



Armada Dynamics  
rental software solutions without excuses

# Armada EQM Rental Equipment Management Solution

## *Built on Microsoft Dynamics NAV*

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## Rental Companies Have Specific Data Requirements

Successfully operating an equipment rental company presents a unique set of challenges not unlike manufacturing or retail sales. However, there is still the need to maintain the usual accounting and customer information common to all companies. Companies that own more than just a few pieces of rental equipment need an efficient operational data system for all operations. They also need a computer system that can be used by every employee handling transactions and involved in the company's financial matters.

## Enterprise Resource Planning (ERP)

What need do all companies have in common? They need a system for accessing data and keeping records of activities. There are also the regular periodic tasks of monitoring profits and losses. All companies except perhaps the smallest, have implemented a computerized enterprise resource planning (ERP) system. This is a company-wide system spanning all departments and operation from accounting to servicing customers to maintenance. Included in these systems are user interfaces and underlying programs tailored to the specific roles of employees that are linked to a common database.

## Additional Requirements for Equipment Rental Companies

Besides inventory control, accounting and customer data, there are the additional tasks of monitoring rental equipment status. The status of each rental item needs to be known:

- Is the item available or rented?
- Who is renting an item or where is it currently located?
- Is a piece of equipment undergoing maintenance or repairs?
- For a multi-location enterprise, what equipment is at each location?
- Does the equipment have several components or is it a single item?
- Are the items managed as a fixed asset before it is rented to the customer?
- What is my most profitable piece of equipment in my inventory?

These are only some of the specific data referencing tasks for an equipment rental company.

## The need to reduce costs.

The Aberdeen Group conducted a study in 2009 of the various business drivers among companies. It was found that the chief business driver in 2009 was to reduce costs. Reducing costs has now surpassed the need to manage anticipated growth and improve the customer's experience.

Reducing costs results when the right decisions are made in enterprise planning. Making the right decisions is based on accurate and easy access to current information on company activities. Knowledge of factors resulting in profits and losses is crucial in proper planning.

Effective cost reduction involves preventative maintenance on each unit of equipment. Keeping track of equipment usage (e.g. hours of engine operation) keeps routine maintenance on schedule (engine oil changes, replacement of worn

parts, etc.). There is also the need to keep track of total maintenance costs of each piece of equipment. If it is no longer profitable to rent a particular unit, should it be taken out of service? Should it be overhauled?

## Choice of Software and Database System

Given the specific data requirements of the equipment rental business, several software packages were developed specifically for this business. These software packages adequately address the service requirements of the rental business. Some have their own database, while others can tie into the same database used for general accounting and customer management.

There are also general purpose enterprise resource planning systems that provide standard functions like accounting and payroll, accounts payable, accounts receivable, taxes, etc. One of the fastest growing ERP software packages is Microsoft Dynamics NAV. What makes NAV so desirable is that modules can be tailored to meet specific business or industry requirements and still have the most powerful, general purpose business data processing system.

## Problems with Standalone Rental Software Systems

Though there are several stand-alone ERP packages developed specifically for equipment rental companies, most are not seamlessly integrated for an end-to-end rental management solution. Some of these applications require their own database system.

Another problem is each software package has a user interface that has to be learned from the basics to the specifics. Those disparate systems will adversely impact the down time involved in the initial implementation of the system and lengthen the learning curve for any new hires to the company.

## The Ideal Solution

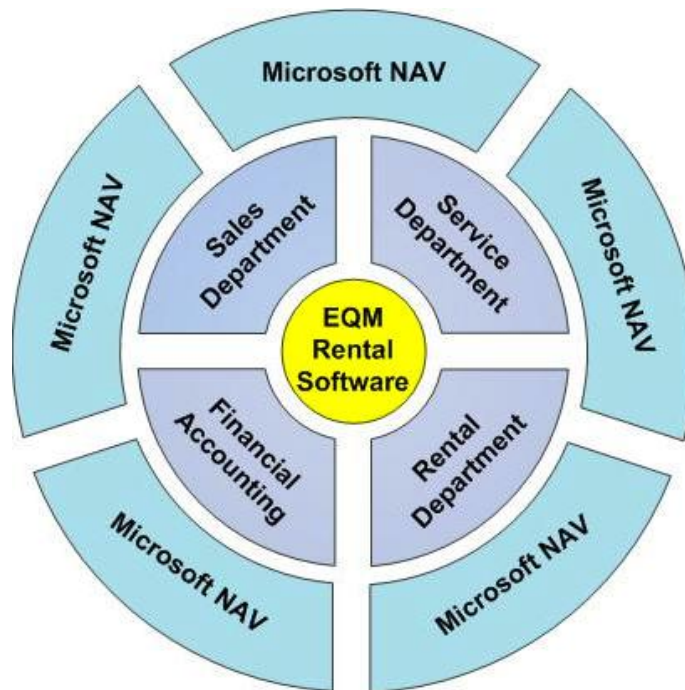
Obviously, the ideal system would be one that handles everything having to do with a company's entire business activities and keeps records in a single database, that is accessible by all utilities used by employees performing both front and back office tasks.

