# WHAT TO EXPECT WHEN BUILDING AN AUTOMOTIVE ECOMMERCE WEBSITE

## A CLASSY LLAMA GUIDE TO AUTOMOTIVE ECOMMERCE

Cluster bezel

11th character:
Indicates which
plant assembled
the vehicle

10th character:
Model year of
the car

9th character:
Security code that
identifies the VIN as
being authorized by
the manufacturer

characters:
vehicle brand,
te and type

| 1 | Select Type | ⌄ |

| 2 | Select Make | ⌄ |

| 3 | Select Model |

ATV
Bale Movers
Baler
Balers, Mowers, Rakes, Swathers
Combine
Construction & Industrial
Drill
Engine
Harvester

TRX
TRX450ER 3A
TRX450ER 3AC
TRX450ER A

**CLASSY LLAMA**

# Introduction

The last couple of years have been tough for the Automotive Industry. Companies have felt the pain of U.S. imposed import tariffs and are fighting to keep manufacturing prices low. Suppliers have had to make the tough choice of either absorbing the extra cost or raising prices. Next came Covid-19. Not only did costs go up, but auto manufacturers now have to deal with the loss of sales from complete factory shutdowns in Mexico, the United States, and Canada. The way items are sold and purchased in the automotive aftermarket industry is changing drastically.

Auto associations believe the way forward is more investment into eCommerce. One positive from this year is the new habits being formed around shopping online. A recent study by theshopmag. com revealed that "Cars.com-owned Dealer Inspire saw a 250% increase in dealer inquiries for its digital retailing solution Online Shopper. By May, car sales through Online Shopper were up 63% compared to before the pandemic hit." Another study conducted by McKinsey & Company found that "many consumers say they plan to continue shopping online even when brick-and-mortar stores reopen."

While overall markets are down, the shift in purchasing habits could create new opportunities for auto parts manufacturers to reach more consumers than ever before by selling direct-to-consumer, further offsetting the risk of increased costs. As the world shifts to a much more digital experience, companies interested in continuing to serve retailers better can also get ahead of the curve by developing B2B features that make selling to retailers much easier.

This white paper has one simple goal: to help you understand what it will take to launch your Automotive eCommerce business. We will cover systems and practices that will save you money immediately and long term, reducing any reason you would have to prolong your jump to online selling.

**Source:**

https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19#

https://theshopmag.com/news/study-pandemic-spurs-new-ways-to-buy-and-sell-cars-digitally/?utm_source=SilverpopMailing&utm_medium=email&utm_campaign=20200728_TS_ENEWS%20(1)&utm_content=&spMailingID=23586224&spUserID=NjE0OTg4NjUwNDc4S0&spJobID=1781573909&spReportId=MTc4MTU3MzkwOQS2

# Key Terms

First, we have some key terms to understand, and for simplicity, we have listed the definitions as they appear in Wikipedia.

## PIM - Product Information Management

"The process of managing all the information required to market and sell products through distribution channels. This product data is created by an organization to support a multichannel marketing strategy. A central hub of product data can be used to distribute information to sales channels such as eCommerce websites, print catalogs, marketplaces, social media platforms, and electronic data feeds to trading partners."

https://en.wikipedia.org/wiki/Application_programming_interface

## API - Application Programming Interface

"Is a computing interface that defines interactions between multiple software intermediaries.  It defines the kinds of calls or requests that can be made, how to make them, the data formats that should be used, the conventions to follow, etc. It can also provide extension mechanisms so that users can extend existing functionality in various ways and to varying degrees."

https://en.wikipedia.org/wiki/Application_programming_interface

## ERP - Enterprise Resource Planning

"Is the integrated management of main business processes, often in real-time and mediated by software and technology."

