VIZIYA®

Empowering ERP Asset Management Solutions

Why ERP users need accessory products to schedule their craftspeople

VIZIYA WorkAlign Scheduler strengthens Oracle eAM planning and scheduling

As a leading enterprise resource planning (ERP) solution provider, Oracle develops business solutions of great size and scope. Its customers range from small, local businesses to very large, multinational enterprises. Its modules serve virtually every core business need for an extensive array of industries. Consequently, Oracle's base products are designed to be broadly functional rather than all-encompassing, because attempting to meet the unique needs of each customer, or the best practices of every industry, would result in an unwieldy goliath of software code.

For advanced functionality, Oracle counts on companies like VIZIYA, an Oracle Gold Partner. VIZIYA's fundamental mission is to extend, improve upon, and empower the capabilities of ERP-based enterprise asset management (EAM) solutions such as Oracle eAM, PeopleSoft Maintenance Management, J.D. Edwards EAM, SAP EAM, IBM Maximo, and Infor EAM.

Because VIZIYA's maintenance solutions are developed in cooperation with ERP vendors, they are complementary in nature, not competitive. VIZIYA's solutions are designed specifically for use with Oracle's asset management products, integrated using the provided application interfaces, and delivered as off-the-shelf, bolt-on products. By providing essential functionality and enforcing best practices, VIZIYA's solutions deliver a healthy return on investment.

In this paper, we will discuss why VIZIYA WorkAlign Scheduler has become the maintenance industry's leading tool for maintenance planning and scheduling. We will summarize several important functional differentiators and illustrate the business case for implementing the solution as an accessory to Oracle eAM.

Small per-craftsperson savings can add up to huge benefits

Scheduling can make or break a maintenance organization. Good scheduling increases asset reliability and uptime. Poor scheduling increases costs and risks to the operation.

Seemingly modest savings from improved work scheduling can have a significant impact on a company's bottom line. When craftspeople are over-scheduled, their excess workload will have to be rescheduled. When craftspeople are under-scheduled, it means the scheduler lacked visibility into how much time was actually available. When planners and schedulers find themselves in these situations, their own work days are longer and less efficient than they should be.

Suppose improved scheduling allows a company to eliminate an average of 20 minutes per day of wasted time for each craftsperson. Assuming there are 500 craftspeople in the organization, that's 166 hours per day saved. That's 830 hours saved per week and over 40,000 hours per year. Moreover, when that time savings is applied to completing more work per day, it results in greater productivity, a

shrinking work order backlog, more timely maintenance, and greater equipment reliability and uptime. The savings potential is enormous.

With this in mind, VIZIYA WorkAlign Scheduler was designed from the ground up to arm work planners and schedulers with better tools to complete their jobs. For Oracle eAM customers, the benefits include:

- Improved planner and scheduler efficiency
- Increased craftsperson utilization and productivity
- Heightened management visibility
- Lower overtime and contractor expenses
- Greater equipment availability and reliability
- Higher production uptime

