HCLTech | Supercharging Progress™

Introducing iPEO: Advancing Manufacturing Excellence in Aerospace and Defense

HCLTech is proud to announce the release of iPEO in our continued commitment to manufacturing excellence across the A&D industry. iPEO builds on the foundation of SAP S/4HANA Manufacturing for production engineering and operations (PEO) with additional capabilities including:

Out-time tracking for time-sensitive materials

First-article inspection

Super quality notification

Bill of materials comparison

Manufacturing queue mass processing

Manufacturing queue notification enhancements

Shop floor IoT connectivity

Mass edit orders

Easy PEO training

These capability enhancements are the direct result of HCLTech's close alignment with PEO development, solicited feedback from the A&D community and multiple PEO implementations

iPEO features and benefits

Out-time tracking

Features

- Tracks the amount of time that sensitive materials are exposed to environmental conditions
- Provides an SAP Fiori-based user interface for check-out/check-in functionality
- Tracks cumulative exposure time of parent/children/kitted materials until a concluding event such as curing takes place
- Coordinates out-time tracking with SAP PEO operation activities

Benefits

- Adds capabilities required for advanced manufacturing methods such as carbon composite fabrication
- Ensures that materials that reach or exceed cumulative exposure limitations aren't consumed in the manufacturing process
- Ensures an SAP S/4HANA clean core

First-article inspection

Features

- Automatically inserts first-article inspections in shop floor orders where new fit, form, function or process changes are being evaluated
- Preplans and intercepts FAI-relevant work orders
- Inserts additional process instruction and data collection requirements for specified operations
- Facilitates approval and dispositioning of first-article inspection

Benefits

- Enables first-article compliance and certification
- Brings FAI capabilities to PEO
- Digitizes AS9102 first-article inspection form data

Super quality notification

Features

- Facilitates a change management bridge for the period between engineering disposition and change incorporation when parts in flow require rework to comply with the change
- Pre-plans bridge operations effective for an interim period based on model unit configuration
- Intercepts shop floor orders on release and insert bridge operations

Benefits

- Facilitates a smooth change management transition for parts in flow
- Eliminates repetitive nonconformance documentation and disposition
- Provides authorization for shop floor workers to perform fit, form and function changes
- Ensures parts in flow comply with the new change requirements.

Bill of materials comparison

Features

- Allows users to compare and audit engineering, manufacturing and as-built bills of materials, including engineering bills of materials from external sources
- Supports BOM comparison across the digital thread regardless of whether the BOM is defined in PLM or PEO.
- Provides audit profiles, audit capabilities and additional usability enhancements

Benefits

- Enables confirmation of design compliance and continuity from engineering through product realization
- Ensures that product delivery complies with design intent
- Identifies noncompliance as early as possible in the manufacturing process
- Provides end-to-end BOM comparison

Manufacturing queue mass processing

Features

- High-volume manufacturing in S/4HANA Manufacturing PEO
- Mass processing capabilities across orders
- Grouping of order operations for concurrent work execution

Benefits

- Ability to group orders requiring the same process, such as plating or autoclave
- Eliminates repetitive keyboard entries when multiple quantities are undergoing concurrent processing
- Ability to apply data collection across multiple quantities with a single entry

Manufacturing queue notification enhancements

Features

- Provides heightened awareness of pending production impacts on the manufacturing queue
- Alerts shop floor supervisors and technicians of pending qualification expirations
- Alerts the shop floor of pending engineering changes
- Provides quality management-related notifications in the PEO manufacturing queue