https://en.wikipedia.org/wiki/Enterprise_resource_planning

## ACES  - The Aftermarket Catalog Exchange Standard

"The Aftermarket Catalog Exchange Standard (ACES) is the aftermarket industry data standard for the management and communication of product fitment data for light, medium and heavy-duty vehicles, power sports, and off-highway and equipment. The ACES data standard allows companies to communicate this information for their products to their trading partners by utilizing multiple supporting relational databases, which contain standardized, codified data, including vehicle and equipment attributes, qualifier statements, product classifications, brands, and more."

https://www.autocare.org/what-we-do/technology/product-areas/aces/

## PIES - Product Information Exchange Standard

"Product Information Exchange Standard is the best practice for the management and exchange of product attribute information in the aftermarket industry. PIES also prescribe a machine-readable format (XML) for trading partners to use in exchanging vast amounts of catalog information electronically."

https://www.autocare.org/technology/pies/

# 01

# Preparation

## Data Formatting

The first step in any eCommerce project should always be discovery. Discovery in an eCommerce project is the process of auditing a business to understand its eCommerce needs fully. This process is all about gathering as much information as possible on the front end so that development can run with little to no setbacks. Discovery is critical in preventing wasted time and excessive costs and is by far the most important step in an eCommerce project.

At Classy Llama, we believe in the importance of this phase so much that we offer discovery as a service where clients can work with us to better understand their project needs before committing to any development agency. This is the route we recommend clients take because doing discovery first allows clients to get a better idea of the true scope of their development project. This discovery-first approach sets clients up with a realistic expectation of cost and timeline as well as the actual solutions they need.

However, many clients wait until after they have signed with an agency to begin discovery. In this scenario, they are eventually still paying for discovery, but they have already signed a development contract without fully understanding their project scope. This will often lead to backtracking in cost and timeline, causing trust to break down from the start of a project.

You want to do discovery first and take it seriously. This is the only part of the process where you have the flexibility to change your mind without the consequence of scrapping completed and paid work.

You can reduce the money and time spent on discovery by running your own internal discovery before reaching out to an agency. To do this, you'll want to start by listing out anything you will require on your eCommerce site. Creating a thorough list of requirements will enable the development agency to provide solutions much faster.

Typical automotive eCommerce requirements include:

- Shipping requirements (LTL, Hazmat, Etc.)
- Search Tools (Year/Make/Model, VIN Search, Diagram Search, etc.)
- Virtual Garage Functionality

Next, you'll want to audit your business to gather everything from brand guidelines to softwares being used. The agency you chose to work with will eventually need this information to build your website. Here is a Discovery Checklist to help you gather everything you'd be asked for by an agency:

## Discovery Checklist

- Data Checklist
- Shipping Process
- Current ERP Solution + Documentation
- Current PIM Solution + Documentation
- Sample Product Data - Spreadsheet, XML Files
- Branding Guidelines

- Current Site Features + Documentation
- Access to Current Server
- Access to Stage Site
- Access to Production Site
- User Requirements

## Data Management

As an automotive company, one can't discuss preparing for an eCommerce project without talking about data management. As we mentioned in our previous white paper, automotive data considerations are unlike those of any other industry. There are industry data standards such as ACES and PIES, multiple applications per part, and application updates to existing products every year. Automotive data grows exponentially with each new year, make, and model. With that being said, you'll want to be prepared to tackle data cleanup and management from the beginning.

Before we jump into data clean up, it's best to understand your eCommerce development agency in this portion of the project. An eCommerce agency's goal is to understand your business needs and build a website that fulfills those needs.

The agency's role takes what already exists (product data, software programs, etc.) and creates a new site capable of working with the existing content as is. Accomplishing this goal doesn't mean the agency will clean up your data. They will make a website that fits your business practices, even if that includes a site that works with dirty data.

Understanding that an agency will need to work with what they are given, it is easy to imagine how development costs can increase drastically with poor data. The process of deciphering your data can take a long time. However, there are ways to prepare.

