Purpose-Built Budgeting Tools Save Time, Improve Accuracy, and Control Maintenance Spend

PROMETHEUS GROUP

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All companies use budgets to plan and manage their expenditures. In asset-intensive organizations, maintenance tends to be one of the larger cost centers, but too often its spending is among the least well managed. It's not that they don't try; they just lack the right tools.

Asking a maintenance planner or supervisor to predict their next year's spending and deliver it in a manner that the finance team finds useful is self-defeating. They don't have the time or motivation to properly capture the data, the tools to compile it, or the know-how to translate it into the proper general ledger (G/L) accounts or corporate cost structures. As a result, maintenance budgets often end up being a series of very large lump sum amounts that are highly inaccurate and non-specific.

Those who attempt to create a maintenance budget will spend substantial hours crunching the numbers in homegrown tools, simple spreadsheets, or inflexible corporate budgeting systems. The finance group will dutifully load the maintenance budget into their financial accounting system and attempt to manage against it.

Regardless, maintenance personnel will spend whatever it takes to repair a production line that goes down, whether it is in the budget or not. If their budget runs dry, they may shortchange preventive maintenance or other less urgent tasks and overlook opportunities to understand the variances or to improve their budgeting processes. This cycle can be broken. Maintenance is in fact

a controllable spending item. The way to control the spend is with a proper budgeting process and system. Companies of all sizes and every industry will benefit from quick, efficient, and controlled budgeting processes. Prometheus Budgeting answers this need. The solution was originally developed by VIZIYA in partnership with Alcoa. Prometheus Group acquired VIZIYA in 2020.

Alcoa shared its budgeting concerns with VIZIYA in 2014. You can read an in-depth report on the challenges they were facing in **"Why Maintenance Budgets Matter: Alcoa's journey to improve costs, reliability, and knowledge transfer."** The global metals manufacturer had used its homegrown tool for nearly a decade and had a dedicated team to support it. Despite the substantial time and cost investment, it still had room for improvement. Together, the companies designed and developed a solution for maintenance budgeting that simplifies and automates the process.

Vision for a New Solution

VIZIYA and Alcoa set out to design a budgeting solution that solved challenges left unanswered by available systems and spreadsheets. They decided that an effective budgeting solution would:

- Copy maintenance plans into the budget automatically, in real time, to avoid dual entry and improve budgeting accuracy
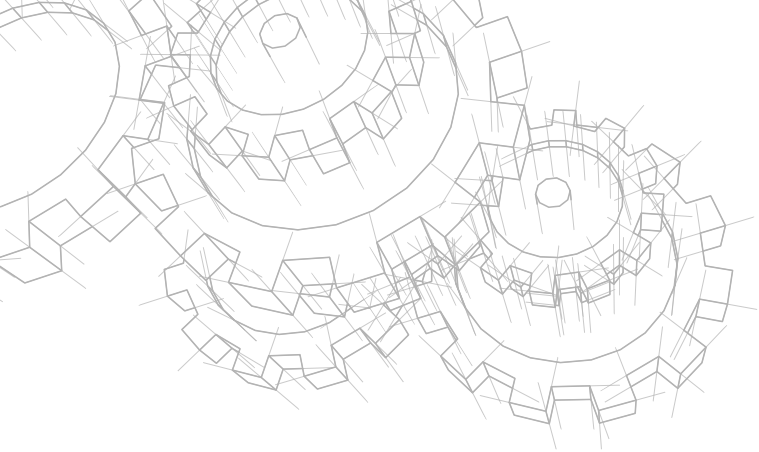
- Tie budgeting into work scheduling so that any schedule changes that impact the budget are automatically reflected

- Reconcile the language of maintenance and finance automatically, so that each group can work in their own familiar terms

- Allow for reserve and contingency funds to give maintenance budgets the flexibility to adapt to day-to-day realities

- Accommodate multiple budgeting scenarios, revisions, and terms to match specific business needs

- Assure timely and effective approval decisions and prevent budgets from falling through the cracks

- Simplify budgeting by automating forecasts based upon actuals and providing the necessary KPIs and reports in real time

- Ensure security, usability, and interoperability with major EAM solutions
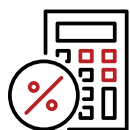
Purpose-Built Maintenance Budgeting Tool

Prometheus Budgeting was developed from the ground up to work for maintenance budgeting. It answers the concerns of traditional budgeting methods.

