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Work Center Performance Measurement Based On Multiple Time Series

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Abstract

The performance of a production work center can be measured in the five dimensions speed, quality, flexibility, dependability, and cost. Existing approaches such as the Overall Equipment Effectiveness (OEE) are either not covering all objectives or give only limited support for full utilization of the increasing amounts of available data in production. This article introduces a hierarchical status classification system that allows the integration of versatile and detailed data streams based on time series. Based on the classifications, a detailed calculation and visualization of work center performance indicators is introduced to support the prioritization of countermeasures for work center's performance increase.

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