"Dirty Data is not fun to clean up and is not quick. It requires lots of discussion with the client and walking through. If the dirty data is coming from their ERP or PIM, we are forced to filter it as it comes into the website. This doesn't fix the data in the ERP or PIM system...**Sorting data can involve doubling or tripling the time needed to complete a project.**"

**– Chris Huffman,  Lead Developer**

Our recommendation is to use a Product Information Management (PIM) system before building your eCommerce website. At a minimum, a PIM will enable you to create and manage all of your product data in one place and distribute the data to all sales channels, including your eCommerce website, large retailers, and marketplaces.

When looking for a PIM, make sure they are automotive focused. An automotive focused PIM will validate your product data against the industry's part information and fitment standards, ACES and PIES, giving you the opportunity to expand vehicle applications and potentially improve sales. This feature alone will save you hundreds of hours worth of headaches and confusion.

A good automotive PIM system will put you in the driver's seat of managing your own data intelligently without the use of spreadsheets. These systems can provide live quality analysis and recommendations for data improvement, analyze fitment data for overlaps and duplicates, provide complete visibility for product data enabling collaboration among different departments, manage all digital assets, and much more. Most importantly, using a PIM will expedite an eCommerce agency's ability to understand your data, drastically reducing the amount of money and time you will spend on building your website.

Now, here's the disclaimer. The unfortunate reality is that the automotive industry has been slow to embrace eCataloging software and of the ones that exist, many are far behind, technologically. Of the few companies we found capable of offering all of the services mentioned above, the one that sticks out the most is PDM Automotive. They provide a platform that is not only easy to use but is cost-efficient.

Being in the automotive aftermarket, you have most likely heard of PDM Automotive. Their software has been used for grading catalog competitions at the Auto Care Association's annual ACPN Knowledge Exchange Conference and is trusted by major automotive companies such as Trico, O'Reilly Auto Parts, AutoZone, Autolite and Advanced Auto Parts.

We brought PDM Automotive in to highlight what a true automotive PIM is capable of when used in a real-life automotive business. Enjoy the following case study.

# Discover How Restoration Parts Unlimited, Inc. Undergoes a Digital Transformation with PDM Automotive's PIM Solution

### Introduction:

Kyle Pfirrman, Director of Marketing & Digital Strategy met PDM Automotive founder Johannes Crepon at the 2018 SEMA/AAPEX tradeshow and that is when the two discussed Pfirrman's desire to create eCommerce websites for each of RPUI's brands. Pfirrman indicated his desire to adopt industry standards for managing their product data. The timing for both Pfirrman and Crepon to meet was kismet and they embarked on RPUI's digital transformation. Crepon explained, "that a successful eCommerce website starts with clean, streamlined product management."

*"...a successful eCommerce website starts with clean, streamlined product management."*

### The Problem:

In the early stages of RPUI's digital transformation, the company was struggling with building product data within a structured process. Their product data management consisted of paper catalogs and spreadsheets. New product releases were delayed, product updates for new vehicle releases were slow and the only way to send and receive data was antiquated. As RPUI continued to acquire companies/product lines, it was clear that they were lacking structured, consistent, clean product data information. Each brand had their own individual way of managing product data making the website integration challenging.

Pfirrman felt that RPUI's goal to create new eCommerce websites for each of their brands and integrate product data for easy application look up seemed daunting given their current data structure. Pfirrman also wanted to expand into new markets and distribute product data to all their automotive retailer sales channels. The problem - RPUI did not have usable, structured data to feed their website let alone distribute consistently. They had to start from scratch and did not know to start the process. With PDM's PIM solution, the task of converting their product data into a manageable solution was not only easy but it was quick, efficient, and manageable on a consistent basis.

### The Process:

Together RPUI and PDM created a roadmap to build their data governance strategy. Starting with loading all the raw data into the PDM platform and providing the ability for the teams to collaborate throughout the process. Together they were able to create a fool proof structure to create, maintain, and distribute high quality data for all sales channels to utilize. PDM's PIM solution provides a fully transparent product data management tool, so that RPUI's sales, marketing, IT and executive teams can collaborate and manage their product data. Each team member took responsibility for creating product data that would drive sales, marketing efforts, and custom export reports in real-time. If a product does not appear on the website, they can go to their PDM account management tool, make the necessary updates and the information will become immediately visible on the website in real-time. Let's face it, if a customer can't find the product online, that is forever a lost sale. Product data management should mirror the product development process. By embracing this concept RPUI saw immediate results.

