

USING TECHNOLOGY TO IMPROVE
THE MANAGEMENT
OF JOB SITE EQUIPMENT



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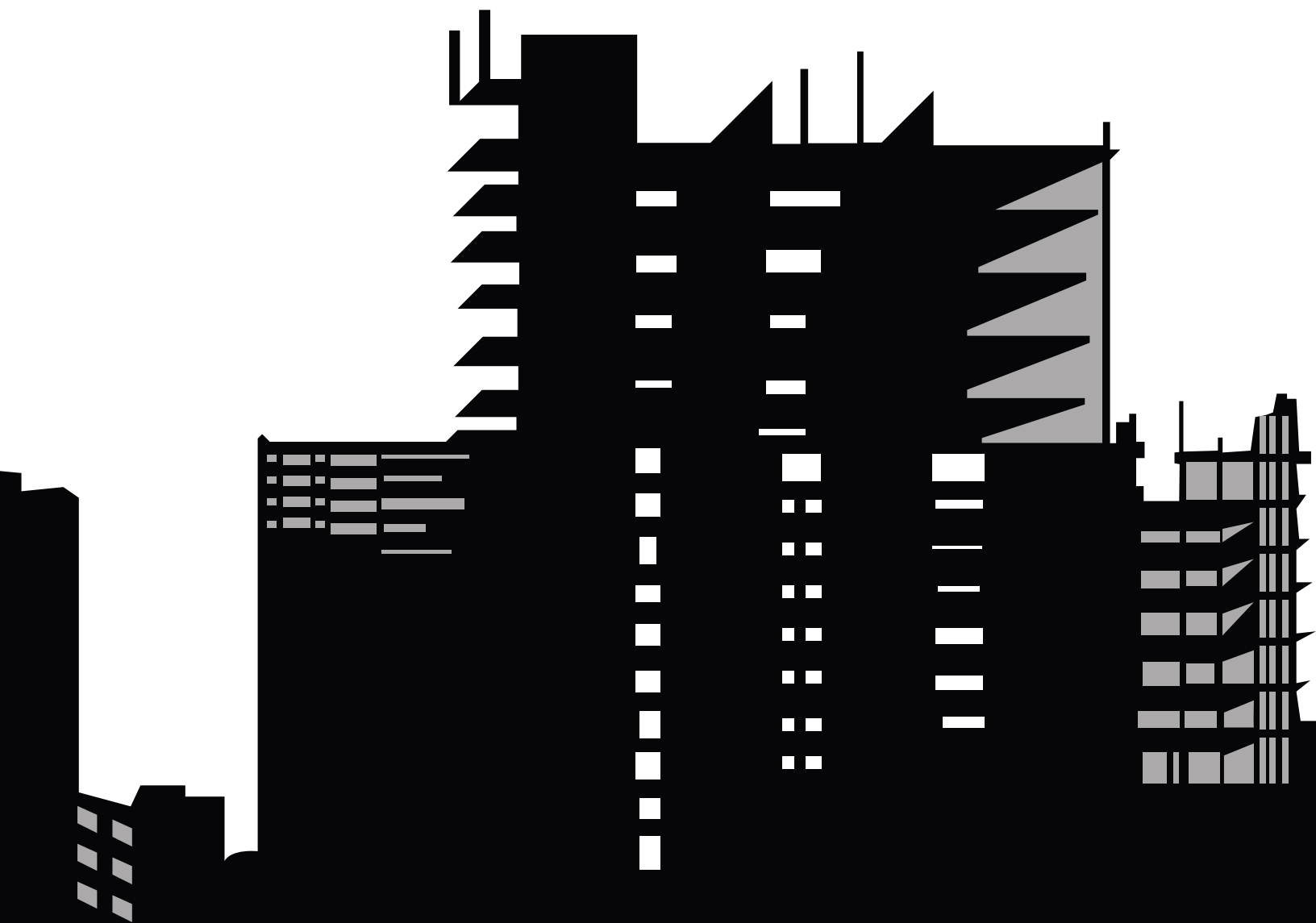
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INTRODUCTION

Construction companies estimate that equipment they own or lease represents 20% of their costs. But in reality, most are not sure of their exact equipment costs and a lot of data resides on spreadsheets and is double keyed between systems to try and capture at least basic information around their job site equipment.

