



THE ROI OF ASSET TRACKING

How do asset tracking systems return value on your investment? Here's what you need to know about the ROI of modern asset management.

Tracking assets is no trivial task. From small-dollar items like books and office supplies to big-ticket equipment like laptops, vehicles and even buildings (and everything in-between), tracking what you own is a massive undertaking.

It's also a critical one. If you don't know what you have, you'll buy it twice. If you can't find what you have, it will go to waste. If you don't maintain your assets through the lifecycle, they'll break down even as you overpay on taxes and insurance.

The larger your organization, the more complex tracking becomes – more time-consuming, prone to error, and at risk of non-compliance with applicable regulations. Older methods, like spreadsheets and paper-based asset management, only aggravate these issues.

Enter the modern fixed asset management system. If your organization is like the 49% of companies looking to upgrade their management tools and/or capabilities, you need to understand how the new generation of asset tracking leapfrogs the last – and how you can realize its potential ROI in a new world of smart platforms and automation.

In fact, intelligent management and tracking of fixed assets can reduce, recoup or even sometimes reverse the costs associated with fixed asset management. Today, asset management is centralized and securely cloud-based, meaning deployment is fast and the system can be accessed by anyone, even on mobile devices, with all data maintained in real-time. Modern systems can offer up-to-the-minute insight into the disposition and history of any asset resident in the system, greatly easing the asset management process. The result is that organizations can potentially save up to tens of thousands of dollars and hundreds or thousands of hours.

This paper will explore how.

People Costs

*Use asset tracking to dramatically **reduce human error and the time** required to adequately manage assets.*

An organization's people often cost the most when it comes to managing resources.

That's partially because their time is valuable, and every moment spent on asset management – from entering assets into the system through managing the entire lifecycle – costs money. Specialists in particular can prove to be very expensive: a single accountant working on fixed assets for one hour a day can cost an organization \$10,000 a year.

It's also because they're human, and that means mistakes will happen. Unfortunately, sometimes these mistakes can cost millions – as we'll discover shortly.

The Cost of People-Related Time

Manual labor remains an integral part of most companies' asset management. Despite the availability of automated, mobile and smart logging systems, only a minority of organizations actually use them. According to a survey by Deloitte, 54% of organizations still use paper format to capture asset data.

Manual labor adds up. "In the past, when I received new equipment, it took up to an hour to manually record all of the information," said Terry French a property manager for IT assets at the Army's Fort Hood. "Now, that time has been reduced to less than 15 minutes. I estimate that we save the equivalent of \$30,000 in time, just on the reduced field auditing alone."

Improving technology implementation increases inventory accuracy by 68%.

Source: The Aberdeen Group

Organizations whose asset management depends on manual labor will find tens, hundreds or even thousands of hours lost to data entry, updating, auditing, reporting and simply looking for missing items. Many assets are high-dollar but all-too-easily lost items (like laptops and tablets); between the expense of replacing them and the necessity to comply with regulatory audits, asset managers can end up spending days on asset searches.

Organizations that have at least moved past paper will be better positioned, but spreadsheets are not much better.

The Cost of People and Spreadsheet Errors

According to a 2015 study and review, an average of 94% of spreadsheets contains errors, with error rates between 1.2% and 2.5%. Those error rates might sound like they could fall safely within a comfortable margin of error, but other studies of spreadsheet errors reveal estimated cost impacts in the millions of dollars (ranging from \$4 million to \$110 million). Dartmouth Uni-

versity researcher Stephen Powell, author of one of those studies, noted: “Spreadsheets are full of data that’s never used and errors that go nowhere. They are not necessarily systems with inputs that get processed into outputs.”

Asset Management Time Requirements

Weekly or Monthly

- Recording new assets
- Updating/maintaining existing assets
- Calculating/tracking depreciation
- Error-checking
- Preparing periodic internal reports
- Preparing export data and files

Annually

- Preparing annual internal reports
- Preparing data for IRS forms
- Managing physical inventory
- Conducting internal audit
- Responding to external audit

Looking at the ROI of People costs

Modern solutions automate asset tracking, which reduces the amount of manual labor involved in asset management. They also include forms of data verification or validation functionality to reduce errors.

According to “IT Business Edge”, even implementing just a passive radio frequency identification (RFID) tracking system would generate positive ROI in less than 12 months and reduce inaccuracies of 10%-15% down to 0.5%.

The greatest impacts come from dedicated fixed asset tracking systems. Programs like Microsoft Excel are just not designed for this functionality. Systems that are can reduce staffing hours by 75%, boost tracking accuracy

to 99%, and save thousands of dollars during audits – one customer of ours saved \$3,500 during their annual inventory audit, in part by collapsing a process that used to take 20 days into just five.

