



#### EAM vs. CMMS: Don't get fooled

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Today's market is crowded with hundreds of software systems, each trying to position itself as the perfect maintenance and asset management solution. But they're not all created equal. Understanding the difference between an enterprise asset management (EAM) system and a computerized maintenance management system (CMMS)—and knowing how to tell them apart under all the marketing hype—is key to sorting through the herd and finding the asset information system that's right for your business. Table of Contents

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## Aren't CMMS and EAM the same thing?

Two types of products dominate the maintenance and asset management software market: enterprise asset management (EAM) systems and computerized maintenance management systems (CMMS). The two terms are thrown around a lot, but it's not always clear what the difference is—especially when you're trying to decide which software system to purchase for your business. The confusion is not helped by the fact that many true CMMS products have started advertising themselves as EAM systems, or as EAM/CMMS hybrids.

On the surface, these products all make similar claims and seem to do similar things. They're all geared toward maintenance; they all offer cloud-based subscriptions; and most of them provide additional features like inventory management and asset tracking. Some CMMS software packages even offer features that have traditionally been the domain of EAM systems, such as purchasing modules or multi-site management tools. This raises an important question. In today's market—where web architecture and mobile apps are par for the course, and multi-site support is becoming more and more common-is there any noticeable difference between an EAM system and a CMMS? Have we reached a point where the lines are so blurred that they're basically the same thing?

The answers are yes, there's a difference, and no, they're not the same thing. Let's be clear: Not every product that claims to be an EAM system has real EAM functionality. While it's true that the line between EAM and CMMS is not as clearly defined as it was 20 years ago, these two types of software packages still have big differences in approach and functionality.

# What is a computerized maintenance management system (CMMS)?

CMMS were designed to be exactly what the name says: computerized maintenance management systems. They began their lives in the 1960s as technology for managing work orders with punch cards instead of with paper and filing cabinets, and then emerged as computer software in the 1980s. As these systems evolved, they added more features to support a wider range of business needs. These days, most CMMS have some form of preventive maintenance, asset and inventory management, and mobile functionality. Many boast additional features such as project management, multi-site support, or the ability to purchase maintenance, repair, and overhaul (MRO) parts from an online catalog without leaving the CMMS.

Despite their growing range of capabilities, maintenance management remains the heart of a CMMS software package. Smaller CMMS products focus exclusively on work orders and equipment records. Even the largest aren't designed to provide much functionality outside of maintenance and MRO materials management. This limited focus makes sense, given their history, and in some situations it can even be seen as an advantage. CMMS are dedicated, streamlined tools for managing maintenance operations. They aren't supposed to service the asset management needs of the whole organization. This leaves gaps, but businesses can fill these by integrating their CMMS with other software systems that provide services such as scheduling, purchasing, and accounting.

CMMS are an attractive solution for small maintenance operations that need a simple way to manage work orders, equipment records, and spare parts. These systems can't do everything, but they often have a smaller price tag than their larger and more powerful cousins—the EAM system.

#### What is an enterprise asset management (EAM) system?

As the name "enterprise asset management" suggests, EAM systems were designed to be unified platforms for managing an organization's physical assets across the enterprise. They came on the scene later than CMMS, once network technology gave companies the ability to link computer systems across multiple sites. EAM systems include maintenance management capabilities, but they consider the total cost of ownership (TCO) for a company's physical assets, and provide a wider range of features to track, manage, and analyze asset performance and costs through the whole asset life cycle—from acquisition to decommission, and everything in between.

Because they are designed for the enterprise, EAM systems serve every facet of an organization that pertains to asset management. This includes functions like maintenance and MRO inventory, but it also spans MRO procurement, engineering and project management, accounting, operations, reliability management, safety and compliance, and even business intelligence (BI) to support strategic planning at the enterprise level.



The result of this comprehensive design is a single system that contains all of the information about an organization's physical assets. Repair histories, energy usage, life cycle costs, warranty records, part catalogs, purchase orders, audit trails, and more are all stored in the same system and accessible to any department. Maintenance can use the EAM system to manage work orders and equipment records. MRO materials management can use it to manage storerooms and inventory. MRO procurement can use it to manage request for proposals (RFPs), contracts, and purchase orders.

Accounting can use it to manage MRO budgets and invoices. Because it's a single system, everyone is accessing the same data—data that is aggregated from a multitude of sources across the organization and updated in real time. An EAM system can be integrated with supervisory control and data acquisition (SCADA) systems and building automation systems (BAS) to provide up-to-the-minute information about asset conditions and energy usage. Meanwhile, enterprise resource planning (ERP) systems can ensure accurate financials, with BI systems providing executive leadership a clear view of asset costs and performance.