Whether you are managing the deployment of your own construction equipment or managing the procurement of external rental equipment for your job sites, this e-book is for you. We provide recommended best practices from leading, large construction companies to improve your equipment management processes and control costs using technology to streamline processes, reduce opportunities for error and maximize productivity.

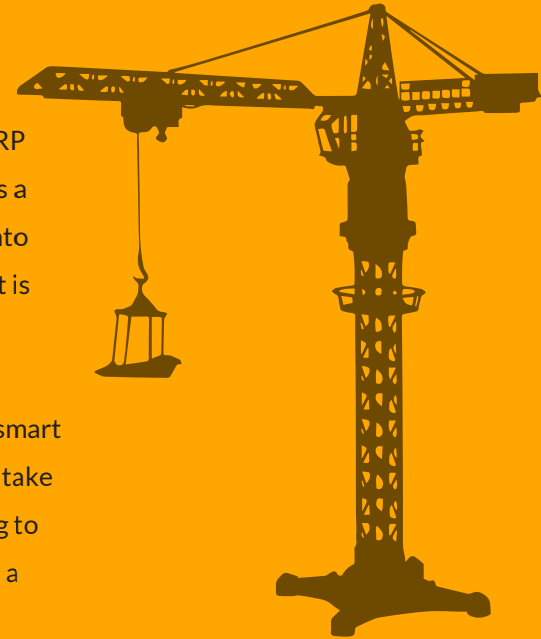


MANAGING DEMAND AT THE JOB SITE – ON LINE REQUISITIONING

REQUISITIONING EQUIPMENT

Traditionally equipment requisitions tend to fall outside of normal construction ERP functionality; often the “requisitioning process” is a phone call, a fax or an email. As a result, equipment facilities find themselves either having to enter data manually into systems or having to chase foremen and supervisors for more information on what is actually needed.

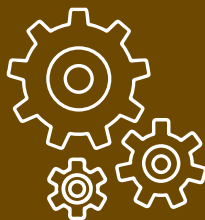
Taking your management software into the field is now easy with the adoption of smart phones and tablets across many enterprises. Your requisitioning process needs to take advantage of these technologies so that you aren’t dependent on a foreman having to go into a site office to place a requisition on a computer. He or she can just pull out a mobile device and enter the requisition from wherever they stand on the site.



A requisition is just one half of a conversation; the other half comes at the equipment facility (or procurement office) when you need to act on that requisition. The key thing you need to ensure is that your requisition information comes into the equipment facility in real-time. Any kind of delay in the process and you’ll automatically lose the trust out at the job site.

1

Catalog and requisition process delivered via mobile device and browser

2

Integration back to your equipment deployment process

3

Integration to your ERP for project / subcode / task / WBS code information

INTEGRATING DEMAND WITH YOUR RENTAL SUPPLIERS – SUPPLIER PORTALS

RE-RENT PROCUREMENT

If your construction business doesn't own a single piece of equipment or a single tool, or if you have specific lines of equipment that you know upfront will only be supplied externally, then make sure your equipment management software can handle rentals. Your process workflow should be able to drive a re-rental workflow so that your requisition flows neatly into a re-rent procurement process that expects drop shipments and external charges as part of its normal flow.



ADDED VALUE: AUTOMATING THE RE-RENT PROCESS

If you know that certain categories or product lines are always going to be re-rented then you should be able to consider automating the re-rent process. For example, if you have three preferred vendors for mobile cranes, think of the advantage of being able to auto-generate a request for quote to all three vendors the moment a requisition is created. You can also provide a supplier portal that lets all three vendors log into your supplier portal, confirm the price and time they can deliver to your job site, and give you the option to manually or automatically confirm the order with the one that matches your need.

Real added value comes from reducing the elapsed time between a requisition and vendor confirmation so that you have plenty of time to look for other sources if none of your preferred vendors can supply you within the appropriate parameters. It essentially creates a bidding process for each re-rental.



MOBILE SOLUTIONS

The reality is that for all the talk of paperless offices for the last 20 years, it's only recently that the concept has started to be achievable for most businesses. The game changer in this area is clearly mobile applications. When PDA's and ruggedized tablets came onto the market in the 90's they promised a great deal, but delivered very little for the majority of businesses. Development was difficult, synchronization clumsy and they just didn't deliver the kind of neat integration that the hype suggested.