The improved accuracy and timeliness have a bonus benefit; they enable organizations to be more responsive to customer needs and operate on a more professional level. “When someone comes in looking for a piece of equipment, we can instantly look at the database, see what we have, where it is and what we need to order without taking hours to locate something,” explained Jemima Spare, IT support officer at the University of Oxford.

The issue is not just finding equipment you own; it’s also making sure you’re not wasting time managing assets you don’t. We’ll talk about ghost assets in the next section.

The Costs of Inaccuracies

Ghost Assets

*Your organization is haunted by assets **that aren't really there**, and these assets are costing you big-time.*

Ghost assets exist on the books but not in reality; they've been lost, stolen or otherwise gone missing. Or an asset or quantity was simply entered in error. Or they're still around but are no longer usable.

Asset ownership can be complicated. Assets can have very different lifecycles, especially when looking at the dissimilar types, such as real property (buildings), fixed assets (furniture), digital assets (e-books), IT assets (software and associated licenses), etc. But even assets of the same kind might be acquired from different sources, stored at different facilities, handled by different teams, maintained on different schedules, recorded in different ledgers or spreadsheets, etc. As a result, it's all too easy for assets to be used up or simply go missing yet remain on the books.

What Ghost Assets Can Cost You

Total cost of fixed assets	\$1,000,000
Total cost of missing and other ghost assets (15%)	\$150,000
Est. Federal Income Tax Overpayment (at 35% rate)	\$26,250
Est. Property Tax Overpayment (at 3% of asset cost)	\$4,500
Est. Insurance Overpayment (\$1 per \$1,000 rate)	\$1,500

Total Annual Loss \$32,250

These are ghost assets, and they can cost your organization incorrect and unnecessary fees, like storage, insurance, and tax payments. (See the table to the right).

Unfortunately, ghost assets are common. Perhaps it shouldn't be surprising: a 2015 survey found that retailers lost over \$44 billion of assets to theft, error and unknown causes. Ghost assets can plague anyone. The U.S. Marshals Service lost track of thousands of two-way radios until they implemented a more effective fixed asset tracking system. A single 2013 Department of Defense audit turned up 15,600 pieces of missing equipment valued at \$419.5 million.

As common as they may be, many organizations don't account for ghost assets in their asset tracking and reporting. Seventy-four percent of small businesses didn't understand how ghost assets impact their books, according to (Wasp Barcode Technologies' 2015 "Small Business Report: Accounting." Even scarier, 49% don't know what ghost assets are. Organizations can't fix problems they don't know exist).

Duplicate Assets

Your organization is spending money to “replace” (duplicate) assets you already have and just don’t know it.

Another common error in asset management: reordering (or manufacturing) parts that an organization already has in stock or otherwise available, simply because they don’t realize they have them. Large organizations with many departments and locations can be particularly vulnerable.

This problem can be particularly harmful when an organization needs to track many smaller-ticket items. For example, a school district might need to track thousands of textbooks, or a manufacturer might need to track the existing UPC codes of individual component parts. That’s a capability that exceeds most spreadsheets and general purpose databases.

Depreciation

*Your organization will **pay** if your asset management protocol doesn’t keep current with **changing asset values**.*

If your organization does not correctly calculate asset depreciation, it will overpay on insurance and taxes, just as with ghost and duplicate assets. For example, you might have paid \$30,000 for that car, but after five years it will only be worth about \$12,000 – and that’s the amount that should be reflected in your asset management system.

Steady depreciation is simple to track, even a spreadsheet can manage that much. Not all depreciation, however, is straight-forward; organizations might also choose accelerated methods (declining balance), which see more depreciation in early years. In some special cases, organizations can take a deduction for the entire depreciation in one year. Sometimes the depreciation method will need to change mid-lifecycle. Also, the values by which depreciation is calculated can change. For example, some repairs and maintenance – like an overhaul – could improve the value of the fixed asset above where standard depreciation would indicate. Spreadsheets falter at this point, due to the manual labor required and error rates already discussed.

Looking at the ROI of Reducing Inaccuracies

These inaccuracies are best remediated with a tracking methodology that maintains insight:

- In real-time
- Throughout the full life-cycle of the asset
- Automates the process as much as possible.

However, modern asset management systems are sophisticated enough to take things a step further and return even greater value on investment. Many assets, for example may morph over their lifecycle (e.g., as assets depreciate, wear down, or get incorporated into larger products during manufacturing), and you want a system that can handle both complete and partial asset transfers and disposal. Similarly, you want your system to depreciate automatically so that fixed assets do not continue to be listed as usable past their appropriate lifespans.

Check-in and –out functionality is also recommended; it's an automated way of monitoring the transfer of an asset between facilities or people, and it provides an audit trail that can be followed to the asset's last known use and location, greatly shortening the time required to investigate or search for the asset.

