

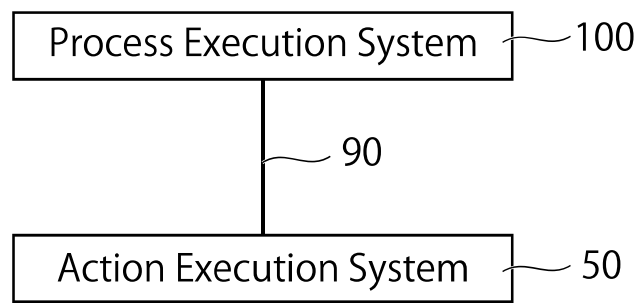


Fig. 1

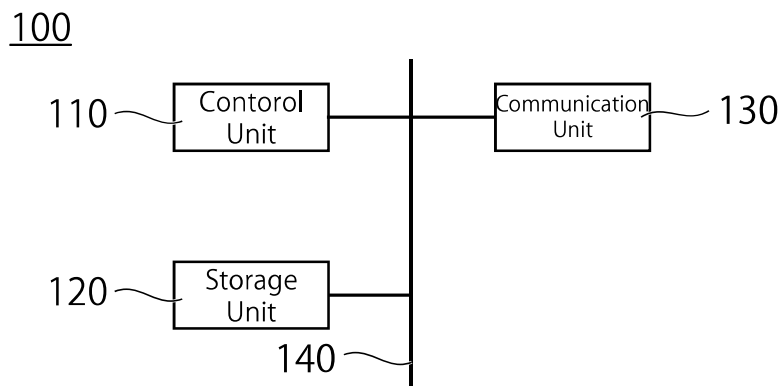


Fig. 2

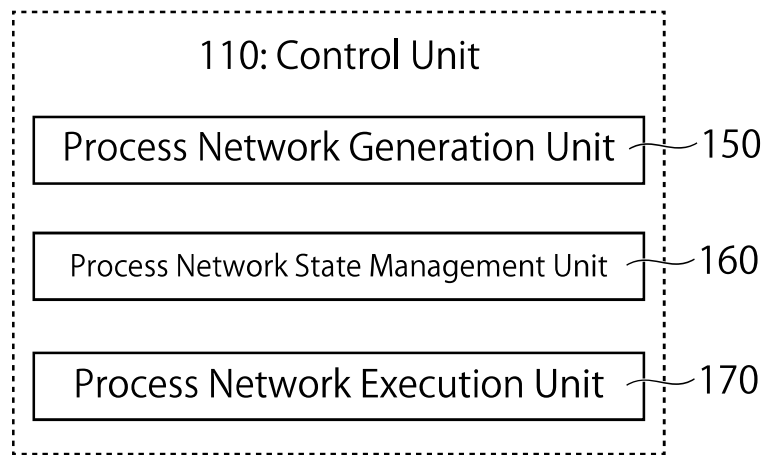


Fig. 3

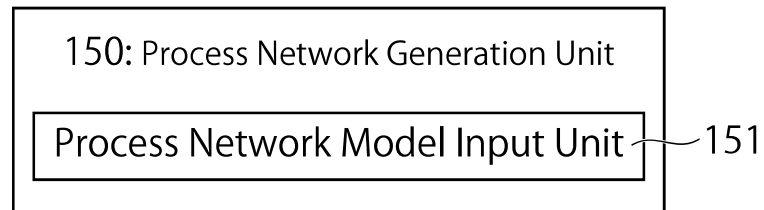


Fig. 4

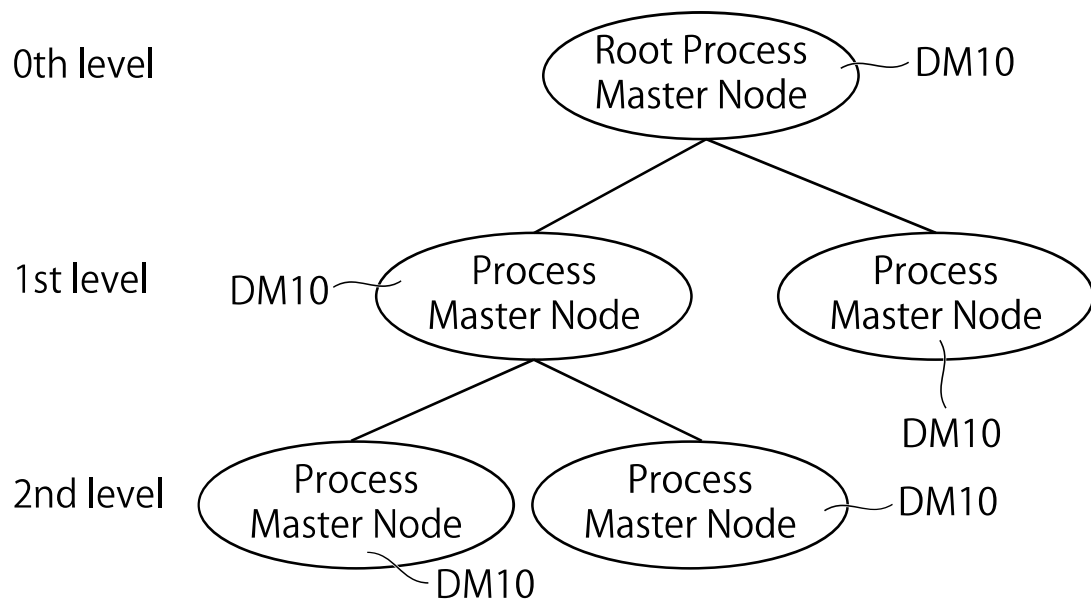
DM1

Fig. 5

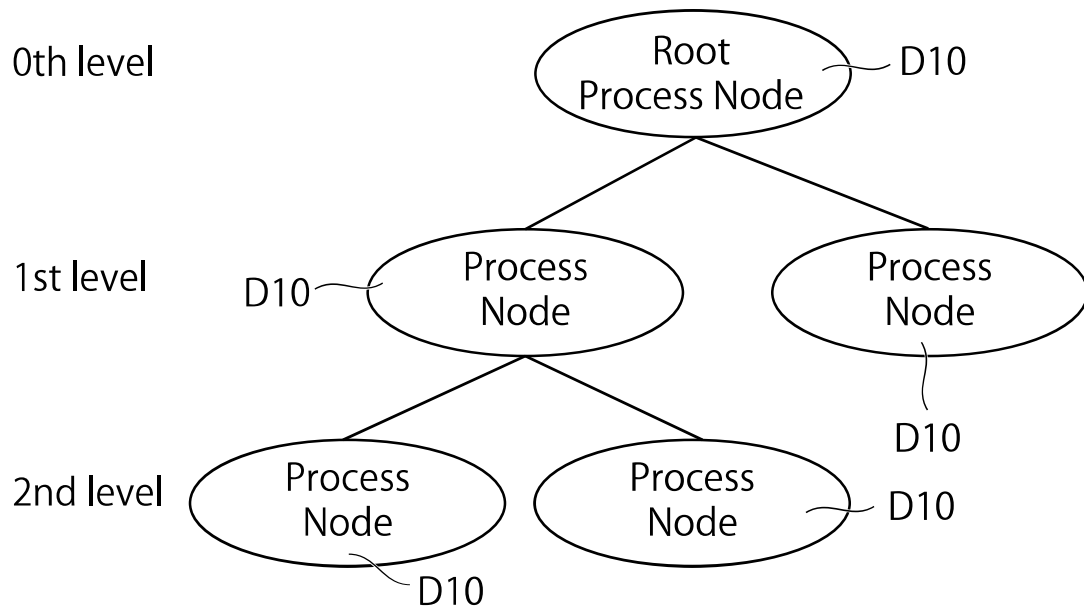
D1

Fig. 6

DM15: Process Generation Information				
DM11	DM12	DM151	DM152	DM153
Process Master Node Identifier	Parent Process Master Node Identifier	Process Number Master	Process Name Master	Action Information Master
1		100	Root Process	<String>
2	1	100	Process Name L11	<String>
3	1	200	Process Name L12	<String>
4	1	300	Process Name L13	<String>
5	2	100	Process Name L21	<String>
6	2	200	Process Name L22	<String>
7	3	100	Process Name L23	<String>

Fig. 7

D15: Process Definition Information

D11	D12	D13	D151	D152	D153
Process Node Identifier	Parent Process Node Identifier	Process State	Process Number	Process Name	Action Information
1			100	Root Process	<String>
2	1		100	Process Name L11	<String>
3	1		200	Process Name L12	<String>
4	1		300	Process Name L13	<String>
5	2	Completed	100	Process Name L21	<String>
6	2	Executable	200	Process Name L22	<String>
7	3		100	Process Name L23	<String>

