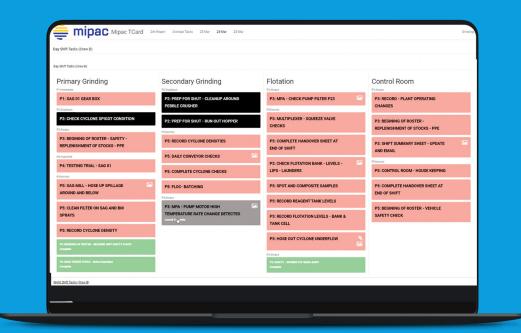


TCardTM

Operations management software to enhance stability in your operation through teamwork, structure and insight.



"Never miss a task again!"

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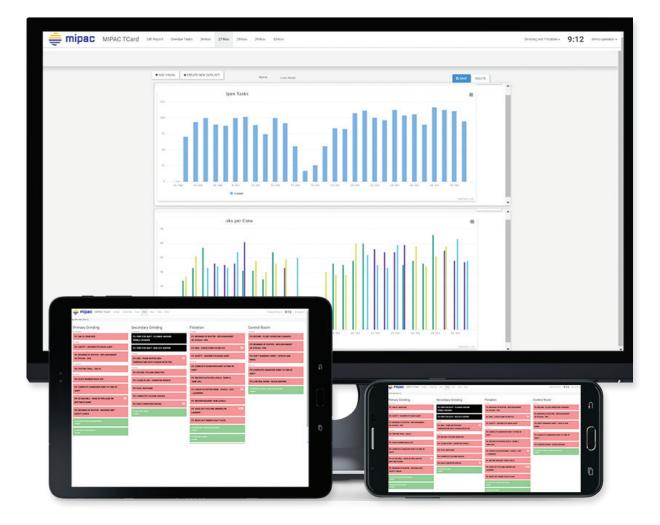
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About TCard™

Originally developed for the team at Glencore Mount Isa Mines, TCard[™] was born out of the need to develop a fit-for-purpose industrial task management solution to improve transparency and standardise regular task activities to ultimately improve production, safety and housekeeping.

TCard[™] is an all-encompassing task management solution that simplifies everyday operations.

Specifically designed to complement rather than replace your existing ERP and/or CMMS, TCard[™] works alongside your existing systems and allows operators to execute digitally allocated tasks scheduled across rolling shifts within 24/7 continuous operations.



Features and benefits



Makes task management simple

- Quick to implement and simple to configure, TCard[™] can be configured to match your current operation, providing instant familiarity with existing tasks
- Straightforward adoption with easy access to existing operational procedures
- Seamless integration with existing technology, TCard[™] runs adjacent to Enterprise Resource Planning software with minimal configuration requirements
- Information is presented clearly on one dashboard



Improve operational awareness

- Productivity summaries with the information needed to schedule critical, operational, safety and housekeeping tasks to maximise production
- Contextual information on task completion can be stored and data mined for future improvements
- Intelligent reporting provides information on the gap between scheduled tasks and equipment failure



Enhance employee engagement

- Contains inbuilt provision to request feedback, making closing the loop simpler
- Connects operators on the frontline with supervisors and management, creating a united workforce able to react in a timely manner
- Simple, visible and timely information (customer feedback)
- Enables teamwork within and across teams by spreading the load
- Creates transparency on tasks for managers and a feedback loop for operator





Never miss a task

- TCard[™] provides an auditable system that keeps track of the safety and production tasks critical to your operation
- Lots of small tasks done consistently and correctly every shift ensures sustained, smooth, continuous operation
- Cloud-based and accessible on and off-site
- Mobile and tablet responsive
- Configurable to suit specific shifts, rosters, work patterns and shutdowns
- TCard[™] is shutdown aware, so critical tasks that can only be done when the operation is down are visible and prioritised to take advantage of unplanned opportunities
- Unlimited tasks and unlimited operators



Always keep on track

- Tailor, prioritise, automate and track tasks to ensure smooth and efficient administration of each shift
- Intuitive automation of tasks to specific shift cycles means critical tasks including safety are not overlooked
- TCard[™] allows for consistency around processes, inspections and reporting



Transform tasks to teams

- TCard[™] encourages teamwork and helping your mate complete the tasks that matter
- TCard[™] prompts your teams to think about opportunities to prevent operational problems before they happen

Why choose TCard™

What could missing a safety or operational task cost your operation?

