



**AUTOMATION & DIGITALIZATION**

# **15 APPLICATIONS FOR METRIS ASSET MANAGEMENT**

**PROACTIVE WAYS TO IDENTIFY ASSET  
RISKS AND ENSURE THEIR INTEGRITY**



**ANDRITZ**

**ENGINEERED SUCCESS**



# Streamlining Success: Enhancing Pulp and Paper Mill's Efficiency with 15 Metris Asset Management Applications

Welcome to this e-book presenting the Metris Asset Management applications. In the following pages, we will introduce you to 15 key applications that form the core of our product. Each of these applications is developed to address specific aspects of asset management, providing you with the tools you need to efficiently oversee and optimize your mill's processes.

This guide aims to offer a practical understanding of how these applications can benefit your asset management approach, whether you're an experienced professional or needing to increase your knowledge regarding this topic. We will also explore how these tools can enhance your workflow, offer valuable insights, and ultimately contribute to the success of your process optimization.

We invite you to dive into the following sections, where you will discover all the functionalities and potential benefits of each of these 15 apps.

# BYPASS MANAGEMENT



The application to keep track of bypasses lifecycle from request to continuous monitoring, increasing and stabilizing mill safety condition.

Metris <metris@veracel.com.br>  
Metris Notification

Request Bypass Approve Bypass Apply Bypass Request Rollback Approve Rollback Apply Rollback

Commands

Start Bypass Management

Full Text Search

Grouped by: Status

Commands	Timestamp	Status
(1) Bypass Requested (awaiting approval)		
(2) Bypass Approved (awaiting apply)		
(3) Bypass Applied (Interlock disabled - awaiting rollback request)		
(4) Rollback Requested (awaiting approval)		
(5) Rollback Approved (awaiting execution)		
(6) Rollback Applied (Interlock enabled)		

Code: 4  
Installation Local Description: Default  
Risk Description: The pump needs an O-Ring seal replacement. Injury or area shut down could occur.

Timestamp	Status	Comments	User	Acknowledged	Archived
9/9/2019 10:28:28 AM	Executed	Applying 09/09/2019 - OPP Operator - Larry M. training	training	<input type="checkbox"/>	<input type="checkbox"/>
9/9/2019 9:36:19 AM	Execution_Approved	Approved 09/09/2019 - OPP Manager - Larry L. training	training	<input type="checkbox"/>	<input type="checkbox"/>
9/9/2019 9:12:57 AM	Execution_Requested	Execution_Requested	training	<input type="checkbox"/>	<input type="checkbox"/>