Fig. 8

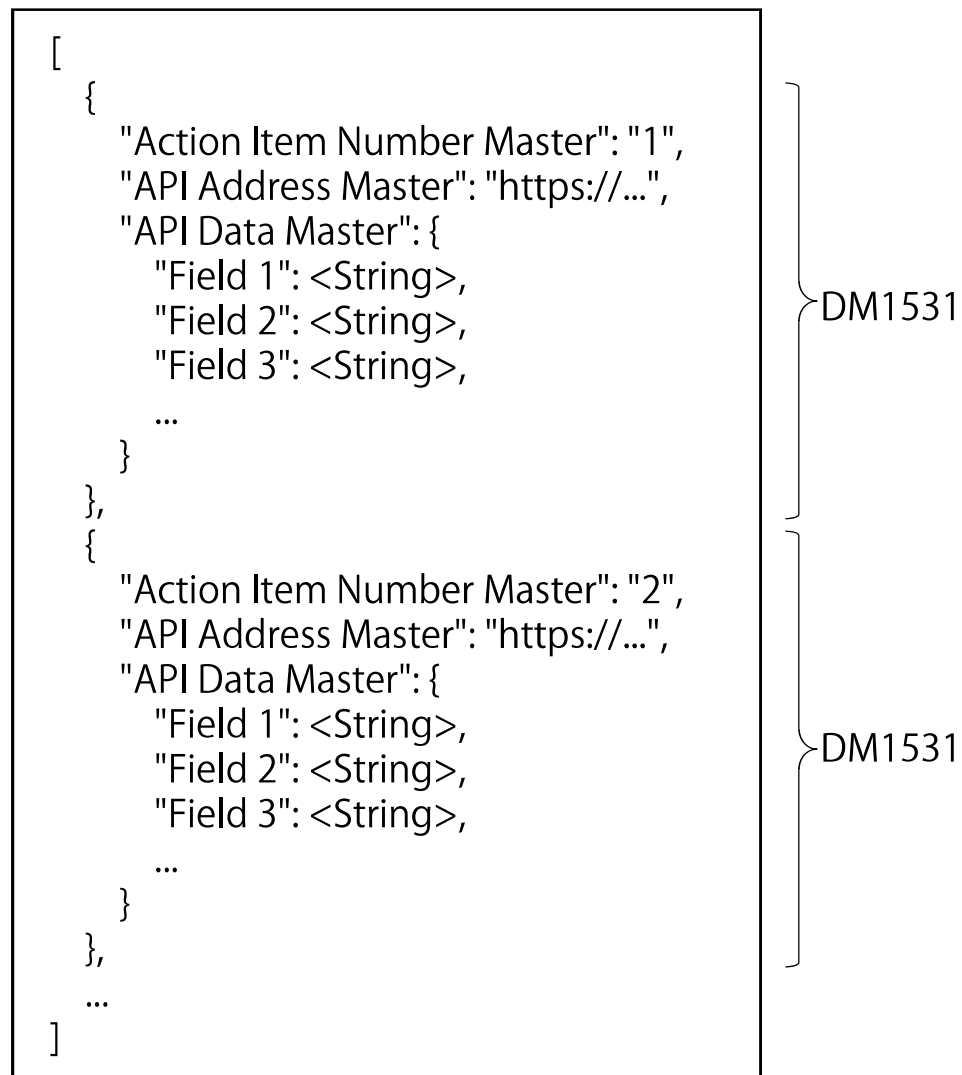
DM153

Fig. 9

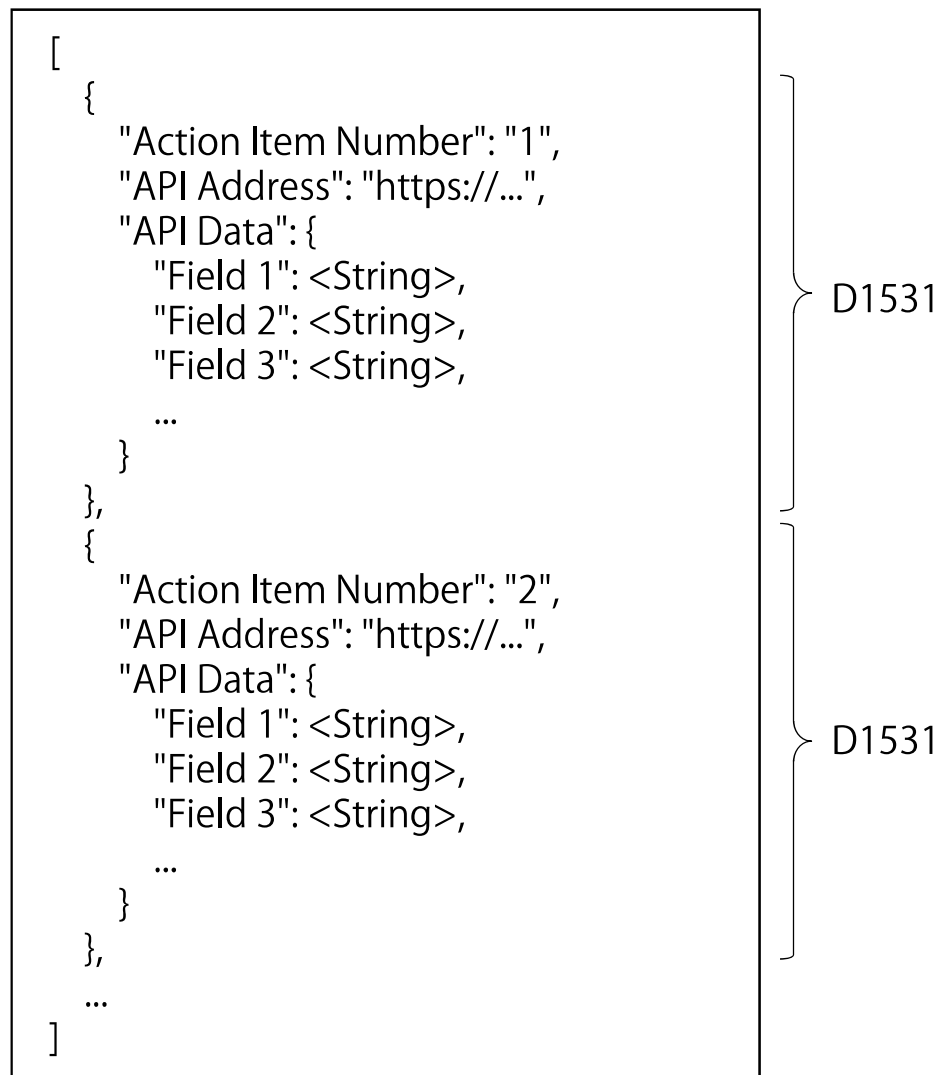
D153

Fig. 10

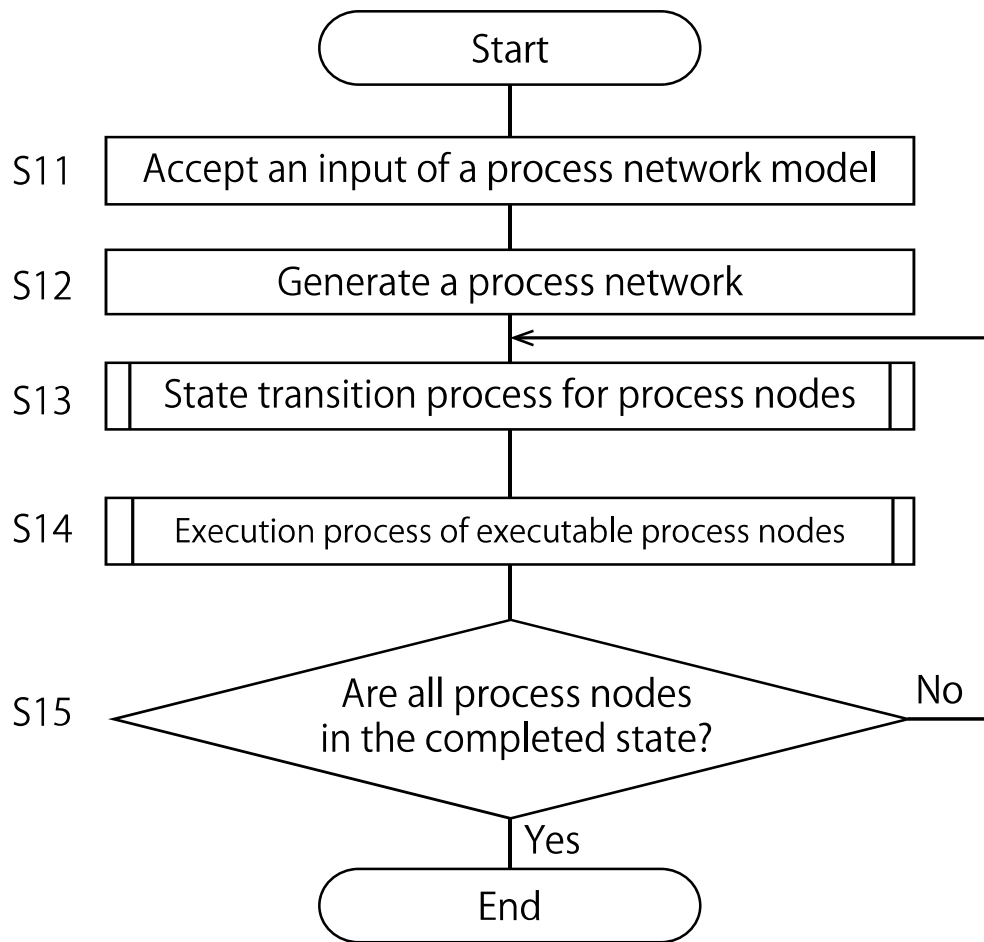


Fig. 11

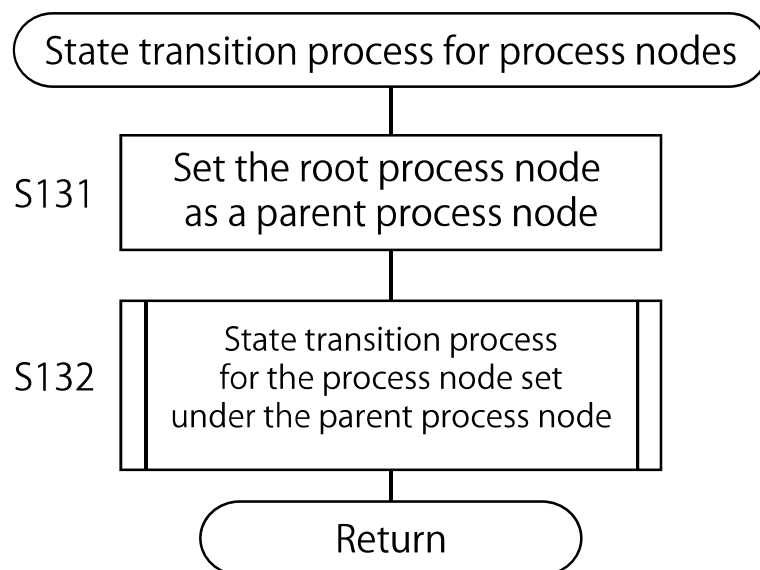


Fig. 12

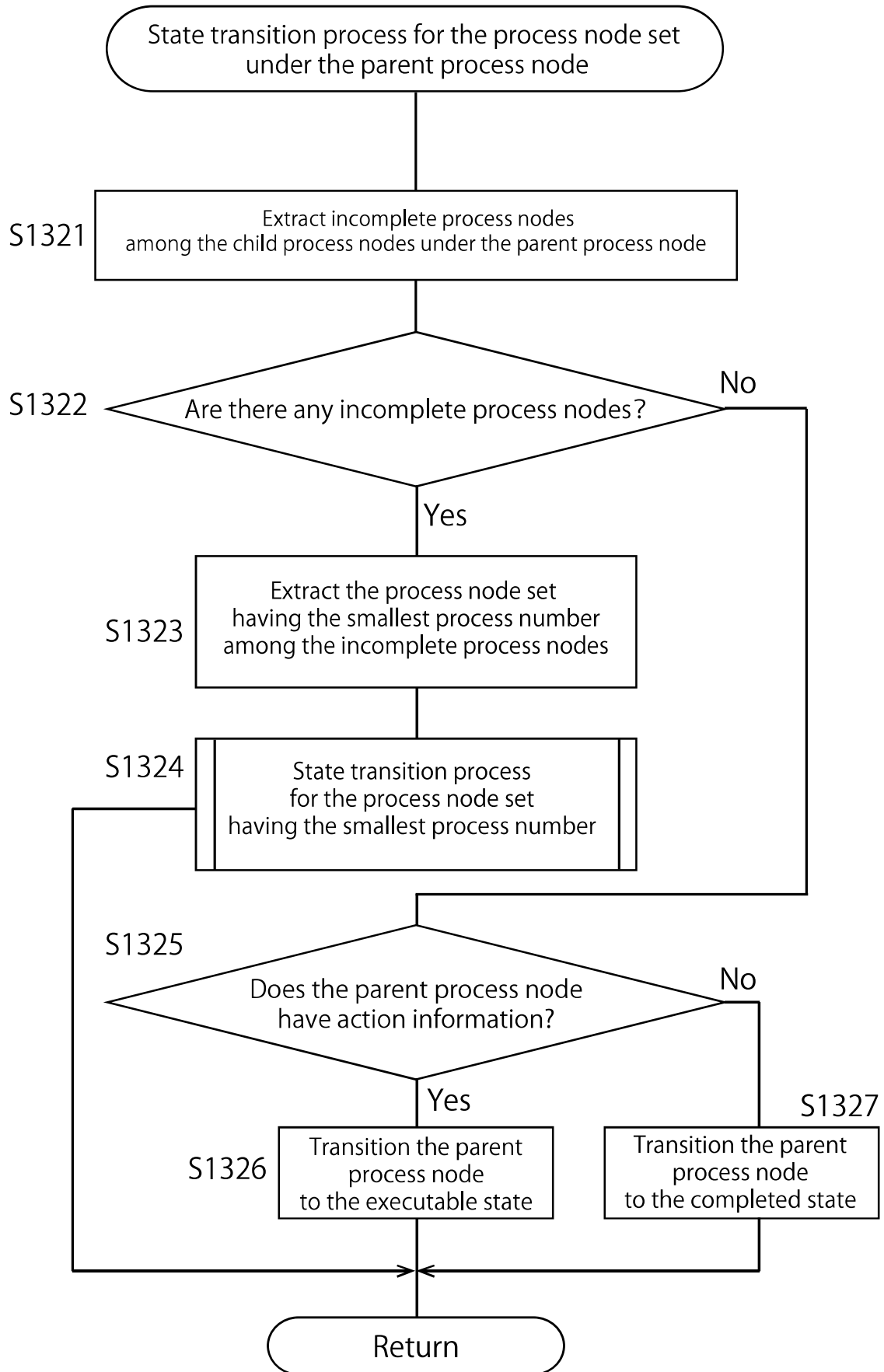


Fig. 13

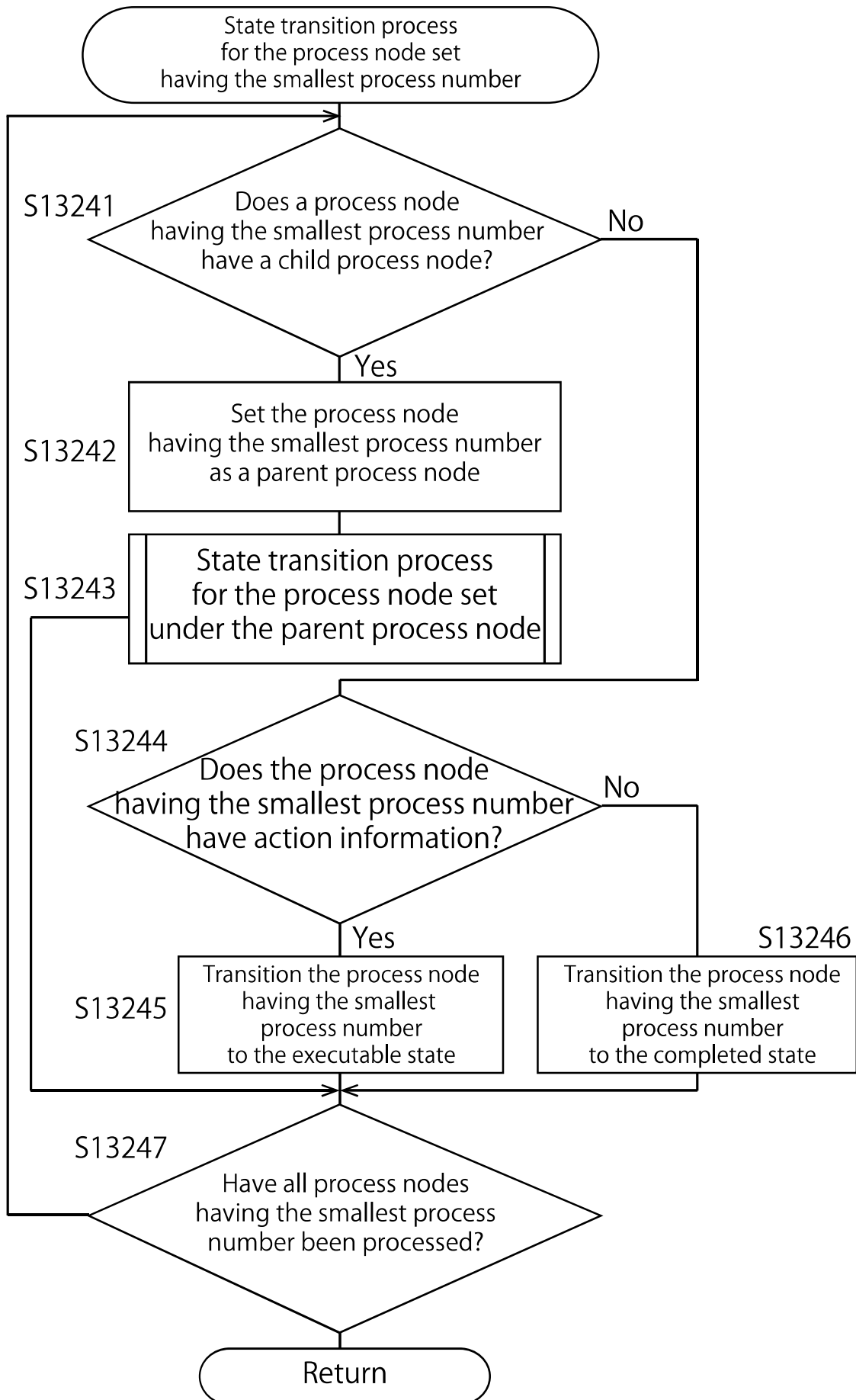


Fig. 14

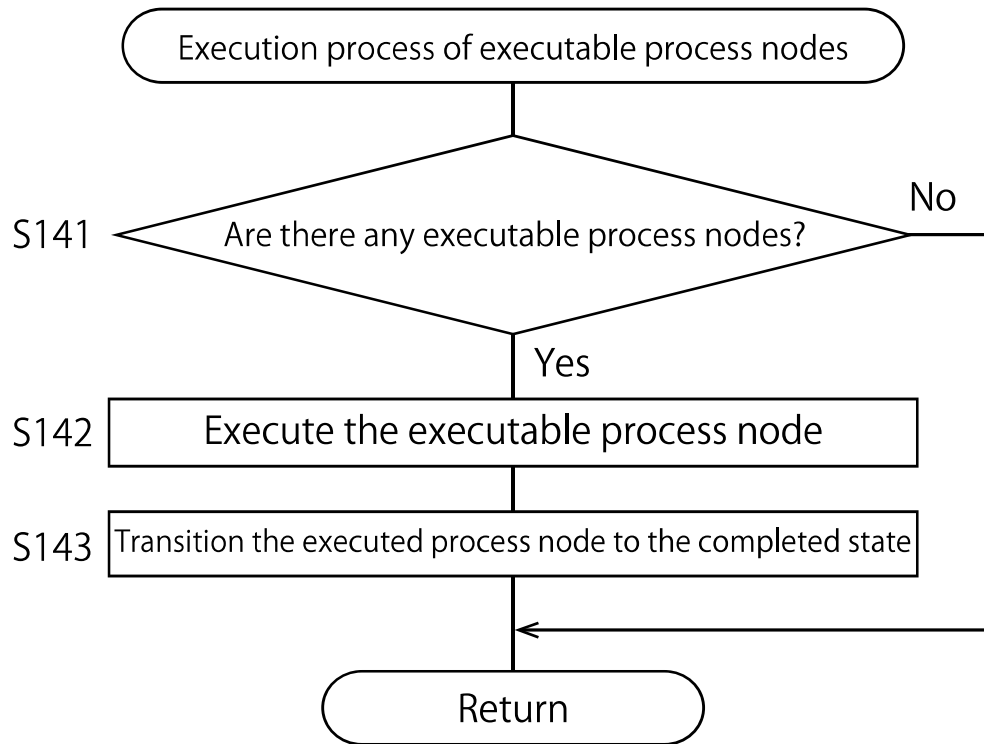


Fig. 15

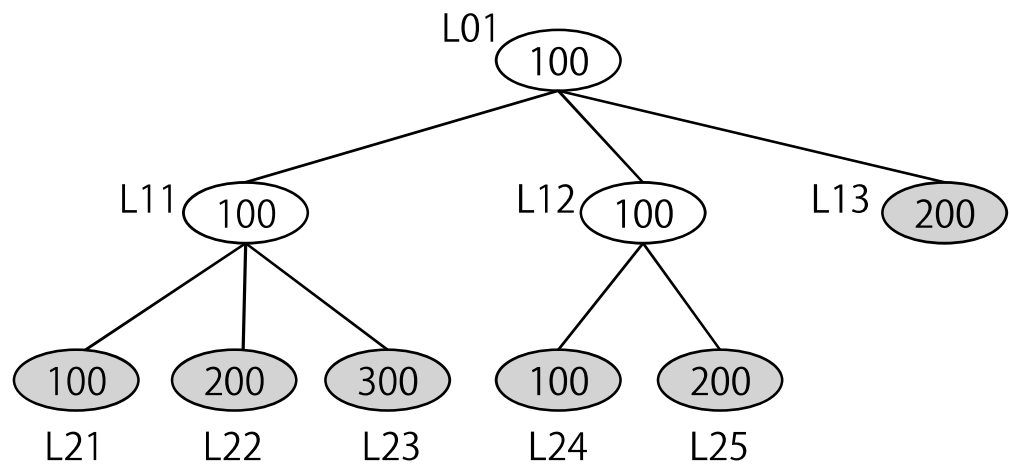


Fig. 16

	L01	L11	L12	L13	L21	L22	L23	L24	L25
State Transition Process 1					R			R	
Execution Process 1					F			F	
State Transition Process 2					F	R		F	R
Execution Process 2					F	F		F	F
State Transition Process 3			F		F	F	R	F	F
Execution Process 3			F		F	F	F	F	F
State Transition Process 4		F	F		F	F	F	F	F
State Transition Process 5		F	F	R	F	F	F	F	F
Execution Process 4		F	F	F	F	F	F	F	F
State Transition Process 6	F	F	F	F	F	F	F	F	F