Since they debuted in the 1990s, EAM systems have been the solution of choice for asset-intensive organizations that need to manage a large portfolio of physical assets across multiple locations. In the last decade, however, these systems have seen increasing use by small and medium-sized businesses (SMBs) that want the added performance optimization and cost management features that EAM systems offer. With the rise of software-as-a-service (SaaS) deployment models, the cost of owning an EAM system has become competitive with CMMS and because of their additional features, this means that EAM systems are often the most cost-effective choice, even for small operations.

#### What is the difference (and why does it matter)?

CMMS and EAM systems have similar purposes. They're both designed to help organizations reduce MRO costs and maximize the value of their physical assets. They even offer some of the same functionality: Both types of systems typically include work management, preventive maintenance, asset tracking, and MRO inventory capabilities (although certain CMMS have limited features in some of these areas).

The key difference between them is one of philosophy and scope. CMMS focus on maintenance, while EAM systems take a global approach, incorporating multiple business functions. CMMS start tracking after an asset has been purchased and installed, while EAM systems track the whole asset life cycle, starting with procurement. CMMS are designed to manage a single location, or offer limited multi-site support, while EAM systems come with extensive features for managing multiple sites and businesses.

An EAM system is more than just a beefed-up CMMS. It's a comprehensive tool for managing physical assets and maximizing their performance across the business. It's a CMMS combined with an inventory management system, a purchasing management system, a document management system, an accounting system, a project management system, multi-site management tools, performance management tools, and business intelligence tools—all rolled into a single, integrated piece of software.

This is why organizations that are serious about asset management rely on EAM systems to get the job done: EAM systems offer the broad, powerful, unified feature set that asset-intensive operations need to make the most of their physical assets. This is also why it's misleading to describe a CMMS as an EAM system; the difference between them is more than just a few extra features. They are two different kinds of software products that represent two different approaches to asset management.

## Which one is right for my business?

For large organizations with multiple sites and many assets, EAM systems are the obvious choice. They're the only tool on the market that combines powerful maintenance and asset management capabilities with advanced features for life cycle cost tracking and analysis, enterprise-grade support for multiple locations and businesses, and functionality for non-MRO departments like accounting and engineering. EAM systems also offer a wider range of integration options than CMMS, connecting the enterprise from BI systems at the top to SCADA and BAS systems at the bottom, and providing the rich, accurate information that businesses need to make smart decisions about their assets.

For SMBs, however, the choice isn't always so clear. Most CMMS are more than capable of handling the maintenance management needs, and even the MRO inventory requirements, of smaller operations. If that's all you need out of your software system, CMMS may be your best choice. But even for smaller operations, there are strong reasons to consider an EAM system. If you have plans for growth, you need a tool that can grow with you. CMMS are great for small operations, but they're not as good at supporting the needs of a growing business. If you're thinking about adding another site, for example, you need the enterprise functionality of an EAM system. Or if you decide next year to implement a reliability centered maintenance (RCM) program, you're going to want the failure analysis tools provided by an EAM system. A CMMS may serve your immediate needs, but an EAM system will give you tools to keep improving performance over the long term.

If you want to take a global approach to asset management—one that considers TCO and seeks to maximize value throughout the asset life cycle—then you need the deep functionality and enterprise mentality that come with an EAM system. Asset management is not just about maintenance, but about all business functions working together. You need a software platform that serves the needs of the whole operation, not just one function. An EAM system provides the tools to track costs, manage resources, and optimize performance across the whole organization.



#### Where to go next

Choosing the right asset management software for your business is getting harder. New products enter the market every year, and terms like EAM and CMMS aren't always clear-cut. You may have to wade through dozens or even hundreds of products, all calling themselves by slightly different names, to find the one that offers the best value.

In this kind of a market, knowing what you're looking for is half the battle. Once you understand the difference between an EAM system and a CMMS, it's easier to tell what type of product you're looking at (regardless of what it calls itself). You may decide that a CMMS is all your organization needs. If that's the case, there are hundreds of products to choose from. But maybe you want deeper functionality. Maybe you have plans for growth. Maybe you realize that asset management is a team effort, not just about maintenance.

In that case, an EAM system is what you need. But don't get fooled. There's a world of difference between a CMMS that markets itself as an EAM solution and an actual EAM system. Make sure you know what you're looking for and don't settle for less.



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