

# **Golden State**

May 2024

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			50 0 5.Jer	0007 Froth Velocity (Nm2)			Allan 75 ablan 75 25 1 5 Jan 20 20 20 20 20 20 20 20 20 20	0009 Auto Mode (%) 0009 Auto Mode (%) 0100 Integer 442-0003 pH (pH) 11 12 10 10 10 10 10 10 10 10 10 10	
	Drivers								
	III ≂ ≣ du Driver ↑	Process Value	UOM	Status	Other Process impacts	Weighting	Lower Specification Limit	Upper Specification Limit	
	342-D001 Reagents - Collector	83.4	g/T	OK		5	10	90	
	342-D002 Reagents - Frother	33.8	g/T	OK		5	10	90	
	342-D003 pH	2.5	рн	Outside Limits		5	6	8	
	342-D004 Float Feed Density	106	%	Outside Limits		5	10	90	
	342-D005 Air Flowrates	40.2	Nm3/h	OK		5	10	90	
	342-D006 Freth Depth	35	s	OK	Lower frath depth -> increases recovery, reduces grade, increases fluorine	5	10	90	
	342-D007 Froth Websity	42.9	Nm3/h	OK		3	10	90	
	342-D008 Jg (Bubbles)	83.4	8	OK		9	10	90	
	342-D009 Auto Mode	95.9	*	Outside Limits		7	10	90	
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#### **About Golden State**

Designed for the Minerals, Metals and Mining sector, the Golden State application cuts through the complexity of industrial processes by providing a clear and simple visual representation of when unit operations are operating outside of defined limits. The application highlights contributing drivers to production deviations, enabling prompt and informed decisions.

Golden State helps teams understand the impact of adjusting individual and competing drivers to the overall process, empowering both inexperienced and experienced teams to make quick and informed decisions.

Bringing a holistic view of an operation into a single application allows teams to work together to achieve optimal production, by providing transparency to the current operating parameters and how different departments contribute.

#### How does Golden State work?

The Golden state application is designed to enhance operational efficiency by continuously monitoring your operational parameters through integration with your existing data sources. The application highlights when processes deviate from their optimal conditions that are configured within the application.

At its core, the application consists of real time displays that show key process outcomes and how they are currently performing. The overview display highlights items outside of the desired range, whilst also indicating when a potential issue is occurring, such as a fast rate of change.

When your process is out of range, your team needs to take action. The golden state application supports your teams by providing additional drill down displays that pinpoint the specific drivers to a particular issue. These drill down displays provide relevant information for the process outcome such as driver information, trends, SWIs or other material that supports decision making. The drill down displays help your team to understand what is causing the issue, whilst empowering them to resolve the issue by highlighting the impact changing a process driver may have on other areas of the process.

The Golden State application displays are also a great reference point for new starters or less experienced team members, supporting them in the understanding of your complex process.

### **Features and benefits**



Continuous monitoring of process outcomes and drivers



<sup>c</sup> Configurable based on your operational goals



Real-time visibility of production deviations



Extend and tailor displays to add process knowledge and recommendations



### Why choose Golden State?

#### **Enhanced Decision-Making**

Golden State simplifies complex processes, allowing teams to quickly identify and respond effectively to process deviations.

#### **Accelerate Learning**

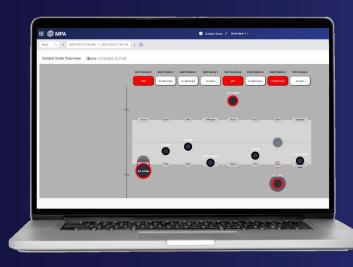
Bridging the experience gap, the Golden State application provides guidance and insights that fast-track less experienced team members to manage production deviations.

#### **Operational Alignment**

By providing a common visual of process states, all team members work towards the same operational goals.

#### **Production Deviations**

Collaborate with colleagues to implement corrective actions as they occur, rather than waiting until the next production meeting.



## Did you know? Golden State FAQs

#### Can I configure Golden State myself?

Absolutely. It is Mipac's philosophy to transfer capability to our clients so you can build and customise MPA applications to meet your specific operational requirements. Mipac can provide initial support to get you started and then you can extend the application use or modify existing configuration.

#### Where is Golden State information stored?

The MPA Golden State application leverages your existing AVEVA PI AF system through pre-built templates. We integrate with PI so that we can retrieve your production data.

### What's included with the Golden State application?

The Golden State application will give you unlimited creation of Process Outcomes and Drivers that can be tailored for your asset.

### Why can't I use my control system alarms to manage Golden State?

While control system alarms are essential for immediate operational safety and identifying issues with instruments or devices, they often lack the context and clarity needed for broader operational management. Alarm systems can be complex with a large quantity of alarms requiring action from control room operators. Control system alarms typically indicate when an instrument parameter (e.g. tank level, flow rate, temperature) is outside its desired or safe operating range, which is different from identifying optimal operating conditions. Knowing if your operation is operating within a golden state may also require data from other sources, including manual samples or laboratory results, which are not typically captured in control systems.