Rarely does a task missed today result in an immediate problem but instead results in a problem tomorrow or a month from now. TCard[™] lets your whole operating team see which tasks have not been completed and allows resources to be allocated so today's missed task doesn't become tomorrow's problem.

TCard[™] was created to meet the needs of operators, superintendents and plant managers. It was designed to adapt to workflow systems and existing tasks of a plant, and provides two-way communication, both on the ground on a mobile device or in the control room and office.

TCard[™] becomes your tool to enhance teamwork. Management is automatically alerted when a task has not been completed, or feedback is requested, leading to greater engagement and improved communication. This feedback is ordinarily drawn from cumbersome daily reports, yet with TCard[™], operators are able to provide specific information on incomplete tasks in their own words to ensure greater clarity and improved decision-making.

To further enhance operational efficiency, task health visibility is provided over a complete shift.

Task health visibility over the complete shift results in team members supporting their colleagues and/or requesting management allocate additional resources to ensure all tasks are completed by the end of the shift.

The journey of digital transformation is often complex, costly and timeconsuming. Our easily adopted digital task-management solution, TCard[™], is the perfect first step to commence your digital journey and expose your workforce to digitalisation that realises immediate results.

In addition to delivering immediate results, TCard[™] contributes to the long-term maturation of decision-making by collecting data as part of the daily operational process.

How TCard[™] works

TCard[™] comes as a SaaS solution, leveraging built-in task templates and example tasks for rapid deployment, which means you can be running within days.

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Using a kanban board style, TCard[™] allows you to schedule tasks for:

- Plant areas
 Crews
- Rosters
 Shutdowns

All tasks have the ability to contain text, photos, operator feedback and data entry, giving you and your team transparency across the plant. This is backed up by an automatic daily task email scheduled for delivery every 24 hours.

> "It's typical now that the comments and completion rates from TCard[™] exceed those of the maintenance team and as a result, we have been able to better utilise our operations' resources."

Implementation process

We understand that implementing new technology and systems can be a challenge, that's why we've built-in the onboarding process into the first year's subscription.

TCard[™] is created for your team to be in control of your asset's operational tasks. To accelerate the integration, TCard's[™] implementation procedure focuses on enabling and empowering your designated implementation team.

A site implementation team nominated by you, will participate in remote workshops and implementation. An outcome of the remote workshop is to develop an initial list of operational tasks with supporting task procedures, photos, data tables, etc.

Mipac will create the instance of TCard[™] for the operation and load the initial plant hierarchy, operational tasks, supporting photos and documents from the site information provided. Mipac will work with the site implementation team to prepare templates and develop the TCard[™] tasks to align with the current operations.



Supporting tools

Mipac has developed the following items to support the implementation process, onboard new users, develop your TCard[™] application and maintain the benefits generated by TCard[™]:

- + online web-based training videos
- + examples of typical plant hierarchies
- + example templates of some typical tasks and supporting documentation.

Technology requirements

Based on a SaaS model, Mipac hosts, maintains and supports the TCard™ application, without the need to wait for access from internal IT departments.

Automatic deployment of new TCard[™] features and functionality developed by Mipac are included in your subscription.

- + TCard[™] works as a cloud application with any current web browser wherever internet is available, around the world.
- + Accessible on a desktop, remote or roving, TCard[™] is best viewed on a wide-screen device so the entire task board is easily seen.

