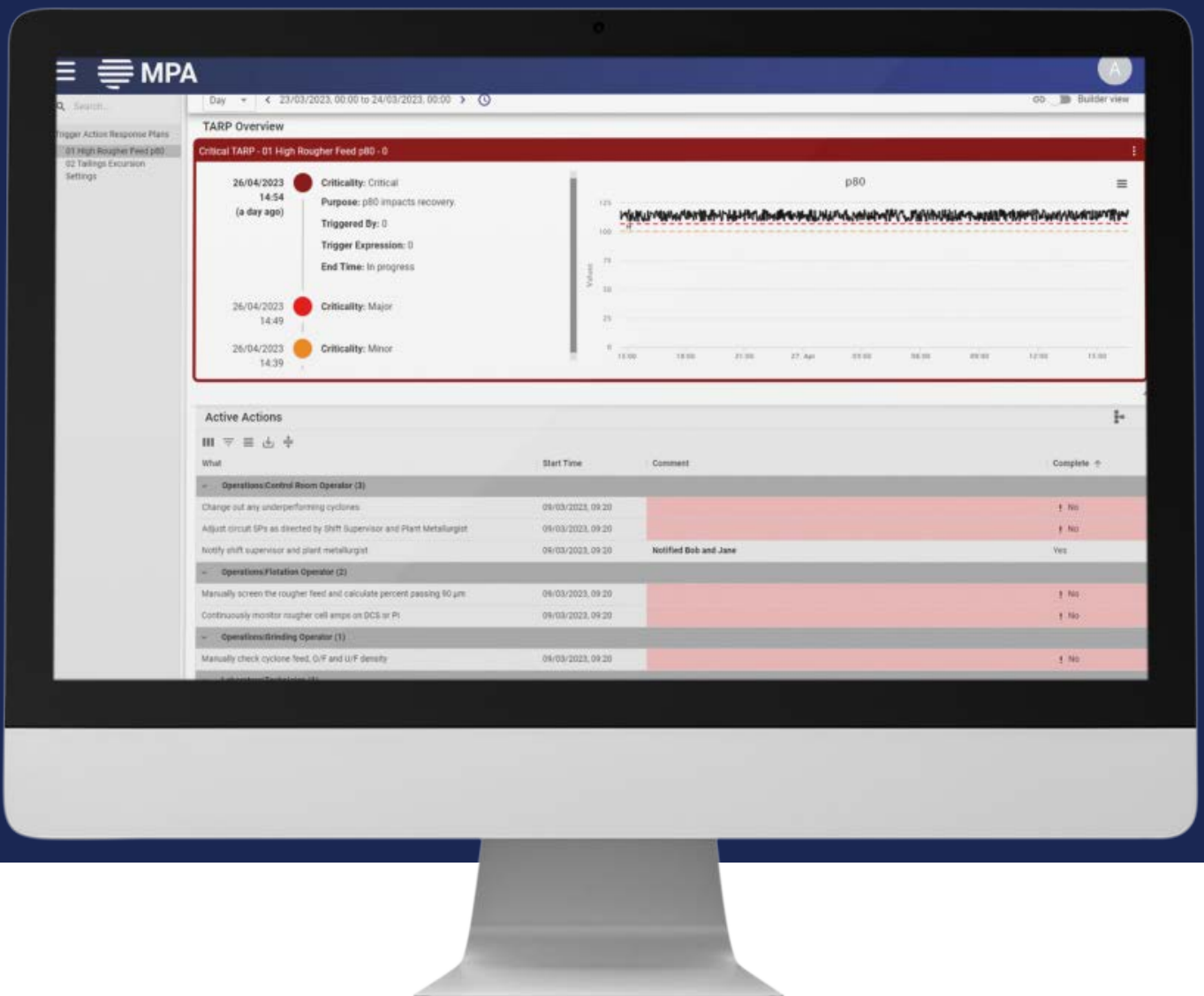# Digital TARP

Empowering teams to make quicker and better decisions when things don't go to plan

Stay on top of deviations and keep production on track with Digital TARP

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About Digital TARP

Introducing Digital TARP

The Digital TARP application is designed specifically for the MMM sector. The application provides a centralised location for managing Trigger Action Response Plans (TARPs), allowing teams to collaborate on implementing corrective actions.