## Strategic objectives

- Safety and Compliance
- Risk Management
- Asset Optimization

## Features

- Track bypasses lifecycle
- Email notification
- Audit trail for compliance

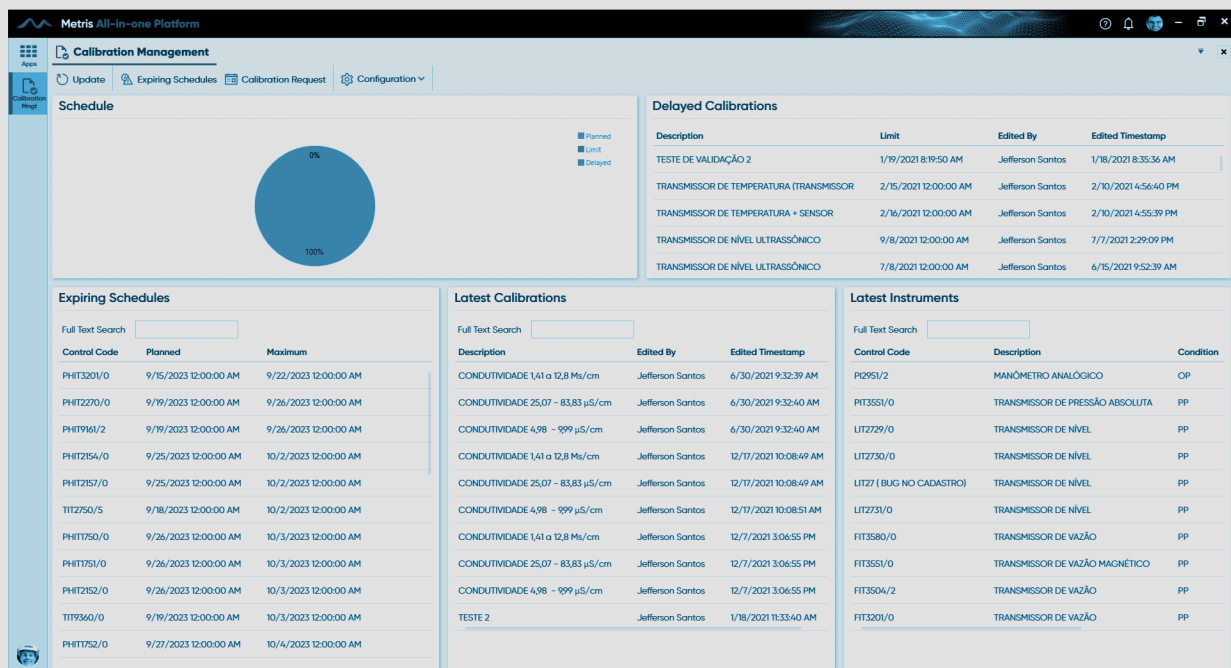
## Benefits

- Guard personnel health and safety
- Manage risks
- Maximize situational awareness

# Calibration Management



Allows the generation of calibration plans and certificates, schedule calibrations and allow instruments traceability.



## Strategic objectives

- Safety and Compliance
- Quality Control
- Operational Efficiency

## Features

- Creation of calibration plans
- Task scheduling
- Issuing calibration certificates

## Benefits

- Standardize enterprise best practices
- Ensure meeting standards
- Enhance accountability



# Condition Monitoring



An application that monitor the condition of machines and systems. The primary goal of Condition Monitoring is to determine and relay the current condition of a system as well as to provide advanced detection or prediction of a fault and any possible damage.



## Strategic objectives

- Asset Optimization
- Cost Reduction
- Risk Management

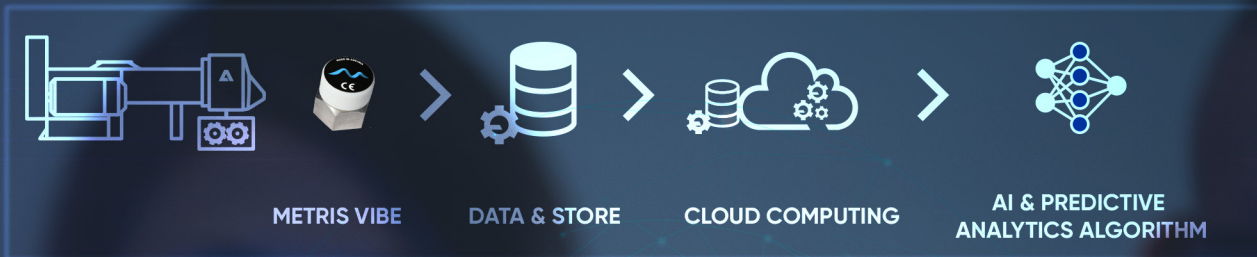
## Features

- Real time monitoring
- Smart Diagnosis
- Integrated to mobile app

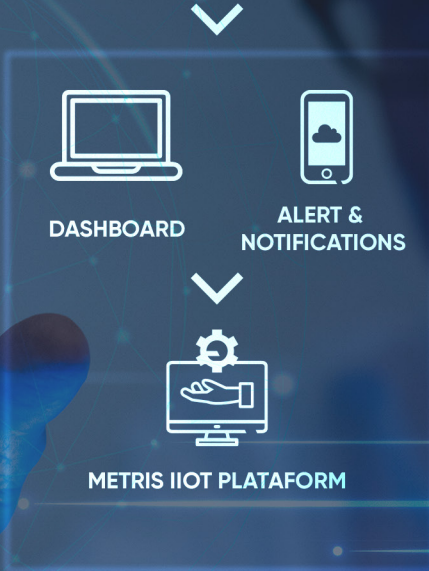
## Benefits

- Predictive Maintenance
- Manage Risks
- Maximize MTBF

# Metris Vibe



Metris Vibe is a wireless vibration and temperature sensor for periodically monitoring the health status of mechanical equipment, regardless of the manufacturer. It provides data via Bluetooth Low Energy (BLE) either to a mobile device or an industrial gateway that is connected to the Metris.



## Strategic objectives

- Digital Transformation
- Risk Management
- Cost Reduction

## Features

- Triaxial vibration and temperature
- Long life battery
- Frequency range: 100 – 25.6 kHz

## Benefits

- Predictive Maintenance
- Manage Risks
- Maximize MTBF



# Connected Worker



Enable mobility to operator and maintenance teams by providing hands-on information on the field and connecting to remote experts. It is the mobile of Data Analytics, Inspection, Planning, Work Permit, myEquipment and Logbook.



## Strategic objectives

- Digital Transformation
- Data Security

## Features

- Real-time information on the field
- Display equipment documentation

## Benefits

- Enable mobile worker efficiency
- Maximize engagement and productivity of personnel
- Minimize technician errors



# Control Performance Assessment



Discovers unknown and hidden process upsets, prioritize saving opportunities and support users to achieve more practical and cheapest decision-taking.



