

# Armada™ powered by IBM® Maximo®

## Construction Equipment Management and Maintenance Solution



Armada™ is a unique, fully integrated construction fleet management and maintenance solution for IBM® Maximo® for Transportation. Armada™ is an end to end layer-based solution which includes industry focused interfaces to allow maintenance specialists to manage construction equipment and fleet within one system that is tightly coupled to your company's procedures, best practices and asset strategy.

**Equipment downtime can contribute up to 40% of a construction project's overrun.**

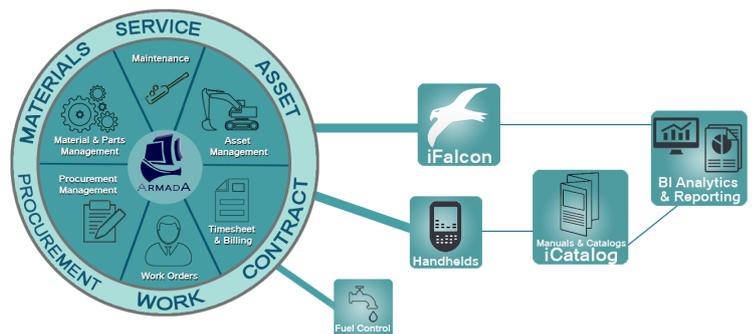
### The Challenges

One of the major challenges for contractors on the corporate level is how to effectively manage different types of assets, locate them and make the right investment decisions based on reliable, real-time Asset Management information. More than ever before, maximizing the availability and performance of assets while sustaining environmental and safety regulation has become a critical task.

On the operational level, fleet and maintenance managers must make immediate and strategic decisions that require effective data analysis capabilities and reporting. They also need Asset Management Information placed into the hands of maintenance technicians and storeroom personnel rapidly.

In addition to this, operations have other key challenges including:

- Workforce safety.
- Scheduling assets for use, as well as for planned maintenance.
- Accurate costing and billing of all activities related to the asset.
- Vigilant monitoring of costs related to fuel, logistics, resources, inventory, etc.
- Supply chain—ordering the right parts at the right time
- Environmental and regulatory compliance (HSE, client and legislative regulations).
- Knowledge retention in a market short of skills.



### Armada® covers the following functionalities:

- Equipment classification, identification, location and serialization. On the asset tracking side, Armada integrates with leading telematics systems from Trimble®.
- Equipment availability, forecasting, and planning.
- Equipment specific OEM maintenance schemes and routines.
- Equipment specific spare parts BOM/BOQ as well as procurement and material availability.
- Equipment life from purchase/lease to retirement with full tracking of CAPEX and OPEX.
- Costing, allocations, billing & recovery\*.
- Warranties and Service Contract Management.
- Equipment performance measure, and efficiency\*.
- Equipment configuration and subassemblies management.

\* Armada offers an optional Handheld-based Fuel Management system to capture fuel costs by equipment and allocate to cost centers. On the labor tracking side, CCT offers an advanced Digital Pen based Timesheet system.

## The Benefits

Contractor's benefits are realized in a very short period of time. Some of Armada's benefits include:

- Boosting visibility and control of assets
- Achieving higher levels of asset performance through increased availability and reliability
- Standardizing maintenance processes and consolidation of operations
- Streamlining the procurement and supply chain processes for parts and consumables
- Improving accountability and utilization
- Leveraging best practices and sharing know-how among users
- Facilitating site, customer and statutory compliance regulations
- Improving service levels and contract management
- Reducing inventory overheads, shortages, obsolete parts and shrinkage.



### Armada has helped our customers:

**Reduce Maintenance Expenditure:** Armada reduced maintenance expenditure of a major multinational contractor with over \$1B of assets, by **15%**.

**Asset Downtime Reduction:** Unscheduled downtimes are reduced typically by **25%**. Some construction equipment can cause **thousands** of dollars a day in losses if down.

**Balanced Inventory of Material Parts and Consumables:** Understocking can cause downtimes to extend by up to **45%**. Overstocking can cause increases in storage costs and shrinkage. With Armada, the Material Management module balances your inventory.

**Reduced Staffing Costs:** Our customers typically realize up to **10%** savings in labor costs due to improved productivity. Keep your staff busy maintaining equipment instead of paperwork and other time wasting tasks.

**Increase Equipment Life:** Well planned maintenance using proper policies and procedures can meet and exceed equipment life expectancy.

**Safety and Reliability:** Equipment which is regularly and stringently checked during maintenance, greatly increases safety and reliability especially in the harsh environments contractors operate it.

### Switching from reactive to predictive maintenance

Armada® facilitates shifting from reactive to predictive maintenance. The solution can seamlessly integrate with connected equipment using telematics devices, extract performance data and predict potential problems in advance. This helps contractors in managing the maintenance of the equipment in a non-reactive, scheduled approach that minimizes downtime to the lowest levels while reducing idle maintenance resources.



"Armada keeps equipment life-cycle costs under control and to a minimum."



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Read IBM's CASE STUDY

<http://bit.ly/armadamaximo>