The technology landscape has now completely changed. If your business system is modern, built with the expectation of communication with outside systems and devices, paperless offices can be realized. Android and iOS devices with job-specific apps are designed to communicate quickly and efficiently with back-end enterprise systems. Building applications for mobile devices is now much easier and can be tailored to fit your specific business processes. You need to look for the latest technologies and standards on a web services platform that incorporates RESTful technologies for communicating with mobile devices, e-commerce and portal technologies.



What this means for your business is that in places where you currently use paper (delivery and pickup tickets, yard picking documents, servicing check lists, mechanics or technicians working out in the field), you could now manage it electronically from mobile applications. Forget pieces of paper being lost, now all the data can come back in real-time or, if necessary, be held and synchronized when the device is back in signal range.

Efficiencies are obvious from reducing keying errors to simply speeding up processes. In the most practical sense, freeing up space currently taken up by filing cabinets and paper documents particularly around your maintenance processes.

MOBILIZATION, DEPLOYMENT & PICKUP

Since transport is a mobile activity it makes sense to bring mobile solutions into your equipment management process. Key applications include:



Mobile picking and
equipment allocation



Load confirmation (particularly
useful if you want third party
drivers to acknowledge their
loads either from the yard or
from the job site)



Job site signatures for
delivery and pickup
confirmation



Online visibility of progress for the job site



Receipt of re-rents at the job site via
mobile app for cost management



GPS & TELEMATICS

These days, telematics and GPS tracking are part of the arsenal of tools that equipment managers can use to keep track of their assets in the field. But these technologies offer more than simply knowing where the asset is and whether it's doing something. Every piece of equipment you own whether it's a piece of heavy equipment or a small tool has its own maintenance requirements. If any of your equipment has tracking devices, then you can read its data and use that information to help you manage your maintenance processes and reduce the risk of equipment breakdown or malfunction on the job site.

For certain types of equipment you may want to take that a stage further and use engine data from telematics to determine costs or charges to the job site. Even if you have a base cost per day / week / month for a generator or pump, it may be that you charge the job site extra for 24/7 working, or excess hours beyond a basic double shift cost.

You need an equipment management solution that has a standard API for connecting GPS tracking data and telematics information from assets in the field to your asset history, deployment and charging processes. There are many different types of devices on the market, so the essential component you are looking for in your equipment management software is an open API to allow you to connect whatever type of device you need.

ADDED VALUE: USING REAL TIME DATA TO MITIGATE RISK

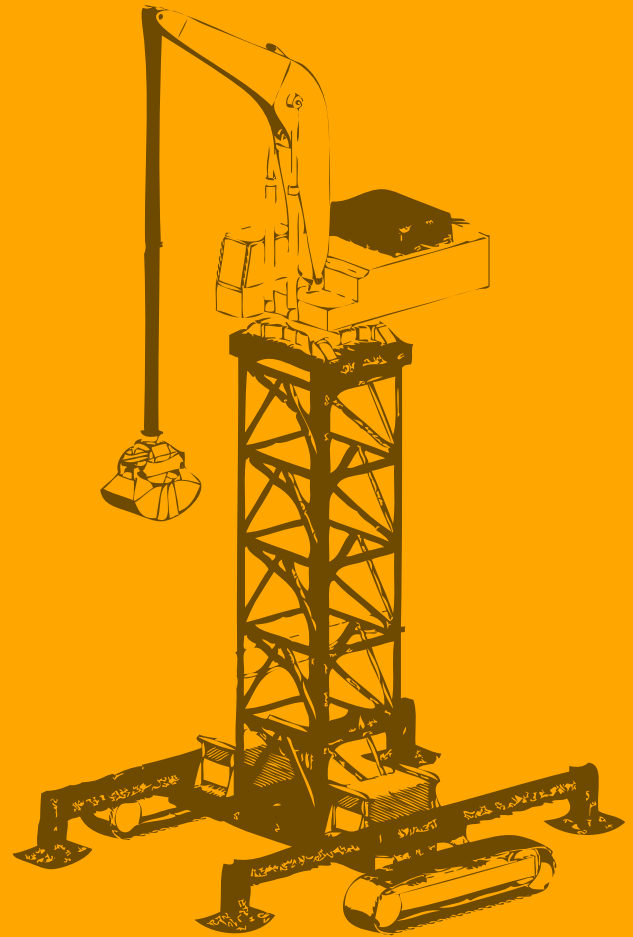
When you are measuring telematics readings then you have a real chance to improve safety and mitigate risk for your end users and your job site. Predicting engine or pump failure, for example, as it starts to overheat can deliver true value to the job site and the project, reducing the risk of overruns, expensive delays and risks to human safety.



