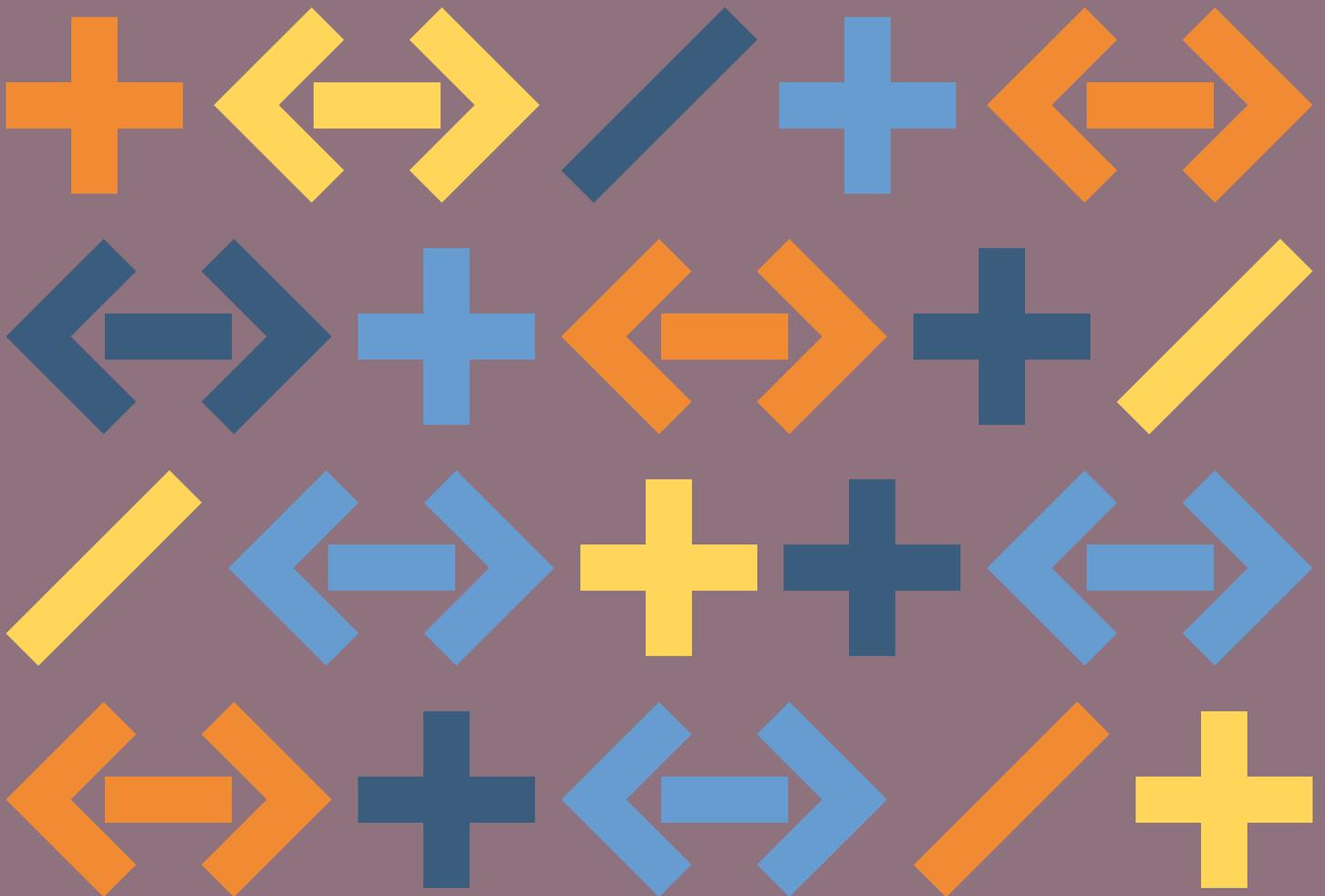


The 2022 SwiftOtter

# State of Adobe Commerce Developer Report

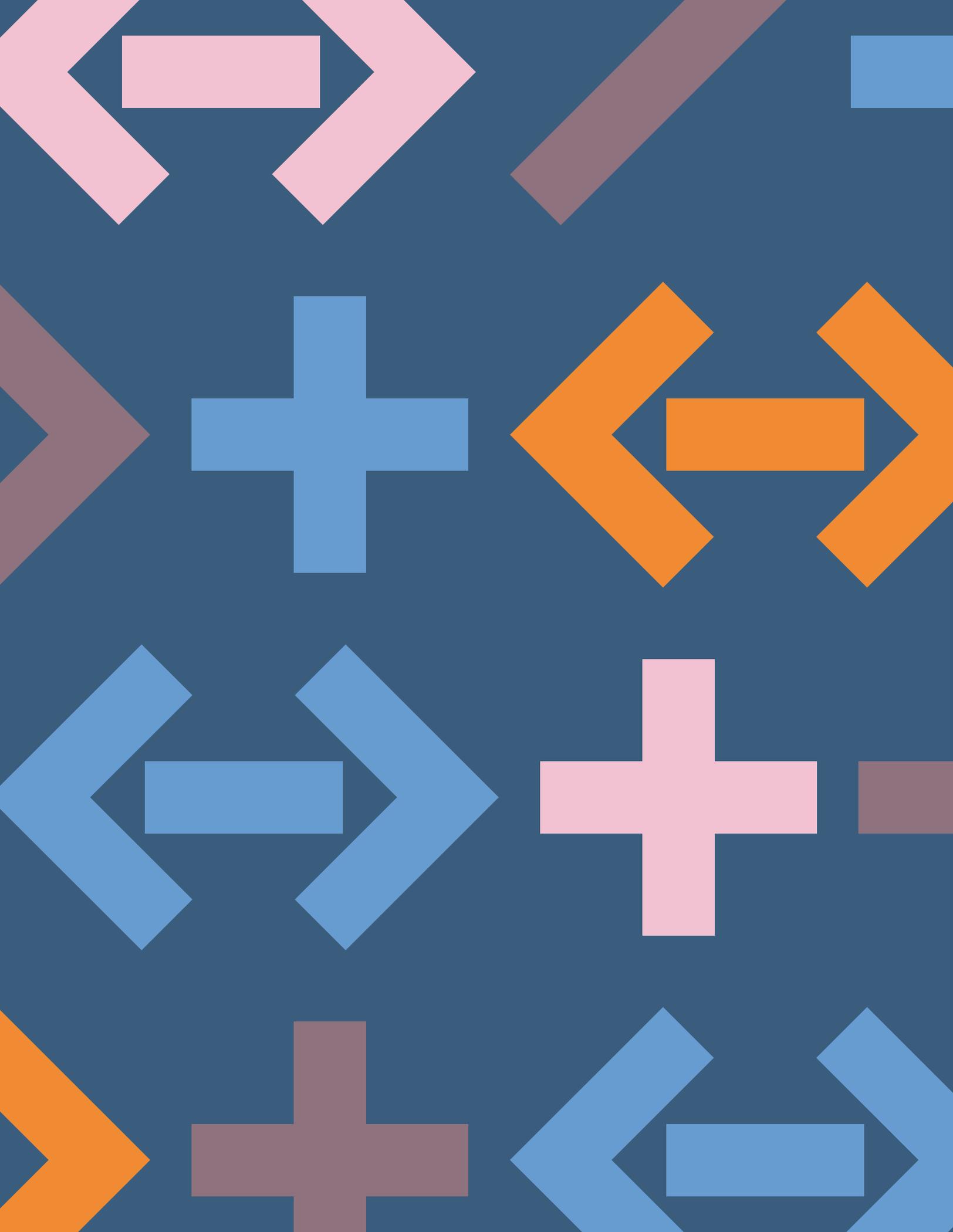


Independent Research  
by SwiftOtter

Compiled by Joseph Maxwell  
Reviewed by the team of Otters



SwiftOtter



Developers power online commerce. Developers invest in their platform of choice, making it better and easier to use. They build training and equip other developers who continue the cycle. This flywheel effect is powerful and hard to stop.

We at SwiftOtter love this community of developers—and it is in the community’s best interest to aggregate the information into a publication. This isn’t as much providing you a great bowl of nerd candy as it is informing you on decisions that affect your career. These choices directly change the lives of your loved ones in dramatic ways.

Software development is often done in a silo. It’s hard to transfer knowledge from developer to developer, company to company and industry to industry. The purpose of this report is to

## The Backstory

2021 was our first year of polling the community. We gained some precious insights, some of which will be shared and compared here.

2022’s report is bigger and better. We asked more questions. We included some optional but somewhat personal questions. The goal is to peel back the layers and deeply understand the community that powers the development of Adobe Commerce-powered websites.

One of my favorite aspects of this research is comparing year-over-year data. We are beginning to see trends—and the value of this report thus goes sky high.

## The first of three reports

We have decided to split our findings into three unique reports:

- This one for developers
- One for CEOs providing detailed insights as to what powers developers.
- One for the Adobe community to clarify its thoughts on the platform.

You can download this dataset for your review at [swiftotter.com/2022-dataset](https://swiftotter.com/2022-dataset).

## Who is SwiftOtter?

We are Engineers of Excellence. We customize websites on Adobe Commerce and BigCommerce in a robust and future-proof manner. Every one of our engineers is certified and is the best of the best. We have tackled some of the most challenging requirements—and brought them through to completion.

We also train developers on Adobe Commerce. We have written material and courses to help smart folks achieve certification (and learn new techniques along the way). We don’t just teach “the facts” but we look at the entire learning process. We are an agency so our training to you is the whole picture.



**Joseph Maxwell**  
Chief Visionary  
at SwiftOtter

# The Art of Ecommerce Debugging

As an ecommerce developer, you face tremendous pressure to fix problems quickly. The stakes are high: Every minute your client's site is down, your client is losing money, and your reputation is on the line.

Not fixing a problem is a bad resolution, and overbuilding a solution brings collateral damage. Having the tools to quickly solve the problem will make the difference between stagnating in your role and becoming the most irreplaceable person at your company.

In my new book, *The Art of Ecommerce Debugging*, you'll learn strategies to solve hard issues, acquire tools to become an effective debugger, and read real-life examples (including my mistakes!) from my own career and agency. This entertaining and easy read will help you become a better developer—guaranteed.