R: Executable State
F: Completed State

Fig. 17

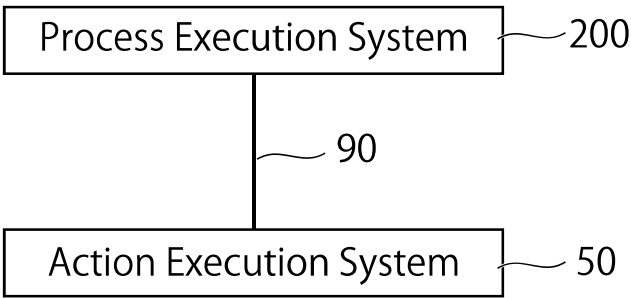


Fig. 18

200

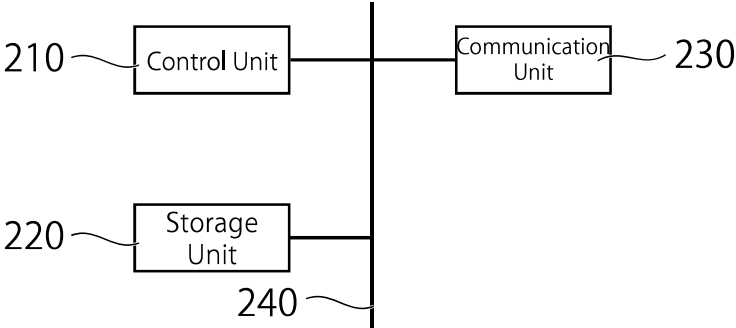


Fig. 19

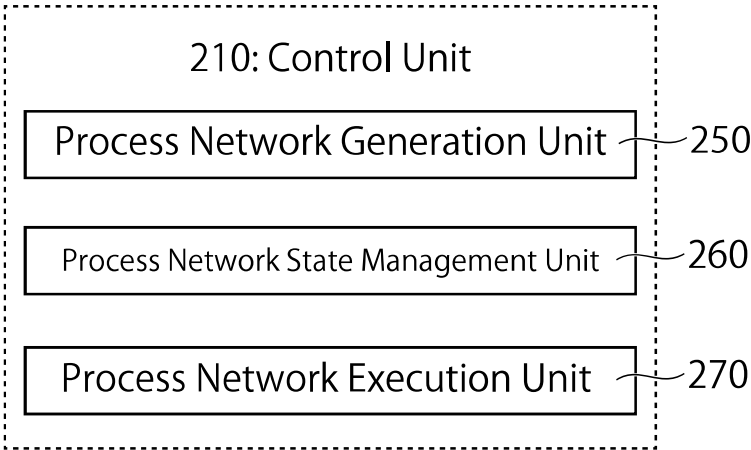


Fig. 20

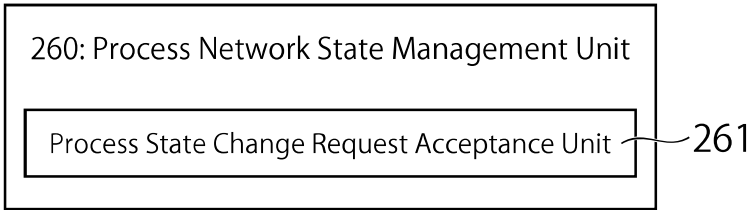


Fig. 21

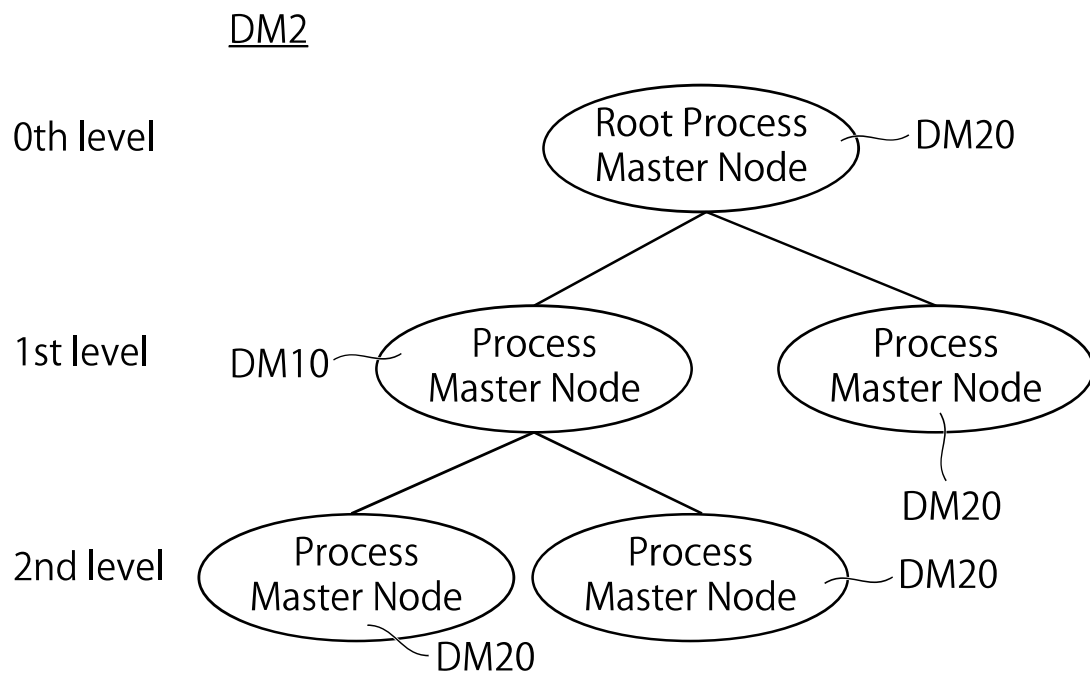


Fig. 22

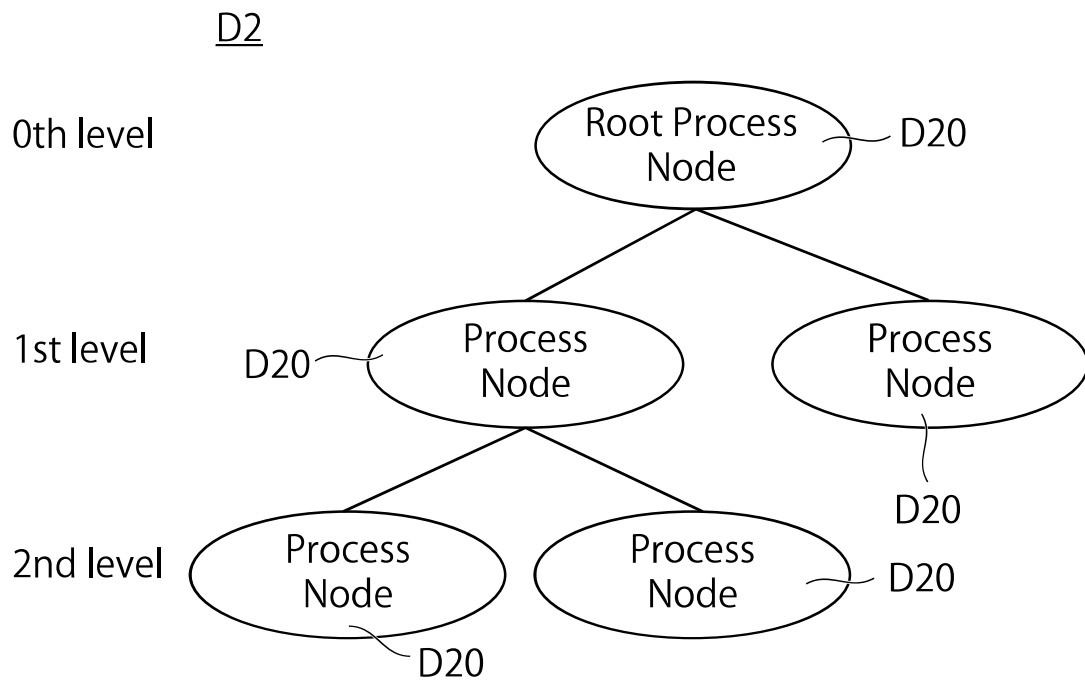


Fig. 23

DM25: Process Generation Information

DM21	DM22	DM251	DM252	DM253	DM254	DM255
Process Master Node Identifier	Parent Process Master Node Identifier	Process Number Master	Process Name Master	Action Information Master	Asynchronous Flag Master	Auto-Start Flag Master
1		100	Root Process	<String>	FALSE	TRUE
2	1	100	Process Name L11	<String>	FALSE	TRUE
3	1	200	Process Name L12	<String>	FALSE	TRUE
4	1	300	Process Name L13	<String>	FALSE	TRUE
5	2	100	Process Name L21	<String>	FALSE	TRUE
6	2	200	Process Name L22	<String>	TRUE	TRUE
7	3	100	Process Name L23	<String>	FALSE	FALSE

Fig. 24

D25: Process Definition Information							
D21	D22	D23	D251	D252	D253	D254	D255
Process Node Identifier	Parent Process Node Identifier	Process State	Process Number	Process Name	Action Information	Asynchronous Flag	Auto-Start Flag
1			100	Root Process	<String>	FALSE	TRUE
2	1		100	Process Name L11	<String>	FALSE	TRUE
3	1		200	Process Name L12	<String>	FALSE	TRUE
4	1		300	Process Name L13	<String>	FALSE	TRUE
5	2	Completed	100	Process Name L21	<String>	FALSE	TRUE
6	2	Executable	200	Process Name L22	<String>	TRUE	TRUE
7	3		100	Process Name L23	<String>	FALSE	FALSE