Automated alerts ensure that stakeholders are promptly informed when a deviation from normal conditions occurs and a comprehensive audit trail provides visibility into all actions taken, allowing teams to understand if critical controls are in place and effective.

The application's standardised approach ensures that personnel at all levels know how to respond to deviations. This reduces variability by minimising the impact and duration of the event. Furthermore, teams can enhance decision-making by comparing and analysing historical TARP events.

Our Digital TARP application enables mining operations to achieve greater efficiency, reliability, and safety, ultimately improving production outcomes.

Why Mipac?

Mipac is a global leader in operational technology, control systems and engineering services, with over 26 years experience. Mipac delivers high-quality, intelligent solutions that drive performance.

Imagine a world where your complex operation realises its full potential. At Mipac, we believe by empowering teams with operational insights and foresight, we can help mining organisations optimise production, minimise variability and enable operational excellence.

MPA is Mipac's suite of integrated applications to increase production, reduce variability and deliver operational excellence.

What are Trigger Action Response Plans (TARPs)?

What are Trigger Action Response Plans (TARPs)?

Trigger Action Response Plans (TARPs) are a fairly common tool in the mining industry. They are used to manage deviations from normal working conditions, outlining an agreed response or set of actions required by workers to a particular deviation.

TARPs would typically define which conditions will cause a TARP to activate or escalate (triggers). Triggers can be based on a variable exceeding a threshold for a period of time. When a trigger has met its conditions the TARP is activated or escalated and a pre-defined set of actions must be followed by teams including operators, engineers, supervisors and managers.

A TARP typically includes various levels of response: normal, elevated and critical. Each level has its own set of procedures that are designed to address the specific conditions that are present at that level.

Why are Trigger Action Response Plans (TARPs) important?

Trigger Action Response Plans are important because they help businesses respond quickly and effectively to abnormal situations. By having a TARP in place, teams no longer need to waste time thinking about how to respond, because they have already done that thinking in a controlled environment when the pressure is off, meaning they can simply follow an agreed plan.

In addition, TARPs can help businesses comply with regulatory requirements. Many industries are required by law to have emergency response plans in place, and TARPs can help businesses meet those requirements.

What are the benefits of TARPs?

Manage risks

TARPs help businesses manage risks in a controlled manner, ensuring critical controls are in place and effective. By identifying triggers and planning responses, businesses can minimise the impact of events on their operations. Responding faster and smarter will prevent downtime and reduce production losses.

Improve safety

TARPs can help improve safety in the workplace by ensuring that employees know what to do outside of normal operating conditions. This not only helps

teams make better decisions but can prevent people from doing things that might put people or equipment at risk or make the situation worse.

Meet regulatory requirements

Some industries, such as healthcare and construction, are required by law to have TARPs in place. By implementing a TARP, businesses can ensure they are complying with regulations and avoid potential fines.

TARPs are an important tool for proactively managing risks and ensuring there is a plan in place for when things go wrong. By identifying triggers, determining actions, and planning responses in advance, businesses can minimise the impact of events on their operations, improve safety, ensure business continuity, and meet regulatory requirements.

If you're interested in learning more about TARPs or want to implement them for your business, reach out to a Mipac specialist today.

Features and benefits

Reduce variability

Respond quicker with streamlined corrective actions by having a clear and concise plan for pre-defined events

Risk management

Minimise risk by ensuring corrective action aligns with an agreed best approach. If a different approach is taken, understand why.

Increase production

Enhance decision-making and identify long-term improvement projects by grouping and comparing historical events.

Tailored response

Digital TARP allows you to configure approved actions per TARP critically so that you can take appropriate action depending on the severity of the action.

Proactive TARP management

Continuous monitoring and automatic activation and escalation of TARP based on user-defined criteria. **Get notified when a TARP is activated or escalated.**

Collaboration in real-time

Promote teamwork by allowing teams to capture additional real-time recommendations and actions for the event.

Event insights

Real-time visibility of deviation and action status ensures everyone is on the same page during the event.

Detailed audit trail

History of previous events including additional recommendations and actions allows teams to **make smarter and faster decisions**.

Why choose Digital TARP?