Oracle eAM's scheduling tools are good, but VIZIYA makes them better

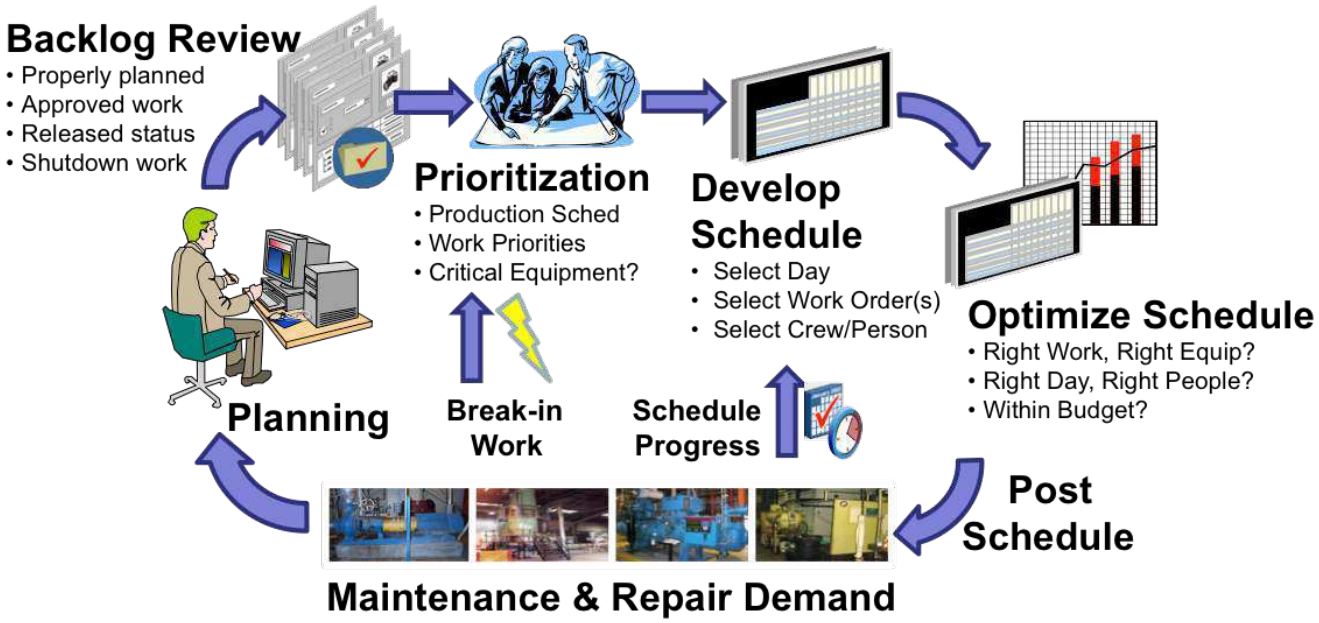
While Oracle ERP's planning and scheduling modules may work well for many parts of an organization, the maintenance department is unique. It needs capabilities beyond those required by departments such as purchasing, finance, or human resources. The larger the organization and the greater the number of work orders managed, the more pressing this need becomes.

Maintenance planners and schedulers must have the ability to assign large numbers of work orders to multiple people at once. It is a highly complex and demanding task to juggle which crafts are required, who is available in a given timeframe, where they are and whether their skills are a match, not to mention coordinating all of the tools and parts required to complete the task. High volumes of work orders and unplanned or emergency work further compound the effort.

As the scale of the maintenance organization grows, the savings from enhancing Oracle eAM with an advanced scheduling tool become significant. The advanced features simplify the task and provide functionality complementing what Oracle eAM provides. For example, schedulers need to be able to assign more work to more people, faster and more accurately, rather than one work order one at a time. They can't stop to run reports each time they need to make a decision. Instead, they require an easy-to-use, intuitive, graphical tool that delivers ready visibility into every open work order and variable at any given moment. They need live key performance indicators (KPIs) showing the impact of schedule assignments and changes as they are made, and the ability to change schedules quickly, efficiently, and accurately.

These capabilities and more are features of VIZIYA WorkAlign Scheduler. VIZIYA strengthens the power of Oracle eAM by augmenting and enhancing its capabilities.

Not only does WorkAlign Scheduler embed best-of-breed functionality into Oracle eAM, but it also offers a rapid time to benefit as it can be implemented within days.



1.1. WorkAlign Scheduler is designed to meet the needs of the planning and scheduling workflow.

WorkAlign Scheduler's flexible foundation

VIZIYA WorkAlign Scheduler complements Oracle eAM by providing numerous unique and essential capabilities. The differentiators begin at the core of the product. At its foundation, the VIZIYA solution is structured to allow greater flexibility and ease of use.

WorkAlign Scheduler provides a visual, real-time view of the eAM data. It speaks to the end user graphically – not just through a screen full of data fields. Users always know what is happening either by color, bar chart, or graph. With every change, the impact is visually depicted.

