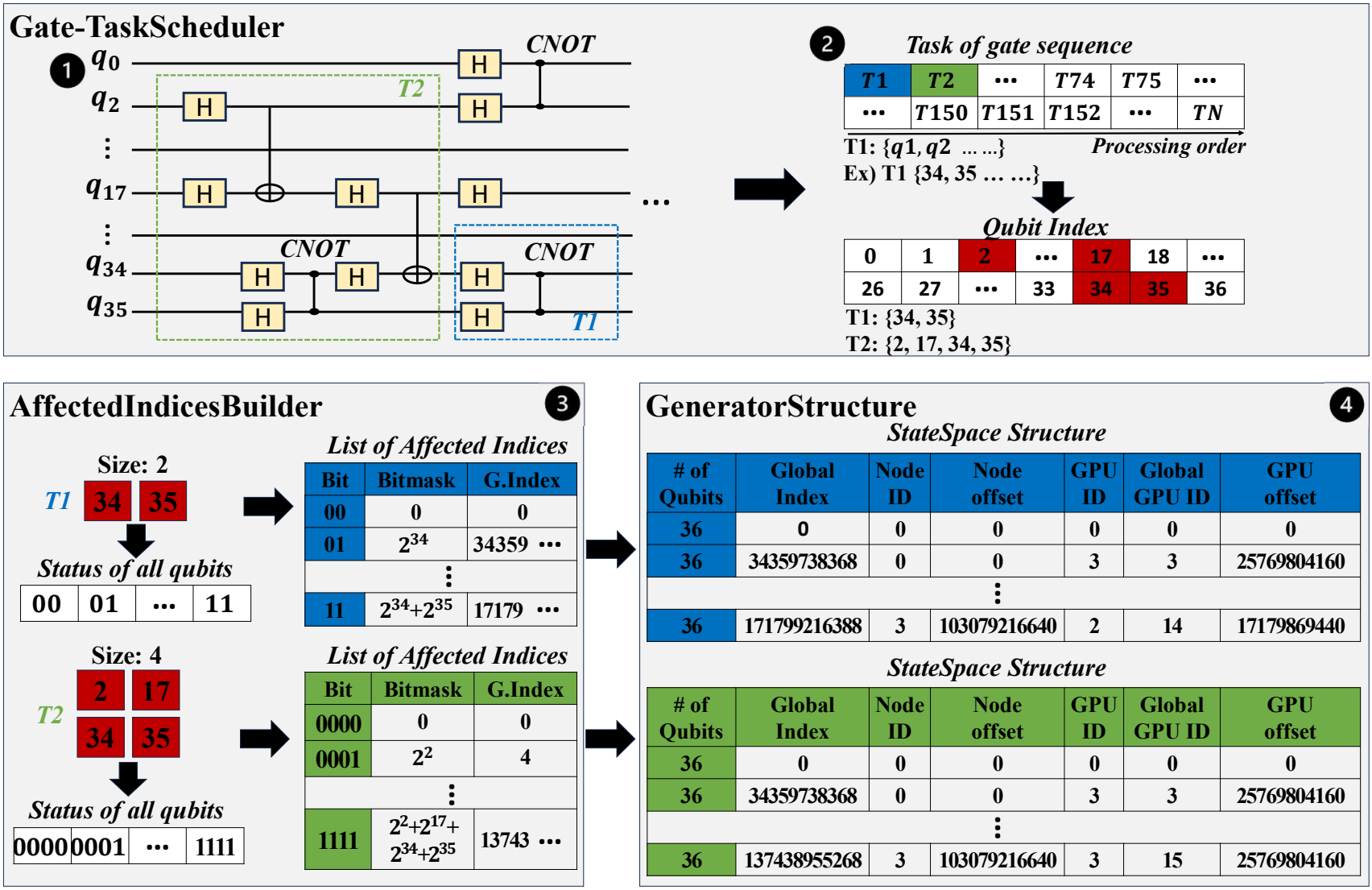
Gate-TaskScheduler
1
q_0
q_2
q_{17}
q_{34}
q_{35}
H
CNOT
T2
T1
2
Task of gate sequence
T1 T2 ... T74 T75 ...
... T150 T151 T152 ... TN
T1: {q1, q2 ... ...}
Processing order
Ex) T1 {34, 35 ... ...}
Qubit Index
0 1 2 ... 17 18 ...
26 27 ... 33 34 35 36
T1: {34, 35}
T2: {2, 17, 34, 35}
AffectedIndicesBuilder
3
Size: 2
T1 34 35
Status of all qubits
00 01 ... 11
List of Affected Indices
Bit Bitmask G.Index
00 0 0
01 2^{34} 34359 ...
11 $2^{34}+2^{35}$ 17179 ...
Size: 4
T2 2 17 34 35
Status of all qubits
0000 0001 ... 1111
List of Affected Indices
Bit Bitmask G.Index
0000 0 0
0001 2^2 4
1111 $2^2+2^{17}+2^{34}+2^{35}$ 13743 ...
GeneratorStructure
4
StateSpace Structure
# of Qubits | Global Index | Node ID | Node offset | GPU ID | Global GPU ID | GPU offset
36 | 0 | 0 | 0 | 0 | 0 | 0
36 | 34359738368 | 0 | 0 | 3 | 3 | 25769804160
36 | 171799216388 | 3 | 103079216640 | 2 | 14 | 17179869440
StateSpace Structure
# of Qubits | Global Index | Node ID | Node offset | GPU ID | Global GPU ID | GPU offset
36 | 0 | 0 | 0 | 0 | 0 | 0
36 | 34359738368 | 0 | 0 | 3 | 3 | 25769804160
36 | 137438955268 | 3 | 103079216640 | 3 | 15 | 25769804160