

We claim:

1. A system for managing life cycle of a batch in a production control system in real time comprising:

an enterprise management system configured to generate a batch production request;

a manufacturing execution system (MES) configured to receive the generated batch production request and to generate one or more batch commands corresponding to the batch production request; and

a task execution assistance (TEA) system interfaced between the MES and the production control system is configured into plurality of interfaces comprising:

a command receiving interface configured to receive the generated one or more batch commands from the MES and to update status to the MES;

a command execution engine (CEE) configured to list, execute and monitor one or more actions to be performed in a sequence for the received one or more batch commands; and

one or more adapter interface for receiving one of the listed one or more actions to be performed from the CEE and routes it to corresponding interface provided on the production control system;

the production control system configured to supply required information for one or more actions to be performed to the CEE through the corresponding interface for completing the one or more actions,

wherein the one or more adapter interface in the TEA system and the corresponding interfaces in the production control system are selected from a group comprising Object Linking and Embedding for Process Control (OPC)

batch, OPC data access (DA), operation efficiency improvement (OEI), and OPC alarms and events (AE).

2. The system as claimed in claim 1, wherein the batch commands are selected from a group comprising create batch, start batch, suspend batch, and complete batch.
3. The system as claimed in claim 1, wherein the one or more adapter interface in the TEA and the corresponding interfaces in the production control system is a file system.~~wherein the one or more adapter interface in the TEA and the corresponding interfaces in the production control system are selected from a group comprising Object Linking and Embedding for Process Control (OPC) batch, OPC data access (DA), operation efficiency improvement (OEI), OPC alarms and events (AE) and file system.~~
4. The system as claimed in claim 1, wherein the one or more actions are collecting formula data, collecting applicable equipment units data, creating a scheduler file, informing an operator for executing the batch commands and tracking the batch.
5. The system as claimed in claim 1, wherein the CEE creates a scheduler file and stores the created scheduler file on the production control system through a file system adapter interface.
6. The system as claimed in claim 5, wherein the production control system executes the stored scheduler file for creating the batch.

7. The system as claimed in claim 1, wherein the production control system executes the one or more batch commands on receiving an instruction from an operator through an OEI adapter interface.
8. The system as claimed in claim 7, wherein the production control system confirms the execution of the one or more batch commands and updates status of the batch to a command receiving interface of a TEA through an OPC AE adapter interface.
9. A method for managing life cycle of batch in a production control system in real time comprising acts of:
 - generating a batch production request by an enterprise system;
 - receiving the generated batch production request by a manufacturing execution system (MES) and generating one or more batch commands for the received batch production request;
 - receiving the generated one or more batch commands by a command receiving interface of a task execution assistance (TEA) system;
 - listing one or more actions to be performed in a sequence for the one or more batch commands by a command execution engine (CEE) of the TEA system;
 - receiving the one or more actions by corresponding adapter interface of the TEA system and routing the received one or more actions to corresponding interface provided on the production control system;
 - providing required information for the one or more actions to be performed by the production control system to the CEE through the corresponding interface for completing the one or more actions;

providing instruction to an operator to execute one or more batch commands in the production control system by the CEE through OEI adapter interface upon completion of the one or more actions; and

executing the one or more batch commands and reporting status of the batch to the command receiving interface by the production control system for managing life cycle of the batch,

wherein the one or more adapter interface in the TEA system and the corresponding interfaces in the production control system are selected from a group comprising Object Linking and Embedding for Process Control (OPC) batch, OPC data access (DA), operation efficiency improvement (OEI), and OPC alarms and events (AE).

10. The method as claimed in claim 9, wherein the one or more batch commands are selected from a group comprising create batch, start batch, suspend batch, and complete batch.
11. The method as claimed in claim 9, wherein the one or more actions are collecting formula data, collecting applicable equipment units data, creating a scheduler file, informing an operator for executing the batch commands and tracking the batch.
12. The method as claimed in claim 9, wherein the one or more actions to be performed in a sequence for the one or more batch commands is executed by the CEE of the TEA system.
13. The method as claimed in claim 9, wherein status of the one or more actions performed for the one or more batch commands by the CEE of the TEA system is reported to the MES.