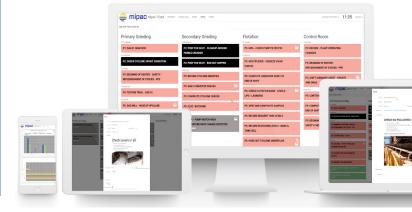
For more information on how TCard[™] can help improve the performance of your 24/7 operation:

visit **mipac.com.au/products/tcard** email sales@mipac.com.au call +61 7 3212 5600





How Mt Isa Mines Copper Smelter completes 4000 operational tasks a month TCard™



The Copper Smelter at Glencore's Mount Isa Mines (MIM) had and continues to use, an ERP within their operation but found it was too complicated for operators to use and was not suitable for managing operator tasks across crews in a 24/7 operation.

While daily tasks were being well managed, it was the irregular tasks that were being missed and causing disruption when faults or blockages occurred. The lack of responsibility and automatic recurrence with the original task management system made monitoring these tasks difficult and would ultimately lead to disrupted production, downtime, and additional costs.

MIM's main objectives for an operations management solution were:

- To spread the workload so the same crew were not always doing a particular task.
- Make the task management list coherent so that everyone manages the same tasks in a consistent manner.





- To be able to embed links to manuals, training, SWIs and photos so they are easily accessed while the task is underway.
- To ensure the system worked with the operation's roster and continuous shift cycles.
- To improve transparency and reporting across the operation.
- To give the operators a sense of purpose and recognition for good performance.

To meet their needs MIM collaborated with the Mipac team to set-up and implement TCard[™]. Once onboarded and operational the Copper Smelter operations was able to:



and ...

- Introduce specific interval-led tasks to address regular blockage and downtime problems with their chiller system that removed the problem completely.
- Increase transparency across the board including identifying additional opportunities to raise work orders and address maintenance issues that may have otherwise gone unnoticed.
- Save FTE budget as full-time planner no longer required for operational tasks.



At Mipac, we go beyond the solution!



mipac.com.au/products/tcard Brisbane Perth Vancouver E: sales@mipac.com.au P: +61 7 3212 5600



The inside scoop from MIM Copper Smelter



Last year Mark Peterson in his role as Copper Smelter Manager at Glencore's Mount Isa Mines spoke with Mipac's Product Manager, Glen Johnson.

WATCH HERE

In this discussion, Mark explains how he used digital operations management solutions to improve efficiency in his operation.

On life before TCard™:

"I started to see some really obvious and repetitive failures around a lack of discipline and accountability for certain tasks. So you had values that were infinitely preventable just weren't being managed on the back of the rotational nature of continuous shift crews.

Investing significantly in training for a complex system wasn't practical for us.

We tried some pretty simple Excel-based stuff but it just wasn't dynamic enough to suit the needs of the business. Certainly, when you look at the complications of roster patterns and crews it was obvious we needed something that was bespoke."

On finding the right solution:

"We tried ERP software that was labor intensive to say the least.

We had to employ a full-time planning resource for operations to manage creation scheduling printing of work orders.

The reporting metrics from that system was typically a week in lag so that didn't really work for an operational team.

It was impractical for us long term to dedicate resources to administer that sort of system."

On key features in making the decision:

"Simplicity and transparency are probably the two key things that TCard™ presents.

TCard[™] can be segregated into areas, grinding or floatation as an example. We can break it into whatever elements, we can just to keep it very clean and simple for the end user.

The ability for TCard[™] to be mobile is something that we're very keen on. Just having them in the field and making a very quick operation. We don't want people having to log in through multiple screens. Anyone who uses a smartphone effectively can use this software.

The ability to change stuff in the background quite quickly has been a big plus."

On the TCard[™] advantage:

"The good thing about TCard™ is it's very clear what crew is on and what tasks have been assigned.

You can link that back in terms of the reporting to understand what tasks have not been completed and why - making it customisable enough to fit us rather than having to fit around existing software was the main thing.

It's been really good - the transparency that it's brought. On the weekend I can have a look at my phone and see what's happening in the plant



effectively from the frontline operator's feedback so that's been good.

It must be great for the operators to know they've got supervisors and management regularly looking at those comments and actually giving them that feedback loop and addressing some of the things they pick up."

