

Asset Tracking Software

The system would be web based so that you could access the solution anywhere in the world at anytime (where there is Internet access). The system will be easy to navigate and operate.

The solution would be developed using the latest version of Laravel which is currently the world's most popular PHP framework.

Benefits of the Laravel Framework

It's quick and simple

Being the number one PHP framework, means that Laravel is already a framework with which most web developers are familiar with; not to mention the range of built-in templates which makes development simpler and easier for developers. A fast development time means lower costs and quicker results for the business.

Security is key

Security is the number one concern for most businesses. With Laravel, advanced security features are easy to configure on most websites to enhance security and protect sites from hackers and cyber criminals. To get a little technical, Laravel uses a Bcrypt hashing algorithm which means it never saves any passwords in the database. Comparing it to other PHP frameworks, Laravel also has great user authentication and restricted access features are easy to create. This keeps you and your customer's data safe and secure.

Better website performance

Unlike many other frameworks out there, Laravel supports caching for your website out-of-the-box which is great for boosting your site speed. To further enhance your website's performance, Laravel makes other speed optimisation techniques, such as memory use reduction and database indexing really easy to implement.

Great for Traffic-Handling

As your business grows, so will the volume of traffic to your site. A website built in Laravel can handle website requests much quicker than most other frameworks. Laravel uses a unique message queue system, which means you can put-off certain website tasks such as sending emails until a later time. Being able to control time-consuming tasks means your website can process tasks quicker. And this not only keeps your website's server healthy, but can also lower your hosting costs in the long-term.

Really Flexible

Laravel has the power to build a fully-fledged eCommerce site or a simple and professional B2B site. Due to its extensive pre-installed authorization libraries, it has the ability to create and support a variety of advanced features for your site, such as password reset and encryption. There are also a ton of third-party packages available to give your website a range of features and functionalities, such as Socialite which enables users to sign into your site using their social media profiles should you wish to integrate that option.

Easy third-party integrations

Almost every site needs to be integrated with a third-party application of some sort. This may include a payment system like Stripe or Paypal, or a marketing tool that your company uses. Whatever the integration, Laravel makes integrating third-party apps easy with its clean APIs for integration.

Asset Tracking Main Sections

This is a first draft at the data tables but these can easily amended to suit your exact requirements.

Users

- name
- email
- password

Customers

- name
- address
- telephone
- email
- notes

Units / Inventory (Toilets / Accessories)

- unique code
- name
- description
- storage location (office location)
- status (available | unavailable)

Storage / Office Locations

- name
- address
- telephone
- email

Bookings

- customer
- start date
- end date
- delivery location
- type (Enquiry/Confirmed/Cancelled)
- create proforma / invoice

Units Allocated For Booking

- unique code
- cost per day

Calendar

- Display bookings (yearly / monthly / weekly)
- Click on a booking for more details

Confirmed Booking Jobs (create booking sheet)

- booking ID
- delivery location
- list of units
- status (Allocated | Delivered | Collected)

Reports (tables and graphical charts)

- Booking Reports
- Asset Reports

Assumed rules to be applied

Once a unit has been allocated to a booking the unit cannot be allocated to another booking until

- a) the booking is cancelled
- b) the booking status is set to collected
- c) the booking end date has passed and the booking status is set to collected

The status of the unit will then be set back to available.