Fig. 25

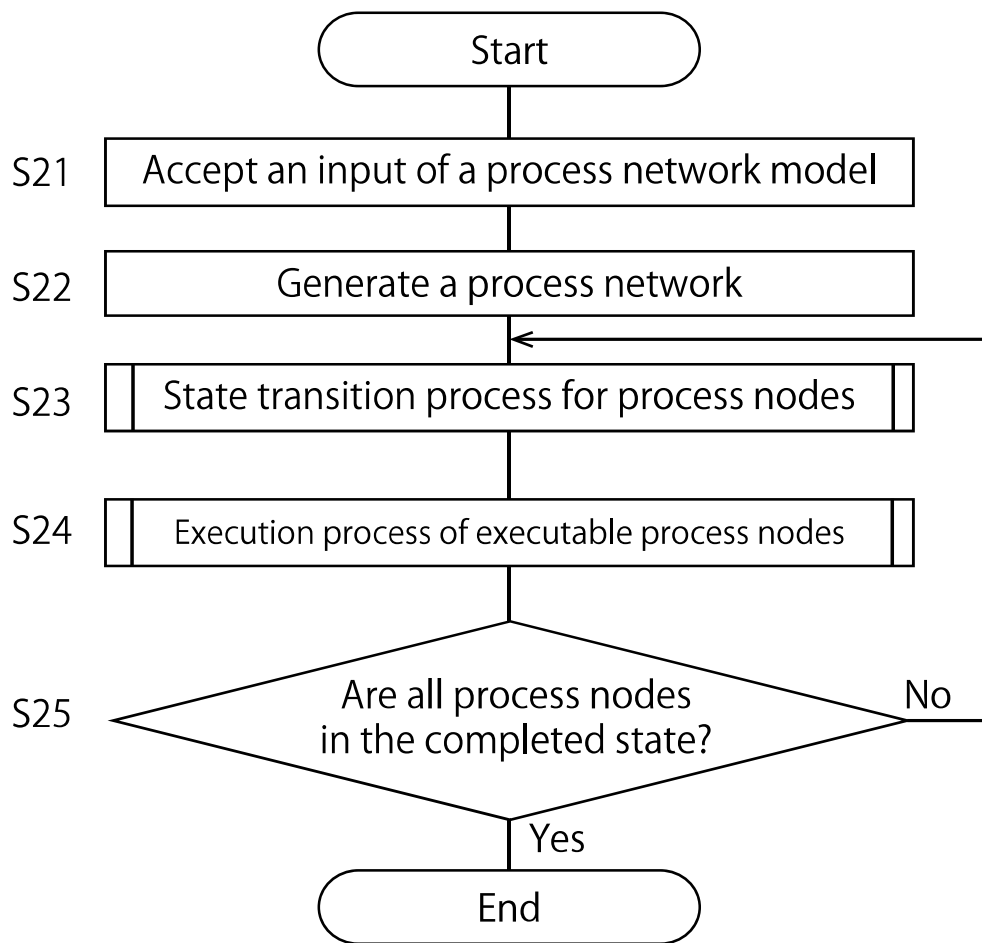


Fig. 26

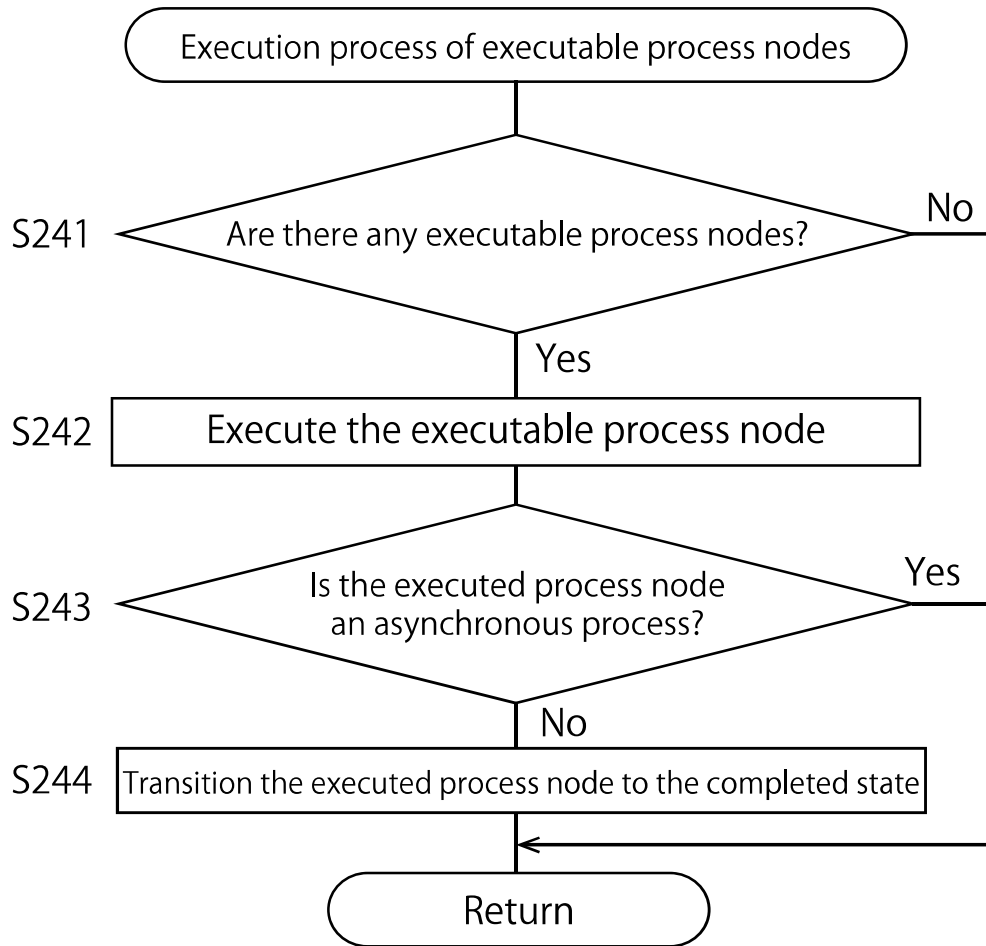


Fig. 27

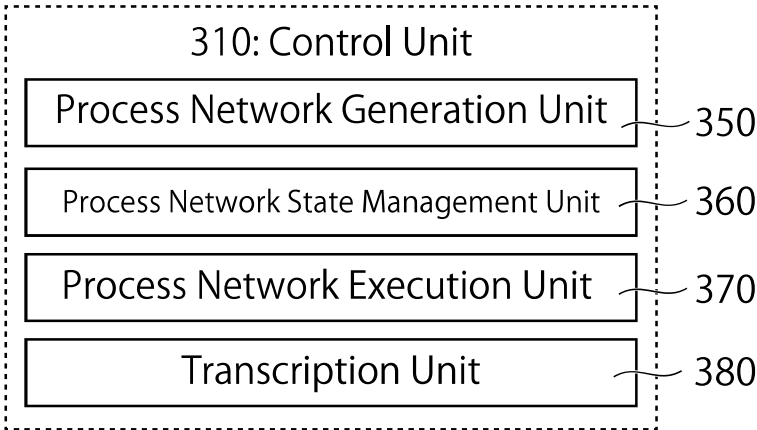


Fig. 28

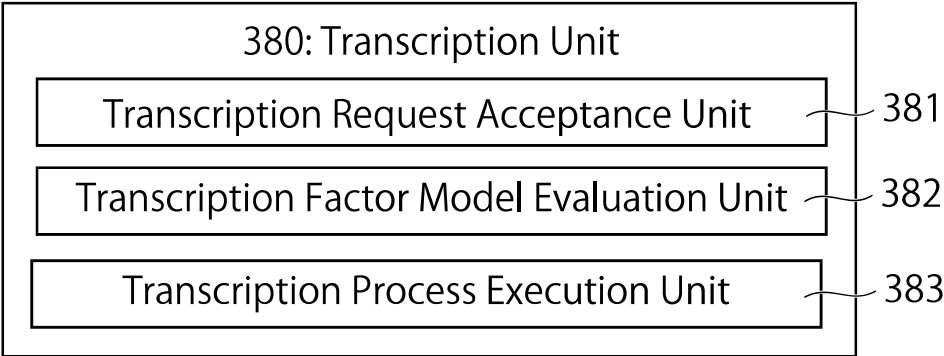


Fig. 29

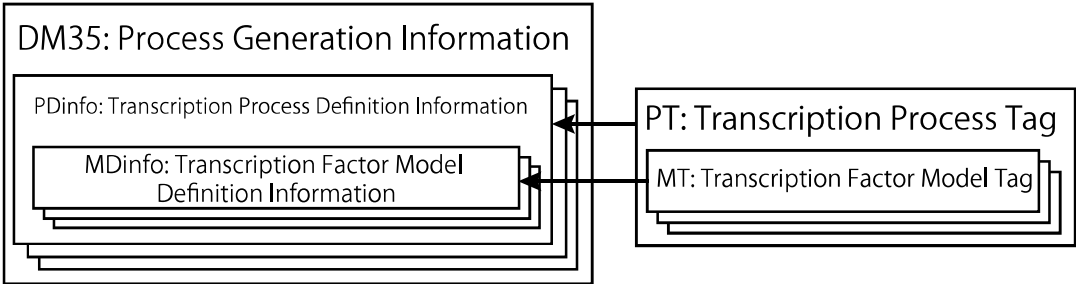


Fig. 30

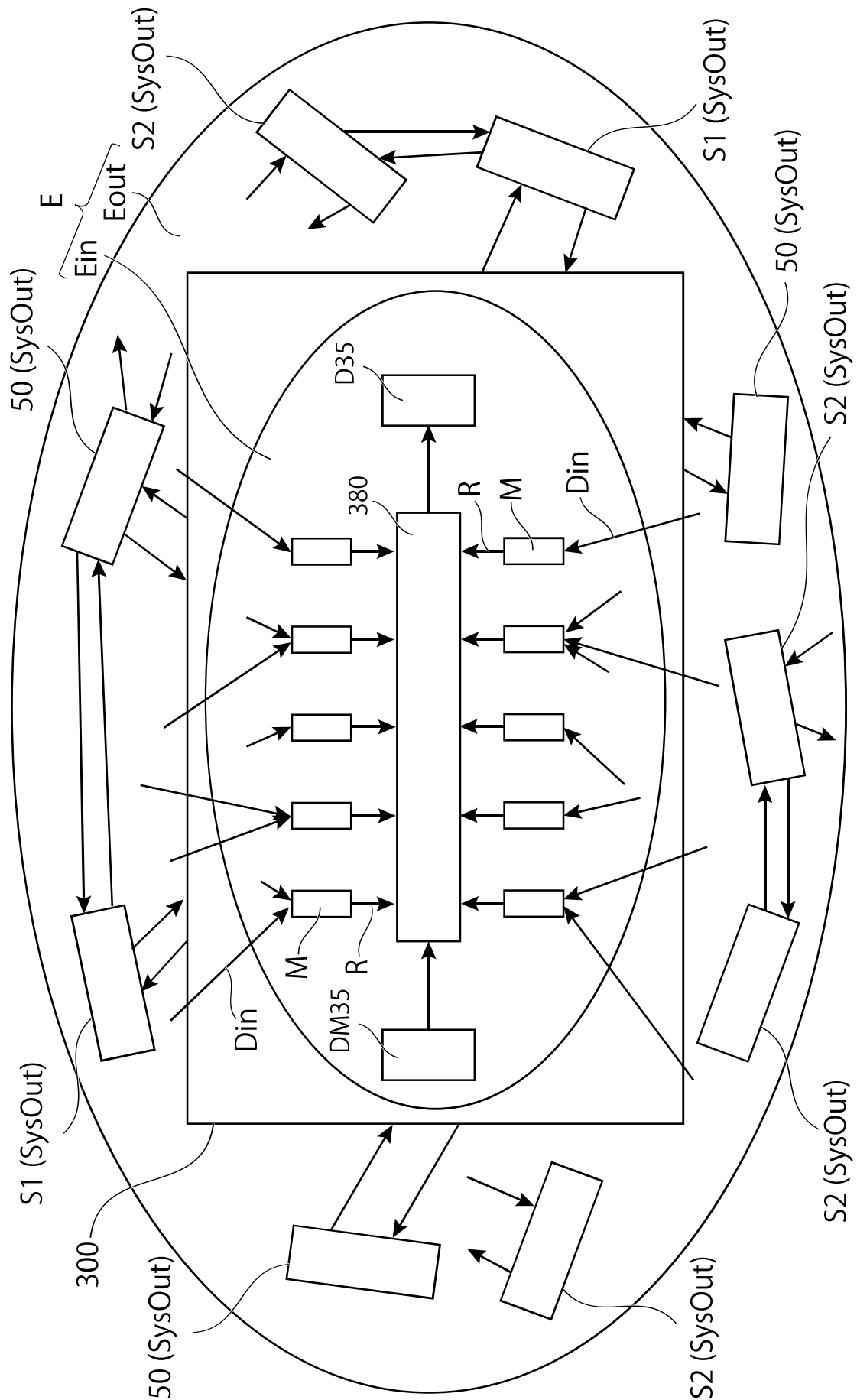


Fig. 31

CDT

CD: Case Data

Record ID	Case Data A	Case Data B	...	Case Data Z
1	Data 1A	Data 1B	...	Data 1Z
2	Data 2A	Data 2B	...	Data 2Z
⋮	⋮	⋮	⋮	⋮
123	Data 123A	Data 123B	...	Data 123Z
⋮	⋮	⋮	⋮	⋮

Fig. 32

CxT

CxD: Context Data

CID: Case ID

	CID1	CID2	CID3		
Process Node Identifier	Application Name	Table Name	Record ID	Context Data	...
1	App1	Table1	123	Data Aa	...
2	App1	Table1	123	Data Aa	⋮
⋮	⋮	⋮	⋮	⋮	
8	App1	Table1	789	Data Ab	⋮
⋮	⋮	⋮	⋮	⋮	

Fig. 33

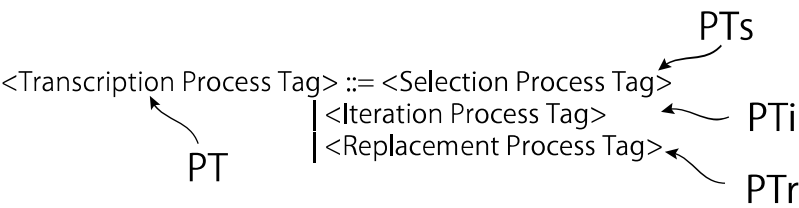


Fig. 34

```

<Selection Process Tag> ::= <Main Selection Block>, [{<Sub-Selection Block>}],
    [<Default Selection Block>], <Selection Process Tag End Symbol>
<Main Selection Block> ::= <Main Selection Block Start Symbol>, <Selection Condition>,
    <Transcription Process Tag End Symbol>, <Selection Block>
<Main Selection Block Start Symbol> ::= <Transcription Process Tag Start Symbol>, "if"
<Transcription Process Tag Start Symbol> ::= "{"
<Selection Condition> ::= <Logical Expression>, [<Logical Operator>], <Logical Expression>
<Logical Expression> ::= <Formula>, <Logical Operator>, <Formula>
<Formula> ::= <Value> | <Transcription Factor Model Tag> | "(", <Logical Expression>, ")"
<Value> ::= <String>
<Transcription Process Tag End Symbol> ::= "%}"
<Sub-Selection Block> ::= <Sub-Selection Block Start Symbol>, <Selection Condition>,
    <Transcription Process Tag End Symbol>, <Selection Block>
<Sub-Selection Block Start Symbol> ::= <Transcription Process Tag Start Symbol>, "elif"
<Default Selection Block> ::= <Default Selection Block Start Symbol>,
    <Transcription Process Tag End Symbol>, <Selection Block>
<Default Selection Block Start Symbol> ::= <Transcription Process Tag Start Symbol>, "else"
<Selection Block> ::= [{<String>}, [<Transcription Process Tag>]]
<Selection Process Tag End Symbol> ::= <Transcription Process Tag Start Symbol>, "endif",
    <Transcription Process Tag End Symbol>

```

Fig. 35

```

<Iteration Process Tag> ::= <Iteration Condition Block>, <Iteration Block>,
    <Iteration Process Tag End Symbol>
<Iteration Condition Block> ::= <Iteration Condition Block Start Symbol>, <Iteration Condition>,
    <Transcription Process Tag End Symbol>
<Iteration Condition Block Start Symbol> ::= <Transcription Process Tag Start Symbol>, "for"
<Iteration Condition> ::= <Loop Variable> "in" <Loop Variable Array>
<Loop Variable> ::= <String>
<Loop Variable Array> ::= <Loop Variable Array Constant> | <Transcription Factor Model Tag>
<Loop Variable Array Constant> ::= "[", [{"", <String>}], "]"
<Iteration Block> ::= [{<String>}, [{"{", <Loop Variable>, "}"}, [<Transcription Process Tag>]]
<Iteration Process Tag End Symbol> ::= <Transcription Process Tag Start Symbol>, "endfor",
    <Transcription Process Tag End Symbol>

```

Fig. 36

```

<Replacement Process Tag> ::= <Transcription Factor Model Tag>

```

Fig. 37

MT
↙

```

<Transcription Factor Model Tag> ::= <Transcription Factor Model Tag Start Symbol>, <Transcription Factor Model>,
    [<Evaluation Result Selector Group>], <Transcription Factor Model Tag End Symbol>
<Transcription Factor Model Tag Start Symbol> ::= "<<<"
<Transcription Factor Model> ::= <Model ID>, [<Input Data Group>]
<Model ID> ::= {<Model Group Name>, ".", <Model Name>}
<Model Group Name> ::= <String>
<Model Name> ::= <String>
<Input Data Group> ::= "(", <Input Data>, ")"
<Input Data> ::= {[";"], <Input Variable>}
<Input Variable> ::= <Input Variable Name>, "=", <Input Variable Value>
<Input Variable Name> ::= <String>
<Input Variable Value> ::= <String> | <Transcription Factor Model Tag>
<Evaluation Result Selector Group> ::= {".", <Evaluation Result Selector>}
<Evaluation Result Selector> ::= <String>
<Transcription Factor Model Tag End Symbol> ::= ">>>"

```

Fig. 38

Dout

```

[
  {
    "Key11": "Value 1A",
    "Key12": [
      {
        "Key21": "Value 21A",
        "Key22": {
          "Key31": "Value 31A",
          "Key32": "Value 32A"
        }
      }
    ]
  },
  {
    "Key11": "Value 1B",
    "Key12": [
      {
        "Key21": "Value 21B",
        "Key22": {
          "Key31": "Value 31B",
          "Key32": "Value 32B"
        }
      }
    ]
  },
  :
]

