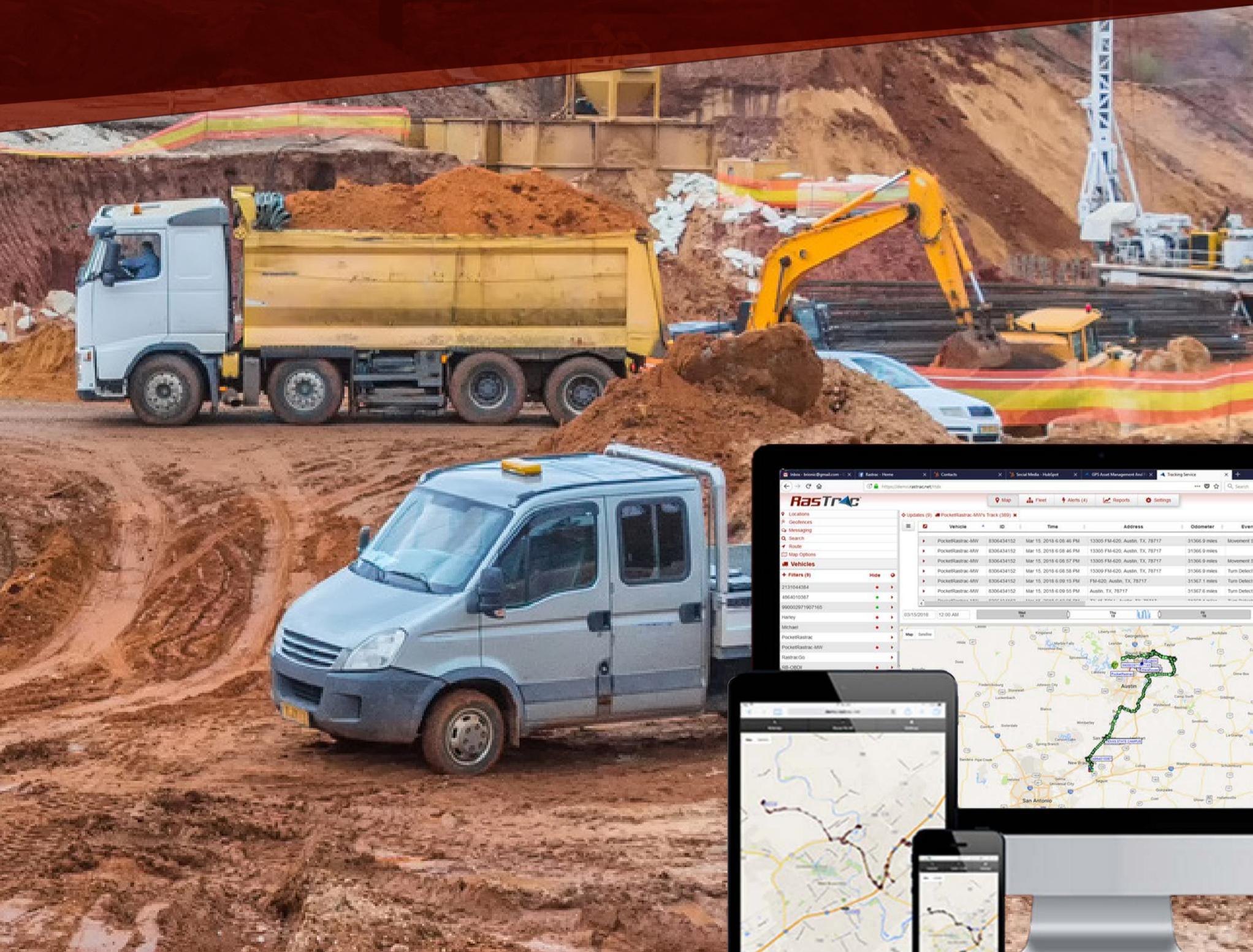# 8 Ways to Improve
Your Asset Tracking System

RasTr4c®

Contents

Section I: Why Companies Get GPS Asset Tracking Systems, and the Problems They Have

All across the globe, businesses use asset tracking GPS and specialized management software to accomplish a number of tasks.

Some shipping/transportation companies use GPS tracking to quickly find trailers and other assets in crowded shipping yards. Other companies use GPS as an antitheft tool to quickly track stolen assets for recovery.

Another, often overlooked use of GPS tracking devices and asset management software is to increase control over deployed assets in the field. Service companies can use GPS tracking to identify where their vehicles are, improve route planning, and make sure drivers stay on task.