The price for this beautiful, hardcover book is:

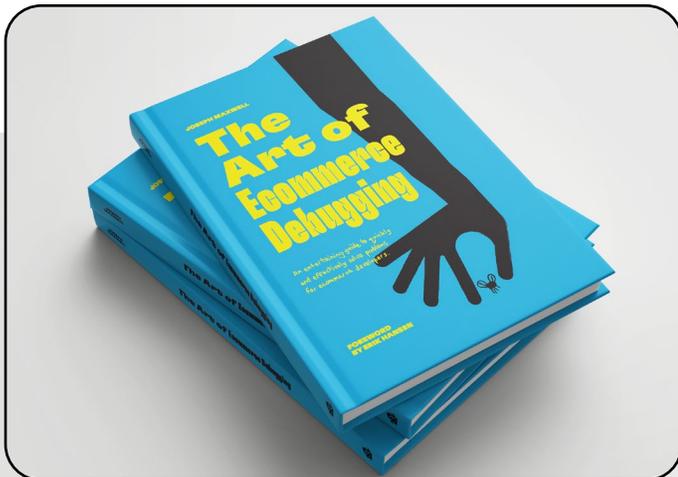
**\$40, w/ \$10 worldwide shipping.**

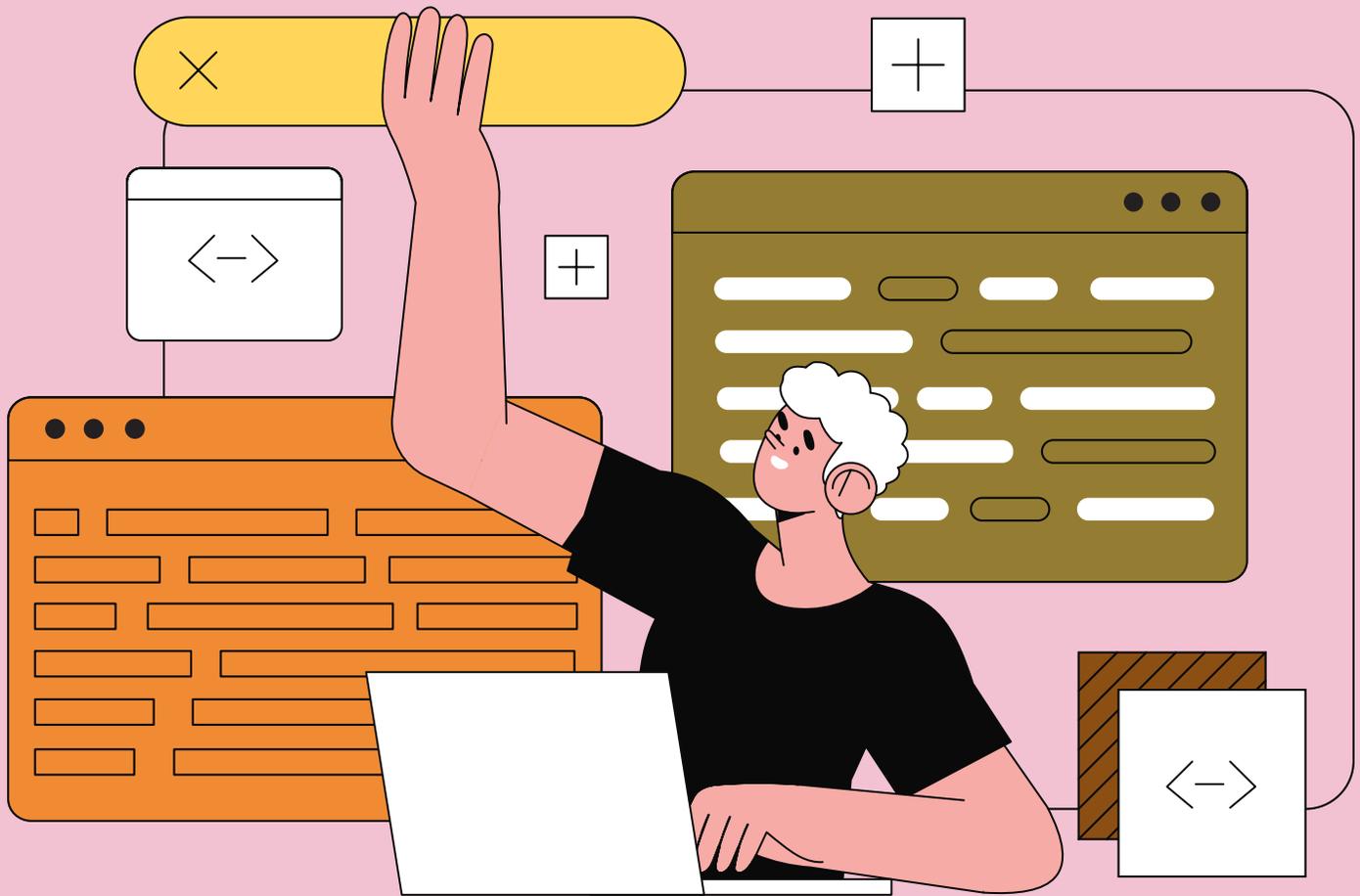
Yes—that's right—\$10 shipping to *anywhere* in the world. US, Europe, South America, India.

*But why?* I believe this book is so critical for developers that I'm taking the hit to get it into hands all over the world.

**Learn more:**

[swiftotter.com/artofdebugging](https://swiftotter.com/artofdebugging)



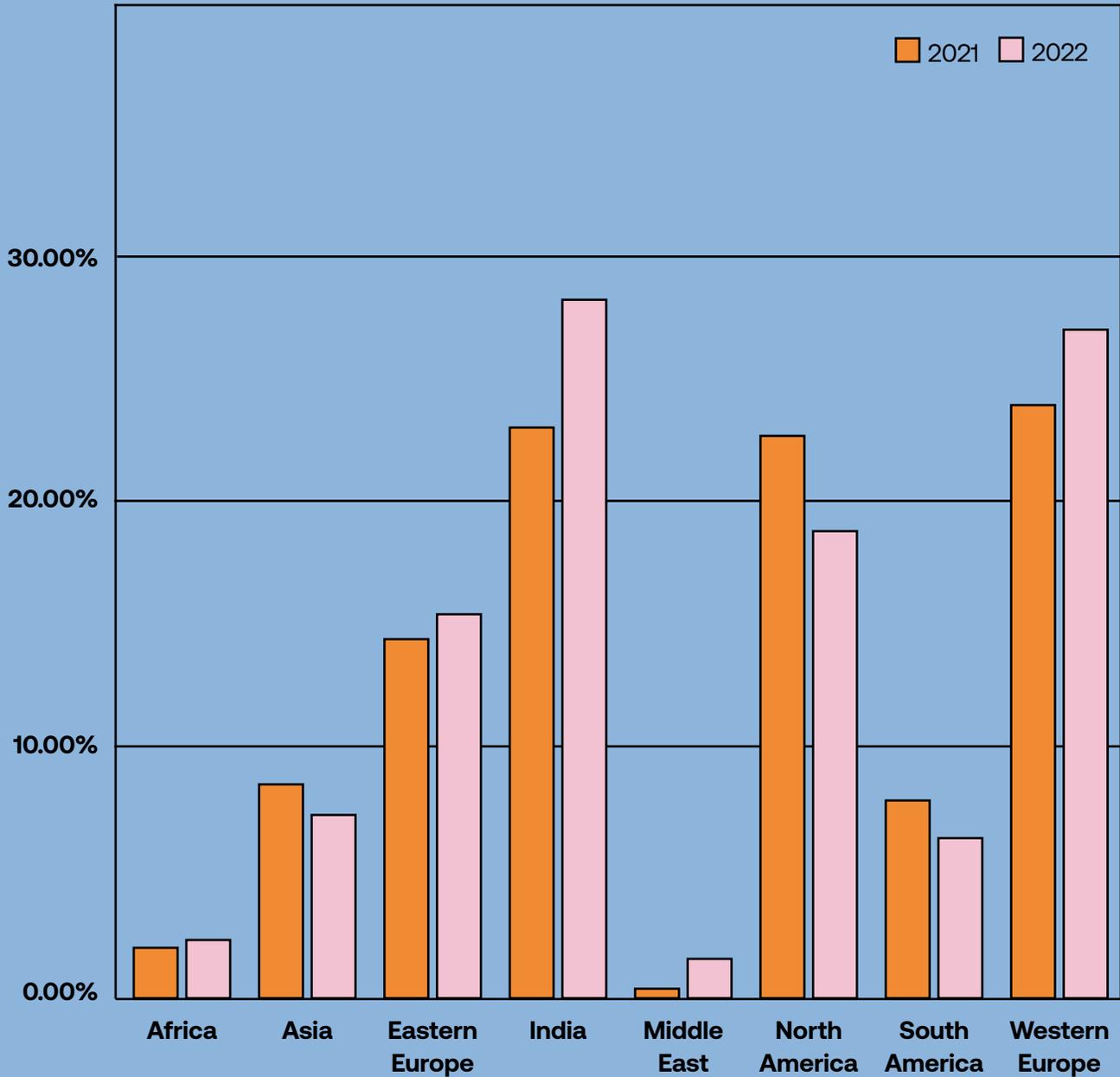


## The Great Developer Environment Shootout

I was stoked to see what developers are using to execute the code they write (and I'll break apart these current statistics in the upcoming sections), but it led me on a much deeper journey to find what really is the best development environment available on the market. What should be considered?

Developers from all over the world shared their environment of choice. Even better, they also shared their opinion of each. I'll be taking this information and putting it into yet another resource that will be released shortly.

Make sure you are part of our email list on [SwiftOtter.com](https://SwiftOtter.com).



