

# TITAN

COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)



# What is a CMMS?

A software that helps organizations manage and streamline:

- Resources and labor
- Asset lifecycle
- Work order prioritization and scheduling
- Preventive maintenance
- Materials and inventory
- Audits and compliance tracking
- Reporting and dashboarding
- Condition monitoring
- Planning & Budgeting

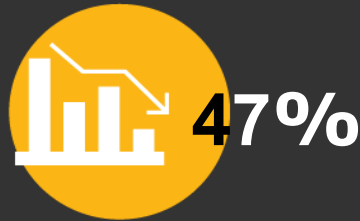


# Why **TITAN** is needed?

**DOWNTIME** disrupts business operations. Research indicates that the costliest aspects of downtime are



Lost Revenue



Lost Productivity



Lost Brand Trust

# Why **TITAN** is needed?

No Data to analyze, plan & improve

People vs Systems



No **records keeping**



**Equipment history** is inside people's heads



**Unplanned** work remains **uncontrolled**



Impossible to objectively estimate **maintenance costs**



**Strategic value** of maintenance is not realized completely

# Do you need TITAN?



- Do you effectively record, track and manage **work orders** of industry?
- How do you measure maintenance **team performance**?
- Do the management get any **notifications** ahead of any critical situation?
- Do you have historical data for **planning** and **budgeting**?
- How do you make sure spare parts **availability** to reduce **turnaround time**?
- How do you enforce maintenance technicians to **follow** O&M procedures, equipment manuals? How do you store all the documents?
- How do you ensure **Health & Safety** compliance?
- Do you have enough data to identify **productivity** black holes? To identify factors affecting **maintenance cost**?



**Reduce Maintenance Cost**

**Minimize Downtimes**

**Boost Production**

**Improve Assets Life**

**Boost Team Performance**

**Ensure Compliance**

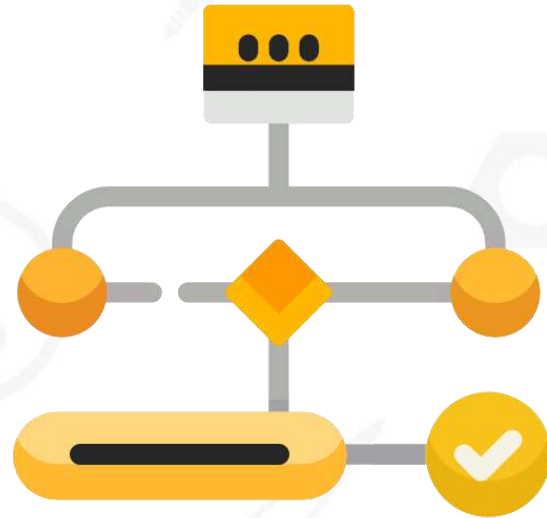
# Workflows

## Reduce

- Stock waste
- Human intervention
- Turnaround Time

## Improve

- Accountability & prioritization
- Safety
- Forecasting and planning
- Standard practices



# Tracking & Reporting

## Improve

- Average MTTR (Mean time to repair)
- Average MTBF (Mean time between failures)
- Preventive maintenance waste
- Time to diagnose

## Identify

- Maintenance trends and averages
- Cost footprints
- Audit logs
- Productivity black holes
- Iterative maintenance strategy realignment
- Compliance to standards





# Inventory & Assets

## Reduce

- Unnecessary paper work
- Communication delays
- Data fragmentation
- Resource dependency

## Improve

- SOPs and best practice compliance
- Resource utilization
- Quality control
- Maintenance tracking & history



# Cost

## Reduce

- Downtime & unplanned shutdowns
- Overtime
- Average time to repair
- Repair Cost

## Improve

- Asset life
- Budget efficiency/utilization



# Other Benefits



Take control through the **Asset Register**



**Effective** preventive maintenance



Schedule PM routines for **Optimal Resource Utilization**



Transparency enabled **Cost Control**



Migrate data from Excel to a Centralized Database to enhance **Data Integrity**.



**Data driven Insights** for maximizing industrial productivity

# Asset Register



1

## Classification

Create Asset Group  
and Type

2

## Modeling

Create Asset  
Template and Define  
Sub Items

3

## Variants

Create Asset Variants  
for minor variations  
in models

4

## Asset Entry

Create instances of  
defined template,  
according to  
locations and  
Departments

# Preventive Maintenance



## Time Based

### Scheduled Work Orders

Maintenance engineer will generate a preventive maintenance routines or scheduled work orders for all production Machinery.