```

Fig. 39

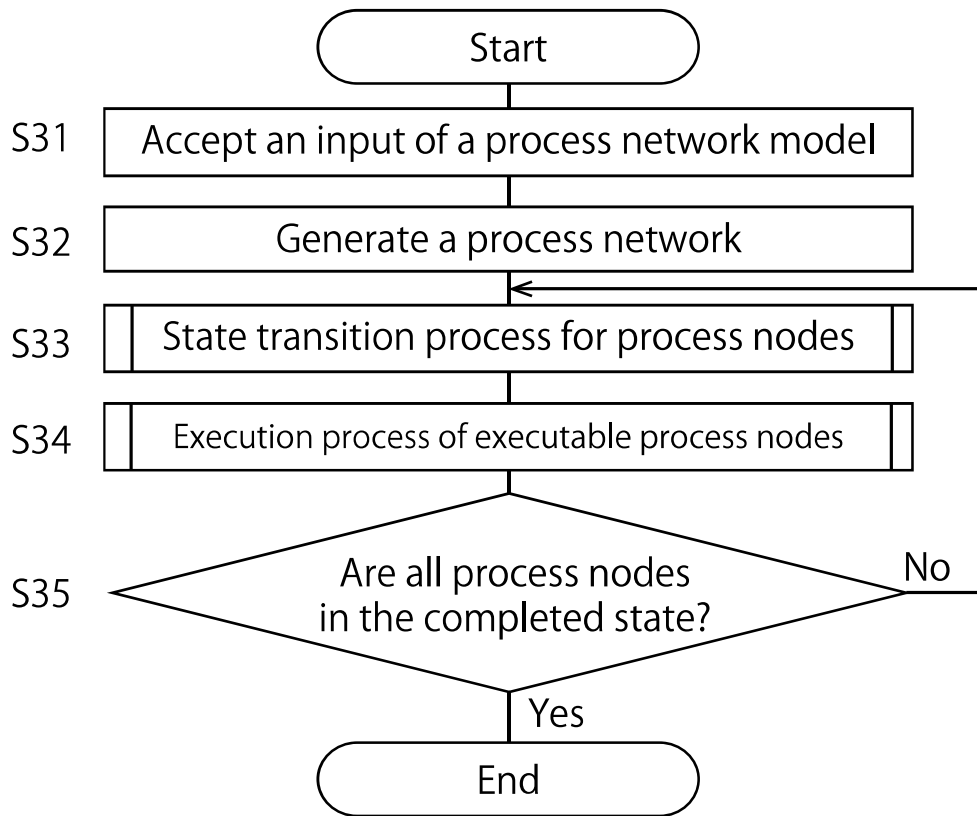


Fig. 40

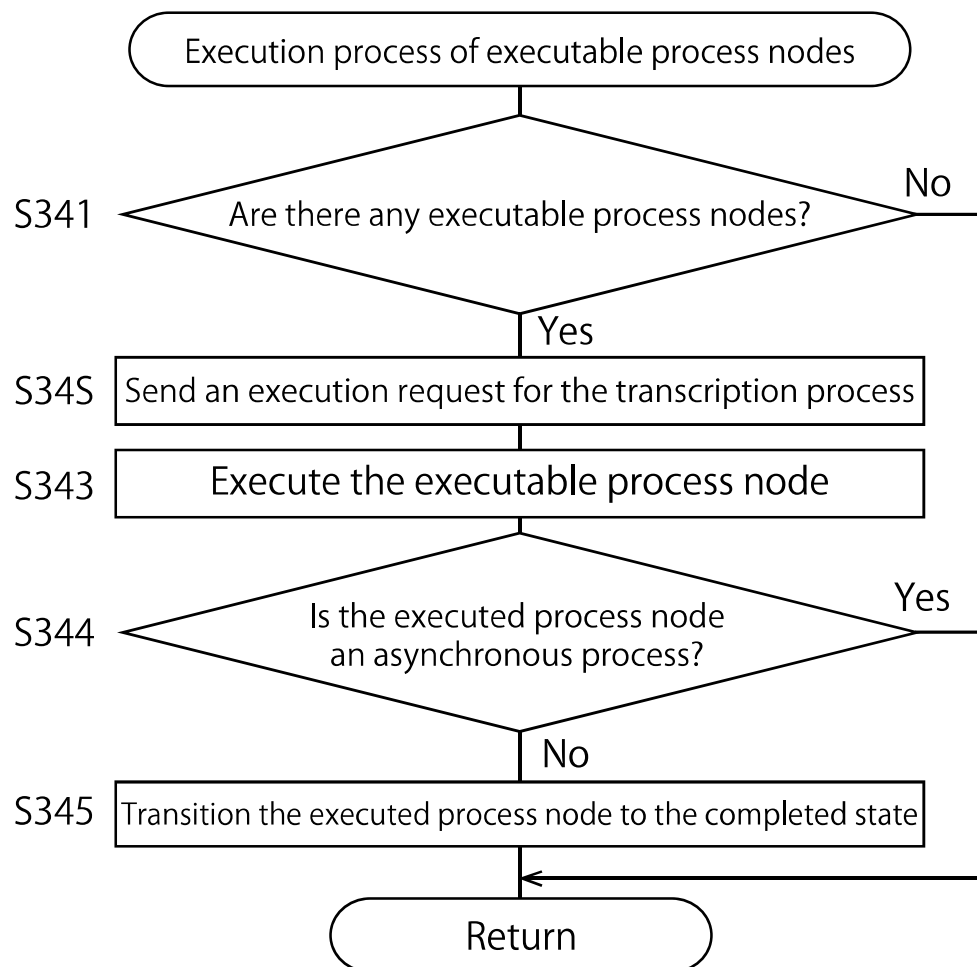


Fig. 41

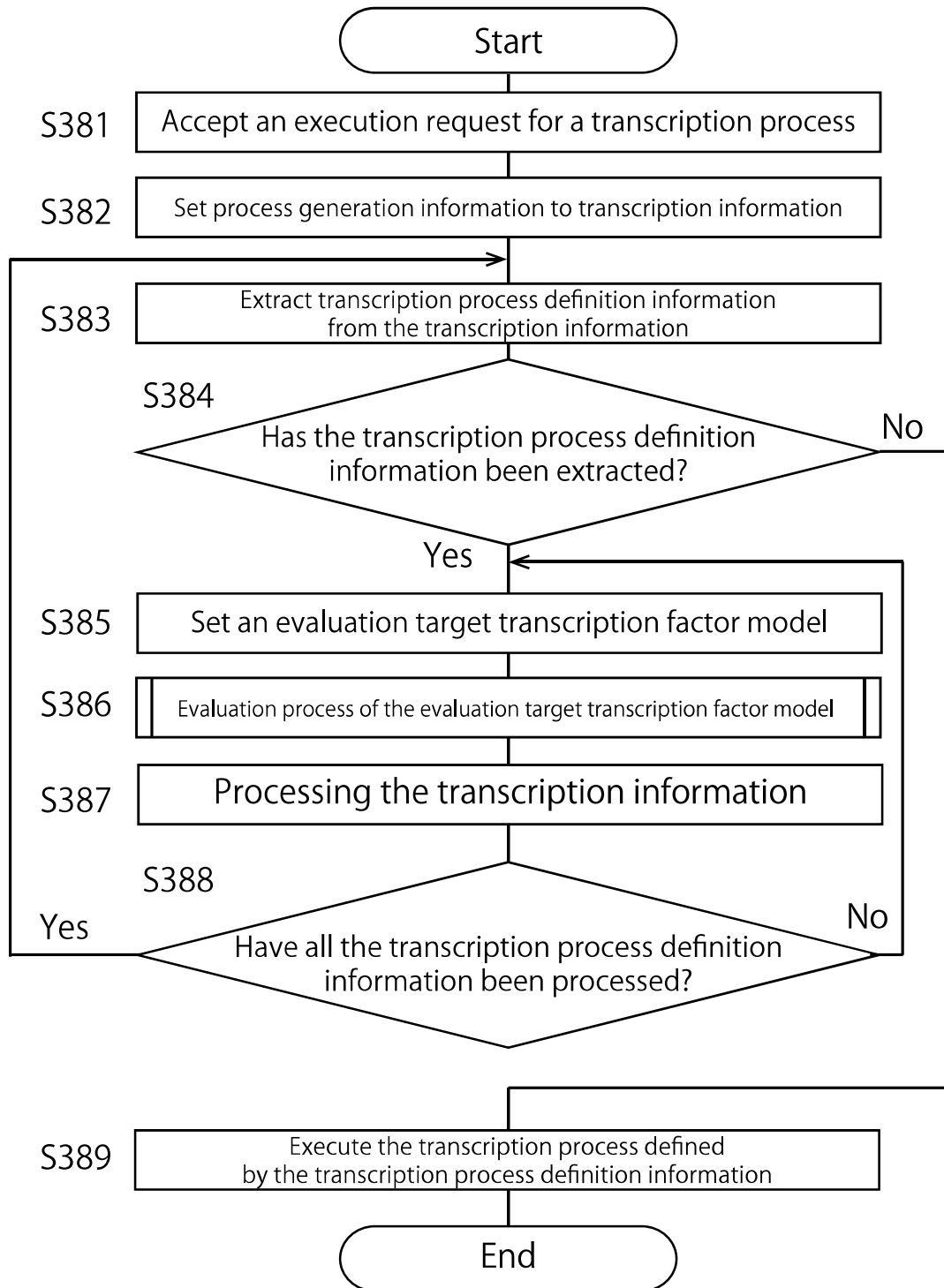


Fig. 42

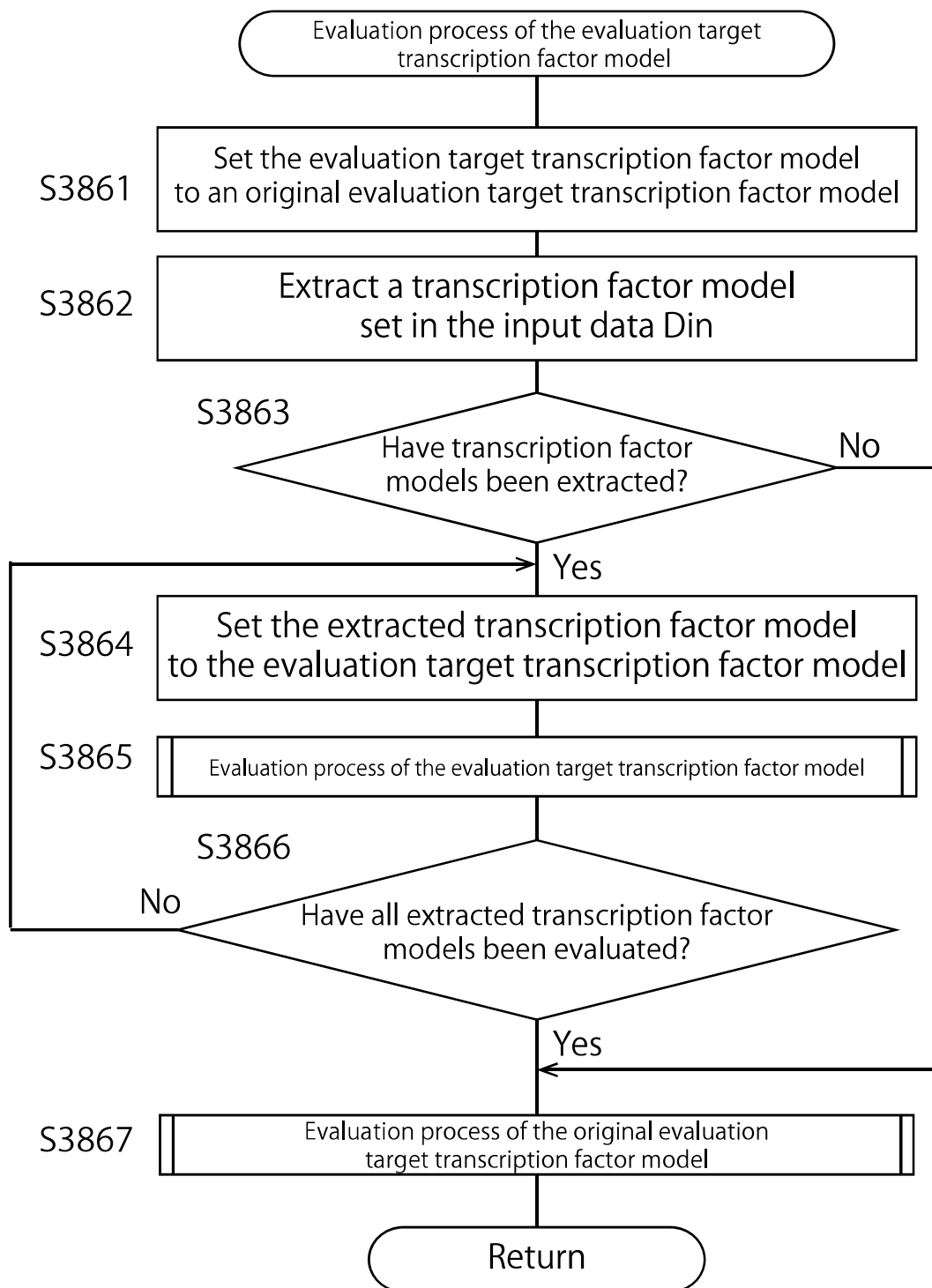


Fig. 43

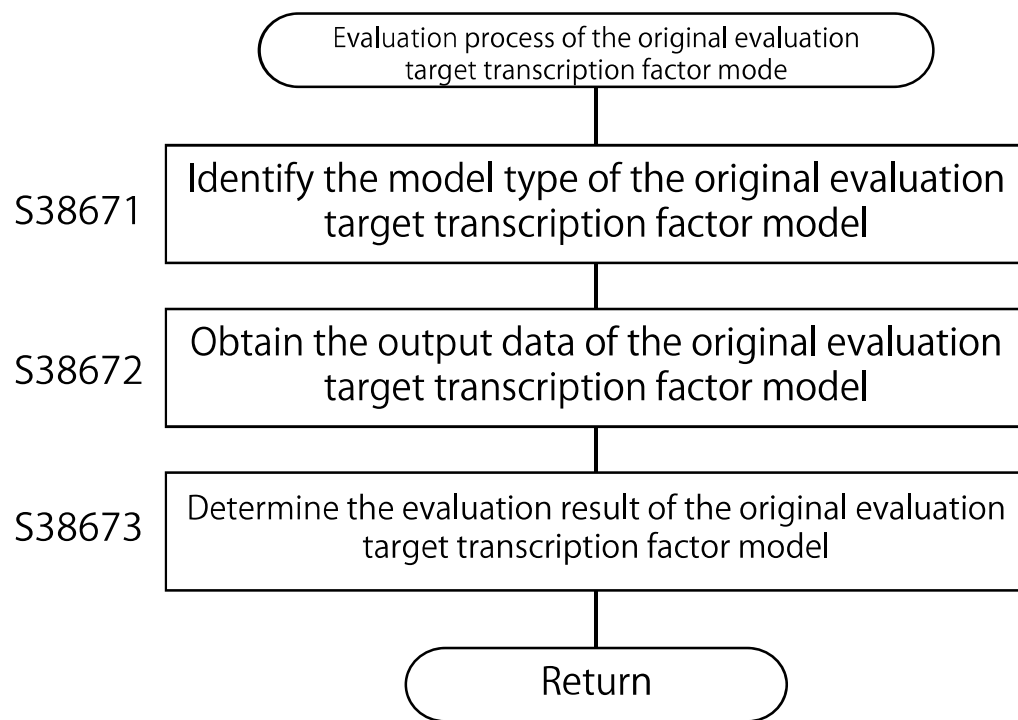


Fig. 44

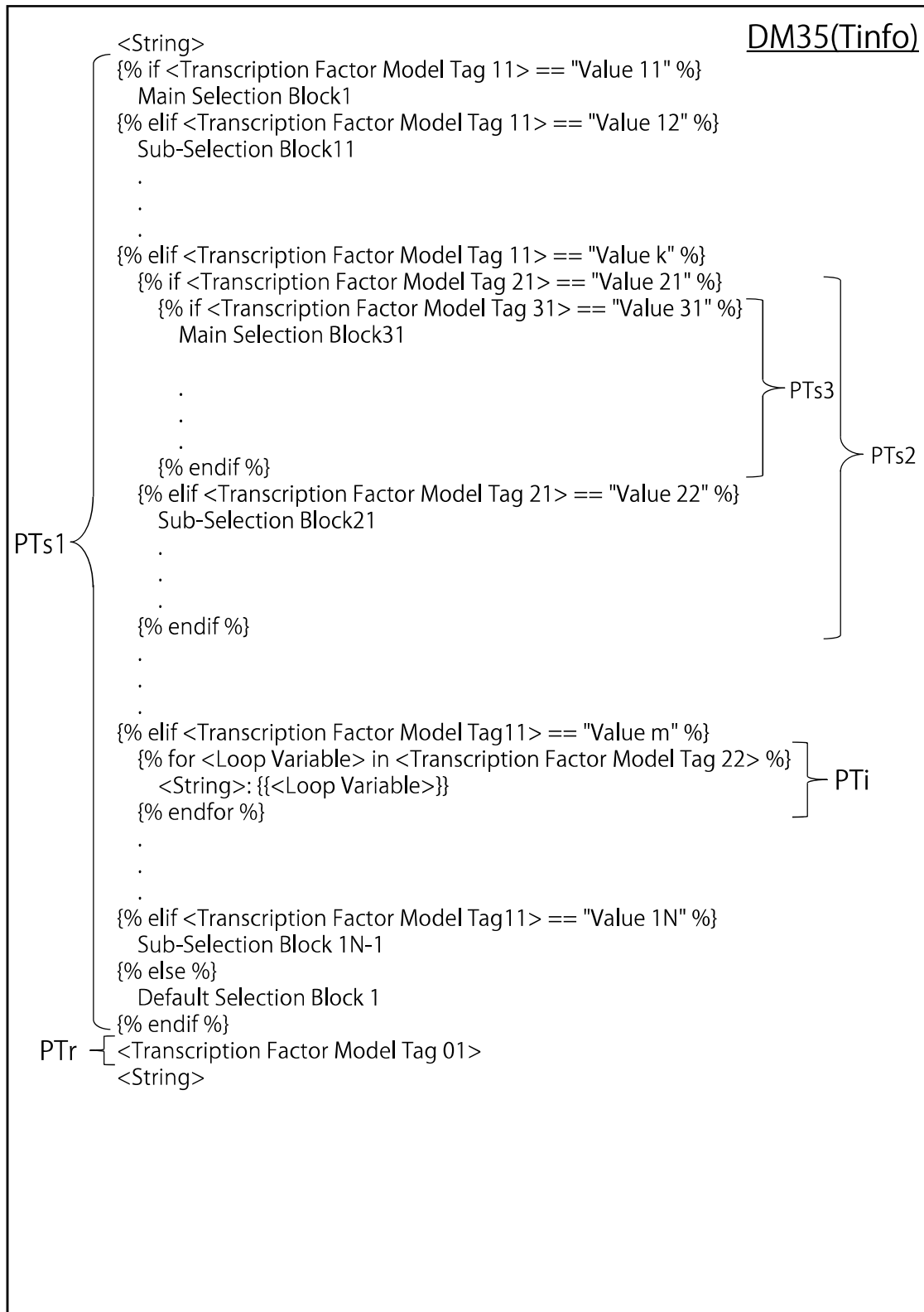


Fig. 45

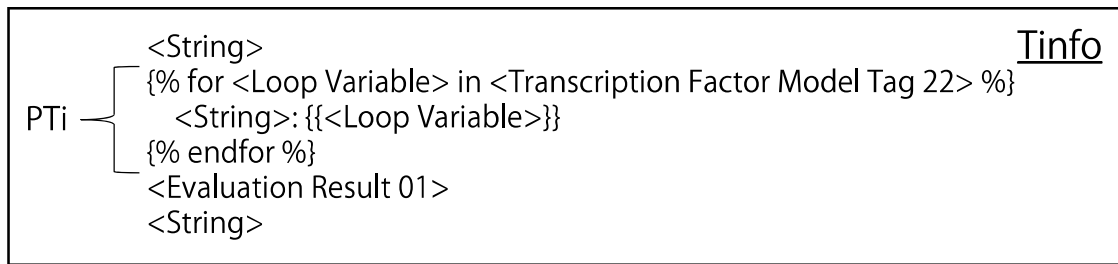


Fig. 46

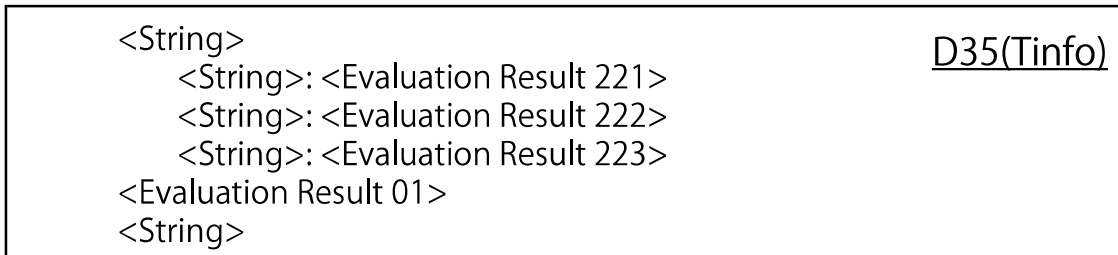


Fig. 47

```
<<<SelfProcess.ProcessNodeIdentifier>>>
```

Fig. 48

```
<<<AppVa.ContextTable(
  ProcessNodeIdentifier=<<<SelfProcess.ProcessNodeIdentifier>>>
).CaseID>>>
```

Fig. 49

```
<<AppWa.TableWt(
  ColumnCp1=<<<AppVa.ContextTable(
    ProcessNodeIdentifier=<<<SelfProcess.ProcessNodeIdentifier>>>
  ).CaseID>>>,
  ColumnCp2=ColumnCp2Value
).ColumnWs>>>
```

Fig. 50

```
<<<Script(
  ScriptCode=<<<AppXa.ScriptTable(
    ScriptID=ScriptIDValue
  ).ScriptCode>>>,
  ScriptType=Python,
  InputVariableDp1=<<<AppVa.ContextTable(
    ProcessNodeIdentifier=<<<SelfProcess.ProcessNodeIdentifier>>>
  ).CaseID>>>,
  InputVariableDp2=InputVariableDp2Value
).EvaluationResultSelectorDs1.EvaluationResultSelectorDs2>>>
```

Fig. 51

```

<<<MachineLearningModel(
  MachineLearningModelData=<<<AppYa.MachineLearningModelTable(
    MachineLearningModelID=MachineLearningModelIDValue
  ).ModelData>>>,
  ModelFramework=PyTorch,
