

# 5 Must Have Features for a Digital Permitting Solution in 2021 – ePAS!

September 9<sup>th</sup>, 2021

Steve Bowman & Sean McWhirter



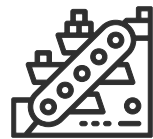
PROMETHEUS GROUP

# Prometheus Group

- Founded in 1998
- Headquartered in Raleigh, NC, USA
- 14 global offices
- Integrated and intuitive software
- Partnerships with industry leading companies



**TOP 8**  
Oil & Gas



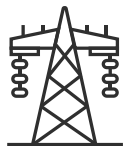
**TOP 7**  
Mining & Metals



**TOP 7**  
Pulp & Paper



**TOP 6**  
Chemical



**TOP 6**  
Utilities

# The Prometheus Platform

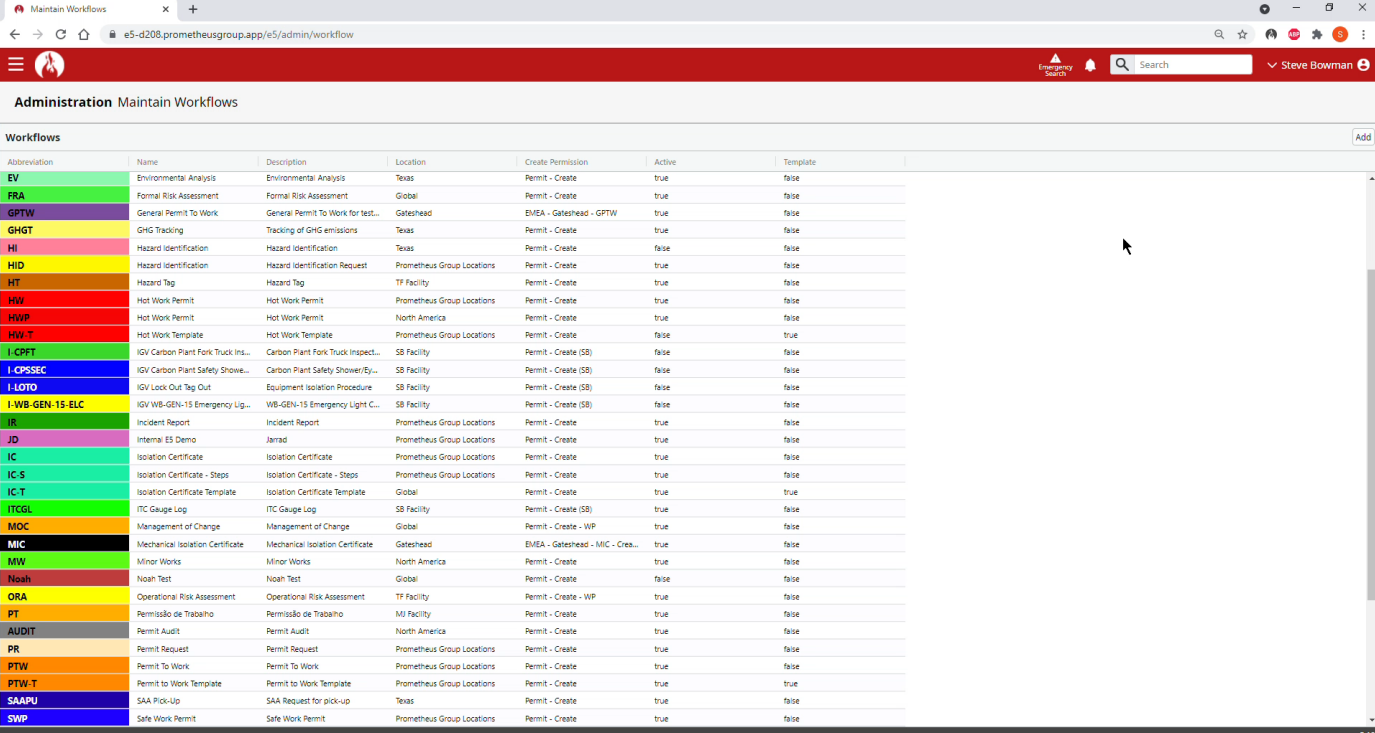


# Key Customers



# Configurability and Adaptability

- Modern industries have specific and unique needs
- Solutions should conform to business needs, not the other way around
- Configurability and adaptability allow solutions to grow and scale with your business



