INVENTORY CONTROL VIA A UTILITY BILL OF MATERIALS (BOM) TO MINIMIZE RESOURCE CONSUMPTION

ABSTRACT OF THE DISCLOSURE

System and method for controlling the use of control wafers in a semiconductor fabrication line with load balancing and resource minimization. A preferred embodiment comprises a control wafer manager (for example, control wafer manager 605) and an inventory manager (for example, inventory manager 630). The control wafer manager uses a fabrication process dependency graph (for example, fabrication process dependency graph 407) to help determine where a control wafer may be able to go after it has completed its current process step. The inventory manager uses available inventory at each process step to assist in the decision process. Finally, a check-in process is used to ensure accurate inventory control.

FIG. 6