Front office tasks are direct interactions with customers, whether face to face or by telephone. Typical front office tasks are providing quotes and other preliminaries as well as drawing up rental agreements and billing customers.

Back office tasks encompass nearly everything else company employees do. These tasks include accounting, invoicing, equipment maintenance, purchasing, etc.

## Input and Output from a Single Database

Input from customer interactions and maintenance and purchasing will all be directed to a single database system. Output to data retrieval interfaces by accounting and executive decision makers will be from the same database as from customer service to determine equipment availability prior to initiating a rental agreement.



## Outline of General and Specific Business Requirements

### 1. General Business Requirements

Typical operations facilitated by business management software

- Accounting
- Billing
- Taxes
- Customer
- Vendor
- Database
- Marketing

### 2. Specific Equipment Rental Management Operations

These are the specific organizational challenges in operating a rental business.

- Equipment placement and availability
- Equipment profitability
- Equipment utilization
- Accurate and automated invoicing
- Deposit Management
- Combined invoicing
- Relocation of Equipment
- Contract statistics
- Certification and workshop planning
- Service planning
- Fixed Asset handling
- Utilization reporting

## Typical Transaction

When a prospective customer inquires about renting a specific equipment item, the first step is to check availability. If the equipment is available, reserved or rented out? If it is not available now, when would the item be available?

The first step would be to quickly check availability using a special program that queries the database for equipment available on a given date. The database representation of each piece of equipment would be labeled available, reserved operational (in use) or undergoing service.

The next step would be to quote the rental rate. Upon agreeing on the price and availability, an agreement would be formalized and deposits collected. The rental item would be reserved until transported to the customer's job site, where it would be labeled operational. The single task of drawing up the rental agreement would make entries in the equipment and customer database objects.

## Maintenance and Service Records

Upon return of equipment, the employee in charge of maintenance will perform an inspection and record the condition of the equipment when returned. Any necessary repairs would be noted using an interface that makes data entries entailing details of the repairs, including parts and labor costs.

## How Key Decisions are facilitated by an ERP System

The main focus of the decision making process is cost reduction. Analyzing data gathered from recent months' transactions aids in determining whether major changes will result in profit or loss. Here are some of the decisions where proper analysis of transaction data plays a key role.

**Purchasing new equipment:** this is a key decision frequently made by select employees in a rental company. The decision to purchase new equipment could be in response to:

- The replacement of worn or old equipment that costs the company in repairs and to transport replacement units to the job site – at an additional expense.
- Frequently requested equipment may justify purchase of additional units.
- When a piece of equipment is not available, should the company purchase another of the requested item or should the company rent a similar unit? Though renting is cheaper than purchasing, there will be little, if any profit but this is a consideration to maintain customer relations.

**Providing new rental services:** Some businesses may elect to add new types of equipment. Some rental companies rent items like scaffolding and fencing and concrete barriers. Despite apparent demand, one must consider costs. Many types of heavy equipment may require specially trained operators, plus the costs of hiring temporary operators raises rental rates considerably.

**Hiring Temporary Workers:** As mentioned above, may need to hire additional operators for some construction tasks. Special accounting procedures must be implemented to accommodate this need.

**Moving or Establishing an Additional Office Location:** Costs and delays involved in transporting equipment to job sites, as determined by periodic profit/loss assessments, may justify moving or establishing an additional office or storage depot for equipment.