Abbreviation	Name	Description	Location	Create Permission	Active	Template
EV	Environmental Analysis	Environmental Analysis	Texas	Permit - Create	true	false
FRA	Formal Risk Assessment	Formal Risk Assessment	Global	Permit - Create	true	false
GPTW	General Permit To Work	General Permit To Work for test...	Gateshead	EMEA - Gateshead - GPTW	true	false
GHGT	GHG Tracking	Tracking of GHG emissions	Texas	Permit - Create	true	false
HI	Hazard Identification	Hazard Identification	Texas	Permit - Create	false	false
HID	Hazard Identification	Hazard Identification Request	Prometheus Group Locations	Permit - Create	true	false
HT	Hazard Tag	Hazard Tag	TF Facility	Permit - Create	true	false
HWP	Hot Work Permit	Hot Work Permit	Prometheus Group Locations	Permit - Create	true	false
HWP	Hot Work Permit	Hot Work Permit	North America	Permit - Create	true	false
HWP-T	Hot Work Template	Hot Work Template	Prometheus Group Locations	Permit - Create	false	true
I-CPFT	IGV Carbon Plant Fork Truck Ins...	Carbon Plant Fork Truck Inspect...	S8 Facility	Permit - Create (S8)	false	false
I-CPSEC	IGV Carbon Plant Safety Shower/Ey...	Carbon Plant Safety Shower/Ey...	S8 Facility	Permit - Create (S8)	false	false
I-LOTO	IGV Lock Out Tag Out	Equipment Isolation Procedure	S8 Facility	Permit - Create (S8)	false	false
I-WB-GEN-15-ELC	IGV WB-GEN-15 Emergency Light C...	WB-GEN-15 Emergency Light C...	S8 Facility	Permit - Create (S8)	false	false
IR	Incident Report	Incident Report	Prometheus Group Locations	Permit - Create	true	false
JD	Internal E5 Demo	Jarrod	Prometheus Group Locations	Permit - Create	true	false
IC	Isolation Certificate	Isolation Certificate	Prometheus Group Locations	Permit - Create	true	false
IC-S	Isolation Certificate - Steps	Isolation Certificate - Steps	Prometheus Group Locations	Permit - Create	true	false
IC-T	Isolation Certificate Template	Isolation Certificate Template	Global	Permit - Create	true	true
ITCGI	ITC Gauge Log	ITC Gauge Log	S8 Facility	Permit - Create (S8)	true	false
MOC	Management of Change	Management of Change	Global	Permit - Create - WP	true	false
MIC	Mechanical Isolation Certificate	Mechanical Isolation Certificate	Gateshead	EMEA - Gateshead - MIC - Crea...	true	false
MW	Minor Works	Minor Works	North America	Permit - Create	true	false
Noah	Noah Test	Noah Test	Global	Permit - Create	false	false
ORA	Operational Risk Assessment	Operational Risk Assessment	TF Facility	Permit - Create - WP	true	false
PT	Permissão de Trabalho	Permissão de Trabalho	MJ Facility	Permit - Create	true	false
AUDIT	Permit Audit	Permit Audit	North America	Permit - Create	true	false
PR	Permit Request	Permit Request	Prometheus Group Locations	Permit - Create	true	false
PTW	Permit To Work	Permit To Work	Prometheus Group Locations	Permit - Create	true	false
PTW-T	Permit To Work Template	Permit To Work Template	Prometheus Group Locations	Permit - Create	true	true
SAAPU	SAA Pick-Up	SAA Request for pick-up	Texas	Permit - Create	true	false
SWP	Safe Work Permit	Safe Work Permit	Prometheus Group Locations	Permit - Create	true	false