Construction companies can use data collected by GPS devices to monitor idle time & fuel consumption for larger pieces of construction equipment and use that information to improve efficiency and cost projections.

Companies that lease heavy equipment such as trailers, generators, flatbeds, etc. often use GPS asset tracking to help with contract enforcement. In some cases, a customer may try to move the equipment out of the agreed-upon service area. With GPS, leasing companies can find out immediately when their high-value equipment assets are headed out of state and be better-equipped to enforce contract agreements.

However, as powerful as GPS asset tracking can be for helping businesses improve efficiency and protect their assets, there are a few issues that have plagued companies in the past.

Common Issues Companies Have with Asset Tracking Systems

⊘ Over-Complicated Software

User-friendliness of the asset management software is a common problem for companies—especially ones that have only just started using GPS tracking. A poorly-designed interface makes some management software too difficult to use.

This is a major problem because if the software is too complicated for anyone in the company to use, then the GPS tracking system might as well not even exist. The problem can get worse if different tracking systems are used at the same time.

⊘ Too Much Unnecessary Data

One of the reasons an asset management software might be too complicated is that it presents the user with too much data all at once. Rather than tracking just the most important information, the screen is flooded with needless minutiae that you would never really need to know.

This data overload makes it tougher to find the information that actually matters to you and your business' operations.

⊘ Not Enough Useful Data

On the other end of the spectrum are the GPS and asset management systems that go for extreme minimalism. Here, the issue is that not enough data is being collected and presented to you to give you what you need to improve efficiency or meet other critical performance goals.

⊘ Inaccurate Trackers

To fulfill most basic antitheft and operational goals, a GPS tracking device needs to be accurate to within a few feet of the device's actual position. However, some less reliable GPS devices have difficulty synchronizing with the minimum required three satellites needed for accurate triangulation.

This can result in highly inaccurate reports of a GPS device's current position that reduce its usefulness.
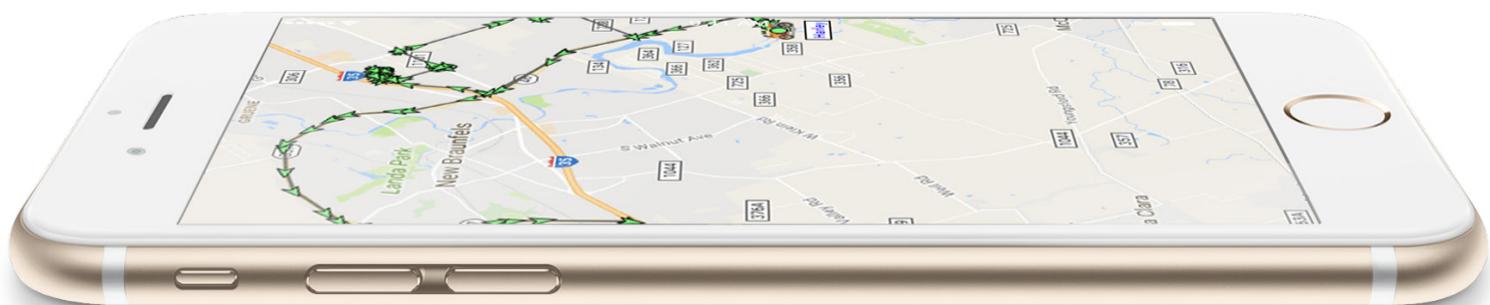
ⓘ Limited Battery Life for Battery-Powered Units

In vehicles and other assets that have their own power generation, GPS devices can be plugged into the asset's systems and draw power from it. However, not all high-value assets can provide power for a GPS system. In such cases, you'd have to rely on self-powered battery or solar units.

The issue with battery-powered units is that they have a limited battery life—sooner or later, that battery will need a recharge. And, the more frequently the GPS unit updates its position data, the faster the battery will drain.

This leaves you to pull a balancing act between frequency of updates and ensuring the GPS tracker has enough battery life to fulfill its function.

ⓘ Difficulty Hiding the GPS Device

Thieves are constantly learning new tricks, up to and including dealing with GPS tracking systems. Savvy thieves may try to locate the GPS tracker in an asset and remove it.

Some GPS devices are far too easy for thieves to locate and remove—making them simple to find and tamper with. This can compromise the effectiveness of the GPS device as an asset management and theft prevention tool.

These are just a few of the more common problems that some GPS asset tracking device users have come across. However, these problems can be overcome.

Section II: Different Ways to Improve Your Asset Tracking System

Improvement #1:
Consolidate Your Tracking Systems So Everyone's Using the Same System!