An effective maintenance budgeting system lets the maintenance personnel do what they do best – manage the equipment, develop maintenance plans, and create work orders to document activity and capture costs. It is a mistake to force them to create a second maintenance plan in an entirely separate system just for budgeting purposes, because it doubles their effort. Moreover, the two systems will quickly fall out of sync during the year if the budgeting system doesn't capture actual maintenance activity.

A further problem is that maintenance and finance personnel speak different languages. Finance people don't want lists of assets and expected spending per asset; they want budgets and expected spending in terms that align with the financial books of the company, including cost codes or G/L accounts and segments. They also want consistency year over year; assets may change but the G/L accounts will not. Similarly, maintenance people shouldn't have to track a budget in terms the finance people understand.

Process simplification is essential. Prometheus Budgeting automates the creation of maintenance budgets and translates maintenance details to financial rollup terms. The tool was designed so that neither group would have to spend much time in the system.

Streamlined Budget Creation

The solution simplifies the process of creating budgets and budget scenarios, including budgets with non-standard terms. It supports allowances for reserve and contingency funds and handles the rollup of maintenance budgets to finance. Because it is part of your EAM, ERP, or CMMS, it is easy to create, update, and maintain your maintenance budget while easily translating the results into information that the finance team can use.

Three Budget Building Options

1. **Auto-budgeting using existing work plans**

The ideal maintenance budget reflects the data in your asset management system. The system is designed to manage your maintenance plans and track work order costs. Directly connecting the asset management and budgeting systems allows costs and maintenance plan changes throughout the year to flow naturally into the budget system. This real-time flow of information simplifies and automates the budgeting and forecasting process, allowing maintenance personnel to focus their time on correctly entering and creating the data in the underlying maintenance system.

Planned and preventive maintenance (PM) and routine repairs are already captured in the maintenance system's work order database, and the bill of materials and cost history has already been established. Rather than choosing and exporting data for import into spreadsheets or budgeting systems that require
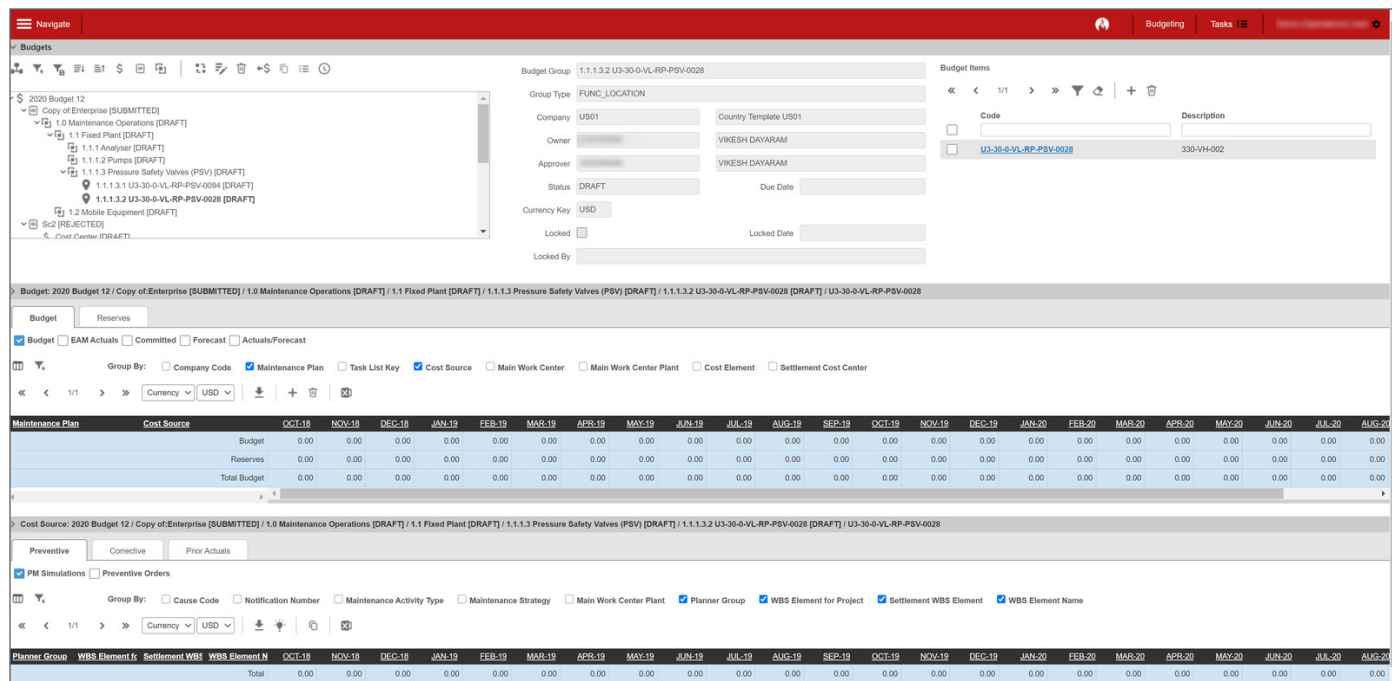
manipulation, the maintenance-specific budgeting tool automatically populates a budget with these costs for a more flexible, responsive approach.

