

# Advanced Manufacturing

## Integration of Shop Floor Processes in SAP ERP



Advanced Applications GmbH is the SAP Partner for manufacturing industries: High-Tech, Medical Engineering, Automotive, Mechanical Engineering, Plastics and Process / Pharmaceuticals.

With a comprehensive service portfolio, Advanced Applications covers all services along the value chain: Process Consulting, SAP Application Support, SAP Development, SAP Implementation, Analytics, SAP Maintenance and SAP Hosting / Cloud Services (Plan - Build - Run).

### Integrated production with SAP ERP

Advanced Manufacturing provides all necessary information for production / assembly of a product at the workplace. Furthermore, Advanced Manufacturing integrates activities that accompany the production and communicates with machines and sensors.

As an SAP Web Dynpro / SAP Fiori based solution, Advanced Manufacturing supports the applicable functions in your facility, but also activities in the frame of external processing and contract processing.

The solution offers many functions which are still allocated to external MES systems. By means of intuitive user surfaces, these functions are now operated via SAP ERP (see the following overview). Thereby, documents and media (drawings, manufacturing instructions, videos) are provided during the manufacturing of the respective order / process so that largely paperless production will be possible.

Instruction per video	Qualification	Workplace description	Production resources and tools	Reference to current revision
Manufacturing instruction	BOM & routings	CAD 2D/3D documents	QS during manufacturing	Measurement value logging
Integration machine- / process data	Confirm quantity	Confirm time events	Batch data collection	Serial number collection
RFID	Create notification	Order queue for line	Integration of KANBAN	Info system



Advanced Manufacturing is based on the SAP ERP standard processes or function blocks. The solution is available for SAP ERP and for SAP S/4HANA.

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### Characteristics of the solution

The product planned for production is identified by barcode or RFID (on the product or accompanying document). In the next step, Advanced Manufacturing provides all information about the order or the process needed for the manufacturing of the product. All information, documents and media required for the manufacturing of a product are taken from the SAP PP standard structures (routing, BOM, etc.) at runtime. In this way, it is always ensured that the applicable current, correct information is provided at the workplace. Besides the paperless provision of information, also processes are covered, e.g. confirmation, inspection characteristic documentation, batch data collection, serialization, notifications, software equipping, calibration and machine data and measurement value logging.

The underlying user surfaces for the applicable functionality are developed and arranged according to customers' requirements, respectively according to the process, with SAP Dynpro or SAP Fiori. The solution runs in the browser and is, therefore, largely independent from devices.

All current requirements to compliance / validation can be fulfilled. A large number of references from the high tech, medical technology and aerospace industry are available on request.

### Digitalization of production processes

The seamless vertical integration of manufacturing processes and of machine and process data is the essential base for the digitalization of production processes.

With Advanced Manufacturing, companies have a tool on whose base digitalization can be realized step by step. There is a variety of functional and business related advantages because the processes do not enter the SAP ERP via interfaces to external systems.

Advanced Manufacturing can be provided as a terminal in production areas, at lines or workplaces or individually on mobile devices for each employee. Especially the approach that each employee can work with his own mobile device (tablet in WLAN) enables a very high level of safety in regard to authentication of process steps or process releases. The solution runs completely without modifications in SAP ERP so that no certification or validation of further subsystems is required.

As far as a maintenance contract is concluded for this solution, Advanced Applications GmbH guarantees that the solution will also be working in SAP S/4HANA applicably.



### Advanced Applications GmbH

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