> *Product data management should mirror the product development process.*

### The Results:

After incorporating PDM's robust PIM solution, RPUI began seeing immediate results. The sales and marketing teams began collaborating with the product development teams to sell new products as soon as they are available. "We are now able to distribute product information to our retailers quickly and efficiently, provide real time updates to product listings, and create organized workflows for continuous improvement," stated Kyle Pfirrman. "The process of RPUI implementing PDM's PIM solution for all of our brands was incredibly fast; in less than a week we were able to integrate product data into our new website.," Pfirrman went on to say. RPUI, leveraged the newly structured data to drive a new eCommerce platform at fpautoparts.com. Johannes Crepon added "the process of setting up RPUI's brands at the beginning of the eCommerce website creation was the perfect time to help them create a product data management solution. This is when we establish the goals, create the internal process, and build a roadmap for success." Although the immediate goal was to feed product data to RPUI's websites, Pfirrman quickly realized that PDM's PIM solution and collaboration helped RPUI to build an internal corporate data governance process for all brands and set them up for success when they add new brands to their corporate portfolio.

### About Restoration Parts Unlimited

RPUI is the parent company for a group of restoration specialty companies including Trim Parts, PUI The Right Stuff Detailing, SoffSeal and Flatline Barriers. Each company serves a specific niche by manufacturing restoration components for classic GM, Mopar and Ford applications from the 1950's through the early 2000's.

### About PDM Automotive

PDM Automotive is a technology company, based in Seattle, Washington, that provides a cloud-based, data management platform for the automotive aftermarket parts industry. Connecting suppliers, resellers, and service providers with integrated analytics and tools to assure real-time availability and accessibility of product, inventory, and pricing data for all sales and e-commerce channels.

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# Implementation

## Development-Testing Cycle

While you might think your work is done by the time you reach this part of the project, the truth is, your job is far from over. At Classy Llama, we like to describe the first part of the Implementation phase as a Development-Testing Cycle. This is where both your team and your chosen agency should be working together the most. A significant amount of your team's time should be dedicated to this phase.

Here is a list of realistic expectations to have when going into the Development-Testing phase:

1. **Plan dedicated resources.** Assign a person from your team to give time to the project and work as a team player throughout the build. This person is there to bring clarification to the data that was given to the agency during the discovery phase. Whoever you assign to this project should be prepared for frequent meetings.

2. **Test along the way.** Take advantage of testing while features are being built. This way, you can train your team, and developers can make tweaks as they go. It never hurts to have extra eyes on the project.

3. **Ask for consistent communication.** There shouldn't be any unexpected silence. You should expect frequent communication even if it's just for updates.

4. **Prepare for changes.** While a perfect project would have the scope nailed down in the discovery phase, the reality is that even the best agencies will miss things. There will always be scope changes along the way. There will be backtracking in budget and backtracking in integrations. This isn't always a great feeling, but expecting these potential changes from the beginning will prepare you to pivot when necessary.

If there is anything to take away from this section, it's that you will not just sign an agreement and receive a new website in a few months. You will need to be involved throughout the entire process. Many companies do not participate enough in the development phase. This leads to confusion in how to manage the site at the time of launch, which in turn will push the launch date further away.

# End-To-End Testing

At this point, you've finished the bulk of development and hopefully tested all of the features during that phase of the project. Now it's time to wrap things up…sort of.

Successfully completing this phase of the project will mean verifying the "Happy Path" as a guest user. This means making sure that if the store is put into production in its current state, customers will be able to search for and view products, add them to the shopping cart, and checkout without major problems that prevent a purchase from being completed. Focus on answering the question: Can I get through this site? At Classy Llama, we provide our clients with a checklist to make sure they don't miss anything when reviewing what has been created.