Auto-budgeting is unique to Prometheus Budgeting. It allows the maintenance planner or supervisor, who just spent two weeks building next year's maintenance plan, to simply hit a button to draw that plan into the budgeting tool. For some companies, that represents 80 percent of the budgeting or forecasting work; all that's left is some smoothing, additions, and building in contingencies.

2. **Zero-based budgets for unplanned activity**
Some work will not be planned in the EAM, ERP, or CMMS. Either the events and costs cannot be predicted, or the resources are not available to develop the work orders. For jobs like this with no recorded history, zero-based budgeting is needed to forecast the costs from scratch.

Establishing budget groups helps to organize such assets for budgeting in a logical order and assign ownership to track and manage the spending. In Prometheus Budgeting, budget groups are user defined and may align with your existing asset hierarchy and corporate structure. Budget groups and sub-groups may be established by location, department, resource, assets, or work activity, to whatever depth is needed. For instance, one group may reflect a large repair job, another may address mechanics at one location doing a

certain type of work, and a third may be specific to work on a single piece of equipment.

Flexibility was built into the design to accommodate companies of all sizes and any level of maintenance maturity, so they can build their budget structure and workflow to suit their own preferences.

3. **Actuals-based budgets using prior year data**
Prior year actuals can provide the basis for new budgets. In the solution, users can copy actual data from a previous year, apply a factor to increase (or decrease) the budget amounts, and then the system will automatically seed the new budget.

Budget Scenario Capability

When setting out to build a budget, more than one scenario may be required. For instance, one may represent last year's amount, a second may reflect a reduction of the prior year spend to save money, and a third may reflect some percentage increase over the prior year.

With Prometheus Budgeting, users can copy the structure and/or data from existing budget scenarios to quickly create alternate scenarios. These what-if scenarios, not found in other budgeting solutions, allow maintenance managers to compare and choose which budget is most desirable considering the business

goals and conditions, and approve one as the working baseline for the next fiscal year.

Short- and Long-Term Budgets

There are multiple budgets in the works at any given time. In addition to full-year budgets, revisions, and scenarios, Prometheus Budgeting provides the ability to create short-term and long-term budgets. For example, next year's budget can be created and managed at the monthly level, or a midterm budget covering years two and three can be managed at a quarterly level, or a long-term budget for years four through ten can be managed at the annual level.

Allowance for Reserves and Contingencies

Reserve amounts in the budget account for unplanned and emergency work. Reserve estimations are based on historical spending patterns. Companies that budget down to the asset level tend to have smaller reserves than companies that don't. The solution allows reserves of any amount as well as comments to explain the reserve amounts.

Reserve amounts can be assigned to a budget group and spread over the budget periods. For example, if you have 10 forklifts and one breaks down per year at a cost of $10,000 on average, you can set up a budget group for the fleet and create a reserve of $10,000 per year for that group.

Contingency amounts account for the uncertainty of costs for planned or unplanned work. For instance, if a planned overhaul is expected to fall in the $100,000 range, a $5,000 contingency might be added to account for inflation of labor or material prices. A plant manager who allocates a plant maintenance budget of $1 million might also set up a contingency fund for $0.5 million to dole out on request, for instance if a production line

catastrophically fails and needs to be refit. When contingency funds are released, they are allocated to the appropriate budget group or asset. To offset a dip in contingency funds, the maintenance manager may choose to delay other planned work, such as a turnaround. All such changes are reflected in the ERP/EAM/CMMS and Prometheus Budgeting.

