

# Case Study:



## Ingenious Techzoid

### AT A GLANCE

Dana is a leading supplier of fully integrated drivetrain and electrified propulsion systems for all kind of vehicles.

They needed a proper system to monitor the different parameters like temperature, pressure and status at specific stages in order to keep record for future and improve the quality of the differential gears.

### NEED:

To develop a traceability software which will store different parameters so that they can be recalled as and when required.

### CHALLENGES:

- Recordkeeping problems
- Lag time in identification
- Supply chain complexity



HIS Group Ingenious



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### BENEFITS:

- Proper monitoring of parameters.
- Storage of data on cloud through IoT Gateway.
- Helps in improving efficiency of the production process, recording and reducing stoppages and detection of delays in process.
- Real-time visibility, analytics & corrective actions for data available through SCADA Systems.
- Continuous monitoring.
- □ Provides wide functionality to adapt, configure and extend capabilities.
- □ Provides faster implementation to results.

### SOLUTION:

Traceability System is about tracking parameters and storing in the cloud in regular basis. Some of its salient features are:

- Serial Number embarking will be done and a web-based application on tab/HMI will be provided to enter various parameters at stages as defined in previous section.
- All the process parameters will be stored in the server from various stages in a regular basis.
- Name of the operator and cycle time to be recorder at each stage.
- Generate alarms whenever there is no input available for a particular interval of time and in the condition of line halting.
- Generates hourly, daily, monthly reports of the damper assembly line and final assembly line.
- Updates data on DANA Local Server for real-time remote monitoring of all the stages.



Heating Station

Heating Machine FD Serial Number

Temperature  Grade  Status

Cooling Press FD Gear

Cooling Press FD Serial Number

Temperature  Grade  Status

Bolt Torquing

Bolt Torquing FD Serial Number

	Torque	Angle		Torque	Angle		Torque	Angle		Torque	Angle
1-1	<input type="text" value="0"/>	<input type="text" value="0"/>	2-1	<input type="text" value="0"/>	<input type="text" value="0"/>	3-1	<input type="text" value="0"/>	<input type="text" value="0"/>	4-1	<input type="text" value="0"/>	<input type="text" value="0"/>
1-2	<input type="text" value="0"/>	<input type="text" value="0"/>	2-2	<input type="text" value="0"/>	<input type="text" value="0"/>	3-2	<input type="text" value="0"/>	<input type="text" value="0"/>	4-2	<input type="text" value="0"/>	<input type="text" value="0"/>
1-3	<input type="text" value="0"/>	<input type="text" value="0"/>	2-3	<input type="text" value="0"/>	<input type="text" value="0"/>	3-3	<input type="text" value="0"/>	<input type="text" value="0"/>	4-3	<input type="text" value="0"/>	<input type="text" value="0"/>
1-4	<input type="text" value="0"/>	<input type="text" value="0"/>	2-4	<input type="text" value="0"/>	<input type="text" value="0"/>	3-4	<input type="text" value="0"/>	<input type="text" value="0"/>	4-4	<input type="text" value="0"/>	<input type="text" value="0"/>

Final Runout

Remote FD Serial Number

Runout



Heating Station

Heating Machine FD Serial Number

Temperature  Grade  Status

Coolling Press FD Gear

Coolling Press FD Serial Number

Temperature  Grade  Status

Bolt Torquing

Bolt Torquing FD Serial Number

	Torque	Angle		Torque	Angle		Torque	Angle		Torque	Angle
1-1	<input type="text" value="0"/>	<input type="text" value="0"/>	2-1	<input type="text" value="0"/>	<input type="text" value="0"/>	3-1	<input type="text" value="0"/>	<input type="text" value="0"/>	4-1	<input type="text" value="0"/>	<input type="text" value="0"/>
1-2	<input type="text" value="0"/>	<input type="text" value="0"/>	2-2	<input type="text" value="0"/>	<input type="text" value="0"/>	3-2	<input type="text" value="0"/>	<input type="text" value="0"/>	4-2	<input type="text" value="0"/>	<input type="text" value="0"/>
1-3	<input type="text" value="0"/>	<input type="text" value="0"/>	2-3	<input type="text" value="0"/>	<input type="text" value="0"/>	3-3	<input type="text" value="0"/>	<input type="text" value="0"/>	4-3	<input type="text" value="0"/>	<input type="text" value="0"/>
1-4	<input type="text" value="0"/>	<input type="text" value="0"/>	2-4	<input type="text" value="0"/>	<input type="text" value="0"/>	3-4	<input type="text" value="0"/>	<input type="text" value="0"/>	4-4	<input type="text" value="0"/>	<input type="text" value="0"/>

Final Runout