# Setting the Scene

## Respondents by country

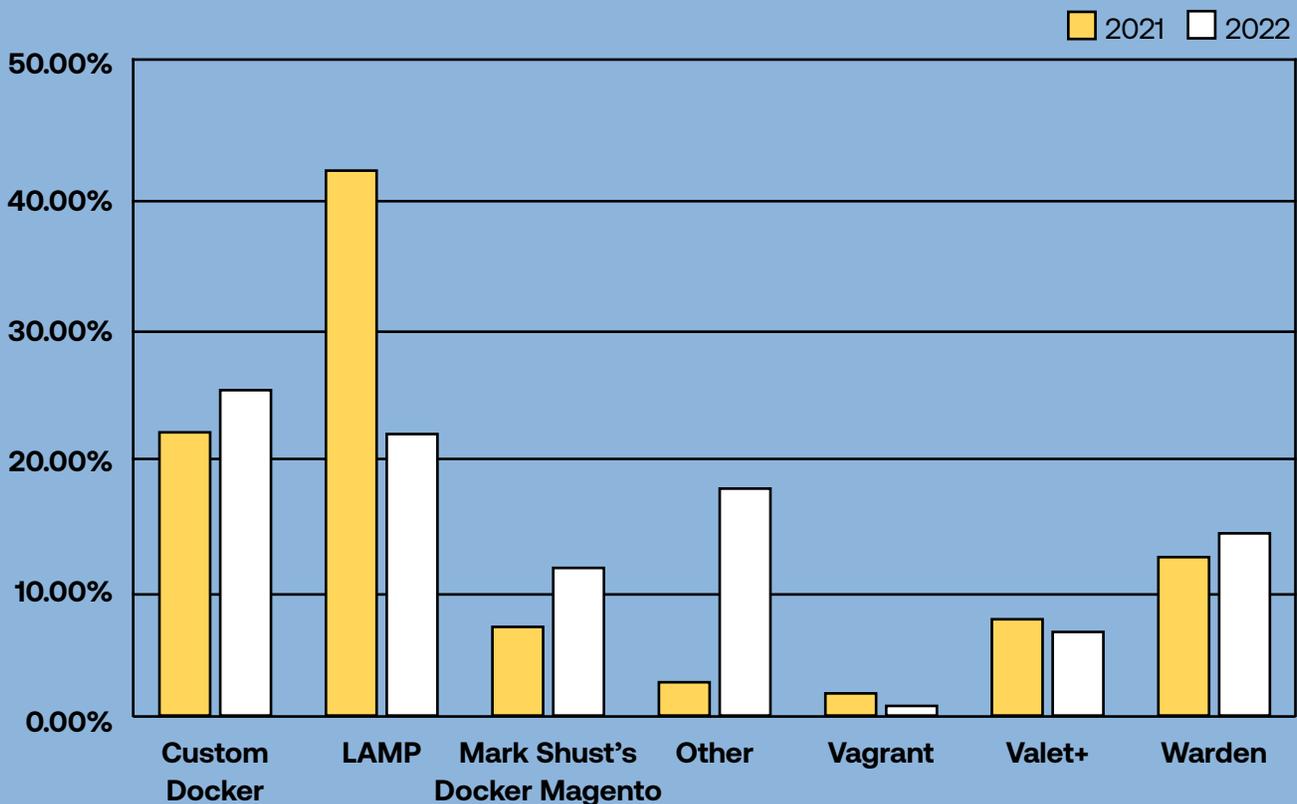
The overall distribution of respondents was pretty similar in 2022 and 2021. We did have a new region pop up, the Middle East.

# The Developer Environment

Developers build websites within a given environment. The faster their computer and the higher quality of environment, the more productive a developer is.

We are thrilled to see the implosion of the LAMP-based environments. Warden's and Mark Shust's environments have both seen significant growth at 25% and 54%, respectively.

### Change of Environment Adoption



The “Other” category represents incomplete answers, such as “Ubuntu”: Ubuntu could be a LAMP-based ideology, or it could be the base image for a containerized system. One notable popup that we classified as “Other” was Amazon Workspace.

## Docker

We are combining into the Custom Docker category groups of people who chose Other options. For example, these are:

- MDOQ had the highest mentions with nine people saying this was their environment of choice.
- Rewardenv
- Lando
- Devilbox
- DDev
- Jale

# The Development Environment Drag Race

3...2...1...GREEN LIGHT.  
The two most critical pieces of a development environment choice are 1) the speed and 2) the features (how easy is it to toggle xdebug and spin up new websites?).

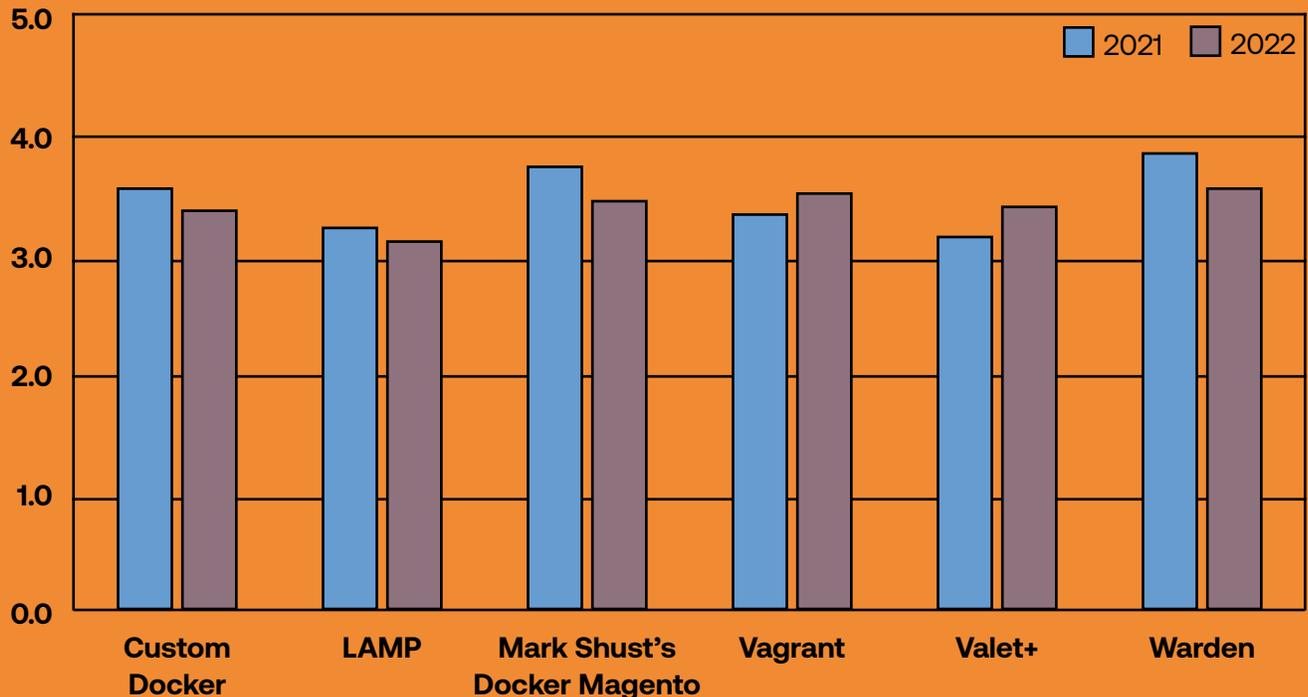
We asked two questions relating to speed: How fast is it (your development environment)? And roughly how long does it take to load a basic, uncached Magento 2 home page?

The goal is to differentiate between perception and reality. Perception affects our happiness—even if this does differ from reality.

All of the players in the field have similar averages for the perception of speed (the higher, the better). This is good but shows there is significant room for improvement. What would it take for an environment to achieve a 4+ rating?

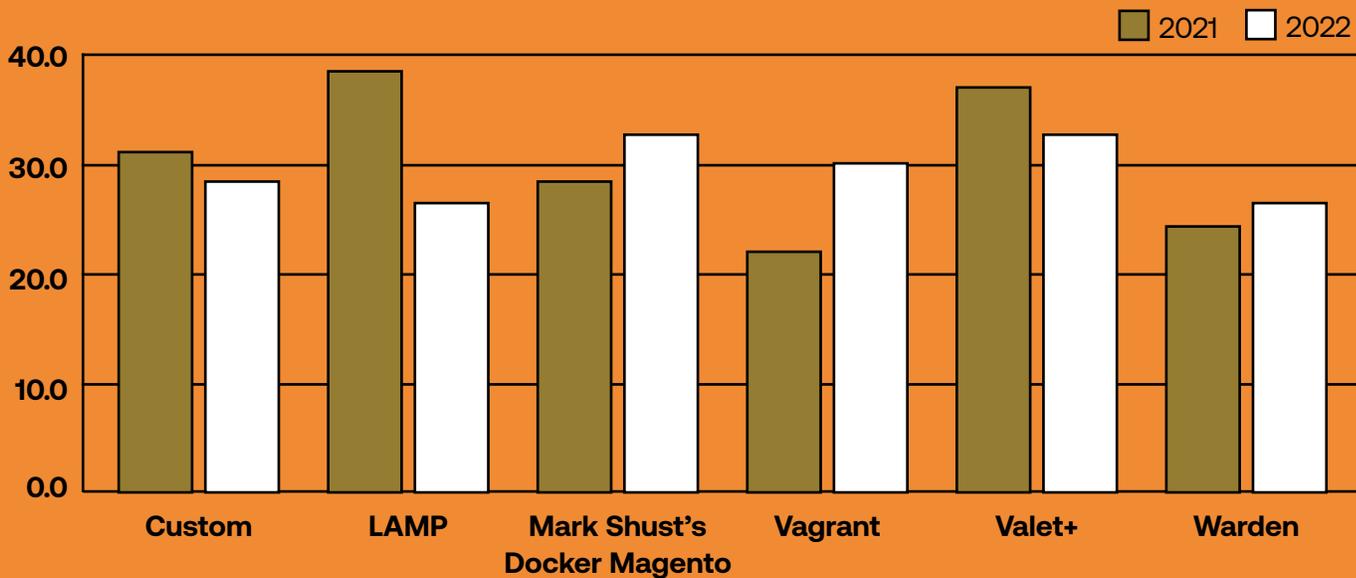
For this graph, the higher the number, the faster the environment is perceived.

## Perception of Environment Speed

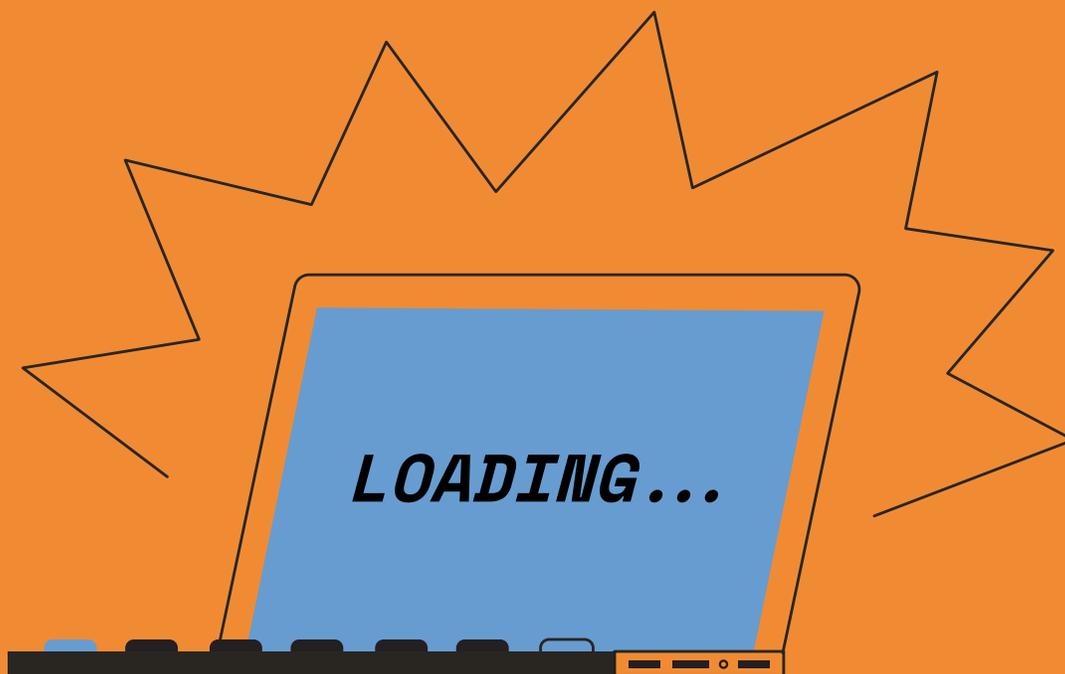


# Uncached Home Page Load Time

Let's look at the following graph. Warden gets a special callout for prepackaged Docker environments—weighing in at an average of 28.3 seconds. What?! 28.3 seconds to load an uncached home page? That's insane. It's even worse than last year (which was 26.6 seconds). We are biased toward Warden as the Otters use Warden all day, every day. Higher numbers are worse.