Maintenance Budget Rollup for Finance

Budget breakdowns and rollups are generally handled in the financial system. The budget starts at the top with a predetermined spending amount, and then breaks down into pieces, one of which is the maintenance budget. At the end of the day, it needs to roll back up again.

Since EAM systems are designed to make sure that all costs are correctly collected and allocated to the right books, that information is automatically pulled, on demand, into the budgeting tool and then placed in the finance system where it belongs, using the right G/L codes, cost codes, and accounting structures. Finance users can then draw from and lock the system at the end of every month, so they have a static system for month-end processes and reporting.

Expedited Budget Approval

Each budget has an owner and an approver. The owner builds and manages the budget or budget group, and the approver approves or rejects it. Prometheus Budgeting can be configured to suit a company's specific approval workflow, whether it's one level of approval or more.

Approval requests are brought immediately to the attention of the appropriate approver in the solution. The approver can view all budgets they are responsible for on one screen, whether they're approved, awaiting approval, or still in draft mode.

Unlike other systems, approval requests are not presented as simple yes/no decisions. Right when an approver logs in, they see the approval dashboard with budgets awaiting their approval, as well as relevant and essential reference information. Without leaving the screen, the approver can view budgets and actuals for the last five years and make a very relevant comparison before deciding whether to approve or reject the new proposed budget.

If $1 million was spent each of the last three years and this budget is requesting $1 million, it's an easy decision, but if $3 million is now being requested, it will stimulate a conversation with the budget owner to find out why. Likewise, if the proposed budget is significantly lower than prior years, a discussion is needed before an informed decision can be made.

Simplified Budgeting

Managing a budget differs from creating a budget. Once a budget has been created and approved and the fiscal year has begun, then the emphasis changes to tracking actuals, which are automatically brought in from the ERP/EAM system, and then adjusting the forecast.

In Prometheus Budgeting, everything is viewable on one screen, and the management of budgets and forecasts occurs on that screen. Budgets can be displayed as a hierarchy, showing all the different budget entities in the tree and costs at each level. By clicking on different segments of the tree, users can see dollar amounts (or the local currency) for the budget, year-to-date costs, and forecast. Previously complex and time-consuming functions occur at the click of a button.

Budget Forecasts

When the fiscal year begins, periodic budget forecast adjustments might be required to account for new facts and changing spending expectations. Forecasts may be conducted formally on a monthly or quarterly basis, or they may provide a point-in-time view of the budget status, such as following an expensive, unexpected equipment repair.

Like the budget creation process, Prometheus Budgeting will pull real-time figures from the EAM system to allow forecasts for the budget and reserves to be determined, and manual adjustments to be applied. The result is then imported into the financial system, and all of this information is carried into the next year's planning process.

Out-of-the-Box Reporting and KPIs

In the solution, high-level KPIs on the user's dashboard show what needs attention, without having to go looking for it. For example, a finance person or a budget owner can see if a specific budget is trending over budget.