VIZIYA's screens are designed to be an extension of Oracle eAM. The data is kept in sync and the same information is displayed in both systems. Unique to WorkAlign Scheduler is its role-specific screens. For schedulers, supervisors, craftspeople and super users, their profile determines which and how many fields appear on their screens, and what transactions they are authorized to perform.

The continuous graphical KPI feedback provided in WorkAlign Scheduler allows real-time schedule impact analysis. Its dashboard-style presentations of KPI charts and

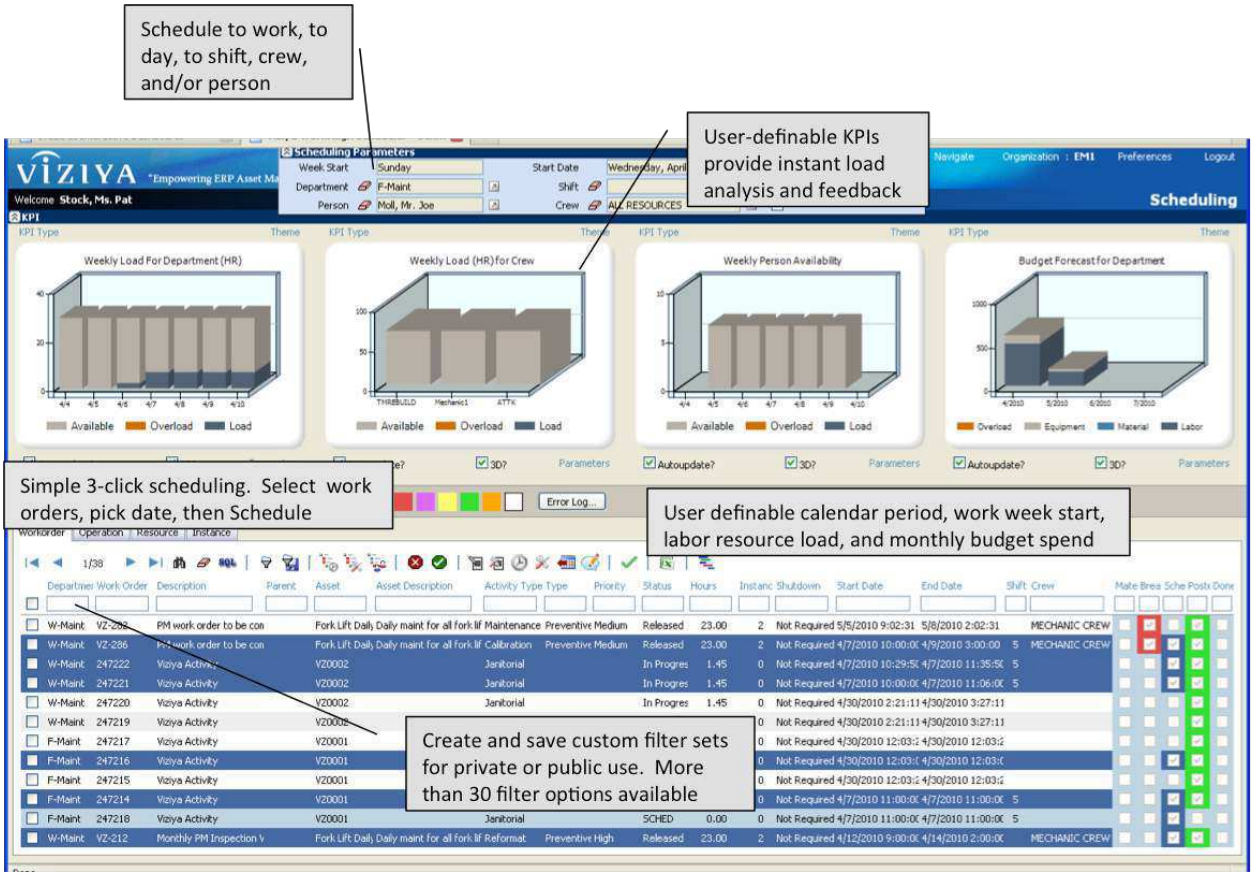
graphs are updated throughout work planning and scheduling, so there is no need to separately run and analyze reports. For instance, schedulers can see the current backlog, what happens as work is scheduled, how much time is needed to schedule, and who is still available. It enables resource leveling and the ability to quickly balance the work demand against the resource pool, avoiding scheduling conflicts and over allocations.

