DISCUS ENG

Process Planning

Generate detailed manufacturing plans with information from your customer's requirements contained in the TDP.

4 Key Elements to Better Process Planning

Most Common Challenges

- ERP/MES systems do not assist the engineer in extracting requirements from multiple customer documents including specs and other documents.

- ERP/MES is based on text based operation instructions; Many companies use Word, Excel, PowerPoint to create supplemental detailed instructions.

- ERP/MES system do not readily provide prior experience with similar parts. Engineers frequently start from scratch when planning a new part.

- ERP/MES systems do not provide a way to verify that all requirements have been flowed down and accounted for in the manufacturing & inspection plans.

- Creating plans suitable for electronic work instructions adds even more work for the manufacturing engineer. This requires extra time to create and publish these documents.

Solution Requirements

- The identification of features, characteristics, and processes identified in the TDP is one of the most time consuming aspects of estimating and this is where a tool needs to provide support.

- The system should support creation of operation-specific illustrations from specification documents, 2D drawings, and 3D CAD models.

- The setup and organization of the planning effort should enable the re-use of manufacturing & inspection plans from similar parts.

- The system should help the engineer flow the BoX down to operations and validate that all requirements are being addressed in the manufacturing and inspection plan.

- Any support for process planning (e.g., routings, durations, etc.) should be integrated with ERP/MES to avoid any duplication of data entry efforts.

DISCUS ENG Approach

- You create a Smart TDP from models, drawings, and specifications, which are represented in useful structures such as a Bill of Documents, Bill of Processes, Bill of Features, (BoX).

- ENG enables the creation of various 2D and 3D views of a part specific to an operation, which provides useful instructions for the shop operator.

- ENG enables you to quickly assign the overall part BoX to operations and ensure that all requirements are being addressed in manufacturing plans.

- The assignment of the BoX to operations is the basis for the digital work instructions. There is no separate step that requires tedious organizing and publishing.

- The ENG integration connectors enable the direct data sharing with the ERP system, which eliminates re-entering data into another computer system.

ENG Benefits

- Reduces the amount of engineering labor required to develop manufacturing and inspection plans by leveraging the BoX data organized with the Smart TDP.

- Increases first pass yield on shop floor by providing operators with a more detailed set of illustrated work instructions.

- Reduces efforts to maintain engineering-related data in the ERP/MES system by leveraging the detailed integration connectors.

Check out the other Engineering Functions DISCUS ENG can help with like :

$ Cost Estimating | ⚠ Risk Management | 📄 Work Instructions | ⚙ Change Management | 📈 Performance Reporting