## The Industry Standard

In the field of ERP software, Microsoft Dynamics NAV (formerly Microsoft Navision) has become the industry standard. It is the most widely used among different industries and geographies. Its main strength is its end-to-end reach within a company's corporate structure and its ability to connect apparently unrelated activities by a common database.

With the Internet, companies with multiple locations, even in different countries, can operate as a single entity.

## Abstract of Valero Case Study

Valero Energy, a Fortune 500 company based in San Antonio, Texas, has an extensive refining system with a capacity of three million barrels a day.

Valero also has a network of about 5,800 retail and wholesale outlet and approximately 22,000 employees.

Valero runs its entire enterprise-wide operation from a single instance of ERP. "Our strategy from day one was to fully integrate each acquisition, and that included applications and supporting infrastructure. ~ Once an acquisition is announced, the team is on site and working to integrate the new company into the single instance. All key processes are consolidated and standardized."

**Source:** Aberdeen Group | ERP in Manufacturing 2009 | June 2009 by Cindy Jutras

The Valero study testifies to the scalability of Microsoft NAV. As a company grows in size, number of locations and becomes more diversified in the services it offers, NAV is readily adaptable to growth and changes.

## Implemented in Diverse Business Environments

Microsoft Dynamics NAV has been used in such diverse companies as Steinway Pianos to Cockatoo Ridge Winery, and Tourism Vancouver. Though the system provides the standard accounting and database capabilities needed in any business, company and industry-specific applications can be developed that operate within NAV.

## What makes such precise customization possible?

Microsoft Dynamics NAV uses an internal programming language from which modules can be developed. A module basically consists of a user interface, a database query, and a program that processes the data for entry into or retrieval from the database.

These programs are developed by Microsoft strategic partners who specialize in a variety of vertical markets. These strategic partners work closely with clients to determine the precise needs of each employee who accesses the company data system on a regular basis.

## EQM: A Custom Tailored Rental Solution

Construction and industrial equipment might have somewhat different requirements from bulk item rentals. Such bulk items include fencing and scaffolds.

In bulk item rentals, inventory of the exact number of components and fasteners are kept. Renting fence or scaffolds involves perimeter length of the fence. Renting scaffolds is based on the number of building stories and building length.

The system is programmed to calculate the number of individual components for a given length of fence or scaffolding dimensions. Upon return of rental items, the components are counted and the cost of missing components is determined.

Other rental items such as office trailers do not have the maintenance requirements of heavy construction equipment because they lack engines or hydraulics.

Then there are items that are complex because they have parts that need to be replaced with each use and bulk components. Such items include drilling equipment since drill bits wear out with use and necessary pipe components depend on the depth of wells to be drilled.

## A Microsoft Dynamics NAV Strategic Partner Dedicated to the Equipment Rental Industry

Whatever the specific nature of an equipment rental company, a Gold Certified Microsoft Dynamics NAV Partner will develop a ERP that analyzes all the cost factors of the business. This partner will develop a modular program and user interface for each operational division of the company. All modules share the same database.

Some programs work with customer data. Others work with equipment data objects. For example, a program will query the database to determine which rental units are due for maintenance. Other programs can generate reports on net profitability of each piece of equipment and rents paid for this unit gauged against repairs and other costs.

## Introducing EQM Rental Software Solution

Yes, a Gold Certified Microsoft Dynamics NAV Partner can develop a program to your specific needs for managing your rental company. The next level would be a partner with extensive experience developing ERP systems for rental equipment companies.

One such Gold Certified NAV Partner is Aimit AS, a Norwegian company with extensive experience in developing NAV modules for the equipment rental business in several European countries as well as South Africa.

## Abstract from Case Study of Steinmüller Co.

Steinmüller is an engineering firm in Rivonia, South Africa that specializes in design and construction of industrial facilities. Steinmüller has been operational since 1962, has developed resources, expertise and strategies encompassing:

- The Design, Fabrication And Construction Of Industrial Plant
- Optimizing The Day-To-Day Plant Operation And Maintenance
- Assessment And Analysis Of Plant Condition, Performance And Optimization
- Plant Repair, Strategic Maintenance, Refurbishment and Lifetime Extension

### **Problem:**

To consolidate maintenance, tracking, equipment, billing invoicing and scheduling all under one unified management umbrella and provide a totally



integrated Enterprise Rental, Sales and Service Solution for the rental industry

**Solution:**

We needed to simplify the business operation by eliminating multiple disparate systems. We assessed where the assets are located, what their availability for rental or sale are and when they could be scheduled for delivery or pickup. The system provides instant access to this vital information, simplifies day-to-day operations, improves customer service, and drives more revenue using an ERP Navision based solution with a vertical specific add-on module called EQM.