In Oracle eAM, by default, everyone works a 24/7 schedule – as such it is impossible to develop an optimized schedule based on their availability. In contrast, VIZIYA's users can create as complex a work rotation as needed and as many rotations as they could possibly want, very quickly and easily. The work schedule templates and availabilities can be very detailed (e.g., day, shift, person, and crew), and on-the-fly modifications are supported. For example, if a craftsperson who normally works an eight-hour day is needed for extra time during an overhaul, VIZIYA readily supports this change.

Craftspeople should not be scheduled for 100% of their clocked hours. Schedulers need to allocate time for meals, routine breaks, visits to the restroom and paperwork, and also accommodate interruptions due to emergency repairs and other unplanned events. With VIZIYA, the scheduler can cite a craftsperson's availability for actual wrench time and use that as the basis for scheduling work orders. If someone is called upon more often than others to perform break-in or emergency work, that can be factored into their calculation as well. Because the determination is configurable, craftspeople can be scheduled at their own individual capacity, thus minimizing over- or under-bookings.

Oracle's crews are only defined at the department level. For some companies, this approach confuses work with parts of the plant. For example, a plant may be organized into departments such as Tanks, Conveyor Systems, Prep and Process, but in order to create a new electrical crew, a new department called Electrical Technicians must be created. WorkAlign Scheduler, on the other hand, allows users to group resources from any department into logical, working units, whether by craft or team. It supports unlimited crew groupings and hierarchy associations.

Additionally, in WorkAlign Scheduler, when an unexpected breakdown occurs, the resultant work order is flagged as a "break-in" because it will break in to some craftsperson's existing schedule. When supervisors perform workload analysis, they can visually account for planned work that was not completed due to interruptions from break-in work. It provides a more accurate and realistic view of where time is actually spent.



1.2 WorkAlign Scheduler: Sample screen

WorkAlign Scheduler's functional efficiencies

VIZIYA WorkAlign Scheduler's differentiators from Oracle eAM continue throughout its functional design. Its best-of-breed functionality helps users to not only implement business process improvements, but to enforce maintenance best practices. Flexibility and intuitiveness are woven into every aspect of the design.

VIZIYA created a work order audit engine that is unique in planning and scheduling applications. The Work Order Quality Check eliminates the risk of poor quality work orders getting into the hands of maintenance personnel, thereby avoiding false starts and increasing their productivity. With the click of a button, planners can validate work orders based on their company's unique business requirements and determine whether the work orders are, in fact, properly planned and ready to be sent to the field. If not, the system flags the faulty work orders and tells the planner what needs to be fixed (e.g., missing parts, skills, tools, operations, resources, description or estimated duration, or the scheduled start date has passed).

To edit or schedule work orders in Oracle, each must be processed one at a time. In VIZIYA, they can be updated individually or in groups. Planners can view and edit

work orders at any level of the hierarchy at once, including fields such as status, priority, planning indicator, description (header or operation), start times, end times, and more. Work scheduling can be performed in flexible groupings – one, some, or all at once. In just three clicks, a scheduler can select the target work orders, assign a date, and then commit the schedule. They can add one or more resources or operations on the fly, assign multiple people (instances), and modify required units and hours.