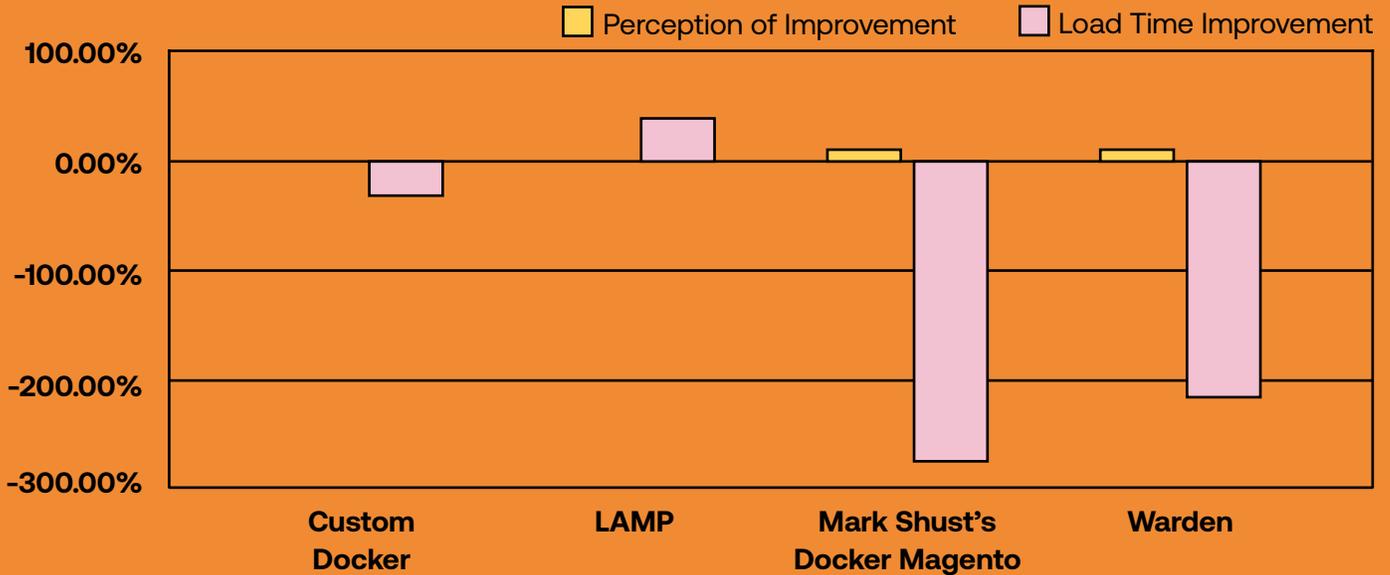


Let's break out the statistics here. The good news is that Warden has seen a 14.5% improvement in speed year-over-year here in North America. While the perception speed has fallen by roughly 12%, it still has the best perception of the reviewed platforms. A custom LAMP stack beat Warden by nearly 7 seconds. The downside is we can't quantify how much time is spent configuring and maintaining this environment. The beauty of prepackaged Docker environments is this is set up once and for all.



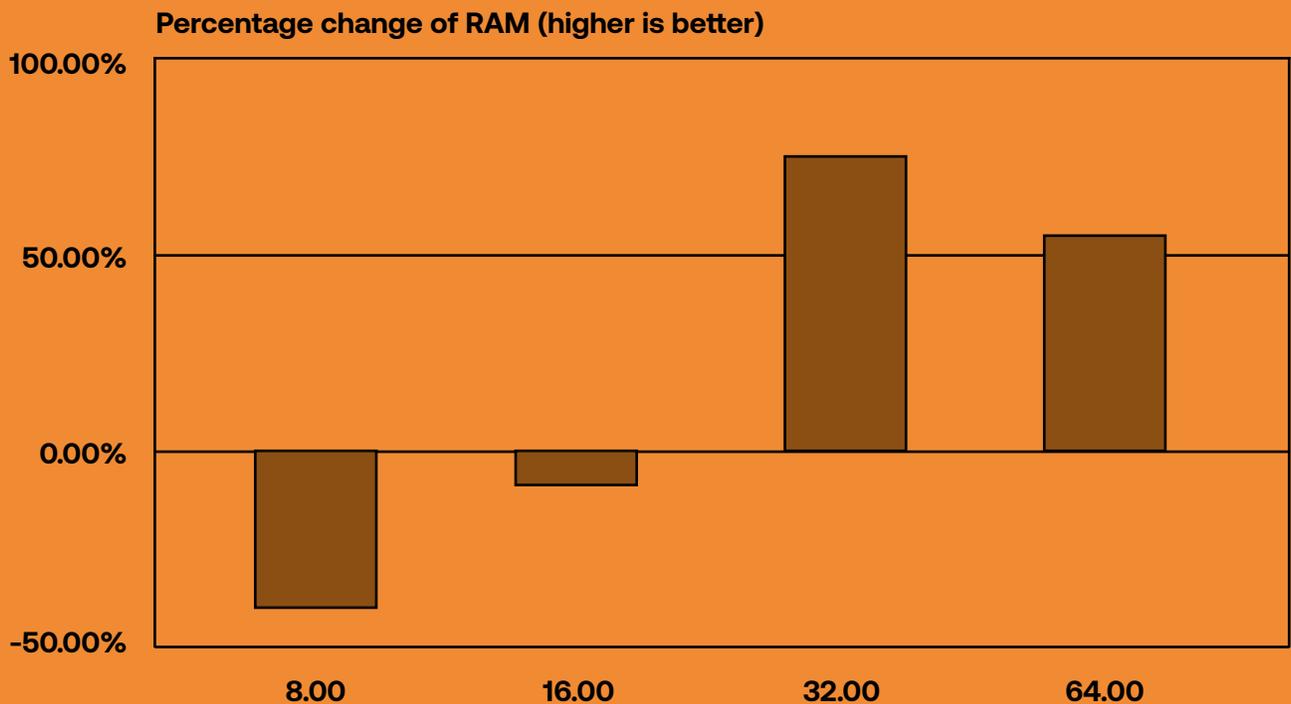
# India

We spent some time analyzing India as we noticed a strange outlier. Docker-based environments have taken a massive hit for load time—yet the perception has stayed the same. We asked the same question both years in a row. This is a trend to evaluate.

