



Business-friendly Solutions



# Digital Work Instructions (DWI)

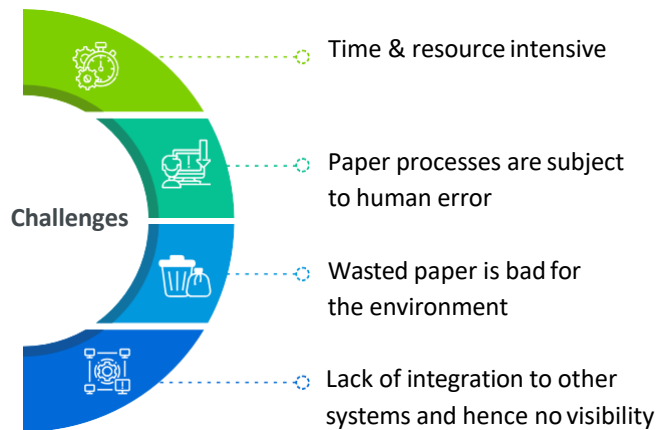


## Overview

Traditionally, data communication among various functional areas of the factory has been through the exchange of blueprints, routing sheets, inventory lists, shop floor travelers, and so forth. It is labor intensive - which can be unsustainable, time-consuming, process dependent, and costly for organizations. Therefore, in the quest for operational improvement, it is critical to address the paper-based processes on the shop floor. Most of the manufacturing leaders have not yet embraced the paperless approach. On average, eight hours per week is lost in searching or acquiring data, and around five hours per week is spent by IT decision-makers in connecting, integrating & maintaining data. Hence, it is imperative for manufacturers to shift to a paperless environment and achieve transformation benefits.

## Current Paper-Based Manufacturing Environment & its Challenges:

**The Shop Floor Traveler:** The creation, maintenance, and tracking of paper documents on the shop floor can result in extensive work for manufacturing personnel. Following the release of a shop order, several hands are required to create the appropriate shop order documents, which may require photocopying of documents, drawings, instructions, lists, and so forth. Often routing sheets are placed in plastic sleeves and bundled in a thick file called a shop floor traveler. This file follows the job from station to station and becomes thicker as details of the work are recorded.



## The Solution

ITC Infotech's Digital Work Instructions (DWI) ensures manufacturers keep up with the changing business requirements and real-time demands. The solution ensures paperless manufacturing, paper travelers will be replaced with Digital Work Instructions. Operators are presented with production tasks with a pre-determined sequence as per the route. CAD drawings, videos, images, and word documents can be viewed along with production tasks.

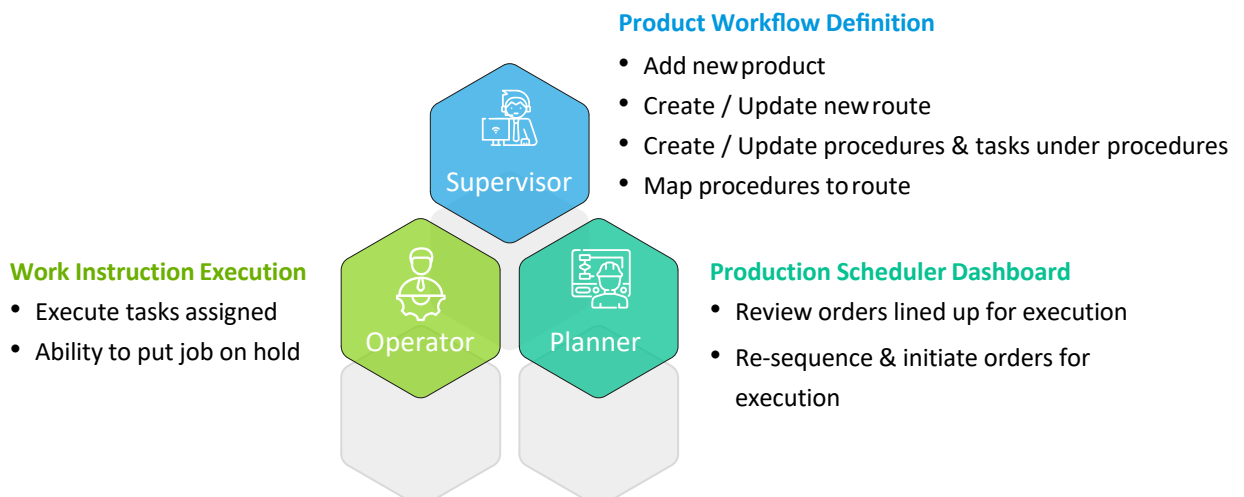
**Integration:** The solution has the capability to integrate with ERP systems so that data exchange related to work orders, BOM, material consumption etc. can happen seamlessly. It can also integrate with shop floor systems so that parameter values from equipment/smart tools can be fetched in real-time.