On value-adding functionality:

"One function within TCard[™] that we found particularly useful is the equipment hierarchy in the background so you can selectively turn on and off equipment.

If you've got a 48-hour shutdown for example on a mill it will automatically turn off the tasks that are online tasks. So an example would be taking cyclone densities which is a fairly regular task in a flotation plant.

You take cyclone density when the mill is running but when the mill's offline obviously you can't do that so then once that equipment hierarchy is turned off it will produce a number of shutdown tasks.

So it might be cleaning out the launders, exercising the knife gates, restocking xyz. So I think that has made the utilisation of operations teams significantly better."

"At one point in time, there was something like four thousand tasks being completed at once so it shows how much it's being used throughout the various crews so that's fantastic!"

On unexpected outcomes:

"I go out in the field now and I can talk to the operator about the tasks that he commented on last week.

I can understand the challenge that he's faced, I can understand the improvements that he wants to make.

I think just having that it's effectively one-on-one communication, I'm talking directly not through a supervisor, I'm understanding directly what that frontline operator needs and wants. It's really good for us, the morale impacts have been significant.

The inside scoop on **TCard**[™] from MIM Copper Smelter

We have not used this system as a whip, we've used it as a communication tool and a sanitisation tool.

It's not a tool to hold people accountable, it's a tool to have a conversation with and improve the business as a group."

On working with Mipac:

"Knowledge of the industry is a big thing. If we tried to do this with the traditional I.T. software team it would have been very difficult to say the least.

Just understanding the dynamics of mining or processing site I think it's pretty important to have that upfront knowledge.

Couple that with the understanding of how people think and what works. Simple things like formatting tools and spell checks and stuff like that, they're in the system.

It has been really good in terms of task creation being able to integrate with the right teams at the right time is a game changer. There's been a couple of different views around cloud-based or on-premise solutions and Mipac integrated really well with that so that's been positive.

The take-up is quite quick because if you use a smartphone you can use a system.

It's effectively a system that we've deployed so we can maintain consistency irrespective of what's going on in the ERP space."

"TCard™ is an excellent option for any team that's looking to standardise and improve their operational discipline."

> Mark Petersen, 2022 Copper Melter Manager Mt Isa Mines, Glencore



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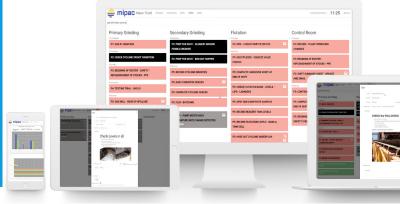




How TCard™ compares

TCard[™] operations software from Mipac is specifically designed to manage site tasks in 24/7 mining operations.





With TCard[™], your operation will see enhanced stability through teamwork, structure and insight. See how TCard[™] compares to a manual approach including paper-based and Excel spreadsheets, off-the-shelf task tools like Asana and Trello and standard ERP or Maintenance Systems.

Features	TCard™	Manual (Paper, Spreadsheet)	Off-the-shelf Task Tools	ERP or Maintenance System
Roster Understanding Recurring tasks automatically scheduled to suit industrial specific shits, rosters, and work patterns		×	×	S
Purpose Built for 24/7 Operations Supervisors can distribute tasks among teams working around the clock	S	×	×	×
Plant Hierarchy Clear assignment of tasks linked to the plant hierarchy	S	×	×	\checkmark
Templated Procedures Ensure consistency in task completion by incorporating templates and linking them to established standard operating procedures.	S	×	S	S
Operator Feedback Inbuilt provision to request (and receive) feedback	>	×	×	×
Reason Codes Identify reasons activities can't be completed to optimise future scheduling		×	×	×
Shutdown Management Dynamic tasks based on scheduled equipment shutdowns	\checkmark	×	×	S
Ease of Use Simple user interface with colour-coded statuses	~	×	S	×
PRICING				
Unlimited Users, Unlimited Tasks Annual site licence with unlimited users, unlimited tasks			×	×
Rapid Implementation included Rapid implementation to match your current operation and existing tasks is included in the first year pricing	~	×	×	×