Data Configuration

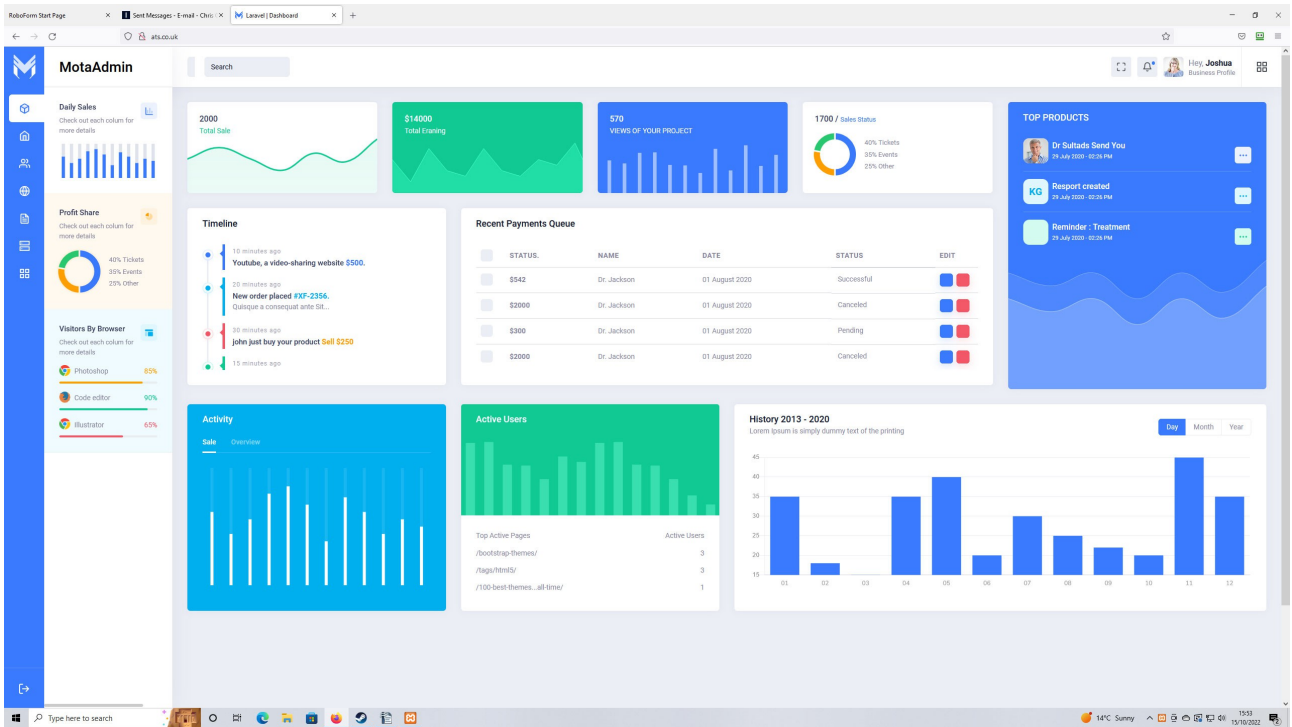
In order to track your assets, each asset must have some unique identifier / code assigned to it. This could be a six digit code, QR code or barcode – whatever is most cost effective and manageable for you to do.