The overall efficiency of the company organization increases because the employees have the tools they need to respond quickly to problems, using a fully integrated system, which can manage capital equipment at the levels of sales and receivables, purchases and payables, fixed assets and service and service management. The web based nature of the system allows problems to be prevented before they occur.

## Bringing EQM to the North American Market

This special report is presented by Armada Dynamics, Corporation. Armada Dynamics is a Certified Microsoft Dynamics NAV Gold Partner and a subsidiary of Aimit AS, the original developer of EQM.

Armada Dynamics is the North American EQM exclusive master distributor of EQM Rental Software. Like Aimit AS, Armada Dynamics is sold through and affiliated with Microsoft NAV resellers and works directly with companies in the equipment rental business.

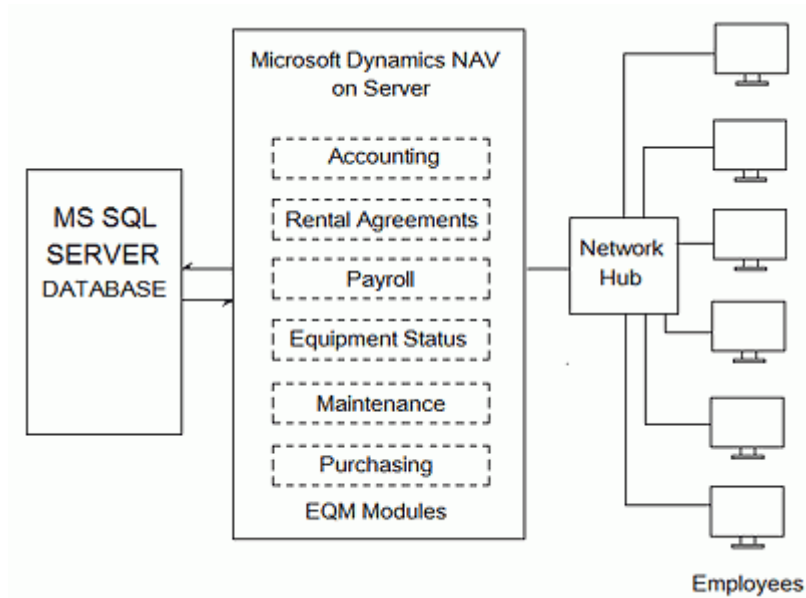
## Interface versus Integration

Although many Microsoft Dynamics partners custom design modules for specific industries, Armada Dynamics' EQM rental software solution is a completely integrated product offering that is built within the Microsoft NAV application. The EQM software enhancement suite offers ready made modules that can be integrated into Microsoft Dynamics NAV directly or with only minor modification, unlike many in the field that do not offer a completely integrated solution.

For example, many rental packages are stand alone and do not address the accounting requirements of the rental business. Also there are many that are merely interfaces, in other words, they are "bolt-on" solutions that require much more manual integration between the systems.

The EQM rental software solution results in a more cost effective and proven out of the box robust ERP rental solution that is specifically created with the rental business owner in mind. Rather than writing a costly and untested application from scratch EQM is quickly and easily ready to be deployed. Armada Dynamics pedigree is from Aimit AS whose extensive involvement with equipment rental companies has yielded real rental world software modules for just about any type of rental company.





**Fig. 1** Block Diagram of EQM – MS Dynamics NAV Integration

## The Integration Process

After analyzing every one of your business operations, the modular programs can be modified, if necessary, to facilitate routine tasks. Then the programs are loaded into the appropriate directory where they will be accessed by the interpreter in the NAV package. The system is up and running. A few tests are done and any errors are analyzed and corrective actions taken.

## Ongoing Support

Your Armada Dynamics partner will always be available to address any concerns and to rectify any dysfunctions you might experience. As your business grows or changes, Armada Dynamics will be available to prepare new modules and/or modify existing ones to best suit any changes in your business practices.

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