How TCard™ compares



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	TCard™	Manual (Paper, Spreadsheet)	Off-the-shelf Task Tools	ERP or Mainteinence System
INSIGHTS		` 		
Daily Summary Daily email summarising work performed, issues encountered, and any feedback required.	~	×	×	×
Operator Dashboard One-look Kanban style-boards to quickly identify progress and health of shift activities	S	×	×	×
Built-in Management Reporting Report on task status and identify recurring issues using built-in filtering tools	\checkmark	×	×	\bigcirc
NITTY GRITTY		-	-	
Custom to your Processes Easily configured to match your current operation	Ø	×	×	×
Integrate with Existing ERP Seamless integration with existing (ERP) technology	×	×	×	S
Cloud Hosted Access from any where, any time	S			×
Export Function Export data to csv	S		×	S
Quick Implementation and Onboarding Implement within weeks and onboard quickly with supplied training content	S	×	>	×
User Management Manage all users locally	\checkmark		×	×
Industry Experience Industry experienced engineers support onboarding	S	×	×	×



At Mipac, we go beyond the solution!

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Did you know? TCard™ FAQs

Here are just a few of the TCard[™] questions we get asked about

We already have an ERP or Maintenance system, why would we need TCard[™]?

TCard[™] has been specifically designed to complement rather than replace your existing ERP or CMMS with operator-specific information.

Mount Isa Mines had and continues to use an ERP within their operation but found it too complicated for operators to use and it was not suitable for managing operator tasks across crews in a 24/7 operation.

TCard[™] also needs minimum resources which could reduced load on ERP planning and create an immediate saving.

Will TCard[™] help with Shift Handover?

Yes absolutely. TCard[™] supports operator comments and insights on each and every task that are visible to the whole operating team.

Furthermore, TCard[™] allows operators to flag taskspecific issues for feedback from Supervisors ensuring issues are captured, tracked and resolved.

How long will TCard[™] take to implement?

Your TCard[™] instance will be initialised within hours and it can take just a few weeks to get you up and running.

We get you everything you need to start up your task program including templates for various plant operations.

What's included with TCard™?

TCard[™] is a cost-effective SaaS solution with an annual licence. Our licence costs cover **unlimited users and unlimited tasks.**

Rapid implementation to match your current operation and existing tasks is included in the first-year pricing.

How easy it is to train an operator to use TCard™?

TCard[™] was specifically designed to manage tasks in a mining environment. We worked directly with plant operators to build a user experience that is quick, easy and very intuitive.

High staff turnover can lead to frustration when valuable time needs to be allocated to training. Feedback from plant inductees on the ground shows that TCard[™] takes less than 30 minutes to master.

What support is provided?

Our industry-experienced engineers support the onboarding process through a combination of workshops and configuration based on site information.

Onboarding is supported by our Operator, Supervisor and Superintendent focused training content.

Once up and running our Support team is on hand to keep your task completions on track.

What's required to get TCard[™] up and running?

 $\mathsf{TCard}^{\mathsf{m}}$ is cloud-hosted and accessible on and off-site.

"On-Prem" options exist for enterprise clients.







The link between TCard™ and reducing downtime

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Downtime has a significant financial impact on operations globally with an estimated opportunity cost of \$18,000 in lost earnings per hour for a typical-sized concentrator. If you then add in equipment and labour costs, the value of lost earnings can blow out considerably.

It should come as no surprise that managers are under ever-increasing pressure to maximise income by reducing downtime, finding productivity gains and optimising existing operations.

One of the easiest ways to do this is through preventative maintenance. This well-known approach is being used in up to 78% of operations globally, however, only 59% of operations are using a computerised maintenance management system to help them manage the process. The more advanced and digitally savvy operations are now exploring the use of machine learning and AI techniques to drive a data-driven maintenance schedule.

But not all plants have the time, money, or infrastructure to deploy such advanced techniques. Fortunately, these operations can use simple techniques that support the increased interval of maintenance activities whilst still checking equipment regularly using operators in the field.