Job Orders will be automatically generated after pre defined time period and concern employee will be notified through sms, email and push notification.

User can view, edit or deactivate any preventive routine at any time with some predefined approval routings.

## Condition Based

### Inspections

Inspection templates and parameters will be defined for al assets.

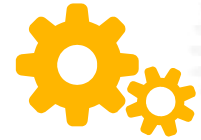
Inspection entries will be created according to predefined time periods.

### Meter Readings

Meter readings can be entered manually or can be directly fetched from SCADA database.

Job Orders will be automatically generated if meter reading value is out of pre defined range.

# Corrective Maintenance



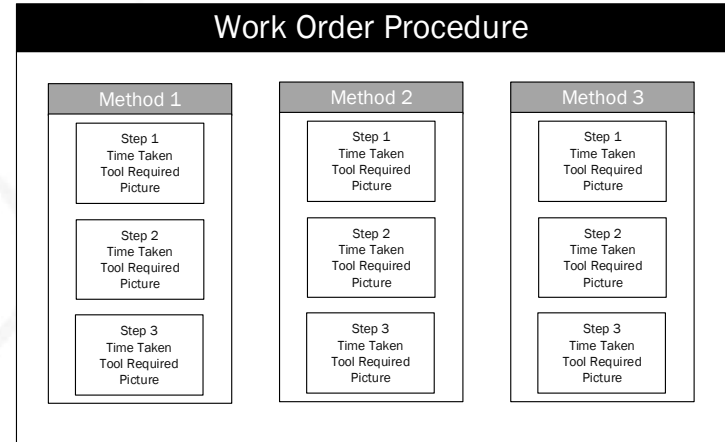
## Job Order Flow



# Work Order Procedures



- Work Order Procedures consist of Work Order Methods.
- Work Order Methods contains detailed steps of work, tools requirements and time taken for each step.
- If any other department help is required it is mentioned in WO Procedure.
- WO Procedures eliminates dependencies from high value resources.





# Dashboards

## Data Visualization and Analytics

- Main Dashboards : summary of Work Orders
- Departments : KPIs (MTTR, MTBF, Maintenance Cost, Backlog) Against Departments
- Machine Groups: KPIs (MTTR, MTBF, Maintenance Cost, Backlog) Against Machine Groups



Dashboard 1



Dashboard 2



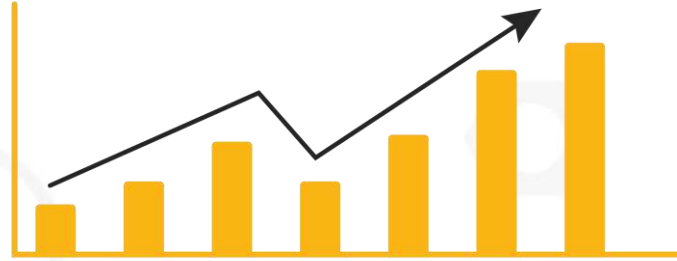
Dashboard 3

*\*Dashboards can be designed and configured according to customer requirements.*



# Reports

- Asset List
- Pending Job Orders
- Work Order Execution Report
- Item Stock Report
- KPIs against Departments
- KPIs Against Machine Groups



*\*Reports can be designed and configured according to customer requirements.*

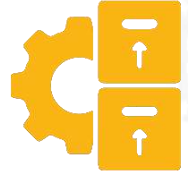
# Alarms & Alerts

Push Notifications, SMS & Emails can be configured against custom events like following

- Job Order Creation
- Work Assigned
- Inspection or Meter Reading delayed.
- Meter reading value out of range
- Inspection entry out of range
- Work Scheduled



# Inventory Management



- TITAN – CMMS can be integrated with any application it fetch inventory item classification, cost and procurement details from inventory application.
- If organization don't have inventory application, TITAN – CMMS provides privileges to add following data:
  - Item Classification (Group, Categories, Types)
  - Item Cost
  - Basic Data (UoM, Brands)
- Following options can be added on customer requirements:
  - Purchasing and issuance module
  - Stock Details