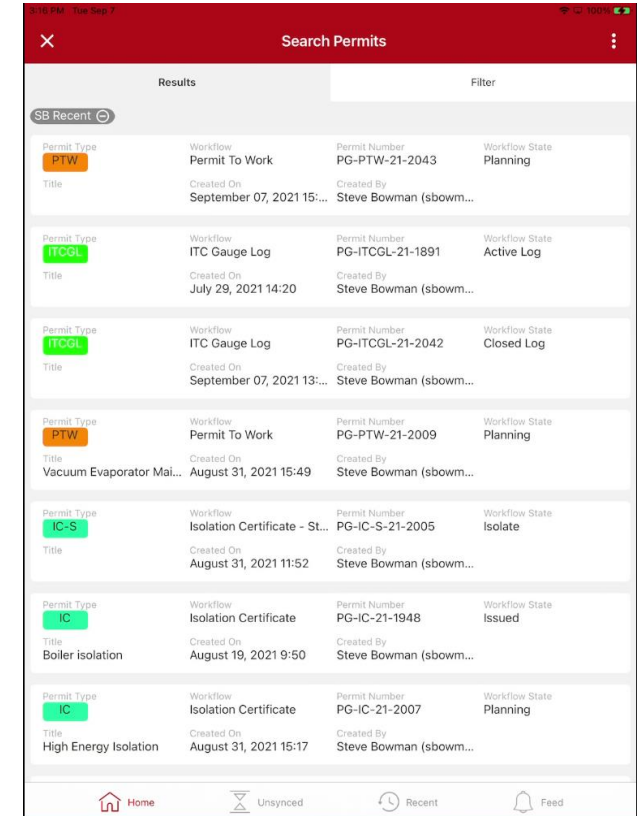
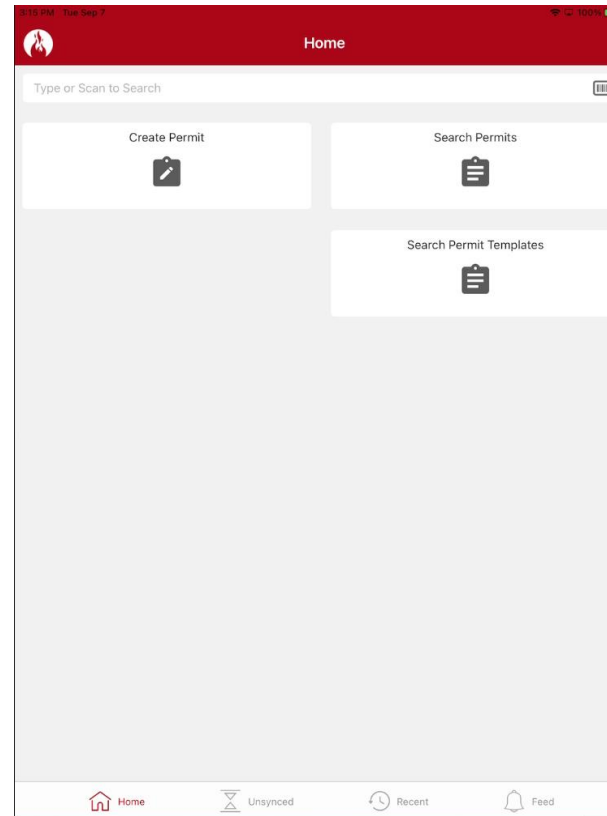
# Hazard Identification and Risk Assessment

- Pre-populate hazards and controls based on work category selections
- Type of work being done can drive required permit types and approvals
- Embed detailed explanations and links to external databases

The screenshot displays a web application interface for Hazard Identification and Risk Assessment (HIRA). The top navigation bar includes a search bar, a user profile for Steve Bowman, and a status bar showing the current stage as 'PLANNING'. The left sidebar lists various project details: Global, Prometheus Group Locations, Region (North America), Location (Raleigh), Site (SB Facility), and a list of tasks including Planning, Plant & Work, HIRA, Relationships, Documents, and Initial Atmospheric Testing. The main content area is divided into three columns: 'Work Categories', 'Hazards', and 'Controls'. The 'Work Categories' column shows 'Cold Cutting' and 'Energy Isolation (Night)' with expandable options. The 'Hazards' column lists 'General Hazards' and 'Sharp Abrasive Objects'. The 'Controls' column is expanded, showing a list of required controls such as 'Execution Controls', 'Permit Controls', 'PPE Controls', 'Preparation Controls', and 'No Control Type'. Each control item includes a description and a status indicator (e.g., 'X' for required). At the bottom of the controls list, there is a section for 'Minimum required PPE' which includes images of safety glasses, Tyvek gloves, Tyvek coveralls, and safety shoes.

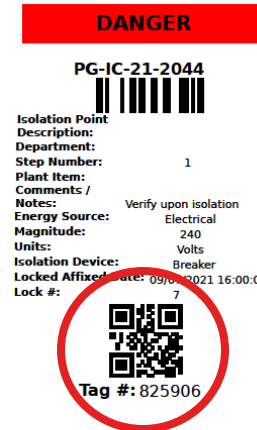
# Mobility

- Taking work into the field is crucial for efficiency
  - Access permits for jobsite walk downs
  - Get notifications when permits are ready for issue
  - Sign on and off of permits in real time



# Mobile Isolations

- Leverage device functionality-
  - Camera can scan isolation and lockout tags
  - Voice to text can streamline data entry
- Promote best practices of confirming isolations in person






# Offline/Hard Copy Flexibility

- Full offline functionality on mobile devices
- Printable tags and permits for the field

4:23 PM Tue Sep 7 90%

 **Unsynced Permits (2)**

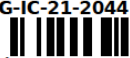
Auto-submission is unavailable offline

Permit Type	Workflow	Permit Number	Workflow State
<b>PTW</b>	Permit To Work	PG-PTW-21-2043	Planning
Title: Deburring			
Created On: September 07, 2021 15:...		Created By: Steve Bowman (sbowm...)	
<b>IC</b>	Isolation Certificate	PG-IC-21-2044	Isolate
Title: Boiler isolation			
Created On: September 07, 2021 16:...		Created By: Steve Bowman (sbowm...)	