Mining, minerals and metallurgical (MMM) processes can be complex. Often there are many interacting variables that need to be monitored and controlled to ensure success. Each variable will have one or more stakeholders that contributes to ensuring the variable is on track. Similarly, each stakeholder will have one or more variables to monitor and control. Sometimes controlling a variable requires multiple stakeholders working together.

Trigger Action Response Plans (TARPs) are a useful tool common to the MMM sector. A TARP defines the minimum set of actions required by workers in response to a deviation from normal working conditions. However, TARPs are generally manually activated and reside in static electronic document management systems or on paper in binders. As such, that value of TARPs can be limited by several factors.

1. Missed production deviations

There are many competing priorities at a MMM operation. Detecting that variables are deviating and recognising that as a problem is a manual process and often relies on an operator or a metallurgist being on top of their game. Your production can suffer if your operators or metallurgists are distracted, fatigued or on break and do not detect a deviation. Similarly, it may take some time to recognise that a deviation is a problem and needs to be escalated to the appropriate stakeholder(s) for assistance.

2. Inexperienced personnel

The MMM sector is suffering from an experience shortage. So, when production deviations occur, it is common that personnel don't know how to respond. Often the standard response actions are stored in different systems and can be difficult to find. Some common places include in people's brains, handover notes, training material, troubleshooting guides or on a shared drive.

Furthermore, different people may have different approaches to resolving the same problem. So you don't know which one is effective and which one is not.

3. Lack of visibility

Where robust TARPs do exist, they are often in paper form. So it is not clear to all stakeholders whether a TARP has been activated, the status of the actions, whether the actions have been effective and the time taken to control the deviation. Without easily navigable historical information, there is limited opportunity to prevent the deviation from recurring, improve the response plan and determine the impact on achieving production targets. The problem can be amplified if the TARP is related to a health, safety or environmental situation.

Support 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 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 time frames. Premium support also provides access to application specialists for minor additions or improvements.

Technology requirements

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.

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How Digital TARP compares

See how Digital TARP compares with paper, Excel and AVEVA PI Vision.

Capability	MPA TARP	Paper	Excel	AVEVA PI Vision
Automatically detect, activate, notify and escalate TARP events	✓	✗	✗	✓
Natively capture comments on actions taken	✓	✓	✓	✗
Natively collaborate and capture additional complementary actions	✓	✓	✓	✗
Real-time visibility across systems and stakeholders	✓	✗	✗	✓
Easily modify, enable and disable TARP actions	✓	✗	✓	✗
Easily navigate and compare historical TARPs for optimised decision-making	✓	✗	✗	✓
Minimise data entry errors	✓	✗	✓	✗
Easily edit historical data	✓	✗	✗	✗
Simple version control maintenance	✓	✗	✗	✓
Minimise catastrophic failures	✓	✗	✗	✓
Leverage investments in other systems	✓	✗	✗	✓
No custom coding and maintenance required	✓	—	✗	✗

Did you know?
Digital TARP FAQs

Here are some of the most commonly asked questions about Digital TARP:

How are users notified of a TARP event?

Different stakeholders require different notifications. Control Room Operators may have a live TARP view available allowing them to respond immediately to any deviations. Other stakeholders may choose to be notified via Email, Teams, WhatsApp or SMS.

Notifications can be configured based on the requirements for each TARP.

Can I make comments on a TARP?

Yes, users can enter comments and recommendations on individual TARP actions and as a summary for the entire TARP event.

Can I build new TARPs myself?

Absolutely! It is Mipac's philosophy to transfer capability to our clients so you can build and customise new TARPs to meet your specific operational requirements. Mipac can provide initial support to get you started and then you can extend Digital TARP to other applications or modify existing TARPs.

Where is TARP information stored?

The Digital TARP application leverages your existing AVEVA PI AF system to generate and capture event information, allowing you to integrate into existing systems and processes where they exist.

What's included with the TARP application?

The TARP application will give you access to as many TARPs as required for your asset. These TARPs can be used for production, asset, safety and/or environmental purposes. Each TARP can be tailored to meet your operational requirements.

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 TARP event triggers and whether there is existing infrastructure in place. If a like-for-like implementation is required, such as moving from paper to Digital TARP, 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.

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

At Mipac, we go
beyond the solution!