# Other Features



Automatic Inspections  
for Plant and Machinery  
through **IIoT** techniques



Failure Mode and Affect Analysis  
(FMEA) for **Root Cause Analysis**  
(RCA)



**Component Level**  
tracing for faulty  
items



**Integration** with  
other ERP Modules



**Inventory Management**  
Basic Functionality



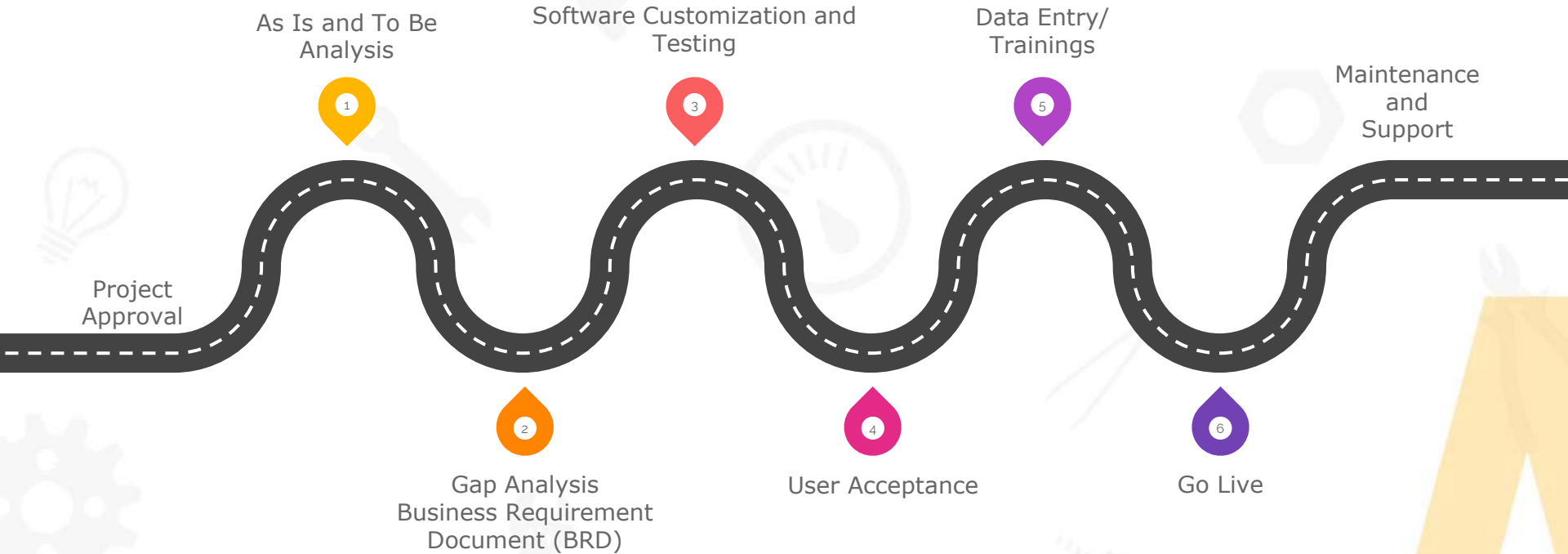
**Workshop Production**  
Record details of inventory  
used and produced by  
workshops

# TITAN vs Others

- **Pakistan's first** locally developed CMMS
- HIGHLY **customizable** & integrable
- No limitations!
- On-premise & Cloud
- 24/7 local support
- Customized to local needs
- Onetime License

The logo for TITAN features the word "TITAN" in a bold, black, sans-serif font. The letter "A" is highlighted in a bright yellow color. The background of the slide is white with faint, light gray icons of various tools and mechanical parts, including gears, wrenches, a screwdriver, a lightbulb, and a speedometer, scattered around the text.

# Implementation Plan



## Pakistan's leading embroidery thread producer – Candle Threads



“We have reduced our yearly maintenance budget 25%-30% by efficiently planning the maintenance and productively use our resources with TITAN. We have improved resource utilization up to 60% and we have reduced 40% work force allocated for maintenance. maintenance is not centric to specific person but anyone who uses TITAN can fix most problems. We have reduced downtimes of production by 50%. Maintenance couldn't have been a simple job without TITAN.”

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**MUDASSIR SALEEM**

(Managing Director of Salim Winding Works- **Candle Threads**)

# TITAN



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