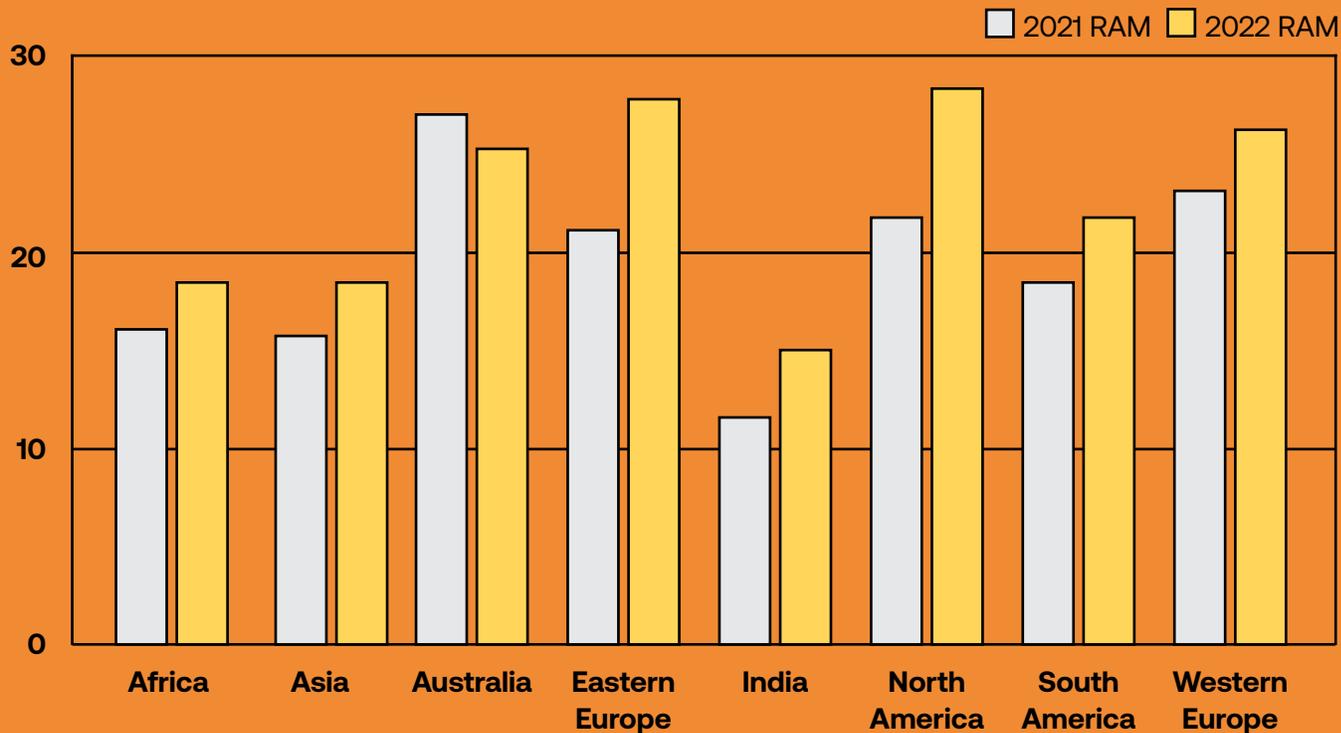


# How does RAM fit into the equation?

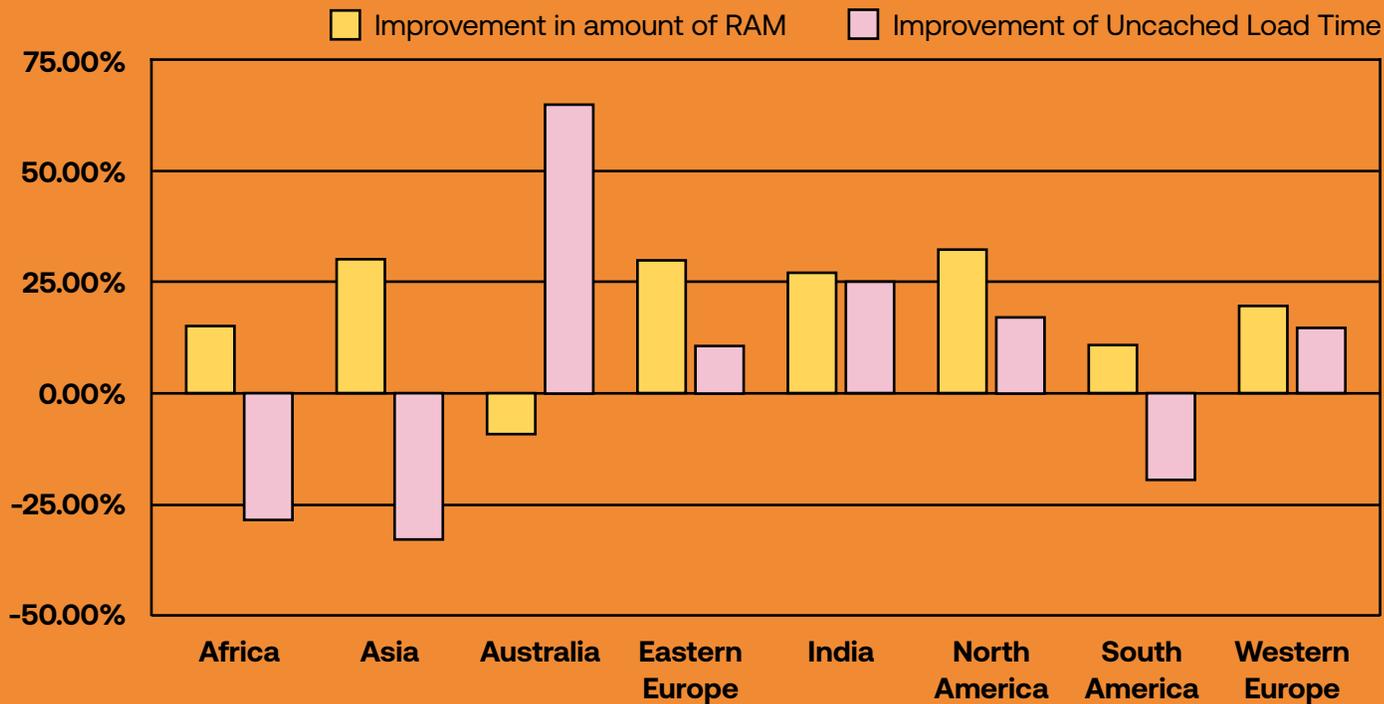
The number of developers with 32GB of RAM has increased by 81%. We are encouraged to see the investment made into your toolsets:



Your machine's memory correlates reasonably well with how fast you load Magento. We have observed an overall 19% increase in RAM (Australia is an outlier due to the lack of data).



Let's associate the improvement in RAM with uncached page load time progress. If we were to only look at India, we would have a "point well made".

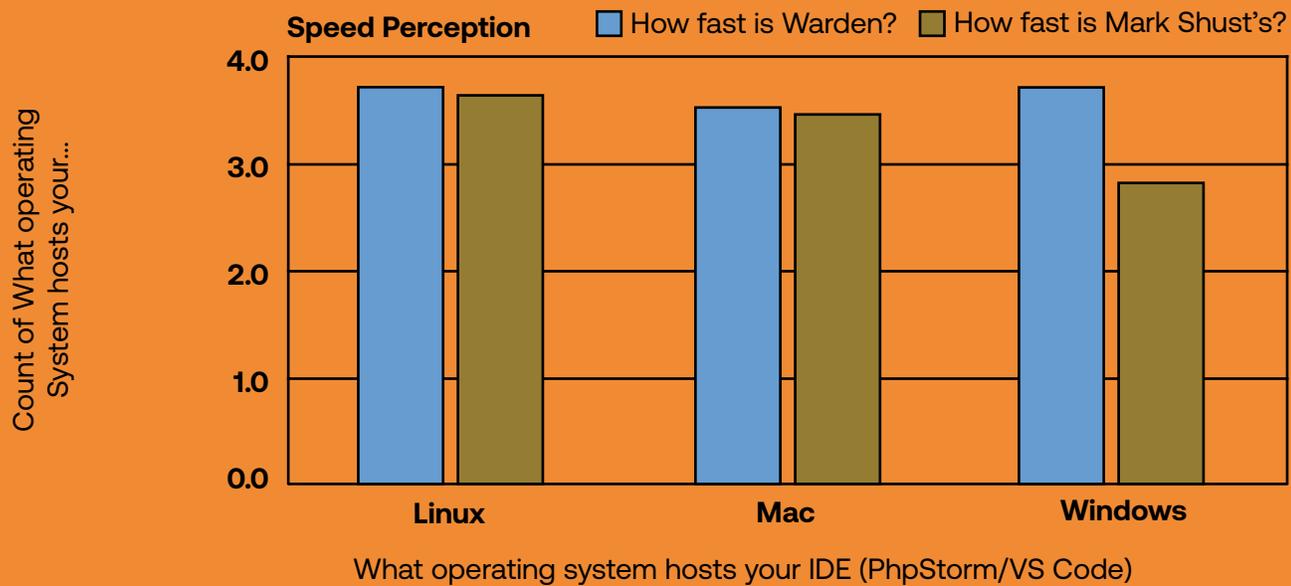


(note: Australia is an outlier, but we still felt it was important to include)

A new Mac M1 comes with 32GB by default. For an extra 400USD, you double the RAM to 64GB. Based on the results of this research, your load time goes from 29 seconds down to 24 seconds. If you load 20 uncached pages daily, you will save 5 ½ hours a year of load time. If your billable rate is 100USD, you have paid for this upgrade in one year. I'm not counting the opportunity for distraction within this window, which removes your focus even longer.

## Warden or Mark Shust's Docker?

I'm going to present the facts to you and let you decide. As I said earlier, we are proponents of Warden and thus biased. On the surface, speed is similar (likely, mostly limited by Docker's containerization).



You will be happy with either system. If you work for a merchant with one environment, Mark Shust's is a great option. If you work for an agency, you will want to use Warden. Here's why:

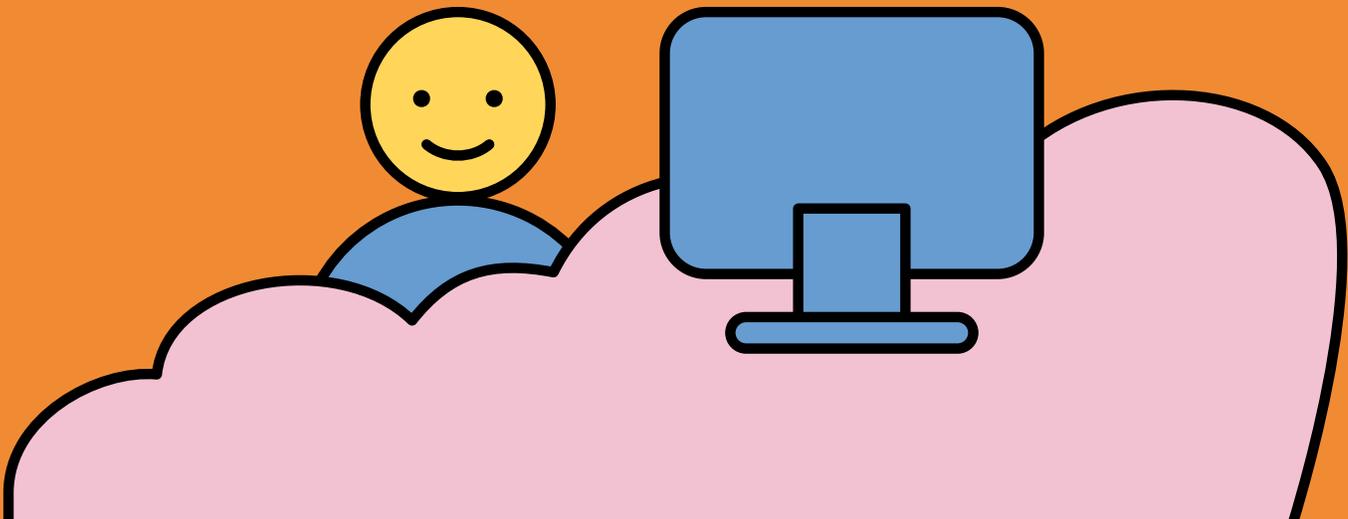
- Warden uses Traefik to allow multiple Magento environments at the same time.
- Warden has support for more PHP versions.
- Warden has support for varnish.
- Warden utilizes MailHog to prevent sending unnecessary email.

## Take action:

- I wish I could say “look, the data even shows you’ll be happier with a containerized development environment”. I can’t. In my experience, containerized environments don’t necessarily beat out bare metal environments, BUT the slight improvements of bare metal aren’t worth the drawbacks of ongoing maintenance. Bare metal also loses out on the collective benefits of community contributions.
- Increase your RAM. Jumping from 32GB to 64GB harvests an 18% speed bump on Mac.
- Stick with your preferred operating system. Load times are pretty much the same with Linux slightly edging out the others. Perception of load time is very similar with Mac leading the pack with a small margin.