When accessing the backlog, Oracle provides basic, pre-defined filters to find work needing to be scheduled, and those few select fields are at the header level only (e.g., work order number or start date). In contrast, WorkAlign Scheduler supports more than 30 customer-defined filters. Users can filter and sort on any data element at any level of the work order (including flex fields). For instance, they can search for all work orders assigned to an electrical apprentice, for a specific department, for a specific week, and where the priority is high. Searches can be sliced and diced as needed, and users can even search by a custom SQL statement if desired. The filters can be saved and reused, and they are available for use throughout the product, including the Work Order Quality Check page.

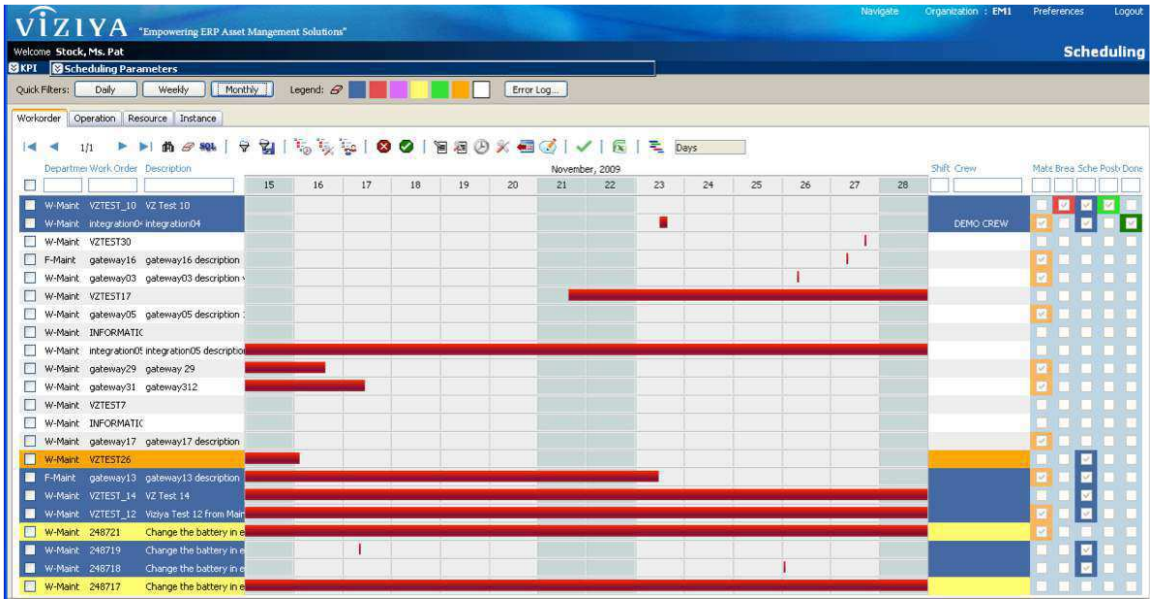
Oracle eAM only allows users to schedule at the work order header level, which is fine when the company has a scheduler for each department. However, if a company has schedulers who only schedule electricians, mechanics or pipefitters, they cannot schedule at the header level because they may have work orders that require all three crafts. VIZIYA allows scheduling at any level of the work order (header, operation, or resource), allowing greater flexibility in the scheduling process while accommodating any organizational structure.

What-if scenarios are a valuable way to test the impact of schedule changes before committing them to Oracle. VIZIYA provides a scheduling playground, allowing date changes to be held in WorkAlign Scheduler until they are confirmed for release. As each work order is updated, the scheduler can make changes to the schedule, resources or availability, and immediately see the impact to the organization through the graphical KPI charts so that adjustments can be made if needed. Once the schedule is acceptable, all associated work orders can be selected and committed to Oracle at once.

Gantt and spreadsheet scheduling views are available in WorkAlign Scheduler. Work order lists can be displayed in a spreadsheet-like view, in a grid view with icons, or in a Gantt chart view showing job durations. In the Gantt view, users can click, drag, and drop the work to the preferred start and finish dates. Alternately, users can select and schedule multiple Gantt chart rows with just one click. While Oracle eAM has some reports that display in Gantt chart view, the functionality is limited; their jobs still have to be scheduled and rescheduled individually.