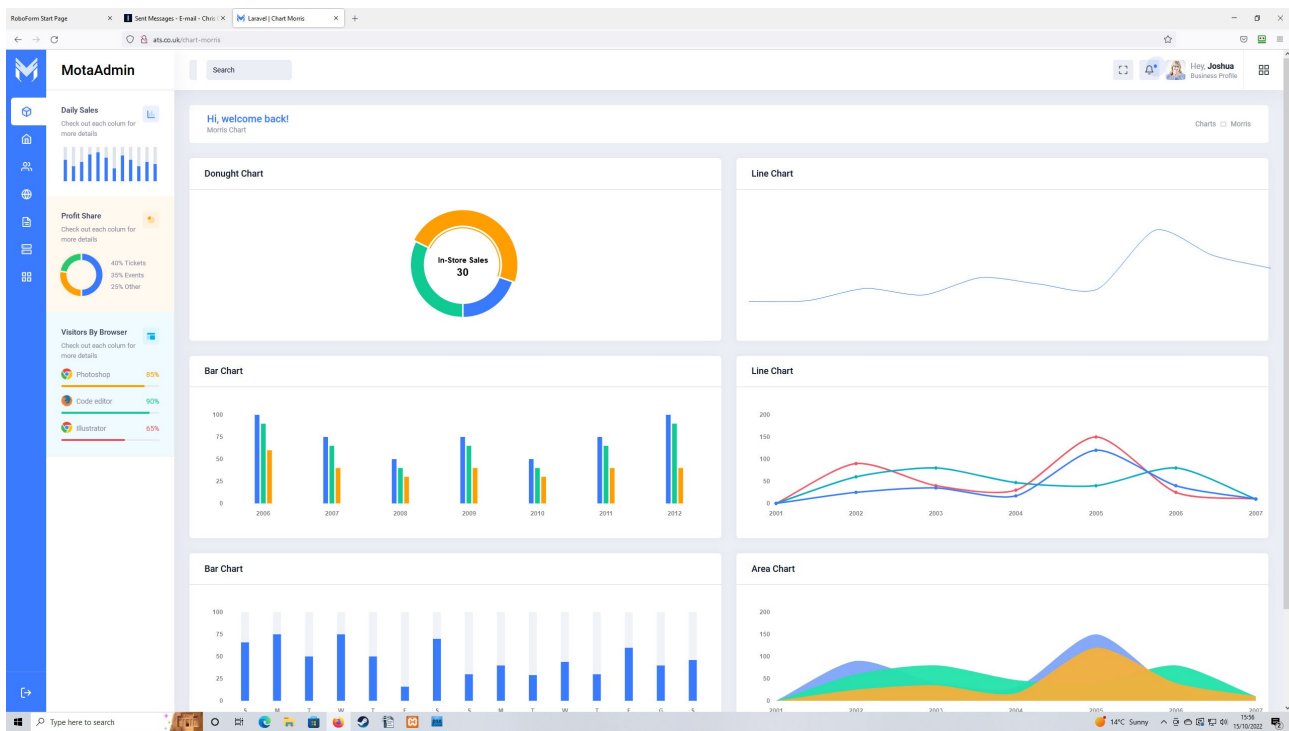
You probably have your customer records stored in your current accounts system. If so there is hopefully an option whereby you can export this information, we can then import your customer data directly into the new solution saving you having to enter all the records.

Unless you have your assets stored in a digital format then these would need to be entered manually into the solution. Once this is done then the assets can be managed online.

What would the system look like?

We would utilize existing tried and trusted display tools for the design and layout of the solution. To help give you an idea of the look and feel we have included some screenshots of some of the features of the display toolkit. The web solution will be accessible on desktop as well as portable devices such as tablets and mobiles. The left hand menu will feature all the main sections making it easy to navigate.





Booking Status

We will obviously consult you on how a booking is managed, but we are assuming that the people delivering and collecting the assets would be also updating the booking status to collected or delivered.

You would of course be able to update the booking status via the admin area but that requires someone to login and bring up the booking and update the status.

We had in mind that there would be a web page the employees use to easily update the status of a booking, So they would call up the webpage on their phone and enter the booking id which would be on their job sheet. For security we would also need to get them to enter some additional information only they would know. In this case we would suggest a 4 digit code. This code would be know by the relevant employees and the code can be changed via the solution if need be.

It would be wise to update the code on a regular basis anyway. Worst case if they forget they can always call the office.

Email Delivery

It is even more important than when using a web solution that relies on e-mails to notify you of various events it is reliable. You can use your hosting to send out e-mails for free but for ultra reliability it is better to use a dedicated sending service. There are numerous ones around but we use ourselves and recommend Sparkpost <https://sparkpost.com>

You can send 50,000 emails a month for 20 USD so it's not expensive and I imagine you would not exceed this figure. This ensures that the email delivery rate is the best it can be.

Security

We would recommend the web solution is hosted on a VPS or Cloud server. This ensures you are not sharing webspace with other users which would be a security risk. The domain would be protected by an SSL certificate to ensure all the data was encrypted. Passwords in the database would also be encrypted. A very secure method is also to restrict access to the solution by certain IP addresses only, although this can become inconvenient if you wish to access the solution when you are travelling to different locations in and outside the UK.

