Plant	Plant	Chillers	Electricity Supplier	Required	Electricity	Orange	Chilled Water Load Tower Plant	Required
Chilled Tower Plant Wetbulb Adjust	Plant	Chillers	Electricity Supplier	Required	Electricity	Orange	Chilled Water Thermal Storage Tank Chilled Water Load	Optional Required
Tower Plant Wetbulb Adjust	Plant	Cooling Towers Cooling towers	Water Supplier Electricity Supplier Water Supplier Chiller Plant Water-Side Economizer HX Plant	Required At least 1	Water Electricity Water Condenser Water	Sky Blue Orange Sky Blue Green	Chilled Water Thermal Storage Tank NA	Optional NA
Air-Cooled Chiller Plant Wetbulb Adjust	Plant	Air Cooled Chillers	Electricity	Required	Electricity	Orange	Chilled Water Load	Required
Water-Side Economizer HX Plant	Plant	Water Side Economizer HX	NA	NA	NA	NA	Chilled Water Thermal Storage Tank Chilled Water Load Tower Plant	Optional Required Optional
Steam Absorption Chiller Plant	Plant	Steam Absorption Chillers	Steam Supplier (only 1 connection)	Required	Steam	Dark Red	Chilled Water Thermal Storage Tank Chilled Water Load Tower Plant Chilled Water Thermal Storage Tank	Optional Required Optional Required
Steam Driven Chiller Plant	Plant	Steam Driven Chillers Cooling Towers	Electricity Supplier (only 1 connection) Water Supplier (only 1 connection)	Required	Electricity Water	Orange Sky Blue	Chilled Water Thermal Storage Tank Chilled Water Load	Optional Required Optional
			Steam Supplier (only 1 connection) Boiler plant	Required at least 1	Steam Steam	Dark Red Dark Red		

FIG. 45A

47/47

4500

Heat Recovery Chiller Plant	Plant	Heat recovery Chillers	Electricity Supplier (Only 1 connection)	Required	Electricity	Orange	Chilled Water Load Chilled Water Thermal Storage Tank Hot Water Load Hot Water Load	Required Optional Required Required
Steam Heat Exchanger Plant	Plant	Steam Heat Exchanger	Boiler Plant	Required at least 1	Steam	Dark Red		
Dump Heat Exchanger Plant	Plant	Dump Heat Exchanger	Steam Heat Exchanger Plant Heat Recovery Chiller Plant Hot water Generator Plant	Required	Hot Water	Red	Hot Water Thermal Storage Tank Tower Plant	Optional Required
Hot Water Generator Plant	Plant	Hot Water Generator	Natural Gas Supplier (only 1 connection) Electricity Supplier (only 1 connection)	Required	Natural Gas Electricity	Purple Orange	Hot Water Load	Required
Boiler Plant	Plant	Boiler	Natural Gas Supplier (only 1 connection) Electricity Supplier (only 1 connection)	Required	Natural Gas Electricity	Purple Orange	Hot Water Thermal Storage Tank Steam Load Steam Driven Chiller Tower Plant	Optional Required at least 1
Hot Water Thermal Storage Tank	Storage	NA	Steam Heat Exchanger Plant Hot Water Generator Plant Hot Recovery Chiller Plant	At least 1	Hot Water	Red	Steam Heat Exchanger Plant Heating Water Load	Required
Electricity Supplier	Supplier	NA	NA	NA	NA	NA	Chiller Plant Air-Cooled Chiller Plant Chiller Tower Plant Tower Plant	Optional
Water Supplier	Supplier	NA	NA	NA	NA	NA	Chiller Tower Plant	Optional
Natural Gas Supplier	Supplier	NA	NA	NA	NA	NA	Tower Plant Hot Water Generator Plant Boiler Plant (only produces steam)	Optional
Steam Supplier	Supplier	NA	NA	NA	NA	NA	Steam Heat Exchanger Plant Steam Absorption Chiller Plant	Optional

FIG. 45B