When work that cannot be completed is sent back for rescheduling (e.g. a concrete footing is not yet fully cured), the supervisor can pull up that work order in WorkAlign Scheduler, electronically send it back to scheduler with a note explaining the reason, and ask that it be rescheduled for another time. The scheduler will see that work order highlighted in purple, indicating that attention is required, and take action. No phone call is required, nothing is lost in translation, and the risk of the work order being overlooked is avoided.

With VIZIYA's snap-to-grid scheduling, dozens or hundreds of work orders can automatically be rescheduled at once, to the hour, day, week, or month. For example, to reschedule a small overhaul with 200 tasks to a future week, the scheduler can pull up the parent work order, click a checkbox to select all child work orders, pull up the Gantt weeks view, click five weeks into the future, and then all 200 work orders will be automatically pushed out five weeks with their structure otherwise completely intact.



1.3 With the WorkAlign Scheduler Gantt chart view, you simply click and drag to schedule

Work order splits are greatly simplified. When work is to be repeated on a routine basis over a period of time (e.g., a service contract), a single work order with a single operation can be split into multiples within minutes using VIZIYA. WorkAlign Scheduler lets planners divide the work orders into user-defined periods and level out the resources automatically. For instance, a single 2,000-hour work order can be crafted as one operation and easily spread across multiple shifts (e.g., eight hours every Saturday in the year). In Oracle, it can take hours to manually set up this scenario, one work order at a time.

Finally, with VIZIYA, exporting any set of work orders into Excel, customized and formatted, is a very simple process.

The greatest benefit: Best practice enforcement

Of all of its functional advantages, it is the role-specific, end-to-end process optimization features that set WorkAlign Scheduler apart. Step by step, work planning and scheduling best practices are enforced within the solution:

- Planners use the Work Order Quality Check to make sure the work order is properly planned.
- Schedulers use what-if scenarios to build the optimal schedule before committing it.
- Supervisors fine-tune the schedule based on actual information on the ground.
- Craftspeople conduct the work and submit their labor hours to the supervisor.
- Supervisors confirm completion, close the work order, and submit the hours.

Furthermore, all of this information is real-time connected to Oracle – no data is offloaded or cached. There is a real-time push and pull as if the tasks were being performed in Oracle, just using a different screen.

Ample business case for optimized planning and scheduling

Several independent studies have validated the business case for effective planning and scheduling. According to Doc Palmer's Maintenance Planning and Scheduling Handbook, "Implementing proper planning and scheduling can improve productive maintenance time from 25-35% of a typical organization to 50-55% – almost doubling the ability to get work completed."[1] The following charts display similar positive effects.

Conclusion

VIZIYA WorkAlign Scheduler's unique and robust functionality is unmatched by any other work planning and scheduling software, or ERP scheduler module. It specifically complements Oracle eAM by becoming an integral component of the total solution. And, it doesn't just enable maintenance best practices; it actually enforces them. As a result, the business case is strong and the payback is real.

Long-time Oracle Gold Partner VIZIYA is equipped with the tools, methods, and knowledge necessary to enhance the planning and scheduling performance of

[1] Maintenance Planning and Scheduling Handbook, Doc Palmer

virtually any asset-intensive organization. Let us help you get more benefit out of your Oracle eAM investment.

About VIZIYA

Headquartered in Hamilton, ON, with offices in Barcelona, Perth, Atlanta and Dubai, VIZIYA is the industry leader providing bolt-on software products to enhance ERP-based asset maintenance systems. VIZIYA's proprietary WorkAlign™ Product Suite delivers seamless integration into existing ERP systems. With over 45,000 users at 740 sites across 6 continents, the world's best companies use VIZIYA products to help them better maintain their assets. Visit viziya.com for more information.