  InputVariableEp1=<<<AppVa.ContextTable(
    ProcesNodeIdentifier=<<SelfProcess.ProcessNodeIdentifier>>>
  ).CaseID>>>,
  InputVariableEp2=InputVariableEp2Value
).EvaluationResultSelectors1>>>

```

Fig. 52

```

<<<API(
  APIAddress=<<<AppZa.APITable(
    APIID=APIIDValue
  ).API Address>>>,
  KeyGp1=<<<AppVa.ContextTable(
    ProcessNodeIdentifier=<<SelfProcess.ProcessNodeIdentifier>>>
  ).CaseID>>>,
  KeyGp2=KeyGp2Value
).EvaluationResultSelectors1.EvaluationResultSelectors2.EvaluationResultSelectors3>>>

```

Fig. 53

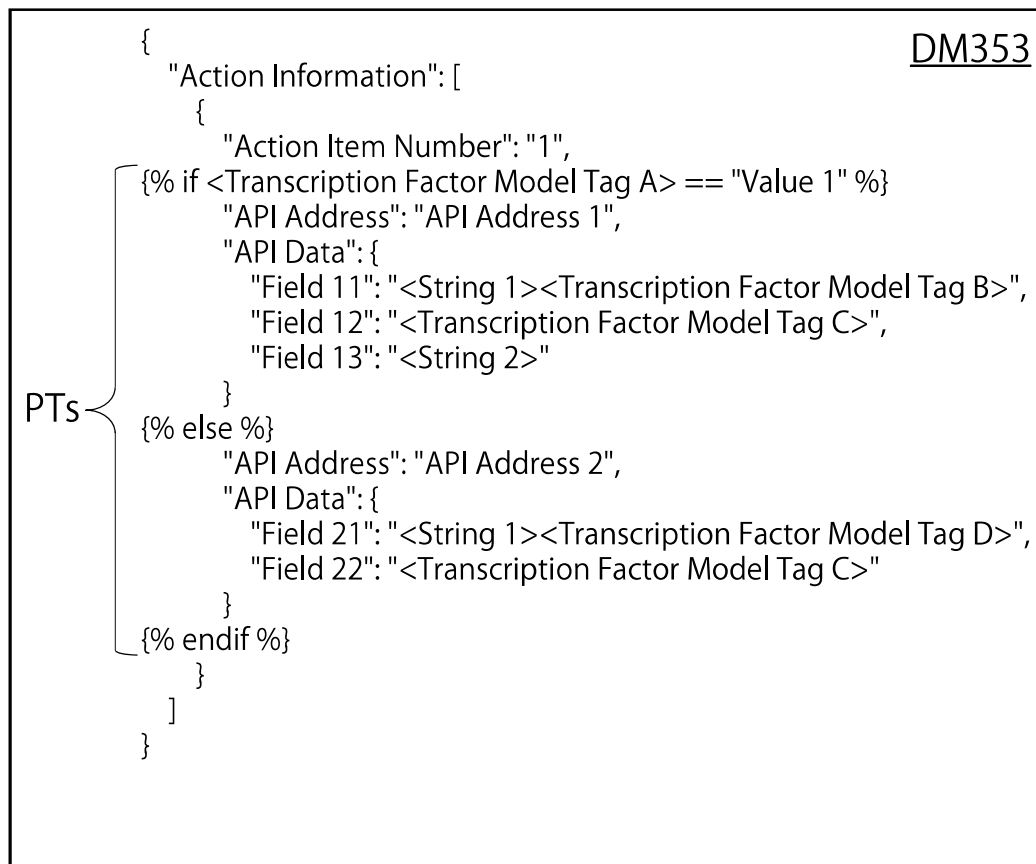


Fig. 54

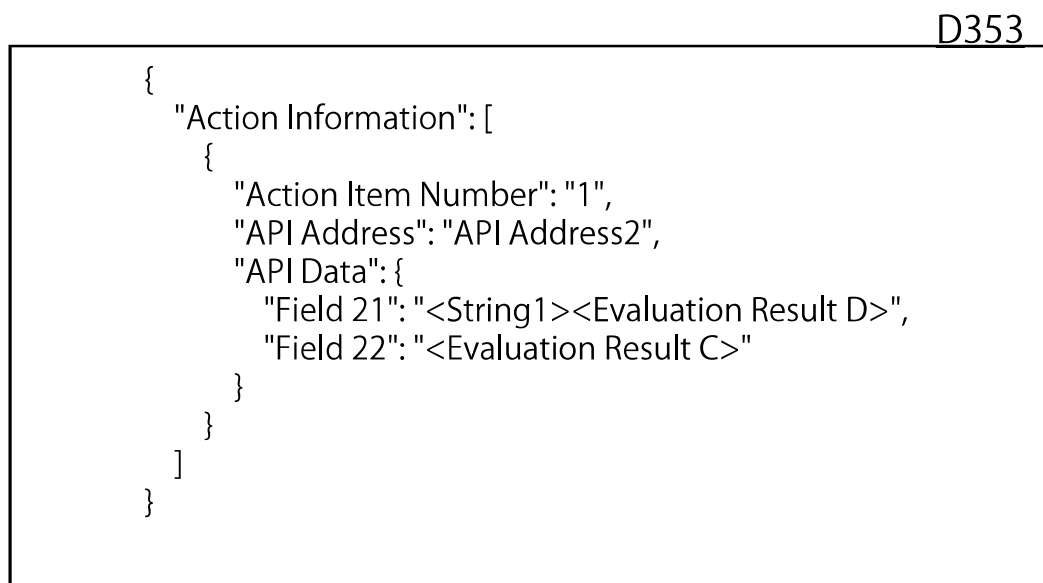


Fig. 55

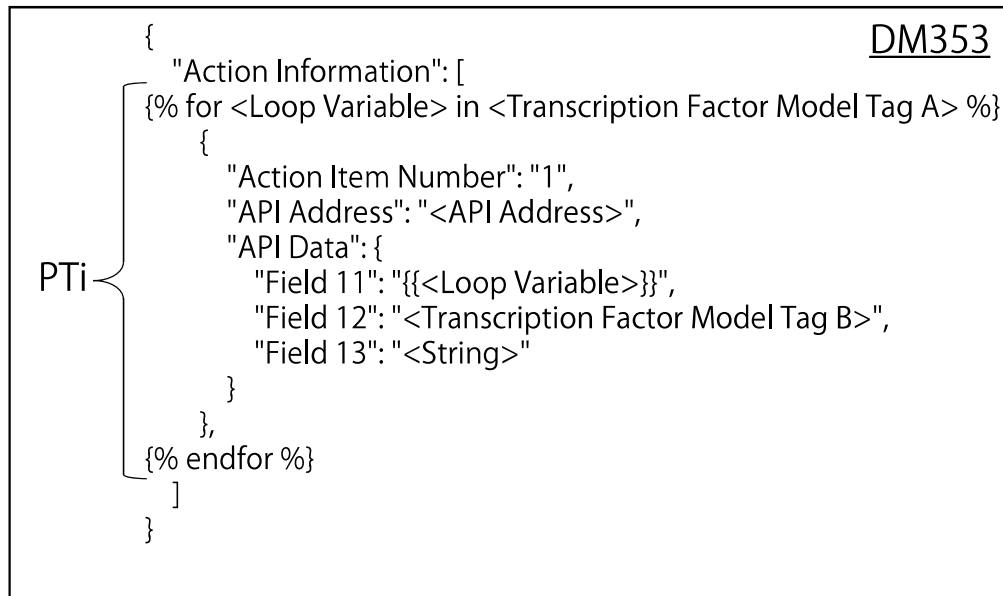


Fig. 56

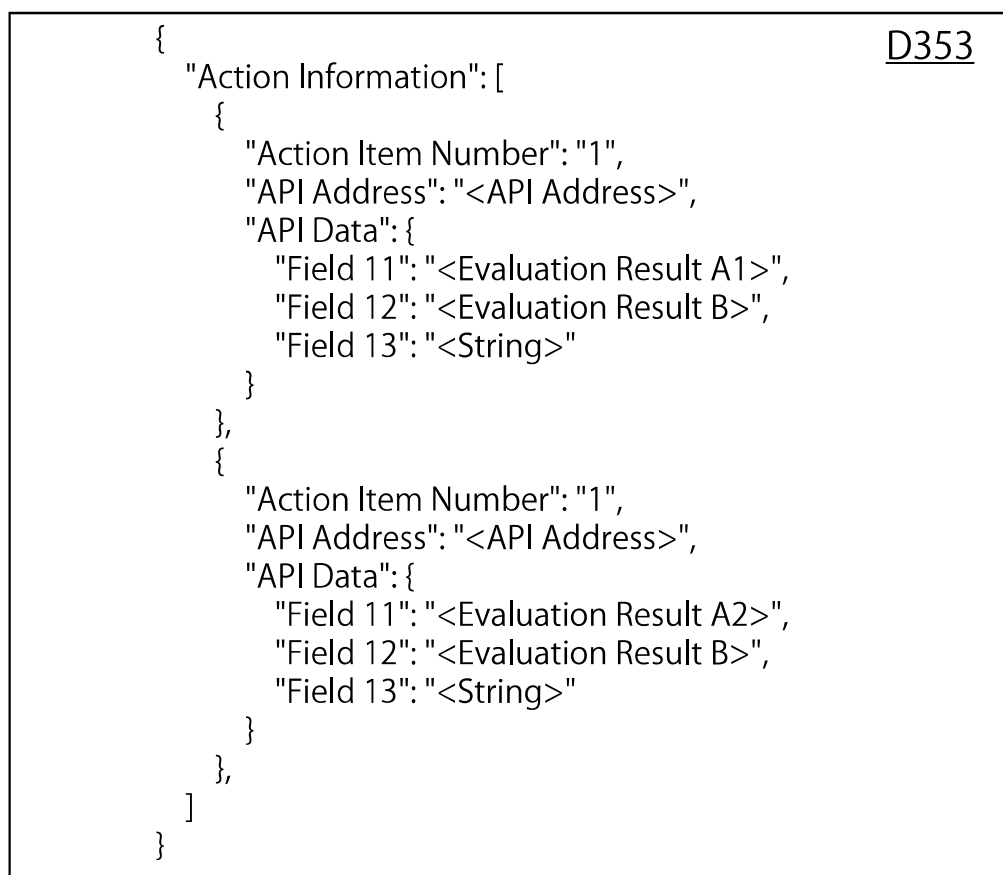


Fig. 57

D35: Process Definition Information									
D31	D32	D33	D351	D352	D353	D354	D355	D356	
Process Node Identifier	Parent Process Node Identifier	Process State	Process Number	Process Name	Action Information	Asynchronous Flag	Auto-Start Flag	Active Flag	
1			100	Root Process	<String>	FALSE	TRUE	TRUE	
2	1		100	Process Name L11	<String>	FALSE	TRUE	TRUE	
3	1		200	Process Name L12	<String>	FALSE	TRUE	TRUE	
4	1		300	Process Name L13	<String>	FALSE	TRUE	TRUE	
5	2	Completed	100	Process Name L21	<String>	FALSE	TRUE	TRUE	
6	2	Executable	200	Process Name L22	<String>	TRUE	TRUE	TRUE	
7	3		100	Process Name L23	<String>	FALSE	FALSE	FALSE	