Other Costs

Maintenance Costs

*Asset management **right-sizes the cost of maintenance**, alerting organizations when – and only when – work is needed.*

Unnecessary maintenance is a hidden cost multiplier. Whether you're being forced to replace assets too soon, or paying for unnecessary work, costs can mushroom when asset maintenance is handled poorly. In fact, Deloitte reveals gradual deterioration and mechanical breakdown/electrical damage are the two most common risks facing 62% of organizations that own and operate assets.

A major issue is how maintenance is tracked and handled. A full quarter of companies spend as much as 80% of their maintenance budgets on reactive rather than preventive maintenance. With asset management via Excel or paper-based methods, they have no choice: they simply don't have access to functionality for triggering alerts or issuing reminders that preventive maintenance is due.

How many of these equipment maintenance strategies can your asset management method encompass?

Approach	Works Best For	Impact
Reactive Run to failure, then repair	Non-critical assets	10X costs or more at failure
Preventive Service at fixed times or intervals	When failures worsen with age	2X maintenance costs
Predictive Identify trends and alert prior to failure	Simple systems where single-variable math can predict failure	1X maintenance costs
Proactive Use data for specific predictions	Complex systems where multi-variable math predicts failure	Unscheduled downtime near zero

Complicating matters further, even preventive maintenance may not always be appropriate, depending on the asset. For example, normal maintenance assumes a failure rate that increases linearly with age; however, that only applies to 18% of assets, per analysis by ARC Advisory Group of maintenance and failure rate data from NASA and the U.S. Navy.

They found the remaining 82% of assets would display random failure rates, and preventive maintenance could actually trigger problems. Instead, the researchers recommend using analytics and condition monitoring to determine in advance what equipment

needs maintenance and when it needs to be done. Making that determination depends on access to asset management systems that can handle multiple variables to anticipate potential equipment failures and downtime. See the chart to the right to learn more about maintenance strategies.

Looking at the ROI of Maintenance Costs

Truly sophisticated asset management systems that can capture and analyze data about an organization's assets are best positioned to optimize maintenance. In a long-term study, ARC Advisory Group found that proactive maintenance optimizes maintenance costs and reduces unscheduled downtime from asset failures to nearly zero.

Even just simple preventive maintenance can save money. One study of the “economic value of preventive maintenance” found that the ROI can be as high as 500% if maintenance tasks are properly tracked and scheduled. The savings come from tracking warranty information to avoid paying unnecessarily for repairs; extending lifespan (and thus negating the need to purchase replacement assets); and preventing or limiting downtime.

Compliance and Audit Costs

*Modern asset management **streamlines audits**, thanks to **complete, compliant reports** populated with valid, verifiable data available at the click of a button.*

Compliance is costly. The federal Sarbanes-Oxley Act, for instance, mandates regarding the accounting of assets, while other statutes require monitoring assets (e.g., for asset purchases under Title I funding in the education sector). The price of non-compliance is similarly high. Concentra Health Services, for example, had to pay \$1.7 million for a lost laptop in 2014, while the Alaska Department of Health and Human Services paid a similar \$1.7 million in fines for losing track of a USB hard drive. Fortunately, asset management is an area where these costs can be minimized and risks averted.

Looking at the ROI of Compliance and Audit Costs

Transparency and accountability are key to modern asset systems, which are designed to do more than just record static information about each asset. They can shed light on how assets are being handled and automatically produce alerts that identify red flags that could spot fraud, note maintenance needs that could result in downtime, and provide the information needed to locate assets quickly.

Even when the risk of non-compliance is low, simply saving time can spare everyone headaches. Gananda School District, in New York, for example, reduced the number of missing assets during their annual internal audit by 90% by moving to a smart tracking system. In fact, the system streamlined the audit process so much, it took only one person one day to complete, rather than the team working 20 days in previous years. That's the value of modern asset management.

Pro Tips To Optimize Asset Management ROI

Find the best asset management system for your needs.

The right system depends entirely on your organization's needs and long-term goals. A small business, for example, may not need all of the features – or expense – of a system designed for a large enterprise.

Create a centralized database that is updated in real-time.

Any modern asset management tracking system should do this as a matter of course. Users should be able to interact with the central database through a variety of devices, including smartphones and tablets, without worrying about creating duplicate or conflicting information.

Barcode your assets and create location labels.

Barcode technology enables organizations to correctly identify and track an asset or inventory throughout the full life-cycle, while reducing the opportunities for human error.

Check – don't loan – fixed assets out to employees and others.

If employees simply took fixed assets without some kind of centralized tracking system in place, assets can be lost or damaged without the next person knowing that the asset requires repair or replacement. By creating alerts for checked-out assets and maintenance events, there won't be any question as to who had the asset last, what condition it's in or where it can be found.

Track users to ensure accountability.

On a similar note, maximizing ROI means tracking more than just the assets themselves: you also need to track the people using or interacting with the assets, and your system needs to be able to produce an accurate report of user activity. That is the only way to ensure the organization can hold people accountable for their mistakes or for fraudulent activity.

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