One of the issues that can add to the complexity of your company's asset tracking system is when you're using multiple systems at the same time. It's an easy trap to fall into: you find a new supplier with a better price point, but you don't want to have to get rid of all your old trackers.

So, you end up using two (or more) tracking systems for your assets. The problem is, now you have two software setups to log into, monitor, and maintain—doubling your workload for monitoring assets via GPS. Also, when tracking overall trends for all of your assets, you'll have to try to reconcile two separate databases that may organize their data differently.

This increases risks for errors and your chances of missing an important piece of info.

Consolidating your tracking systems so that you have one uniform solution for all of your GPS-tagged assets greatly simplifies management and makes it easier to teach new employees how to use your GPS tracking system.

Improvement #2:
Use Filtering to Reduce Clutter and Get to Important Data Faster

Asset management software programs can collect and track a lot of data. However, not all of this data will necessarily be useful to you and your business.

Setting filters to make sure that your GPS asset tracking software only presents you with useful data can go a long way towards making your asset management system easier to use. Also, by filtering out useless data, you can get to the reports you actually need faster.

Section II: Different Ways to Improve Your Asset Tracking System (cont.)

Improvement #3:
Familiarize Yourself with Your Tracking Software and Use Personalized Settings

There are usually many options for personalizing your asset tracking and management software aside from setting filters on what data it provides you. Take some time to get familiarized with your asset management software and learn the ins and outs of your software, including:

- What settings can be configured
- The different filters available for data
- How to generate reports for important information

Here, having some support from the software maker can make your life much easier. The software manufacturer should know the software inside out and provide you with useful tips and advice to get the most out of it.
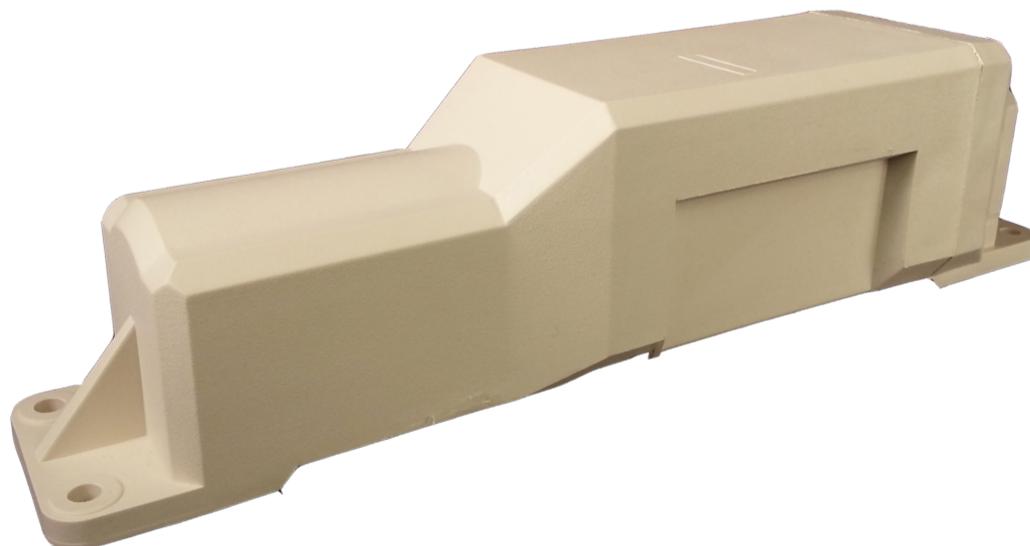
Improvement #4:
Update Tracking Devices to Newer Models

GPS tracking technology is improving all the time. If you're concerned about accuracy of GPS data, then updating your asset tracking devices to newer models can be beneficial.

Newer models of GPS tracking devices tend to be more accurate and robust than older ones, and may incorporate useful features that could help you meet your goals.

However, this isn't always necessary. Having the latest model of tracking device on your GPS-tagged assets is nice, but it's often more important to make sure that your tracking devices are compatible with the management software that you're using.

If you're thinking about upgrading, be sure to balance the cost of replacing your old devices versus the benefits you'll get.

Improvement #5:
Tweaking GPS Data Update Frequency on Battery-Powered Units

If you use battery-powered GPS tracking devices, balancing how often the tracker synchronizes its data with your management system has a significant impact on the tracker's usefulness.

More frequent updates mean more useful and recent data, but drain the battery quickly. Less frequent updates prolong the battery life, but you may be left working with outdated information if the asset is stolen.

