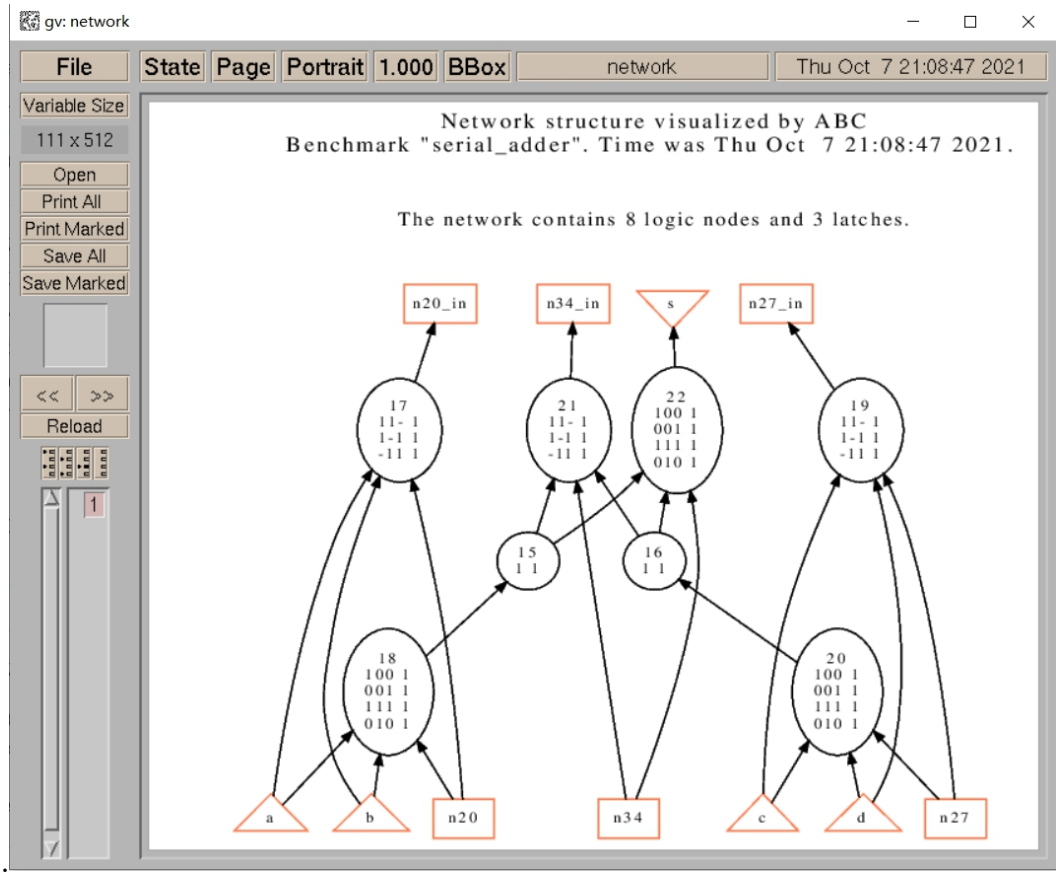
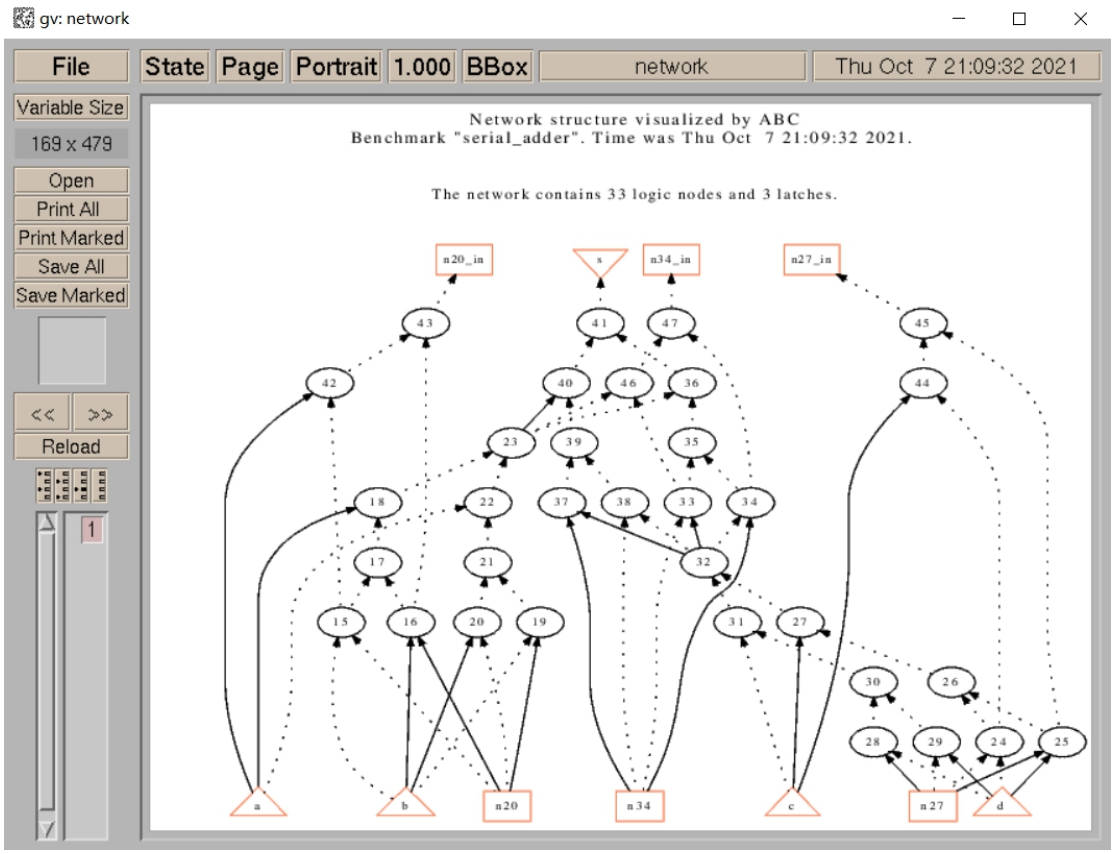
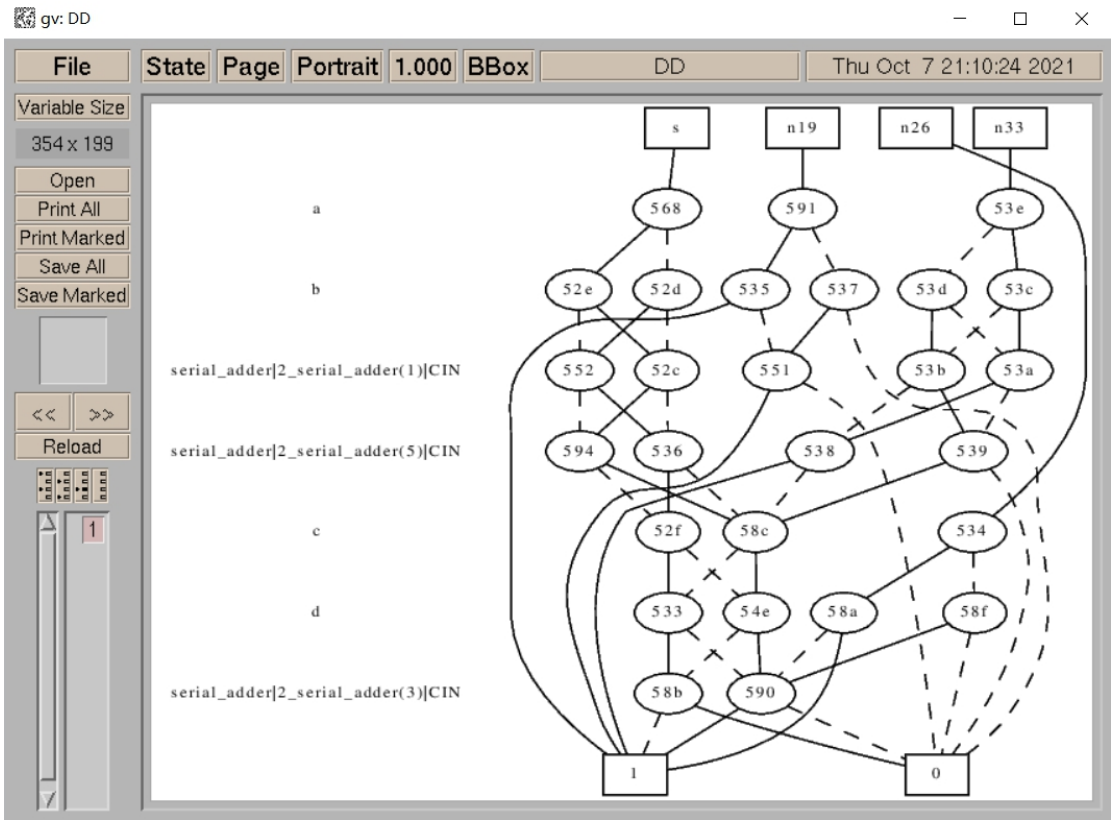
LSV-PA1
R10943160 高均益

1.







2.

(a) The logic network in aig is local AIG, and the global AIG is shown by the command “strash”.

The local AIG’s each node still maintains the local function and the local function is represented by AIG(aig). It is the same as the bdd compared with collapse.

For these global AIG and global BDD(collapse) that means the whole entire primary output function is represented uniformly using AIG without the intermediate logic nodes and similarly for global BDD. There is no notion of local nodes or local boolean network nodes here.

aig: Converts local functions of the **nodes** to AIGs.

strash: Transforms the current network into an AIG by one-level structural hashing. The resulting AIG is a logic network composed of two-input AND gates and inverters represented as complemented attributes on the edges. Structural hashing is a purely combinational transformation, which does not modify the number and positions of latches.

bdd: Converts local functions of the **nodes** to BDDs.

collapse: Recursively composes the fanin nodes into the fanout nodes resulting in a network, in which each CO is produced by a node, whose fanins are CIs. Collapsing is performed by building global functions using BDDs and is, therefore, limited to

relatively small circuits. After collapsing, the node functions are represented using BDDs.

Both “aig” and “bdd” are unsorted.

(b) Use the command “logic”
Transforms the AIG into a logic network with the SOP representation of the two-input AND-gates.