Budget-to-cost, to-date actual costs, and variances are displayed on the dashboard. The Budget Summary Report enables budget analysis by allowing users to select what information to show and how to group and filter it. Users can also run custom reports to suit specific needs, for example, one that displays point-in-time data as well as historical spending on a specific budget group in order to spot trends and take corrective action if needed. There is also a reporting function that directly exports budget or forecast values for financial analysis.
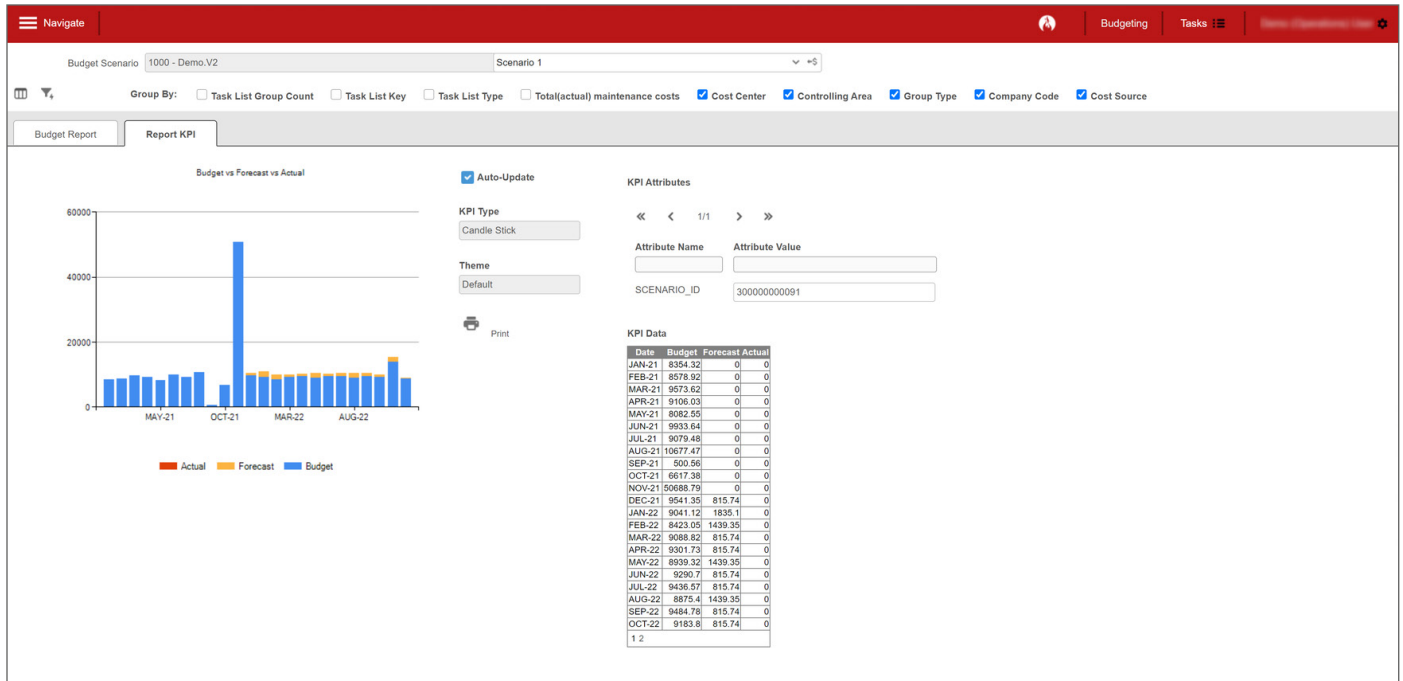
Since Prometheus Budgeting has access to the EAM, ERP, or CMMS, it can display how much of the spending is for routine work versus non-routine work. If $10,000 was budgeted for routine maintenance on a particular asset but $20,000 was spent, the fact that there was $10,000 of unplanned work can be explored. If it was caused by a unique catastrophic event, like a forklift rolling down a hill, then there is no need to plan for a recurrence in the future. Otherwise, the maintenance planner can build the event into the work plan to improve future budget accuracy.

Support for Custom Reports

Budgeting data can also be exported from the tool and integrated with other financial reporting systems. This is particularly useful for those without user access to the solution, but still need to create reports.

Continuous Improvement

Planners can create new work orders for common maintenance and repairs with the time savings afforded by the solution's auto-budgeting processes. In turn, this allows for a higher percentage of planned work and smaller unplanned reserves, leading to more accurate budgets going forward. The tool helps to track improvements in the percentage of planned work over time.

For instance, pulling EAM records on repair spending for a forklift fleet over the past five years will provide a good basis for non-routine forklift maintenance spend over the next five years. Or, if you know that every second month, you'll spend three days rebuilding a particular boiler for about $20,000, then that activity can be planned. Work orders can also be planned to address unexpected but eventual breakdowns.

Because the system allows budgets to be viewed with different levels of granularity, whether by asset level, work order, resource or department level, users can easily understand where money is being spent. It also provides easy comparison between historical and present year data to reveal and respond to trends. Ultimately, asset utilization is improved as the tool identifies and increases visibility of high-cost assets and ensures critical assets are given the appropriate budget allocation.

Essential Features

Security controls: Whenever money is in question, security is very important. Prometheus Budgeting provides a flexible model that allows customers to configure what they want hidden from, and accessible to, the different groups of users. Through the application, administrators can define security roles and assign users to them. They can also establish modules as well as actions that can be performed within those modules. The budgeting tool allows a very fine, granular structure that drives which users can perform which actions in the system.

Maximum usability: The solution is designed to mimic the look and feel of a spreadsheet. This simplifies user adoption since spreadsheets are the traditional budgeting tool of choice. All budgeting and forecast management is conducted on a single screen, and the tool can be configured to work with a company's existing budget process. For example, budget status levels can be configured to suit.