Backup

It is important that the data is backed up on a daily basis. The hosting package will provide sufficient backup facilities and it is important these are configured to support your backup requirements.

User Access

The solution will be protected by a login process so only authorised users with the correct username and password will be able to access the domain. In the admin area you will be able to setup as many users as you wish.

Accounts / Online Payments

We have not included the ability to accept online payments at this stage as if we did we would then need to integrate into your accounts system.

We would suggest if you were to go ahead with this proposal that this would be stage one and once the solution was established in your business we could always look at integrating online / offline payments and account integration if this was something you wanted to incorporate.

Timescale

To develop such a solution and ensure it is tested thoroughly 3 – 4 months.

Revisions

Our recent meeting highlighted areas of the proposed asset tracking system that were required:

Job Sheets (loads)

Within a job we would incorporate DELIVERY LOADS and COLLECTION LOADS. As you mentioned a lot of the jobs might only include only one delivery and one collection but we need to add this feature to cover you for all project sizes.

So there would be the feature to add as many loads for each delivery and collection loads as required. A Delivery or Collection Load would consist of:

Delivery / Collection Date
Assigned Vehicle
Assigned Staff
Assigned Assets
Checklist

As many delivery and collection loads could be added to a job.

Checklists

As mentioned it is important that there are checklists for the staff to complete prior to a delivery and also at a collection. Our suggestion is that we build in a feature for you to add “checks” and then when you come to configure a delivery or collection load you can assign which “checks” you want to display.

So you only need to add the different checks once then you can easily add them to a load by

ticking the ones you want to appear.

Out of Order Status

We initially thought the status of an asset would be available and unavailable, but we appreciate the need for an “Out Of Order” status. So you can either do this via the main system or a staff member can set the “Out Of Order” status of an asset and make notes when they “Book Out” or “Book In”.

An “Out Of Order” asset will not be available to be assigned to a job until it has been set to “Available” once more.

The system will be able to report the list of “Out Of Order” assets and display the relevant notes.

Paid Status

Each job will have a Paid status that you can update as required. The options would be

Not Paid

Paid

On Account

Vehicle Tracking/ Update

The only efficient way to offer this option to customers is to fit a GPS tag to your vehicles and allow customers to track the vehicles once they depart for a delivery or collection. There are numerous companies that can offer this as a separate service.

Saying that, what we can offer, is once the delivery checklist has been completed we could send the customer an automated email or SMS / TXT to indicate that the load is on it's way. We would know the delivery postcode so we could use Googles API to estimate how long the journey would take and relay this information to the customer. It would give the customer an good estimate on the ETA of the load.

Sending e-mails is covered by the Sparkpost service we recommend using. SMS / TXT messages would cost around 2p each to send via a third-party system.

Delivery / Collection Staff Process

We understand this needs to be as simple and easy to use as possible.

Our current thoughts are the staff member would call up a web page – for example:

ats.co.uk/tracking

This could be made even easier to use by adding the web address as a “favourite” to their device or as a quick link (icon on their device).

Then two buttons would appear “Delivery” and “Collection”

They click the appropriate button and then they would need to enter the Job Load No. and a four digit code (for security purposes - as detailed in our proposal).

This would identify to us which Job Load this related too.

A check list would then appear which they would tick off.

There would be a section to allow the staff member to upload photographs via the camera in the device they are using – smartphone or tablet.

If required there could also be an option for a customers (or representatives) signature.

No Internet Signal – Backup Plan

If for some reason there is no Internet access then it is possible to record the information to “local storage” (memory on the device being used). We can then add code that checks every 30 minutes or so if local storage has been used and then upload the data to the main website. It would keep repeating this for as long as it takes until the data has been uploaded successfully.