A FRAMEWORK FOR MEASURING COSTS IN A SIMULATION ENVIRONMENT

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In manufacturing, simulation is widely used to understand and evaluate production and time relationships under various sets of conditions. The analysis of data generated by computer simulation models of production systems, is helpful in selecting a more efficient production scenario for production purposes. Recent studies in simulation literature have shown that researchers are not only curious to study production and time relationships in manufacturing systems using simulation techniques but are also curious to study production cost along with quantity, time, and quality relationships.

In this presentation, a basic framework is developed that can be used to represent the cost elements of a production operation in a simulated environment. This framework can be helpful in studying the various aspects of production system in terms of $ cost, physical units of output, quality of output, and time of production. Using the structure of the framework executives in charge of operations can be able to generate the cost information for various production scenarios. The cost information so generated can be helpful to identify the operations and resources where loss of productivity is more and the potential of cost savings is high.