Benefits

- Reduces rework and compliance violations
- Enhances worker qualification compliance
- Reduces rework due to missed engineering changes
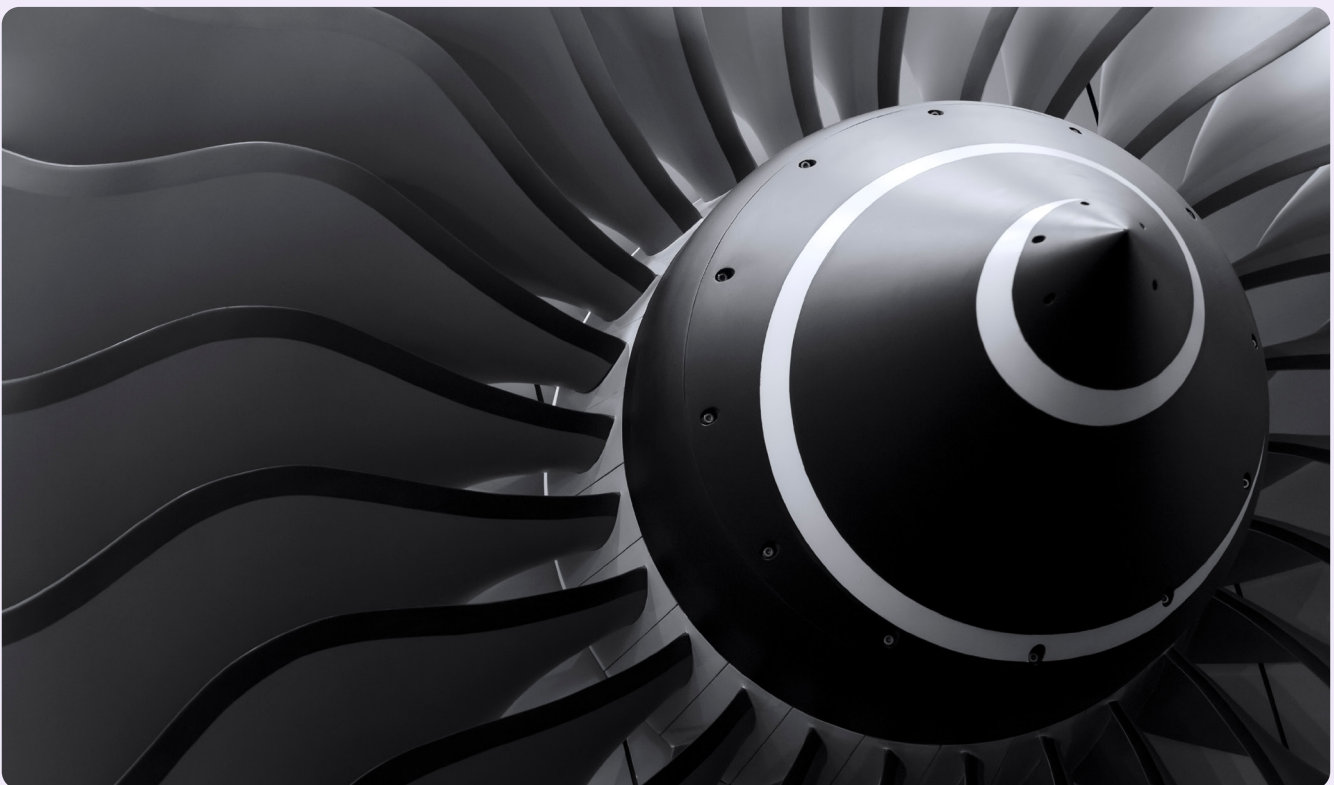- Alerts workers of ancillary quality notifications

Shop floor IoT connectivity

Features

- Enables IoT connectivity between PEO and handheld devices/program-driven machines on the shop floor
- Captures data from handheld devices such as torque wrenches and barcode scanners
- Triggers robotic and machine tool programs in context with PEO operation activities

Benefits

- Eliminates human error resulting from transcribed data collection and incorrect keyboard entries
- Eliminates swivel chair integration between manufacturing execution systems and shop floor machinery
- Ensures accurate data collection
- Ensures that proper programs are called for connected machinery and robots

Mass edit orders

Features

- Propagates changes to shop floor orders for work in process
- Updates an order and propagates the same change to additional released orders
- Takes into account operation completion status in the change propagation cycle
- Flags orders requiring manual intervention due to operation completion status

Benefits

- Eliminates repetitive manual order change management processes
- Increases manufacturing engineering efficiency

Easy PEO training

Features

- Provides contextual PEO training suitable for classroom training and independent reference
- Suitable for production engineers, production supervisors, production operators and quality engineers
- Includes topics such as manufacturing engineering, manufacturing operations management, shop floor execution and shop floor quality management
- Provides step-by-step functional guidance with visual references

Benefits

- Provides SAP S/4HANA Manufacturing best practice training
- Template-based training allows easy change management for customer-specific requirements
- Facilitates rapid return on PEO investment

Please reach out to HCLTech for additional information on iPEO or more information or a demo of SAP S/4HANA Manufacturing for PEO.

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