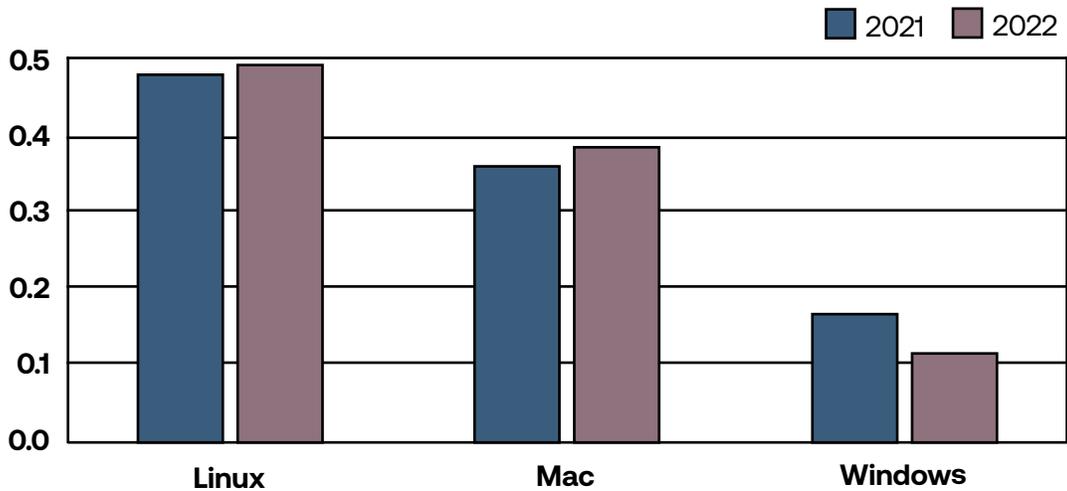
## Predictions:

- Containerized development will grow. Developers are tired of fighting environments when they should be building great software. Developers will realize benefits such as specific PHP versions.
- The future is software development hybridizing into the cloud: file storage and execution will happen remotely while using PhpStorm and browsing tools locally. This will all but eliminate the need for powerful and expensive computers.
- The tooling is ready—but the adoption hasn’t even started. Cloud development will simplify environment administration and specific aspects of security.

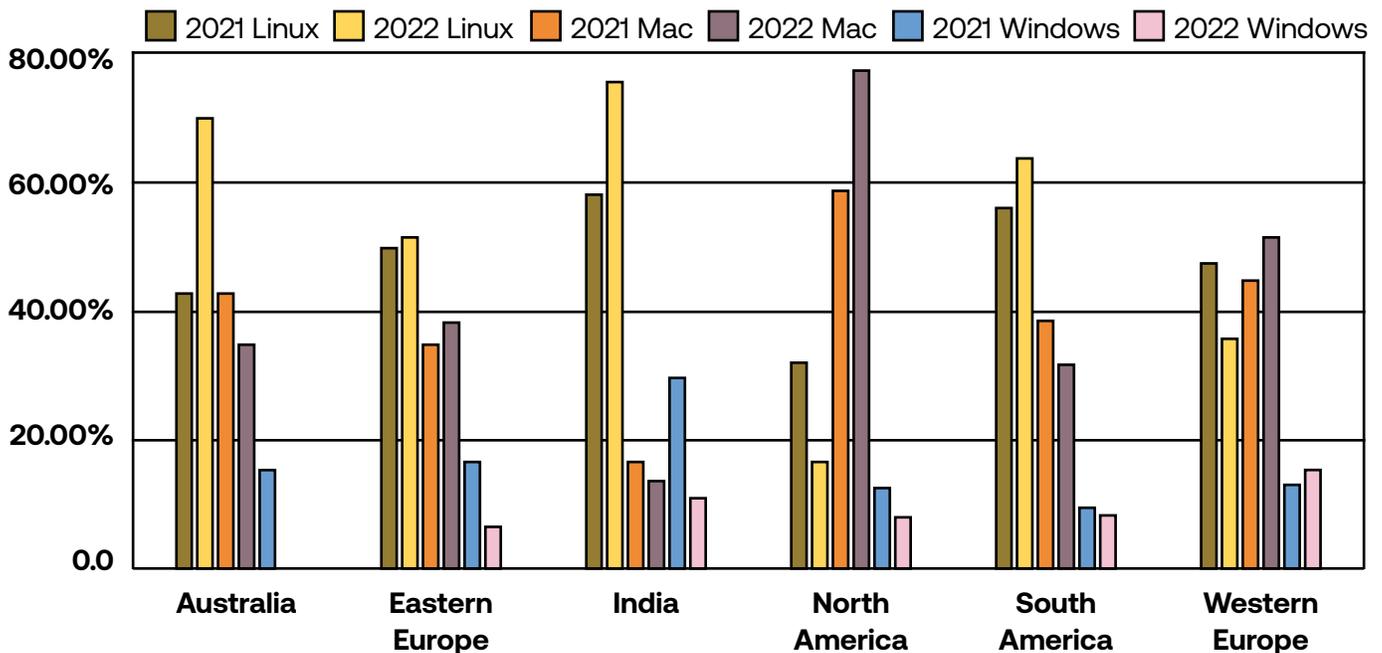


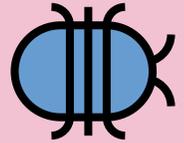
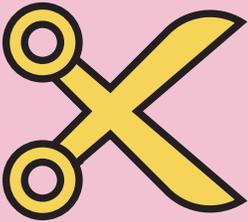
# The Machine Behind the Machine

The M1 Macs are a game-changer and these machines are trickling into the hands of developers—at least this is our theory. Mac and Linux have seen an upward trend, year-over-year, and are preferred overall.



I am happy to see Windows dropping across the board. India had the most significant group Windows users and this is no longer the case. Keep up the great work!





# Xdebug

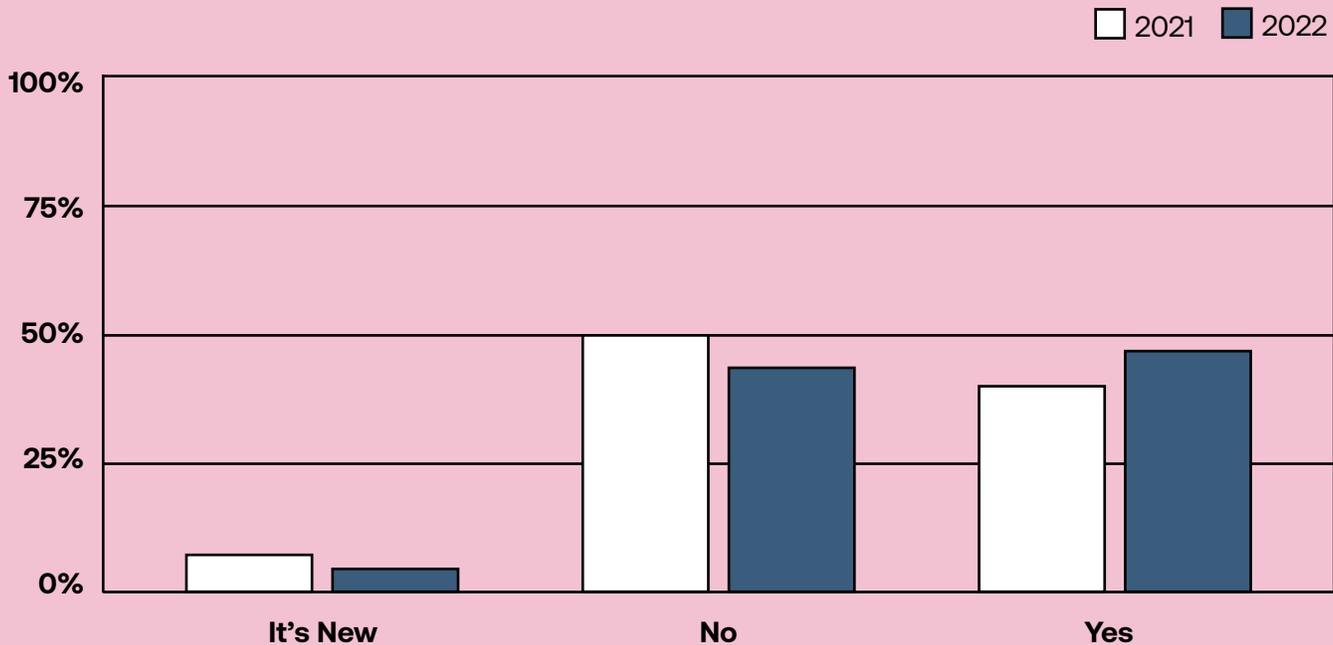
## The tool that separates the pros from the rest

You've probably heard of Xdebug by now. If not, you are in for a treat. Xdebug is a tool that allows you to step through code, line-by-line, during its execution. You can

see a variable's value IRL (in real-time). You can even run commands to simulate actions to not break execution. Xdebug will save you hours and hours.

We made the startling discovery last year that roughly 42% of developers in India used Xdebug. Ladies and gentlemen, boys and girls, it is my pleasure to share the good news that we are almost to 50%. This is a big deal as it speaks to the community's efforts to equip fellow developers across the globe. Keep up the excellent work—we still have a long ways to go.

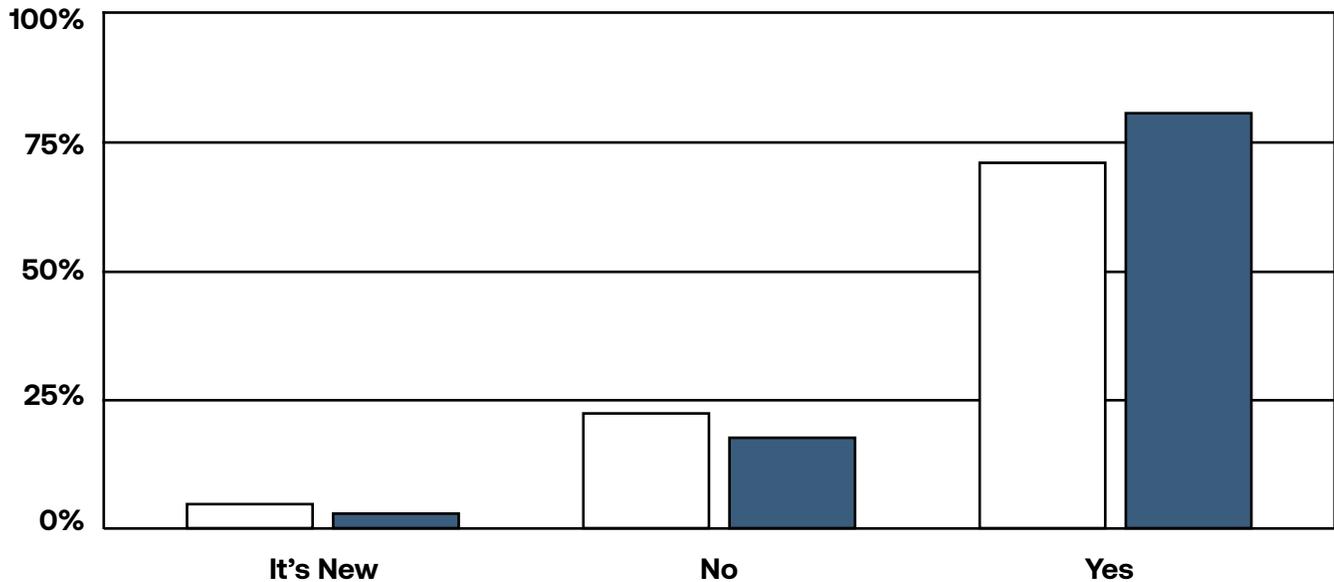
India's Adoption of Xdebug



What blows my mind is that North America doesn't have a 100% adoption of Xdebug.  
Yes, I occasionally talk to developers who don't use it.