Fig. 58

DM35: Process Generation Information														
DM31		DM32	DM351		DM352	DM353	DM354	DM355	DM356					
Process Master Node Identifier		Parent Process Master Node Identifier		Process Number Master		Process Name Master		Action Information Master		Asynchronous Flag Master		Auto-Start Flag Master		Active Flag Master
1				100		Root Process		<String>		<String>		<String>		<String>
2		1		100		Process Name L11		<String>		<String>		<String>		<String>
3		1		200		Process Name L12		<String>		<String>		<String>		<String>
4		1		300		Process Name L13		<String>		<String>		<String>		<String>
5		2		100		Process Name L21		<String>		<String>		<String>		<String>
6		2		200		Process Name L22		<String>		<String>		<String>		<String>
7		3		100		Process Name L23		<String>		<String>		<String>		<String>

Fig. 59


```

{
  "Process Generation Information": {
    "Process Number Master": 100,
    "Process Name Master": "Root Process",
    "Action Information Master": "<String>"
  },
  "Child Process Master Node Group": [
    {
      "Process Number Master": 100,
      "Process Name Master": "Process Name L11",
      "Action Information Master": "<String>",
      "Child Process Master Node Group": [
        {
          "Process Number Master": 100,
          "Process Name Master": "Process Name L21",
          "Action Information Master": "<String>",
          "Child Process Master Node Group": []
        },
        {
          "Process Number Master": 200,
          "Process Name Master": "Process Name L22",
          "Action Information Master": "<String>",
          "Child Process Master Node Group": []
        }
      ]
    }
  ],
  {
    "Process Number Master": 200,
    "Process Name Master": "Process Name L12",
    "Action Information Master": "<String>",
    "Child Process Master Group": [
      {
        "Process Number Master": 100,
        "Process Name Master": "Process Name L23",
        "Action Information Master": "<String>",
        "Child Process Master Node Group": []
      }
    ]
  },
  {
    "Process Number Master": 300,
    "Process Name Master": "Process Name L13",
    "Action Information Master": "<String>",
    "Child Process Master Node Group": [
    ]
  }
]
}