Next, you'll want to review the site's contents as a whole. You know your products and data better than any agency ever could. As you make your way through your new eCommerce site, review the content, language, spelling, grammar, and product categories to make sure it's all correct.

Successful completion of the test does not guarantee that the site is bug-free. The truth is, you'll always find issues, bugs, or even just want to tweak things more. The best way to handle this without delaying launch will be to prioritize fixes in two categories: issues that need to be fixed before launch and issues that can wait to be fixed after launch.

Generally, initial Quality Assurance(QA) testing will take about 21 to 35 hours or one week. During that time, the QA team assigned to the project will test and log issues that will be prioritized into the two categories mentioned above. Once you and the agency have chosen the issues to be fixed before launch, the agency will work on them and begin testing again. You can expect all End-to-End Testing Cycles to be completed in around one month.

**The End-to-End testing cycle looks like this:**

**TEST & LOG ISSUES** > **PRIORITIZE FIXES** > **FIX THEM** > **RETEST** >>

# Go Live

At this point, you might think you're out of the woods. It might be hard to understand why taking a site live isn't as easy as flipping a switch. The truth is, going live is quite a process. It can take anywhere from a couple of hours to a full day to take a new website live.

At Classy Llama, we like to think about the Go Live process like a play. You have a dress rehearsal that involves going through the motions over and over until you can get the process right every time. Once we know everything will go smoothly, we pull the curtains back and go through the motions flawlessly.

The dress rehearsal is a full soft launch. At this point, the agency will actually take the site live, just not on your final domain. This process will require your full attention because there are many tests that your agency will not be able to carry out without you. Up until this point in the build process, the site will have been running on sandbox or test versions of connected software such as payment processors, shipping software, etc. Consider the fact that once your new website goes live, you will no longer be using test versions of your software. The site is no longer simulating the real world. It will be in the real world.

You will need to place an order with a credit card, follow it to your warehouse and have someone physically intervene at the point that a person is ready to pick the order. Your part in the dress rehearsal process is making sure that the site is working properly with all other areas of your business.

Example of things to check:

- Production ERP Integration Settings
- Production Shipping integration Settings
- Production Payments integration Settings
- Production PIM integration Settings

During the dress rehearsal, it's common to find that settings on the sandbox versions of the software types mentioned above were forgotten on the production version.

The biggest mistake clients make is not testing during the dress rehearsal. Payment gateways not processing orders, real shipping quotes not pulling up at checkout, and information not being fed to your ERP hurt way worse when real customers are actually using the site. Once the site goes live, it's far more costly to fix things. When issues are found in a real-world setting, they cause a resource jam. Your agency will need to hurry to fix things that could have been fixed ahead of time, and they will need to put more manpower on it to fix it quickly. Meanwhile, your site is potentially losing money.

On the agency's side, there is also much to rehearse before rolling the curtains back. The biggest challenge is syncing your new site with your old site or physical business right before going live in front of your customers. During the development process, there will have been a few times in which the site was updated with current data, but unless your business shuts down before launch, they will need to execute a data sync almost simultaneously with going live. This ensures that the site is actually up to date with the orders and inventory of your previous site or physical location.

The agency will run through the process of updating data on the new site and pushing the site live on a test domain over and over until they can do this perfectly. They will also run orders for you to check over and over until that process can be done perfectly. Once everything has been successfully executed on a live domain a few times, they will do it all again one last time and switch the domain. Your site has now gone live.

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# Conclusion

Throughout this process, you may have picked up on one recurring trend. If there is anything you should expect from your next eCommerce project, it is that it will require you to have people available from your staff every step of the way. Don't view this as a bad thing. Building a new eCommerce site is a great opportunity to work through your processes and organize your data. If you stay focused, the prize is a new revenue stream and a business that is far more future proof.

If you have any questions about building your own automotive eCommerce website call us at (417) 866-8887 or email sales@classyllama.com.

For more information about PDM Automotive, visit https://pdm-automotive.com or email laurel@pdm-automotive.com.

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