### North America's Adoption of Xdebug

2021 2022



SwiftOtter has written a free course for learning and adopting Xdebug into your daily workflow.  
We've heard plenty of good things about it, so get your game to the top shelf.

### Take action:

- Master Xdebug. You will be on a fast track to becoming the best in your company.

### Predictions:

- India will achieve 60% adoption of Xdebug in 2023. Let's work together and achieve this massive breakthrough for our friends in this wonderful country.

# The theme of the day (or year?)

Hyvä has made a grand entrance to the stage this year. It's fast and brings a new methodology of Javascript and CSS styling to the table.

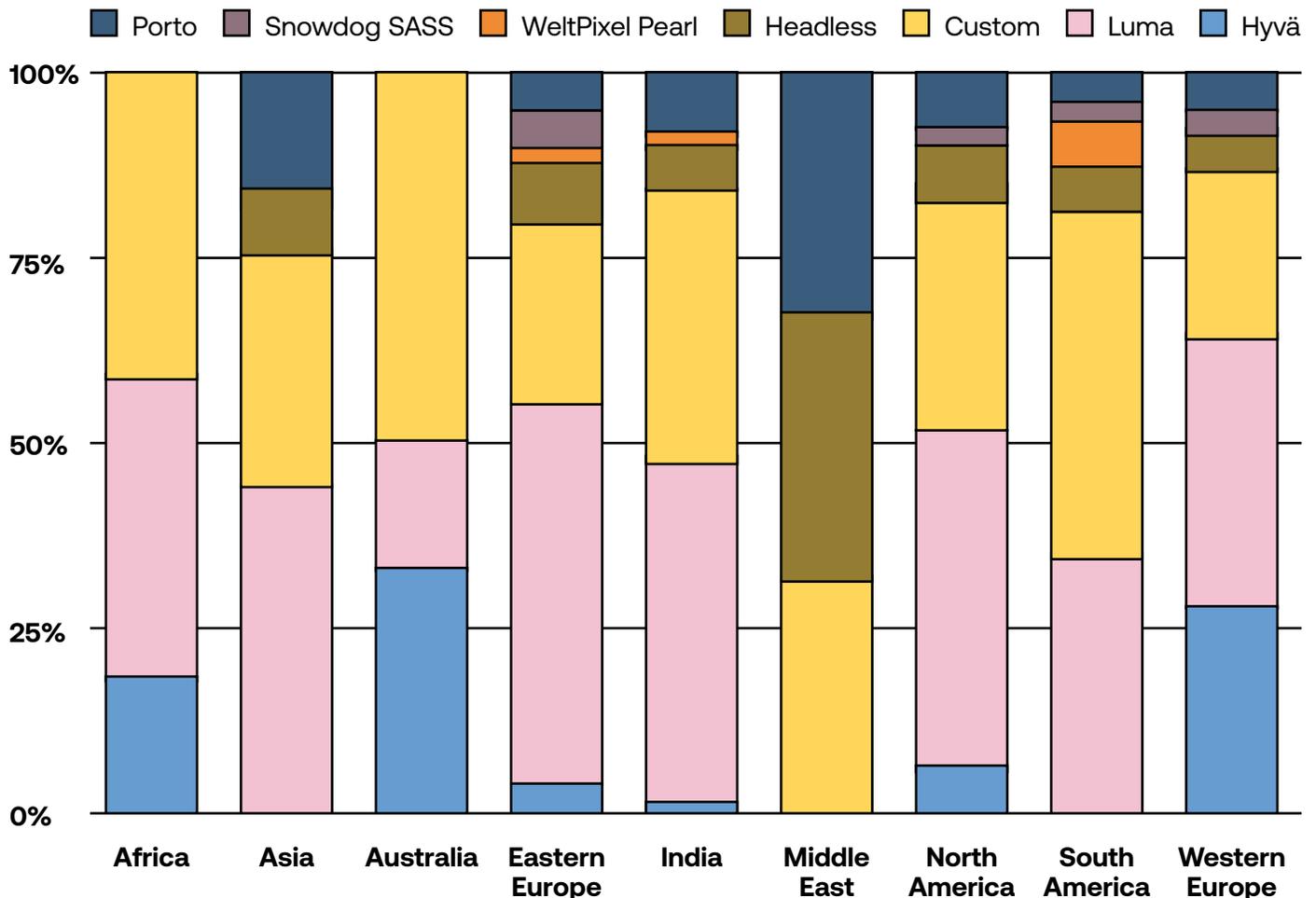
With all that's transpired, we are very impressed with a 13.3% market share for "new" development Luma is about to be retired, folks, and it's time to

look for something new. Is Hyvä here to stay or is it a passing fad: we bet on the former. Hyvä folks (Willem and Vinai), if you're listening, keep up the great work. You are making real change happen. And, no, I'm not paid to say anything positive about Hyvä.

For the sake of more detail, let's see how implementation varies per region.

This graph shows the percentage of adoption by region. In other words, Hyvä + Luma + all the different options equal 100% for each region. Hyvä is close to overtaking Luma in Western Europe. And it's accelerated nicely in Australia (albeit our sample size Australia is very small).

As for what is still not changing, Luma still takes the cake for these themes: 60.9%. What can we do to put this dinosaur to rest—permanently, once and for all? Is there such thing as a GoFundMe for this purpose?



## Take action:

- Support the Hyvä movement. Follow Willem Wigman and Vinai Kopp on Twitter. These people genuinely care about Adobe Commerce and they have staked their livelihoods on the success of this platform.
- Advocate for using Hyvä at your agency. If this is not well received, push to enforce best practices for Luma themes.

## Predictions:

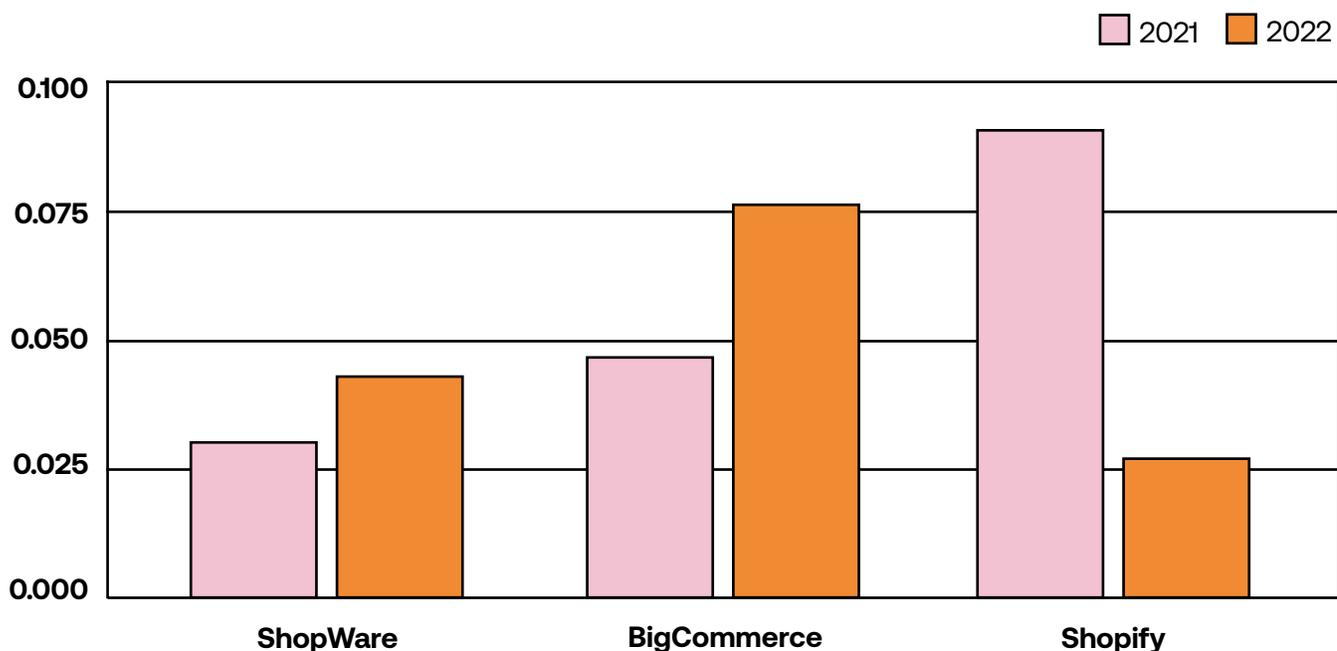
- Hyvä will hit 25% when we perform this research again next year. It's up and coming and very promising. Mark my words—those folks are intelligent and very savvy.
- If I could make a pie-in-the-sky prediction: Adobe will fork over a pile of USD to the wonderful people at Hyvä to 1) acquire the source code 2) replace the Luma theme, 3) deliver this to the Open Source community and 4) retain the Hyvä talent to become community champions.

## Are you an adventurer?

The Adobe Commerce community has historically been very devoted to this platform. 100% of the developers we surveyed report that they work on Magento.

But what is more interesting is what is less stated. 15% of these developers are reporting that they work on other platforms (the horror!). But, in reality, no one hurts by being cross-pollinated in multiple systems.

### Year Over Year Platform Adventurers



Let's look at this per country. ShopWare originates in Germany, thus there are more cross-disciplinary developers there. India has a strong Shopify presence.



### Take action:

- We recommend breaking out of the “one track” focus that so many of us have embraced and learn a new platform. You will cross-pollinate your knowledge and provide more value to your Adobe Commerce work. Determine an additional platform and learn it inside and out.