Applying regular operational checks in addition to an existing CMMS or ERP system is a simple approach to help keep assets operating while minimising downtime and lost earnings.

Improve Stability

Poor housekeeping not only increases the likelihood of workplace hazards but lowers the visibility of potential production issues and negatively impacts productivity. Effective housekeeping can eliminate most workplace hazards to help get the job done safely. It also enables operations to see when things are going out of control by detecting spillage and overflows.

Furthermore, simple activities such as scheduling the operational testing of standby equipment is an effective way an operation can be confident their standby equipment is ready to go, preventing outages when the duty fails.

Increase Visibility

Some operations carry out regular activities using paper-based or excel systems to record results, yet the collected data is not stored centrally and is rarely used collectively for decision-making. Sometimes the existing systems lack the ability for operations to raise issues with supervisors or management.

Furthermore, the readiness of the data can be slow given the nature of the roster patterns within industrial operations. This can result in feedback being delayed until the next shift when it is too late to take corrective action.

Ultimately, the lack of timely and consistent data can result in bad or delayed decisions that impact the plant operation and cause equipment to be taken offline.



The link between TCard™ and reducing downtime

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By establishing an electronic record of time-critical activities visible to operators, supervisors and management, an operation can be confident that all information is readily available and that the history is captured in a central location, helping operations make decisions faster and more reliably.

Improve Structure

Sometimes operations have a good regime of regular activities that support their maintenance systems, yet the systems they use do not support operators conducting the activity. This can result in inconsistency in the way activities are completed, or a difference in how management thinks they are being performed.

By using a system that supports the embedding of standard operating procedures, operations teams can see the procedure as they complete the activity. This ensures the approach is in line with procedure, and where it is not, it will likely result in the operators raising the discrepancy with supervisors.

The value of TCard™

As a proven operations management solution, TCard[™] allows you to manage daily activities that will help your operation reduce downtime. Not only will TCard[™] deliver shortterm benefits to your plant operations, but it will allow you to:

- proactively manage housekeeping to avoid shutdowns and equipment breakdowns
- have a greater awareness of activities throughout your operation
- maintain or improve operational management practices
- increase awareness in the operation and across your teams.

TCard[™] task management software meets the needs of operators, superintendents and plant managers



about TCard™ and advanced digital tools Mipac has created for the mining industry. Teamwork Insight Structure Stability

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

At Mipac we go beyond the solution.

Get in touch and find out how we can improve your mine's operational performance.

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Why TCard[™] will enhance your existing ERP or CMMS



If you work in an operation, you would already be familiar with the term Enterprise Resource Planning (ERP) or Computerised Maintenance Management System (CMMS) as many organisations use one of these as the system of record. Most operations use these systems for inventory and supply chain management, asset maintenance, accounting, human resourcing, and customer relationships. They assist with centralising data, standardising business processes and automation of manual and routine functions.

However, ERPs and CMMS's are expensive, require significant training and have limited customisation to suit 24/7 operations. Therefore, these systems are not typically used for managing day-to-day operational activities.

TCard[™] can help transform your operation

What your ERP or CMMS may lack, TCard™ offers with enhanced solutions and features designed specifically for your operational teams.

TCard[™] is a simple-to-use operations manage-ment solution designed to help plan, schedule and manage activities easily and efficiently, facilitate two-way communication and provide clear visibility of the status of tasks.

Originally developed in conjunction with Glencore Mount Isa Mines, TCard[™] was born out of the need to develop a fit-for-purpose industrial operations management solution to improve transparency and standardise regular activities to ultimately improve production, safety, and housekeeping. TCard[™] doesn't replace your ERP or CMMS, it complements them by providing industry fit for purpose benefits that other systems don't, such as shift pattern scheduling, shutdown awareness and operational communication.

Driven by shift patterns

Whilst TCard[™] supports traditional schedule periods such as daily, weekly and monthly, it also supports operational shift patterns, ensuring the right activity is done at the right time. A simple report will also show the distribution of activities across crews, to ensure the operational load is spread across all teams.