```

Fig. 63

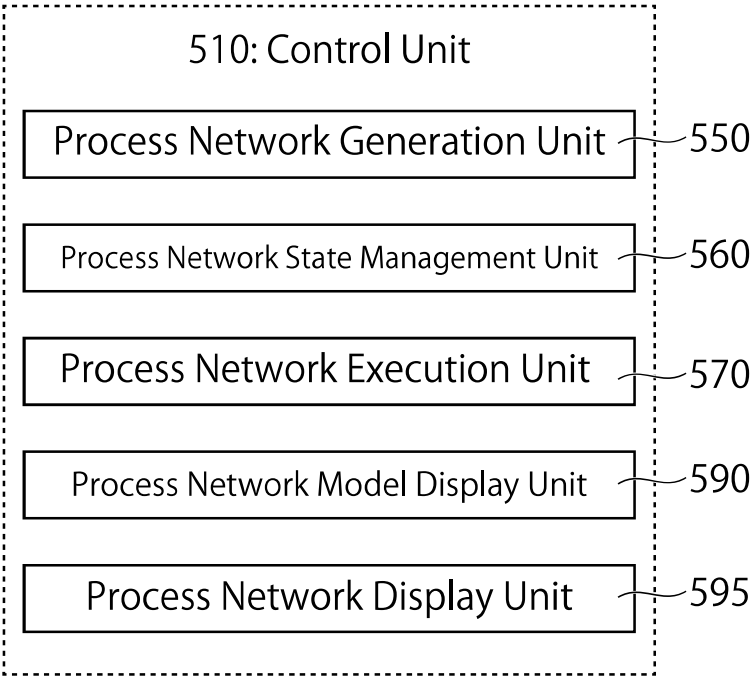


Fig. 64

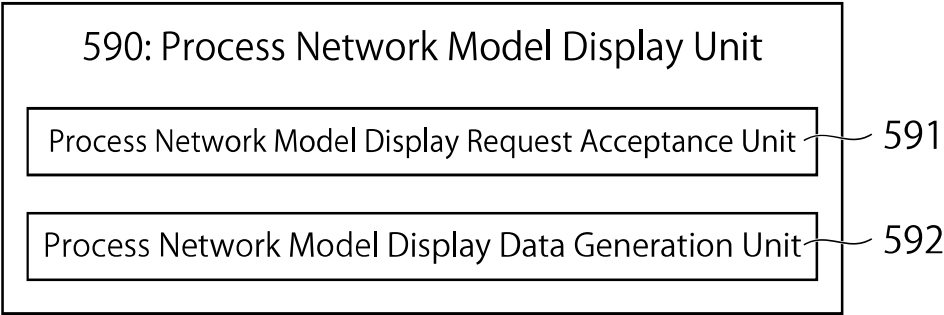


Fig. 65

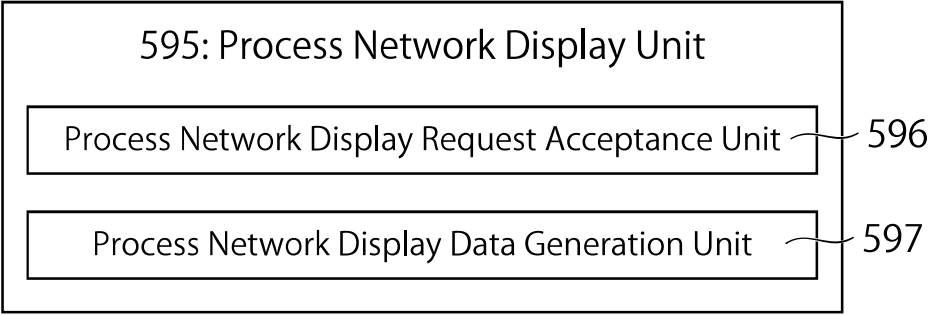


Fig. 66

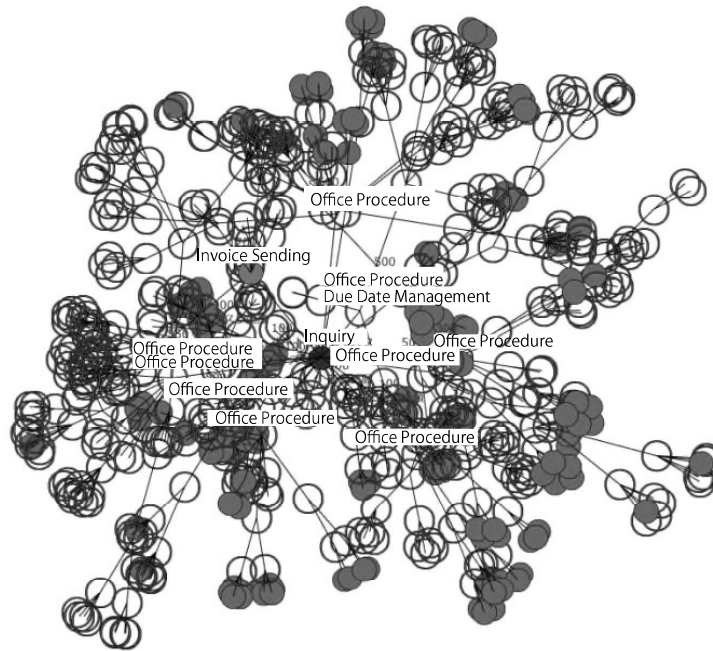


Fig. 67

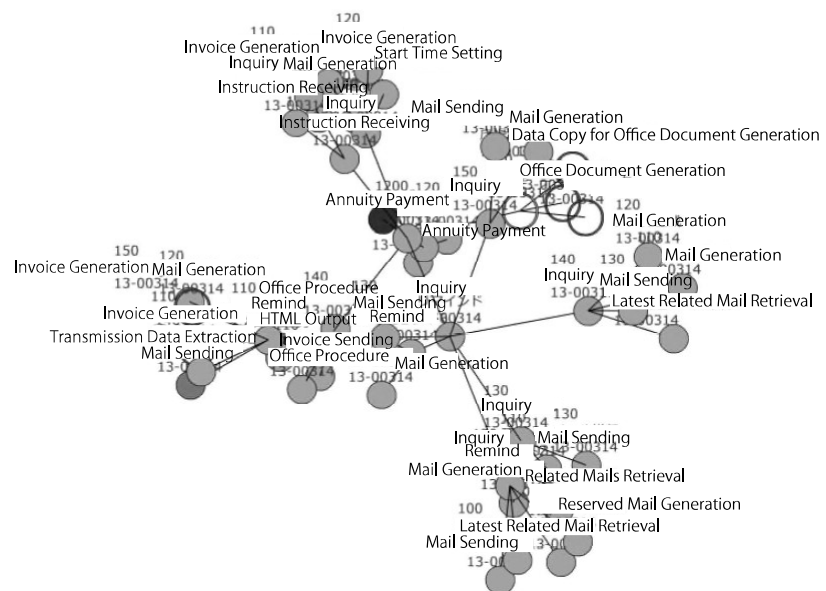


Fig. 68

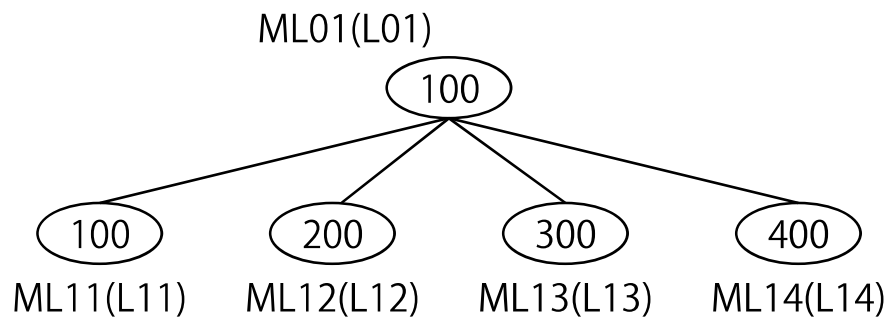


Fig. 69

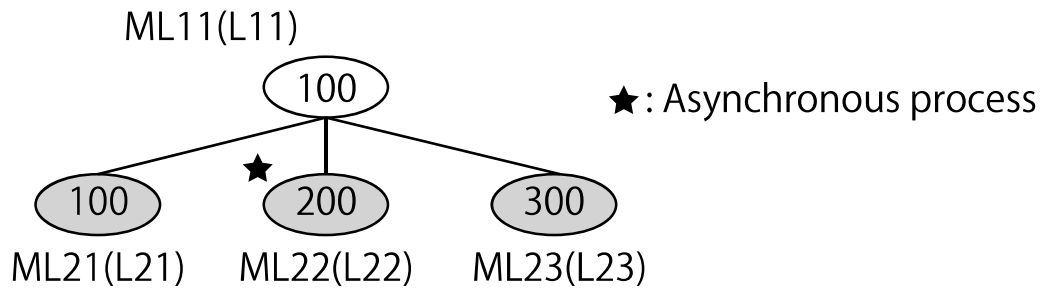


Fig. 70



Fig. 71

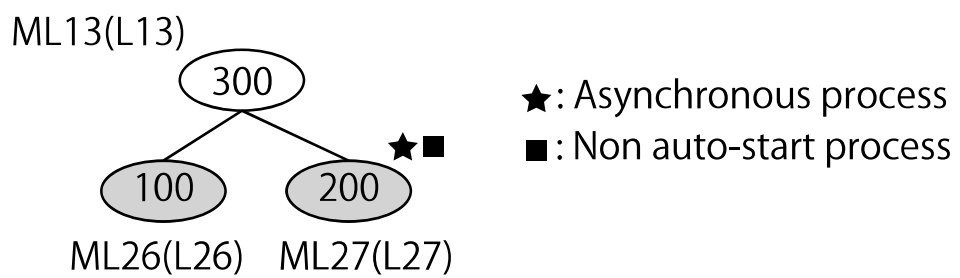


Fig. 72



Fig. 73

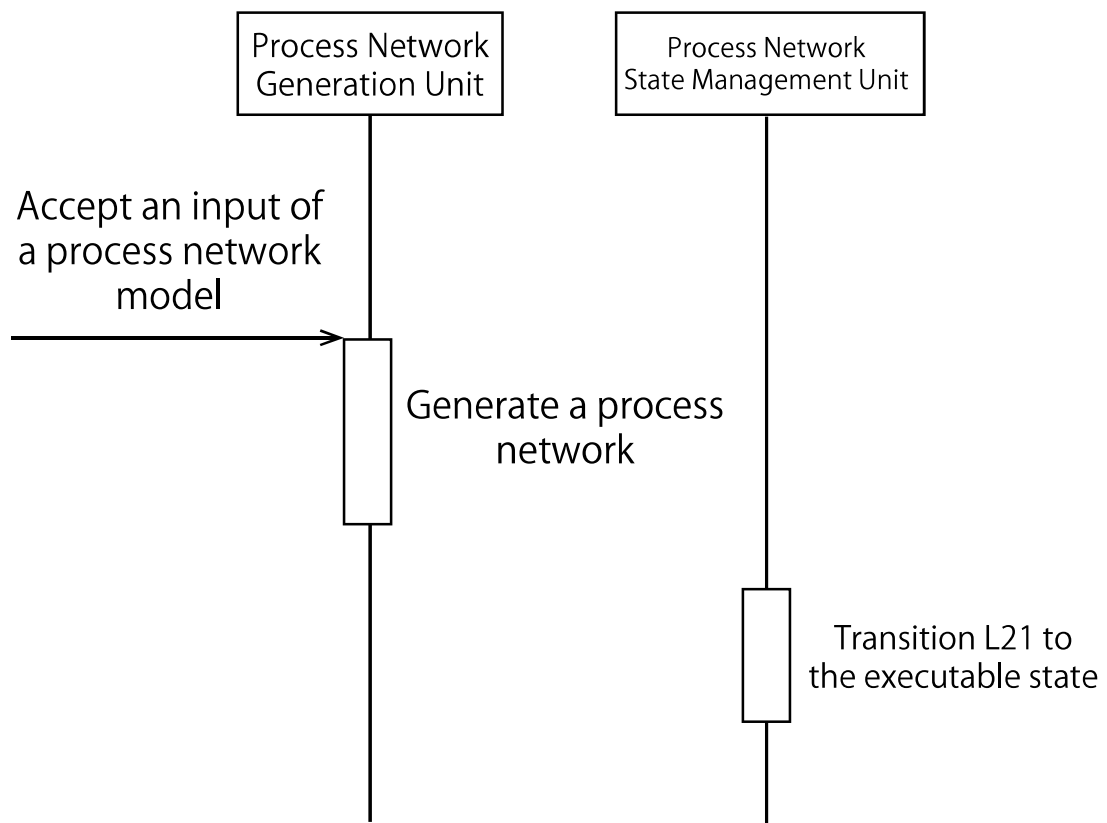


Fig. 74

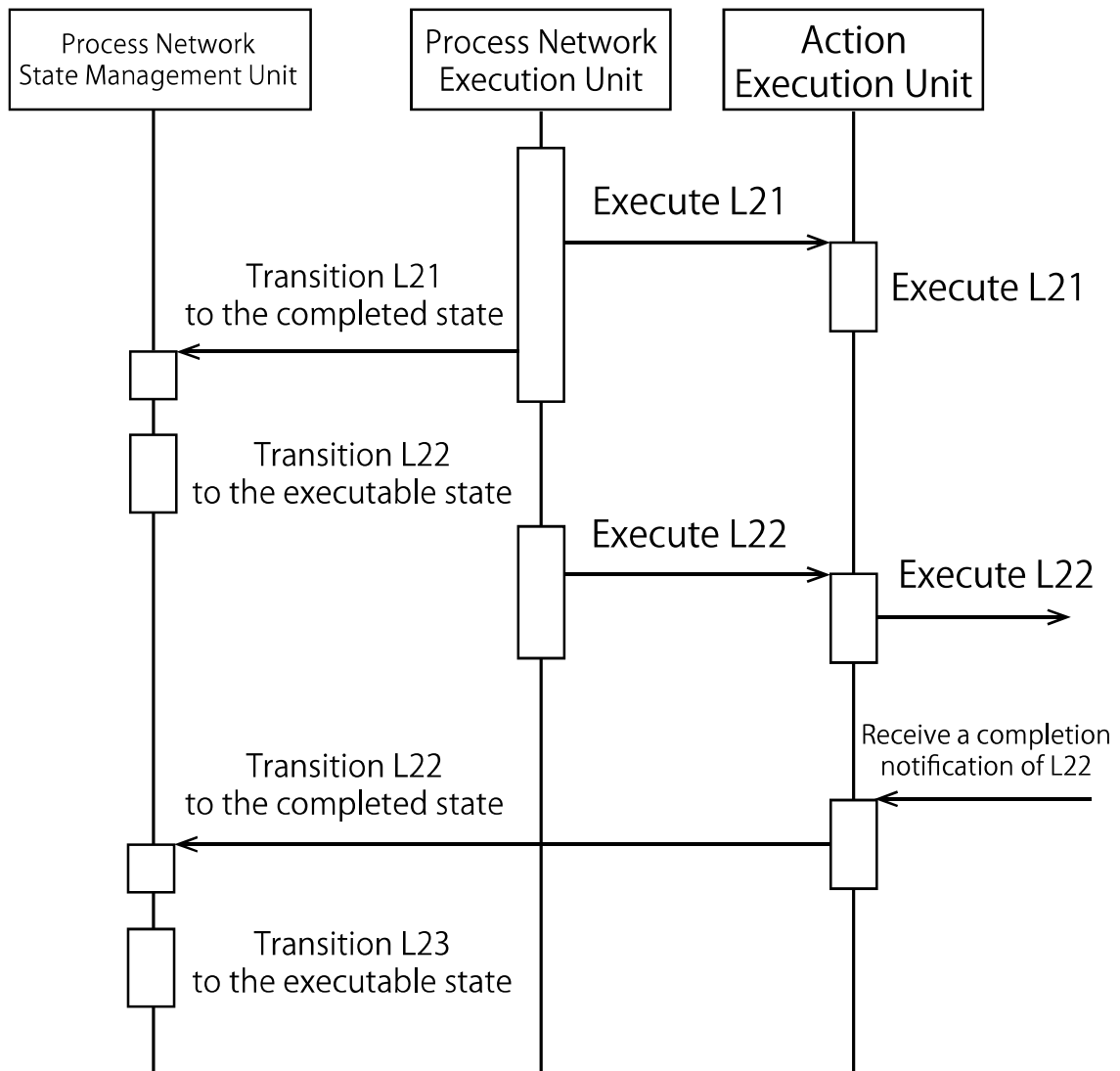


Fig. 75

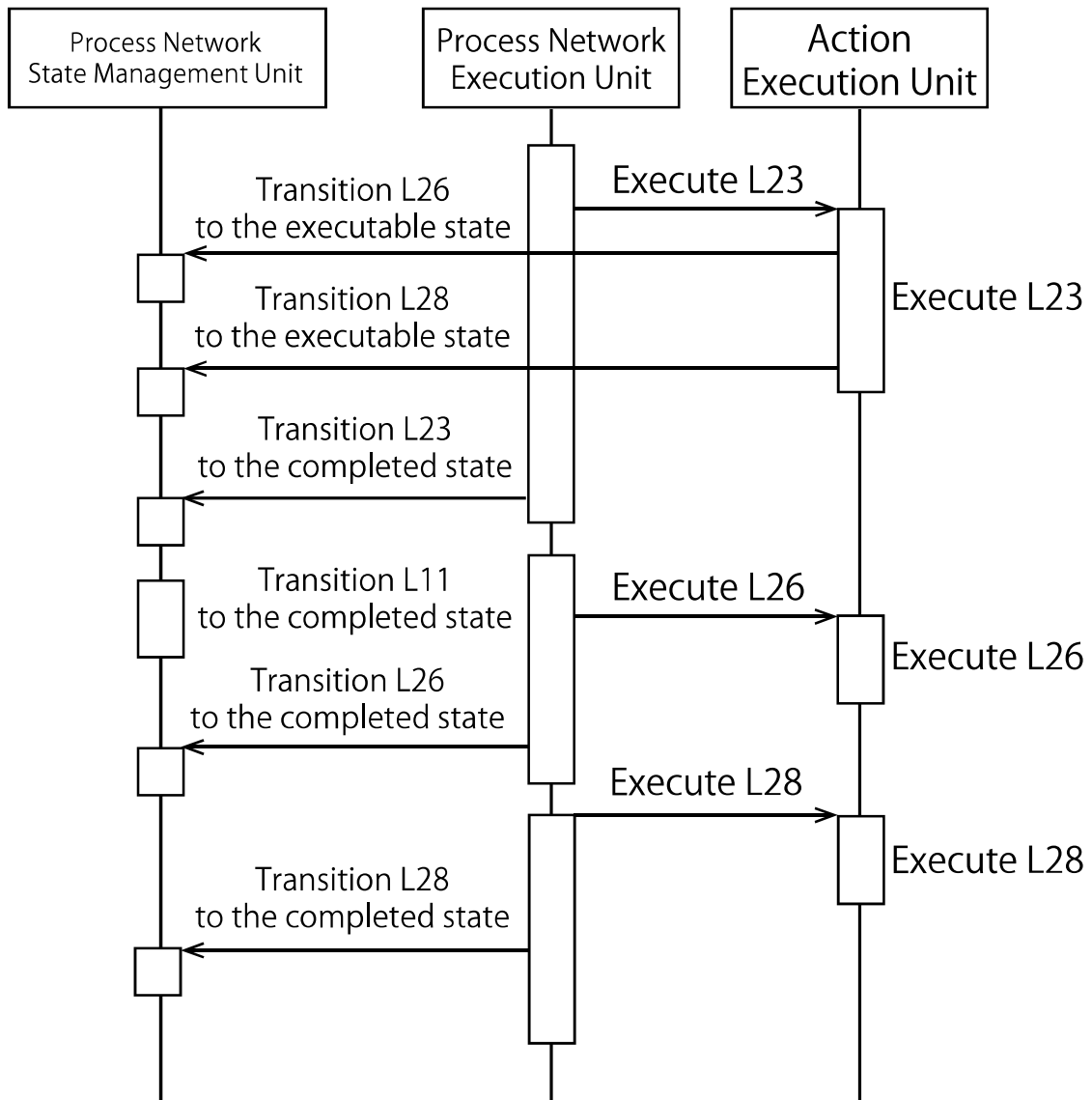


Fig. 76

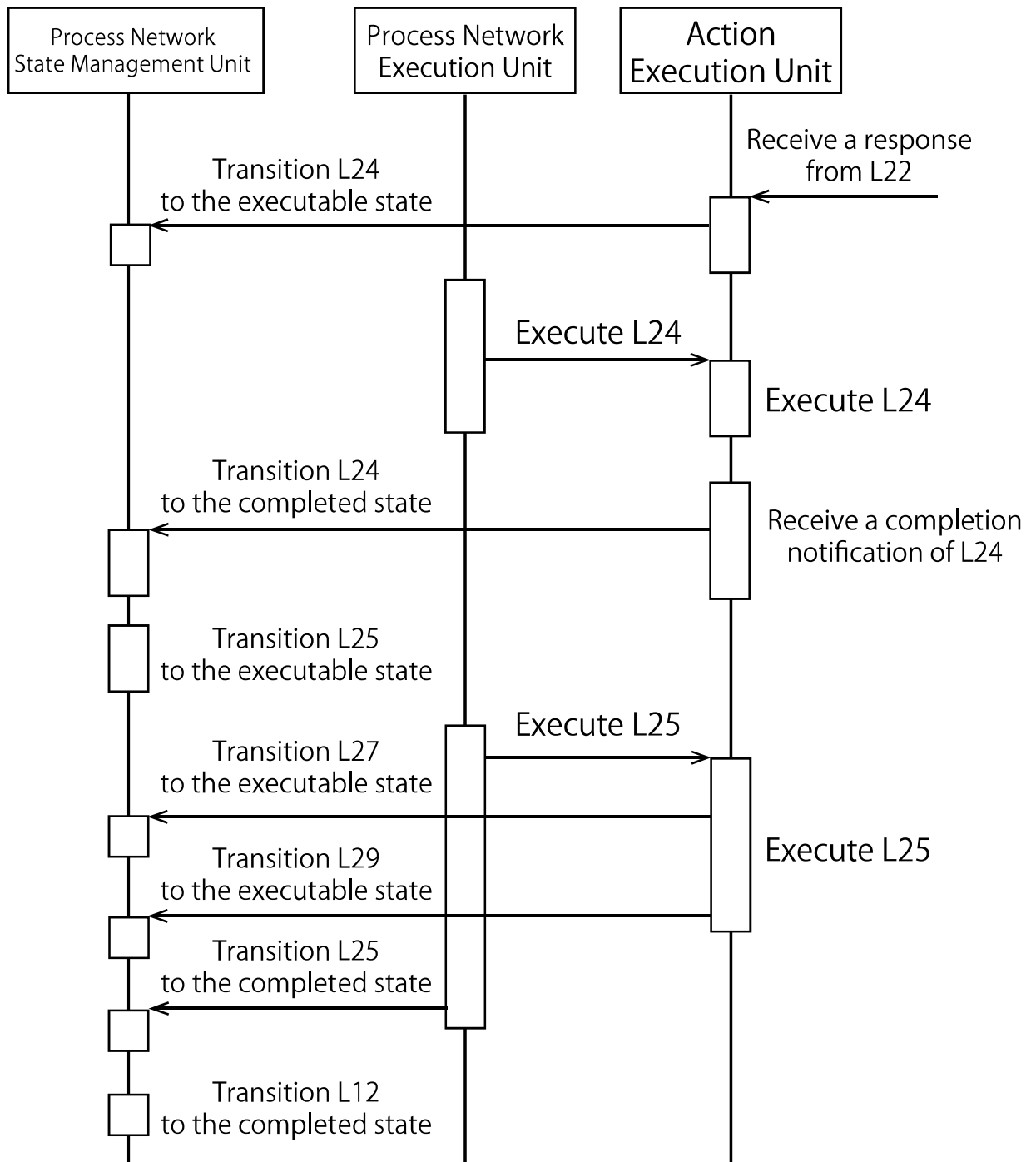


Fig. 77

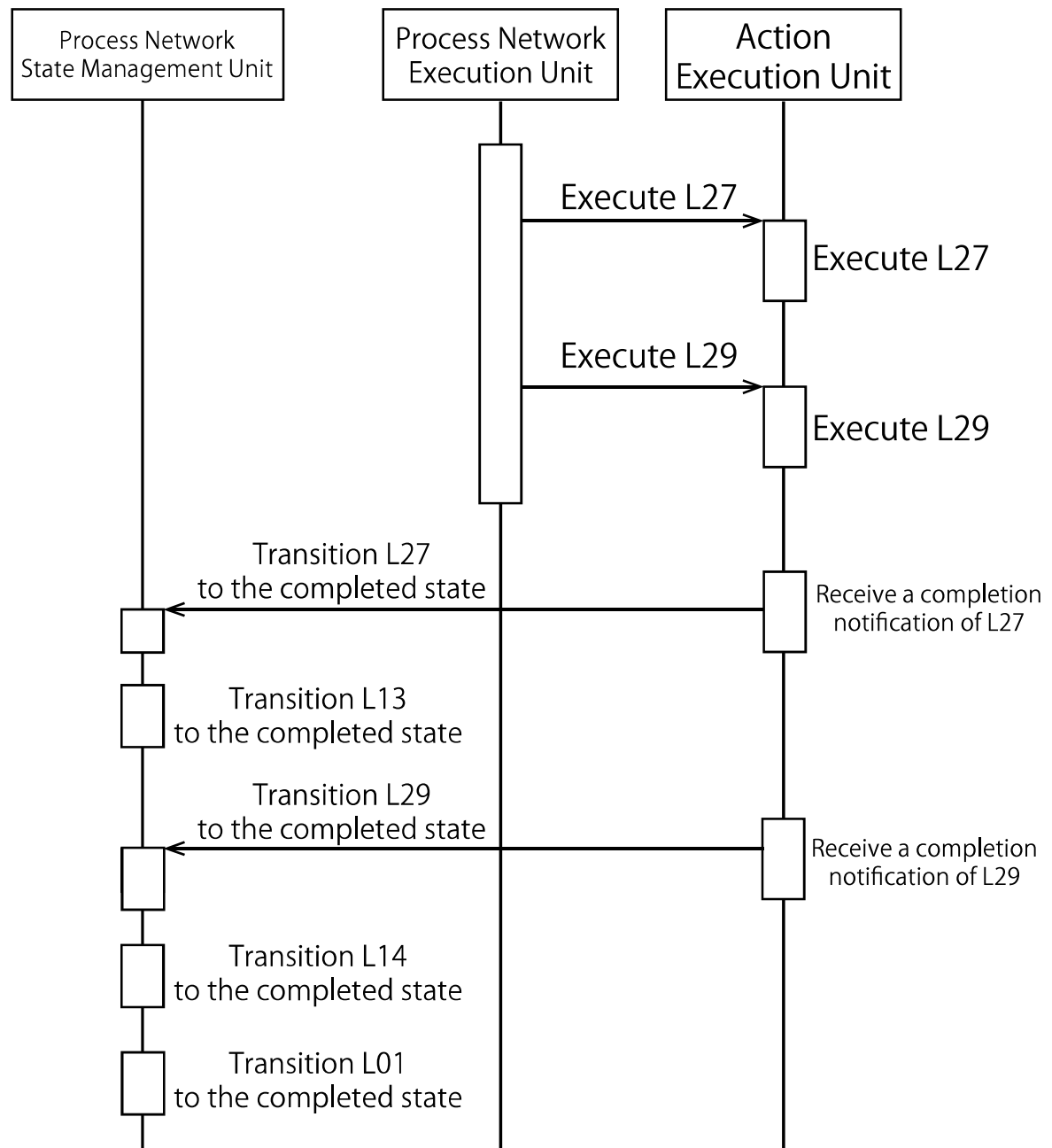


Fig. 78