INTEGRATION WITH OTHER SYSTEMS

INTEGRATING YOUR KEY MASTER DATA WITH YOUR ERP

When you look for an equipment management solution you need to make sure that it has built in integration capabilities to allow you to connect seamlessly to your ERP or project management software. In some cases, this may simply be general ledger transactions, but in most cases it includes the creation of charge data or job costing data from the equipment system, and then interfacing directly into the corporate applications. From an AP perspective, purchasing can be integrated at the payment level, i.e., your equipment management system handles equipment POs and re-rent POs and simply sends matched invoices ready for payment through to the corporate AP or you may want a more complex interface at PO level.



Equipment management at the level that an equipment-focused business requires is rarely part of the core competency of a big ERP or project software system. Many construction companies evolve the asset management of their equipment fleet into their equipment management solution and simply send financial transactions through to the ERP. This gives you the best of both worlds allowing for detailed transactional data to be recorded and reported through your equipment management software and more summarized and standardized reporting to happen at the ERP level.

For most construction companies, tool management and equipment management are not the core competency of the business. Very often the equipment and tool management functions become separated from the key business systems that you use for your corporate project management and construction software.

ADDED VALUE: ELIMINATE DOUBLE ENTRY

Real-time integration removes any need for double-keying between systems and eradicating sources of error. The value of removing double-entry is one of the single most important things that you can achieve for your business overall and it's one of the most common complaints we hear from anyone involved in construction equipment management.

REPORTING AND DASHBOARDS

There are so many audiences these days that need to consume data from the specific type of information relating to a single job site for the foreman or supervisor to the equipment procurement team who want to compare utilization or forecast demand. When it comes to reporting on your equipment the most important factor is to ensure you have a good degree of flexibility on how, when and whom can access the data.



EMBEDDED DASHBOARDS

Mobile apps and modern technologies have made many people more attracted to visual representations of data. For this group, large detailed reports are unpopular and instead KPI indicators and quick graphics are far more relevant and important.

If your equipment management solution can embed appropriate reports and dashboards within your basic data entry screens you are far more likely to deliver value to your users. Dashboards often don't have to be limited to a single data source allowing you to combine data from external sources, your corporate ERP system, your project applications and more alongside your equipment data.



ANALYTICS

Dashboards and KPIs often lead to questions where you need to examine the data in more detail. This might mean the ability to drill into detailed data from a dashboard, the ability to link reports together to provide more specifics or simply the ability to load data into Excel if you have an accountant who prefers pivot tables and macros. Whatever the end game, your reporting solution needs to give you access to the entirety of your data. You need to be able to schedule reports or run them on demand and they need to be flexible enough to build complex calculations, report on trends and deliver data in appropriate formats.



TRANSFORMING DATA FOR ERP DATA WAREHOUSES

If you have a corporate ERP it's more than likely that you have existing reporting solutions in-house. While the local reporting solution linked to your equipment management software may be what you want for your own management reporting, it is quite likely that the rest of the business also wants to access that data. To make this possible you need to make sure that the equipment solution offers capacity for data transformation or (ETL) extract, transform, load services to build data management pathways between your equipment management solution and your corporate data warehouses. Data transformation in its simplest sense simply means turning your data into a format that the corporate data warehouse can understand.

CONCLUSION

Technology allows you to overcome many of the challenges that a construction business faces when deploying equipment into the field, interacting with ERP systems, tracking assets and controlling processes across both the field based and internal business units.

Wynne has the equipment management software and technology platform to address these areas and provide the communications and real time visibility to improve your business processes and reduce your equipment costs. Using a combination of web based portals, mobile apps, a fully interactive SOA platform offering both REST and SOAP communication we can deliver solutions that bring real value to your business.

ABOUT WYNNE SYSTEMS

Wynne Systems is a global software company producing construction and rental equipment software and tools for a variety of sectors. Established in 1989, Wynne recognized the need for a truly complete enterprise resource planning solution, and committed itself to developing software that would meet the rapidly evolving and growing needs of the equipment industry. Today, Wynne is now in 37 countries, serving over 3,500 locations.

Contact us at marketing@wynnesystems.com.