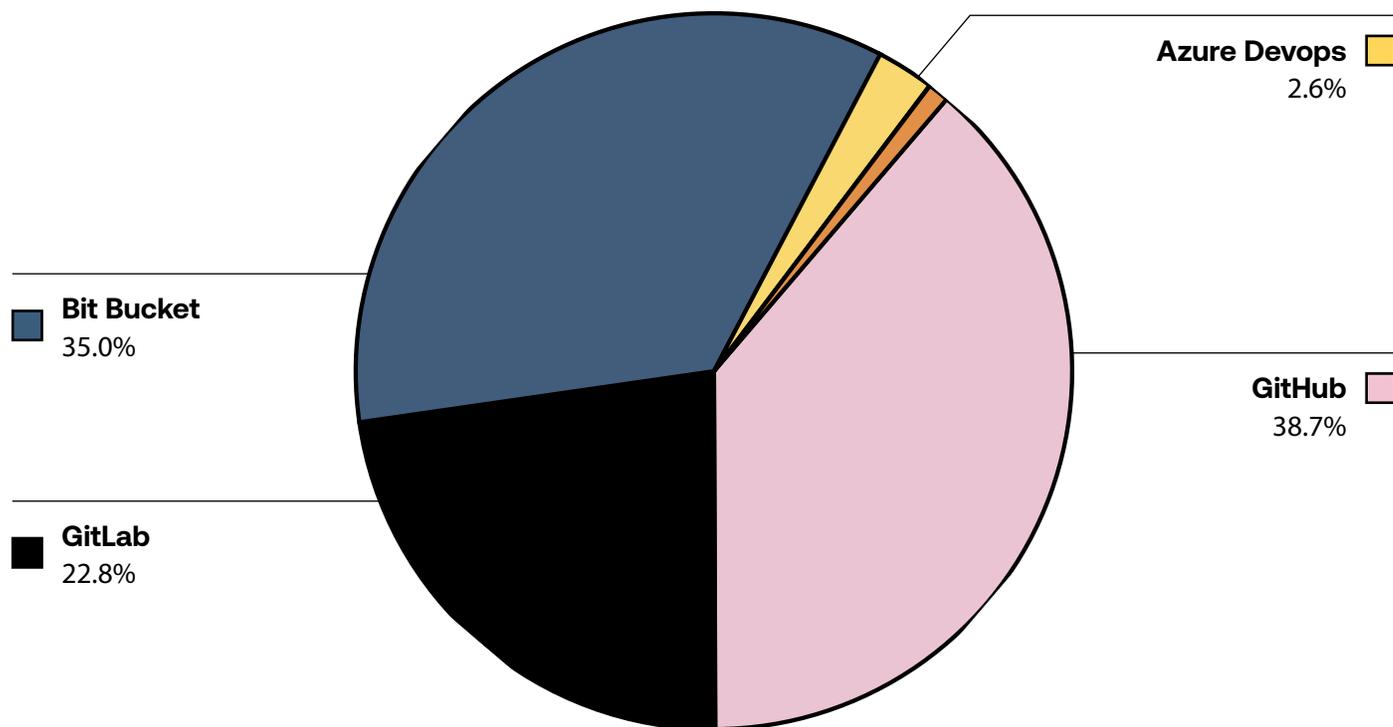
### Predictions:

- ShopWare has seen significant recent investment. We will see massive growth here.
- Early indications are that Shopify’s growth is slowing and BigCommerce is accelerating.

# Version Control and Delivery Pipeline

Adobe Commerce requires some special tooling to move code to production. With the merge of version control and CI/CD, you will see significant improvements in the stability of your delivery.

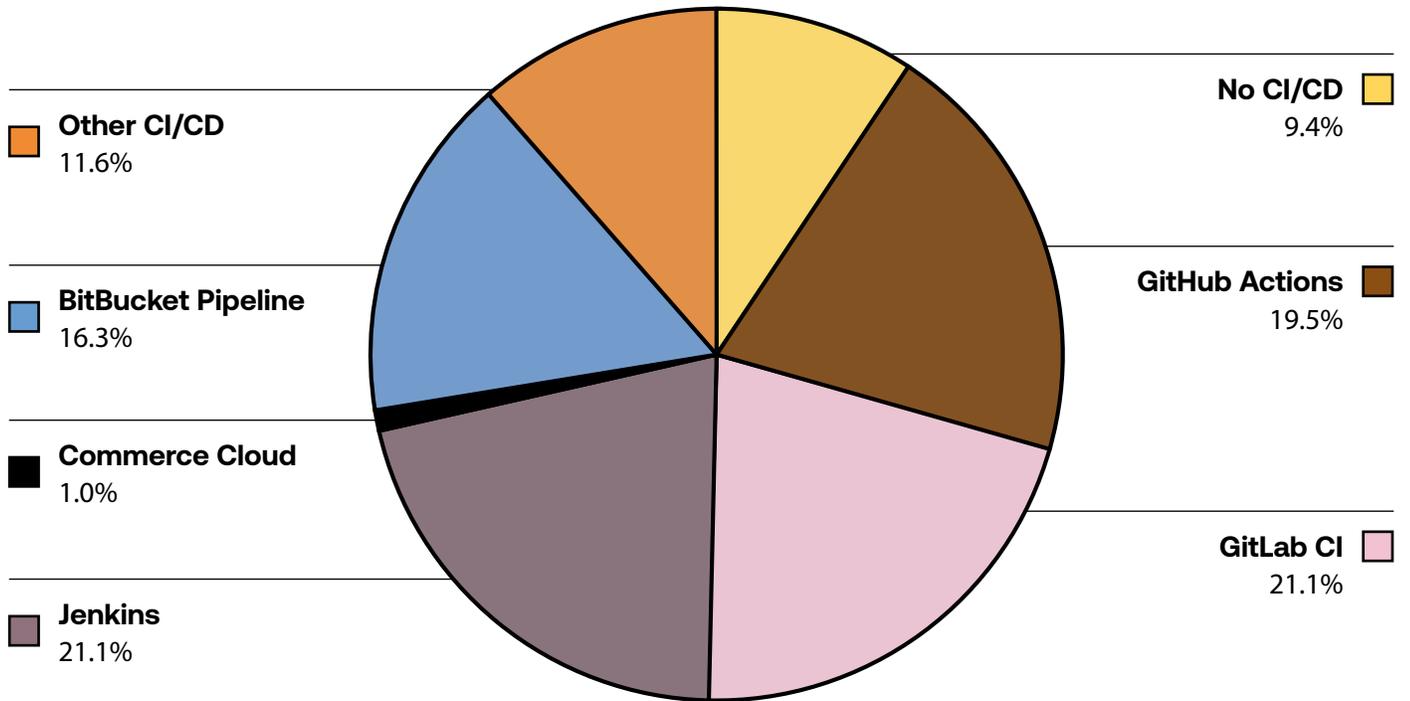
GitHub is the winner—though not by much. BitBucket is a runner-up. They are both excellent tools (although we are biased toward GitHub as we like the user interface much better).



Continuous Integration and Delivery is a fascinating piece of the puzzle. There is massive adoption.

First, what is it? CI/CD is the system whereby code is taken from version control and delivered to the

applicable environments, like staging or production. There are many ways to tackle this with various checks that can/should be completed in this process.



Perhaps this question was poorly worded, but I find it hard to believe that Adobe Commerce Cloud’s infrastructure accounts for 1% of CI/CD reported. Some level of this may be wrapped up in “No CI/CD”, but that would be surprising.

GitHub released their CI/CD toolset in August of 2019 (three years ago as of this writing). And, it’s number three on the charts at this point

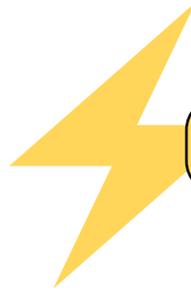
These numbers get even more interesting when we break them out by country:

- India has the highest adoption of Jenkins, with Gitlab in second place.
- Eastern Europe favors GitLab.
- North America uses GitHub, with BitBucket as the runner-up.
- Western Europe’s selection is GitLab, far and away.

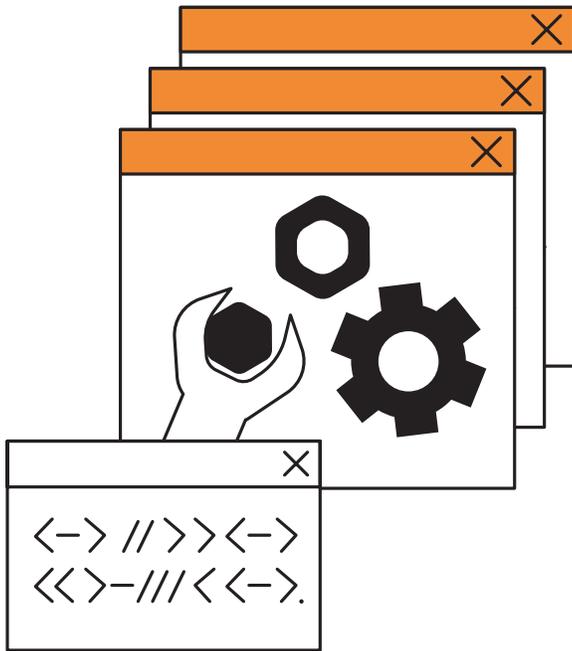
## Predictions:

- Jenkins adoption will fall as the costs of maintaining a CI/CD system and the tooling scripts will prove too much when compared with managed systems like GitHub.

# And... your IDE of choice?



PhpStorm is the end of the story.



## 78% of developers use PhpStorm.

**PhpStorm has hit its maximum** as this number has increased by 0.6% year-over-year.

**Have you heard of NetBeans?** That was the first IDE for me when I started years ago. Adoption has fallen from 1.01% to 0.24%. Netbeans was a fantastic tool at the time, but other tools have well surpassed it.

Sublime has fallen from 7.29% in 2021 to 4.81% in 2022. The difference can be almost directly accounted for in PhpStorm and Visual Studio Code.

### Take action:

- Your IDE is supposed to save you time—but that only happens when you learn the tool. Become proficient with PhpStorm's keyboard shortcuts and productivity tools.

### Predictions:

- Frankly, I'm nervous about PhpStorm's corner on the market. Whenever a monopoly happens, innovation stagnates. Maybe the toolset is so mature in this market that we don't need innovation? They keep releasing solid updates, and I have no reason to complain. The following is a sour prediction from my cynical side, but I predict challengers arriving on the scene in the next two to three years.

# Summary

This year is one of the best times to be an Adobe Commerce developer. At your disposal are powerful and mature tools. Understand these tools but prepare for the future.

We highly recommend diversifying your skill set. This homogenization will only help your capabilities.

Don't forget about your tools. It may be time for a new computer. It may be that you have used Xdebug but not to its full potential. Fix this. Become a master of keyboard shortcuts.