DWI comprises of 3 main modules -

Product Workflow Definition

Production Scheduler Dashboard

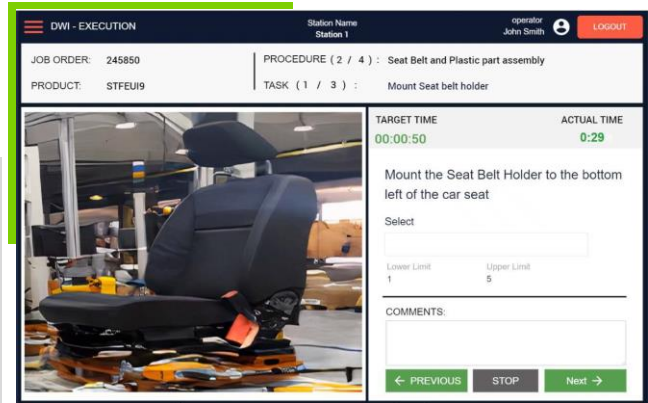
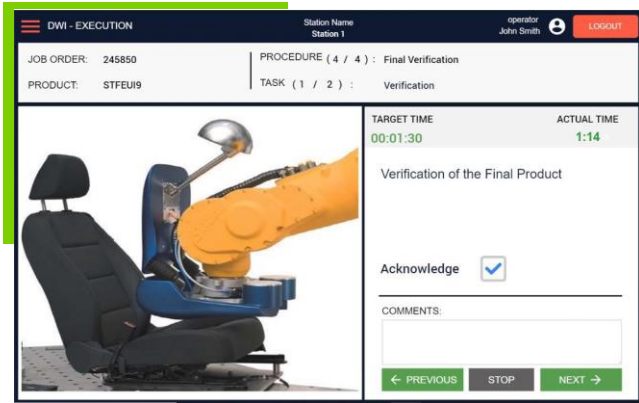
Work Instruction Execution



## Product Workflow Definition

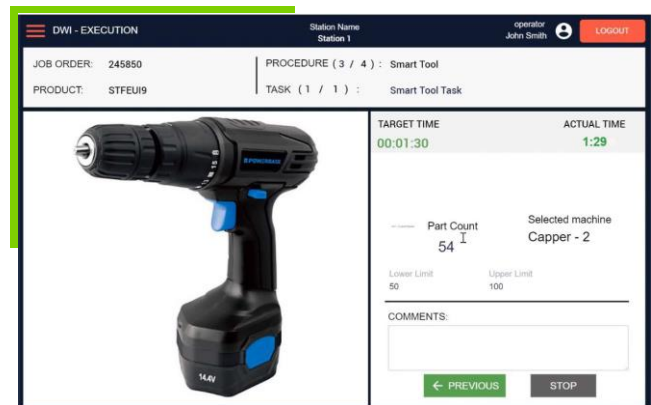
This module enables the supervisor with the following features

- Define product
- Create a new route or modify the existing one
- Create/Modify procedures and assign procedures to routes
- Create/Modify tasks under procedures
- Upload images/video/documents /CAD drawings for tasks



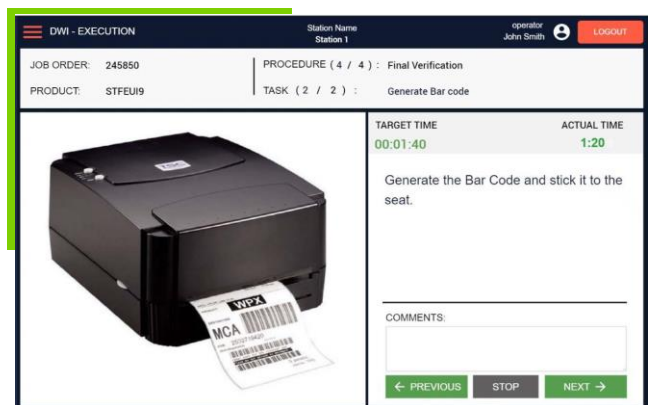
## Production Scheduler Dashboard

The application provides a production planner with a dashboard where schedulers can re-sequence the orders planned for today and initiate them to start production



## Work Instruction Execution

In this module, the operator will be able to select the orders which are in the queue at the workstation and start the execution. The work instruction for the operator will be displayed on the screen. The operator will be able to view images/videos/documents/cad drawing based on the configuration of that task. The operator will have various means to provide feedback post completion of the operation. The operator also can put any job on hold and enter the reasons for the same. Values captured in this module can be utilized for various reporting/analytics such as cycle time, labor efficiency, etc.



## Solution Features



### Visually Intuitive Work Instructions

Operator screens are visually appealing with the ability to display images/video



### Process Control

Ability to record and track vital job data which enables to know who had their hands on a job and precisely what was done



### Structured Workflow

Follows defined logical structure of route during execution



### Easy Management of Work Instructions

Centralized and easy to revise/update work instructions



### Cloud Native

Cloud native solution to collaborate with the stakeholders in real-time  
Help data-driven decision making in an agile manner



### Support Variety of Devices

Mobility based application access (mobile, iPad/tablet) Displays on wide screens/televisions, monitors on the shop floor



### Integration

Integration with ERP and shop floor systems for seamless data transfer



### Reports

Real-time reports for easy tracking, visibility & timely decision making with insights

## Business Benefits

### KPIs Impacted

Increase in operator efficiency by

**8-12%**

Increase in capacity utilization by

**5-8%**

Reduction of scrap by

**4-7%**

### Operational Efficiency

- Assures **100%** execution compliance
- **Up to 30% reduction** in effort for onboarding of seasonal workers
- **Error proofing steps** to reduce waste
- **Gain production visibility** and collect data for performance & compliance

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