## Strategic objectives

- Operational Efficiency
- Risk Management
- Asset Optimization

## Features

- Monitor control performance
- Log all events of control loop
- Capture real process behavior

## Benefits

- Maximize process stability
- Minimize process variability
- Drive consistency in product manufacturing



# Control Valves



An application to enable users to monitor the performance of control valves and take preventive actions related to stiction, calibration, positioner overshooting, etc.



## Strategic objectives

- Asset Optimization
- Cost Reduction
- Risk Management

## Features

- Events detection and alerting based on position, setpoint and differential pressure
- History analysis
- Embedded trending and troubleshooting tool

## Benefits

- Maximize process stability
- Empowers decision making
- Maximize MTBF



# Extended Reality



Receive remote assistance from our experts through smart glasses, cell phones or tablets at any location. It is an application-based service that combines audio, video, document exchange, text messages and AR technology in one call session.

## Strategic objectives

- Digital Transformation
- Cost Reduction
- Employee Development

## Features

- Audio, video and AR-guided support
- Group calls
- iOS and Android support

## Benefits

- Maximize field visibility
- Respond to business constraints
- Enable mobile worker efficiency

# Inspection



An app to create checklists for operational and maintenance inspection routes, use mobiles or tablets to perform the routes, trend measurement points and improve the connection between the boots-on-the-floor team with the backstage one.



## Strategic objectives

- Digital Transformation
- Risk Management
- Lean Manufacturing

## Features

- Mobile app (iOS or Android)
- Upload photos, videos and audio
- Measurement points compatibility
- Offline mode

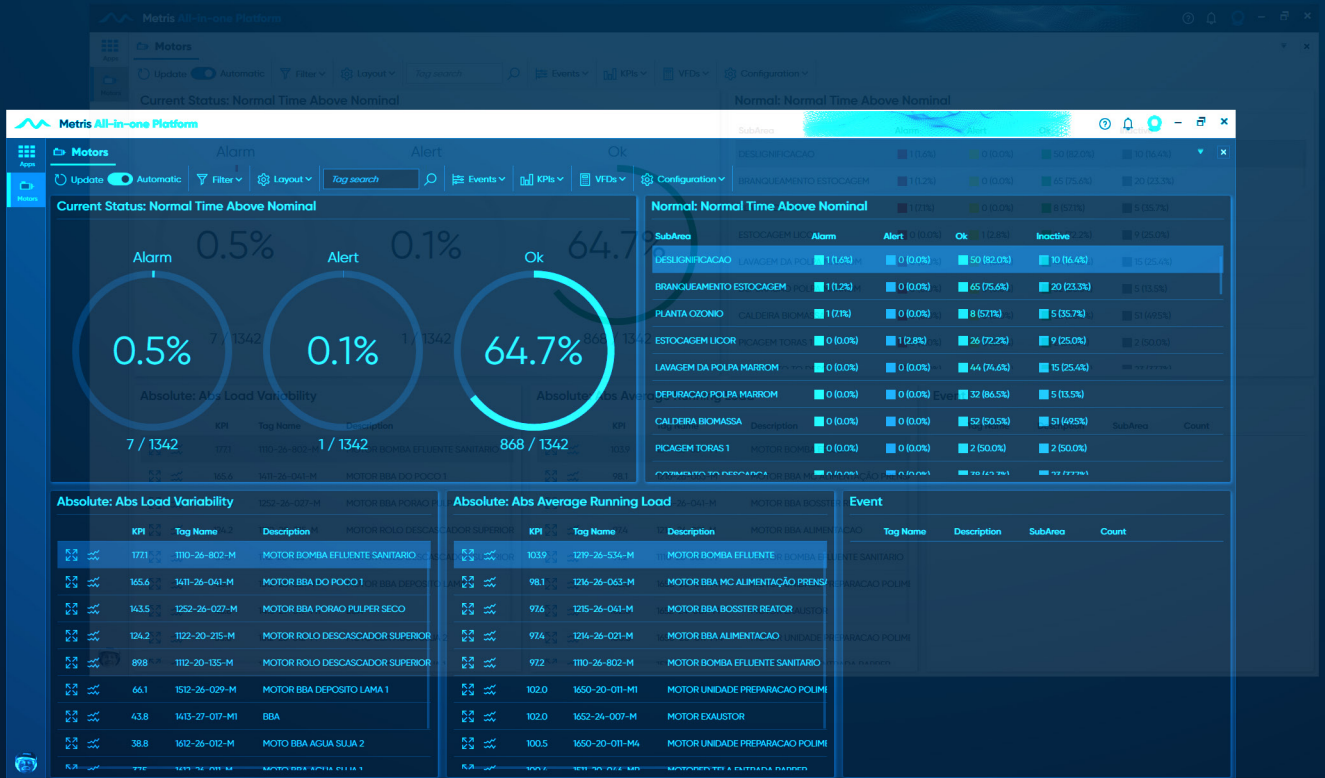
## Benefits

- Maximize field visibility
- Enable mobile worker efficiency
- Minimize maintenance costs

# Motors



A reliability tool to continuously analyze the electric motors process variables – current, power, speed, temperature, start/stops – and evaluate the likelihood of a breakdown.