It is also designed for maintenance personnel to spend as little time as possible in the tool, as it saves them from re-entering data that is already in the ERP/EAM/CMMS system. It syncs with the EAM system on a configurable, scheduled basis so the information is very current. Because the process is asynchronous, users can start the transfer and move on to other work, without waiting for it to finish.

Language and terminology changes are supported out of the box. If a company refers to "factories" instead of "locations," the labels can be configured accordingly. The language can be changed if the solution is used in a non-English-speaking country. Multiple currencies are also supported as the values are drawn directly from the ERP/EAM/CMMS. In addition, there is an entire tutorial-style help system built into Prometheus Budgeting.

R&D from Multiple Companies: The solution was initially developed in collaboration with Alcoa. It was then refined based on extensive input from other companies of varying sizes and industries. This process is ongoing at Prometheus Group. The result is a robust solution applicable to a wide variety of asset-intensive organizations.

Seamless Integration: Prometheus Budgeting is not system dependent. Nor is it a standalone solution. Like all Prometheus asset management tools, it is tightly coupled to your EAM, ERP, or CMMS. The solution relies on the costs, work orders, asset hierarchies, etc., from your system of record, ensuring a single source of truth. It also provides an enterprise-level solution for companies that run multiple EAM, ERP, or CMMS systems.

Conclusion

Having a tool of this nature to manage all maintenance spending, with accurate budgets and forecasts and a convenient approval process, provides the ability to control your maintenance spend as needed, with full traceability.

Advantages of Prometheus Budgeting

Versus spreadsheets: Spreadsheets methods are wholly inadequate because multiple people are involved and there is no single source of truth. With this approach, various maintenance personnel enter cost data into spreadsheets manually or transfer it from the EAM/ERP/CMMS. They manually manipulate the data into budgets and then someone translates it into financial terms. Throughout the year, they conduct multiple exports and create multiple forecast versions to in an attempt to reflect ongoing changes in the system of record. Visibility, timeliness, accuracy, and version control suffer.

Versus home-grown systems: Alcoa is proof that home-grown systems are sometimes even more expensive than implementing something like Prometheus Budgeting. Alcoa invested a great deal on their system over a decade and it proved to be less than efficient. With a purpose-built solution, support and new releases are provided, and you have input on the product roadmap. Also, the risk of ownership is lower than maintaining a product in house.

Versus corporate systems: Implementing a corporate financial budgeting system does not eliminate the need for a maintenance-only budget solution, because corporate systems are not designed to handle the peculiarities of maintenance or its terminology. A system that ties a corporate financial initiative to the maintenance records is needed.

Versus competitive systems: The few available maintenance budgeting solutions are either too heavily oriented to certain industries or regions; overly expensive and complex; or are handled offline, which eventually puts the EAM/ERP/CMMS and budgeting system data out of sync. Companies that struggle with competitive solutions tend to revert to spreadsheet methods to fill functional gaps.

Glossary

Budget: Next fiscal year's approved spending. Some companies call this a plan.

Forecast: A point-in-time indication of the budget's present state and what may yet be achieved.

Actuals: Amount of actual expenditures.

Asset Hierarchy: Parent-child relationships of assets or asset groups in the EAM system.

Budget Group: Used to organize unplanned assets for budgeting, and to assign ownership.

Budget Hierarchy: Parent-child relationships of budget groups that feed the corporate budget.

Reserve Funds: An allocation of dollars to account for unplanned work.

Contingency Funds: An allocation of dollars to account for price uncertainty.

Scenarios: Proposed budget alternatives. One scenario will be approved for the fiscal year.

Approval Workflow: Approval process associated with budgets and sometimes forecasts.

Learn more about how Prometheus Group can help your organization today.

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About Prometheus Group

Prometheus Group is a leading global provider of comprehensive and intuitive enterprise asset management software solutions that work within ERP systems and span the full work management life cycle for both maintenance and operations. Developed jointly with end users, Prometheus software enhances the customer experience for planning, scheduling, and executing work for both routine maintenance and shutdowns and turnarounds, all while protecting the workforce with safety solutions and electronic permit to work. Our straight-forward functionality, graphical visualization, and simple processes enable customers to increase productivity, reduce costs, and improve reporting. For more information, please visit www.prometheusgroup.com.