Shutdown awareness

During shutdowns, some activities may not need to be completed. With TCard[™], it is easy to remove the noise of activities that aren't needed during a shutdown, saving precious time so that operations can focus on value-adding activities. Configuring the plant hierarchy in TCard[™] allows you to group multiple pieces of equipment, making an area specific shutdown easy.

TCard[™] also helps with a shutdown by capturing the critical operator activities required to be completed before, during, and after a shutdown to ensure the shutdown runs smoothly, on-time and that production is maximised.



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		Instances	Kernegener
himary Grinding	Secondary Grinding	Flotation	Control Room
PT: SAG OF GEAR BOX	P2 PEP FOR SHUT - CLEANUP AROUND PENLE CRUSHER	P2 MPA - CHECK PLANP PLITER P22	P2 RECORD - PLANE O CHANGES
P2 CHECK CYCLONE SPECET CONDITION	P2 NOP FOR SHUT - RUN OUT HOPPER	PS MATPLDER - SQUEZI VICHE ORDAS	P3 BEGINING OF ROST REPLEMENMENT OF E
P3. BEDNING OF ROSTER - SAFETY - REPLENSIONENT OF STOCKS - PPE	PS: RECORD CYCLORE DENSITIES	PS-COMPLETE HANDONER SHEET AT END OF SHIPT	P3 SHIFT SUMMARY S
Pic TESTING TRIAL - SAG (1	PS: COMPLETE CYCLONE CHECKS	PS CHECK PLOTATION BANK - LEVELS - CUPIELS - C	PS CONTROL ROOM-
PS: SAG MEL - HOSE UP SPILLAGE ABOUND AND BELOW	PS RLDD BATCHING	PS: SPOT AND COMPOSITE SAMPLES	PS COMPLETE HANDO
PS OLENN FRITER ON SAG AND SM SPRATS	P2.MPA - POMP MOTOR HIGH TEMPERATURE RATE CHANGE DETECTED	PS RECORD READENT TANK LEVELS PS RECORD PLOTATION LEVELS - BANK & TANK (D)	PE BEGINING OF ROST SAVETY CHECK
PS RECORD CYCLINE DEVISITY		PS: HOSE OUT CYCLIDNE UNDERFLOW	
		Circles I	
fi bal fijiki belik beherikadiya Cenyala		PE (AVE) - AND PE VALUE AND -	

Improved operational communication

When carrying out operational activities, operators had to traditionally wait for an appropriate time to provide or receive feedback from supervisors or management. Waiting to provide or receive feedback can lead to delays and complications.

TCard[™] empowers two-way communication by connecting operators on the floor with supervisors and management. It does this by allowing contextual operator comments and the ability to request feedback when required. Supervisors and management are alerted when an activity needs attention, meaning they can ask the right questions and provide valuable feedback to operators.

Improved communication creates a connected workforce that can respond to issues quickly and ensures you ask the questions that need to be asked.

Instant use and capabilities with seamless integration and minimal configuration

TCard[™] is cloud-based and is accessible anywhere from all devices. Its features are simple yet powerful, with an easy-to-use dashboard for your operations team to see what activities are required and which are complete. The use of templates simplifies and automates tasks involved in everyday operations with minimal effort. Setup is so quick and easy, you can be up in running within a few weeks.

Integrating TCard[™] as part of your operations management, and through everyday use within a short space of time, you will start seeing significant improvements across your operation and team, such as reduced variability and downtime, greater visibility, increased engagement and optimised operations management.

TCard[™] is thoroughly recommended if you are looking for a digital solution that is proven to complement an existing ERP or CMMS to enhance operational stability through teamwork, structure and insight.



⇒ Scan me to discover more
 ⇒ about TCard™ and advanced
 ⇒ digital tools Mipac has created
 ⇒ for the mining industry.

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

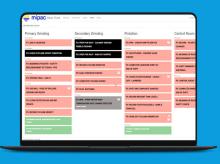
Get in touch and find out how we can improve your mine's operational performance.