Home Unsynced Recent Feed

**DANGER**


**PG-IC-21-2044**




Isolation Point  
Description:  
Department:  
Step Number: 1  
Plant Item:  
Comments /  
Notes:  
Energy Source: Verify upon isolation  
Magnitude: Electrical  
Units: 240  
Isolation Device: Volts  
Locked Affixed Date: 09/07/2021 16:00:00  
Lock #: Breaker



Tag #: 825906

 **PERMIT TO WORK** Permit #: PG-PTW-21-1994

 PG-PTW-21-1994

**General Information**

Title:	Deburring	Start Date:	08/26/2021 17:02:31
Department/Location:	Boiler Room	End Date:	08/26/2021 19:02:00
Work Order No:	7078549	Outage Event:	R3
Priority:	Medium		
Risk Type:	High		
Permit to Work Coordinator: Steve Bowman (sbowman@prometheusgroup.com)			

**Plant Items**

**Work Scope**

Name:	S1-HZA
Functional Location	Description
Clarification Plant HVAC Room	Boiler

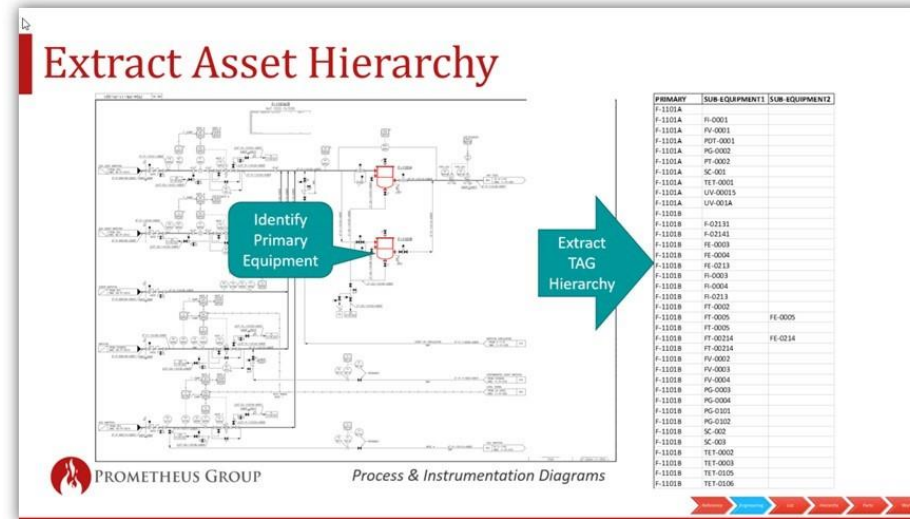
**HIRA**

WORK CATEGORIES	HAZARDS
Hot Work High Risk	Dust / Hazardous Fumes
Use of Portable Grinders	Electrical Cable Failure
Energy Isolation (Nights)	General Hazards
	Hot Surface
	Noise
	Particles (Air / Water Borne)
	Pressurised Hose Failure
	Projectiles
	Rotating Machinery / Tools
	Tripping Hazards
	Vibration

**CONTROLS**

Appropriate eye protection greater than standard safety glasses (eg. double eye protection, face shield, mono-gog)	Approved and appropriate gloves to be worn eg heat resistant for welding, PVC/Nitrile for handling HC-contamin
Barriers and signs to be erected	Chemicals - Have all relevant MSDS been referenced and made available at the worksite?
Consider the ergonomics involved in completing the work. Eg manual handling	During work breaks or in the case of a Facility Alarm, equipment is to be turned-off, de-energised/de-pressurised, isolated/disconnected, and the worksite made
Electrical cables to be taken off drum and loosely coiled to avoid overheating	Ensure activity is clear of ventilation intakes
Ensure hoses are fit for service, protected from mechanical damage, inspected prior to use, and free from	Good housekeeping practice to be maintained (eg. tools to be kept tidy, swarf and debris to be removed on completio
Hearing protection appropriate for the noise class resulting from the work activity	Identify hot surfaces by mark up pen

- CMMS/EAM
- SCADA and IIoT
- GIS
- P&ID



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"An ounce of prevention is worth a pound of cure."

-Benjamin Franklin



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A background image showing two people shaking hands. The person on the left is wearing an orange safety vest, and the person on the right is wearing a dark blue button-down shirt. The image is overlaid with a semi-transparent blue filter.

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# Thank you



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Steve Bowman – Functional Consultant

Sean McWhirter – Global Functional Consultant Manager