Tweaking your update rate for your GPS devices so that you have information that is recent enough without killing your battery life can be tricky, but it's worth it to get the best balance between battery life and frequency of updates.

Another good idea is to program custom alerts for when a GPS unit's batteries are running low. With this alert, you can notify employees that the device needs a recharge or battery replacement and avoid having the tracker go dead when you most need it.

Improvement #6:
Train Employees in How to Use GPS Tracking Systems

Every employee who works with GPS-tagged assets should know how to use the GPS tracking system to some extent.

Not everyone needs to know all the ins and outs of the software, but employees such as delivery drivers should be familiar with your company's policies regarding the use of asset tracking systems, including:

- When GPS trackers will be active (during business hours only, 24/7, etc.)
- Penalties for tampering with GPS devices
- How often batteries need to be replaced in battery-operated GPS trackers (per trip, monthly, etc.)
- What data the GPS tracker collects and why

Familiarizing your employees with your GPS tracking system could help encourage adoption of the trackers—minimizing resistance to what some may see as an invasive technology.

Improvement #7:

Consider the Benefits of Using Asset-Integrated GPS Unit Vs Battery & Solar-Powered Ones

There are many kinds of GPS tracking devices on the market, each with different benefits and drawbacks. Most devices fall into one of the following categories:

Integrated Units

These GPS devices are plugged directly into the asset being tracked, and use electricity from the asset to power their operation.

✅ Pros:

- Less maintenance costs over time

- More covert—these units tend to be harder to find and remove

- Won't run out of batteries as long as the asset has power

- For assets with onboard diagnostics systems, the device can collect and transmit that data— useful for optimizing asset maintenance and efficiency

❌ Cons:

- More expensive to install

- Harder to remove for a later upgrade

- Requires a consistent supply of power from the asset being tracked

Battery Operated Units

These devices are powered by an internal battery that is designed to either be recharged or replaced at regular intervals.

✅ Pros:

- Can be used to track almost any asset regardless of whether the asset is powered or unpowered

- Lower initial cost for installation

❌ Cons:

- Can run out of power at inopportune times if not regularly recharged

- Internal battery can be bulky, making the unit less covert and easier to find and remove

- When not tied into an asset's onboard diagnostics system, they cannot provide as much operational data as an integrated unit

Solar-Powered Units

These GPS devices try to strike a balance between a fully-integrated GPS unit and a battery-powered unit, with mixed results.

✅ Pros:

- Can easily be attached to most asset types, including cargo crates/pallets

- Solar charging makes unit less prone to losing power

- Only a bit trickier to install than a standard battery-operated unit, so less costly and time-consuming to mount than an integrated GPS tracking device

❌ Cons:

- To get the full benefit of the solar cell, the charger must be exposed to direct light, making the unit easier to find (and consequently, disable)

- If not tied into a diagnostics system, the tracker cannot provide certain useful performance data

OBDII Port "Plug and Play" Tracking Devices

These GPS trackers are made for motor vehicles that have an OBDII port—which is most vehicles manufactured since 1996.

✓ Pros:

- Very quick and easy to install—the "plug and play" factor made possible by the OBDII standard

- Can provide detailed onboard diagnostic data—useful for optimizing vehicle maintenance and performance

- Units are powered by the asset, so batteries aren't an issue

✗ Cons:

- Very easy to remove—port locations are standardized for individual vehicle models and removal takes seconds—compromising the security benefits of the device

When choosing a GPS tracking device for each of your assets, it's important to balance the pros and cons of each type of device—as well as compatibility issues with the asset and your management software.

Improvement #8:
Set Up Automation for Your GPS Tracking Software, if Available

If your GPS asset management software has options for setting up automated event alerts, report generation, and maintenance reminders, be sure to take advantage of that capability however you can.

For example, Rastrac's own GPS management software supports geofencing capabilities that allow you to get an alert the instant a GPS tracker crosses a boundary that you set. Also, many asset management systems have the ability to generate custom alerts for when a battery-powered unit needs a recharge.

Using automated alerts and reports makes your asset management system much more convenient and useful for your day-to-day operations.

INTERSECTION

WAREHOUSE

Section III: Next Steps

Knowing how you could improve your asset tracking system is an important first step, but it's important to actually put that information to use!

Whether you need to condense your GPS asset management systems down to a single solution, or you need help learning the ins and outs of your tracking solution, Rastrac is here to help!

Rastrac's experienced team of sales and support staff are ready and willing to help you with your GPS asset tracking needs.

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