## Strategic objectives

- Asset Optimization
- Operational Efficiency
- Risk Management

## Features

- Events detection and alerting based on motor current and status
- History analysis
- Embedded trending and troubleshooting tool

## Benefits

- Maximize MTBF
- Minimize maintenance costs
- Maximize situational awareness



# My Equipment



My Equipment allows users to link process variables, tag names, pump curves, manuals, etc. to the equipment QR code/barcode, showing all this information to the users on the mobile/tablet screen.

## Strategic objectives

- Digital Transformation
- Data Security
- Lean Manufacturing

## Features

- Real-time information on the field
- Display equipment documentation
- Easy setup

## Benefits

- Enable mobile worker efficiency
- Maximize engagement and productivity of personnel
- Minimize technician errors



# ON-OFF Valves



On-Off Valves is an application to monitor the condition and reliable operation of on-off valves. It detects and notify problems like delay to open or close and sensor failures.

Tag	Description	Events Type	Events Group	Customer Process	Customer Area	Process	Area	SubArea
XV-8181-2	XV-8181-2.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2954-2	XV-2954-2.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-3281-2	XV-3281-2.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2954-2	XV-2954-2.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-3281-2	XV-3281-2.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2261-1	XV-2261-1.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-1551-2	XV-1551-2.C	SensorFailureWhileClosed	Fail	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2261-1	XV-2261-1.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2954-2	XV-2954-2.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-3281-2	XV-3281-2.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-8181-2	XV-8181-2.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-8181-2	XV-8181-2.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2782-1	XV-2782-1.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2261-3	XV-2261-3.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2261-4	XV-2261-4.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2773-17	XV-2773-17.C	SensorFailureWhileOpened	Fail	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2586-1	XV-2586-1.C	ClosingOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-1551-2	XV-1551-2.C	SensorFailureWhileClosed	Fail	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area
XV-2592-2	XV-2592-2.C	OpeningOk	Ok	PROCESSO 1	EVAPORADOR LACTATO	PRODUÇÃO	PRODUÇÃO	Default Sub-Area

## Strategic objectives

- Asset Optimization
- Operational Efficiency
- Risk Management

## Features

- Event generation based on signals from opened/closed sensor, command and time parameters

## Benefits

- Maximize process stability
- Empowers decision making
- Maximize MTBF



# Planning



Planning is the tool to manage projects. It connects with the Checklist Mobile App so the customer can follow up the project status easily and without delays, improving the decision-making process.



## Strategic objectives

- Digital Transformation
- Risk Management
- Asset Optimization

## Features

- Work based calculations
- Predict project's end dates
- Integration with mobile application

## Benefits

- Cross-functional collaboration
- Enable mobile worker efficiency
- Maximize engagement and productivity of personnel

# Risk Based Management



An application to enable maintenance management team to optimize the resource allocation, focusing them on the most value added tasks for the business.



## Strategic objectives

- Risk Management
- Asset Optimization
- Cost Reduction

## Features

- Assets sorting by risk
- Work orders scheduling
- Troubleshooting tools
- 10+ risk groups available

## Benefits

- Cross-functional collaboration
- Data integration
- Maximize MTBF



# Work Permit



Work Permit application is a digital solution to prevent, control and previously authorize the worker to perform an specific activities with potential risk or that may cause damage to employees or to the company.

**Create**

General Activities Specific Permits Risk Evaluation Approvers Executants

Work order  
24437531 - SUBSTITUIR FIM DE CURSO 1031OV214

Function Location  
3024-10-31-OV-214 - VALVULA LINHA DE BAIXA 02

Description  
New Work Permit

Start Timestamp  
9/15/2023 11:46 AM

End Timestamp  
9/15/2023 5:00 PM

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Save Cancel

## Strategic objectives

- Safety and Complyce
- Digital Transformation
- Risk Management

## Features

- Customizable permit types
- Risk evaluation
- Approval workflow

## Benefits

- Maximize situational awareness
- Guard personnel health and safety
- Manage risks

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