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What is the cost of a task not done?



Often an incomplete operational task does not have an immediate impact on an operation. Instead, the risk compounds and leads to a failure in a week or a month's time. When was the last time your plant tripped or suffered a degradation in performance because an operational task was not completed a week or month ago? Maybe the same operational task is always missed and one day it bites you. Often the failure is infrequent and 'lost in the noise' or put down to 'bad luck' when in fact it can be easily eliminated.

Operational tasks can span critical safety or processing checks, basic equipment reliability checks and housekeeping. When a combination of equipment reliability checks and housekeeping tasks are not completed it can lead to maintenance teams rebuilding a pump in a sump full of slurry and compromise the mean time between failure of the rebuild. Not only does that lead to further future production risk but also the potential for lower morale and reduction of quality in other areas.

Furthermore, when housekeeping is poor, it can be difficult to identify when the process is out of control because new overflows and spillages are hard to recognise. Spillages can hide potentially hazardous energy sources and/or lead to premature failure of the equipment covered by the spillage. Good housekeeping is often correlated with and a lead indicator of safety performance and general work quality across an operation.

Ensuring the simple, regular operational activities are identified, scheduled AND completed can be the difference between keeping people safe, reaching production targets and staying under budget or not. That is why Mipac created TCard[™]. TCard[™] is a software tool that enhances stability through teamwork, structure, and insight within the foundations of your operations management procedures. It has been designed to complement your ERP and CMMS, offering features and insight to easily and efficiently plan, schedule and manage operational activities.

Critical areas within your operation where TCard™ can be utilised

The list of regular and routine operational tasks may seem endless. However, TCard[™] can help you better manage these tasks whilst increasing employee engagement and awareness of the drivers to safety, production and budget success within your operation. TCard[™] enables you to see when things are going out of control by detecting spillage and overflows. TCard[™] allows you to schedule regular activities across your crews to balance the load and ensure you maintain effective housekeeping, improving safety and enhancing stability.

Enhancing safety

Effective housekeeping and critical safety checks are crucial to safe workplaces and can eliminate many workplace hazards. Housekeeping helps get the job done safely, improves productivity and enhances team morale.

Some examples of hazards that can be prevented via housekeeping and critical safety checks include:



What is the cost of a task not done?



- Slips, trips and falls
- Fire and burns
- Availability of PPE and consumable inventories
- Exposure to toxic or unhygienic materials
- Falling objects

You can reduce the impact by maintaining access to operational safety equipment such as emergency showers and eyewash.

Enhancing operational efficiency

Effective operational task management is critical to increasing operational efficiency and preventing downtime from equipment failure. Similarly, when scheduling tasks, it is important to balance the load of tasks across a shift and across different crews to ensure all tasks can be completed. TCard™ makes it easy to spread the load and provides operators direct access to controlled work instructions and procedures where and when the activity is being performed to maximise consistency.

As a 24/7 operational management solution, TCard makes it easy for operators, supervisors and management to see what tasks are remaining from the previous shift and which tasks are outstanding throughout the current shift. This means that operators can help out their mate to ensure targets are achieved as a team. Similarly, supervisors and management can assess where additional resources are required to ensure critical operational activities are completed.

Enhancing awareness of your operation

As a cloud-based solution that is suitable for mobile and tablet use, TCard[™] provides realtime feedback and status of activities. Bringing data into a central location helps provide visibility across the operations and facilitates automated reporting. It allows you to take control of your operation whilst having better visibility and insight across your operation and team.

TCard[™] helps create a better understanding and connection to the costs of tasks not done. It is a platform that helps you explore the critical areas within your operation that can often be missed or need to be improved.

When these missed tasks are brought to light and corrected, you will start to see the true value that TCard[™] brings to your operation. This can be through several ways including, increased financial gains, enhanced capability within your team and operation and as a solution to reduce downtime, op-timise existing operations and encourage a better and safer workplace environment.

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

At Mipac we go beyond the solution.

Get in touch and find out how we can improve your mine's operational performance.

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