MPA's Golden State application, on the other hand, is designed to provide more than just an alert system. It offers a comprehensive view of your operation's health, focusing on deviations from optimal conditions with the added benefit of showing the impact of process drivers on process outcomes. The Golden State application provides contextual information that is crucial for making informed decisions quickly and effectively.

#### What support is provided?

We understand that different customers have different support needs, which is why we offer two levels of support. Our standard support package is designed for customers who need basic support, while our premium support package is ideal for customers with more complex needs or customised solutions.

Standard support provides access to our knowledgeable support team for assistance with any software-related issues you may encounter. Standard support covers typical software application issues such as bugs and incidents. Standard support will be available during normal Brisbane business hours.

Premium support offers access to expertise for complex issues that may require specialised knowledge supporting application or infrastructure problems. Premium support can be tailored to the size and complexity of the installed system and the desired response timeframes. Premium support also provides access to application specialists for minor additions or improvements.

## Did you know? Golden State FAQs

#### How long does it take to implement?

Our solutions can be implemented in as little as two weeks.

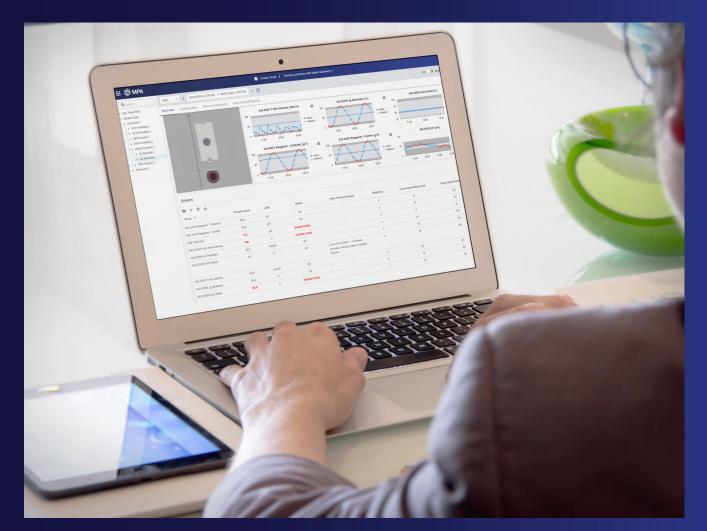
The implementation timeframe of our solutions can vary depending on several factors such as the complexity of the process, what work has already been done to define process outcomes and drivers and whether there is existing infrastructure in place. If a like-for-like implementation is required, such as moving from and Excel-based driver tree to MPA Golden State, the implementation can take anywhere from 2-4 weeks once the base system is set up. Our solutions can be implemented within this time frame, but it's important to note that the exact duration will depend on the specific requirements of each project.

#### What's required to get it up and running?

If you don't already have an MPA Server installed, we would require a virtual or physical server, ideally with Windows Server 2019. We would require administrator access to the server to install the pre-requisite software and configure MPA for connection to your plant data.

You will require an AVEVA PI historian with a PI AF (Asset Framework) server. If you don't have AF setup yet Mipac can assist with this too. For MPA to connect to AVEVA PI, you require the PSA (PI System Access) licence. Mipac can support you with obtaining the licence, or you can liaise directly with your AVEVA account manager.

Working with your IT group, Mipac would also require a service account to access the PI Data Archive and PI AF Server.



- Advanced Process Control
- Industrial Automation
- Industrial Software Solutions
- Data Visualisation and Analytics
- S Electrical and Instrumentation
- Process Optimisation
- Cybersecurity
- Operations Support and Procurement
- Industry 4.0 Consulting

# **About Mipac**

Built by miners for miners. Global leaders in operational technology, control systems and engineering services, Mipac is the perfect partner in driving your operational performance.

From control systems with robust software and engineering foundations to the latest innovative advancements in digital technology, Mipac delivers high-quality, intelligent solutions to drive performance.

We understand the complex challenges operations face through our depth of onsite experience and have developed a reputation for solving complex problems.

Operating globally, we provide an extensive range of services to realise the total value of your mining operation and have developed a suite of products that will help you increase productivity, reduce costs and optimise operational performance.

From solid software and engineering foundations to the latest innovative advancements in digital technology, Mipac are your trusted advisors for all aspects of your mining operation.

#### Our solutions

We work across various industries to realise the total value of your operation and recommend solutions and services that produce optimal outcomes and increased performance.



Building new operations

Operating and optimising existing operations



Modernising existing operations



Main Automation Contractor



We believe in working together with our clients and partners to achieve their goals.

At Mipac, we go



With more than

730

projects delivered worldwide

over the past



decades, we've worked in

more than

55

countries around the globe

for more than 110

clients across the globe

with a team of

125

experts dedicated to projects like yours.

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