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Zend

php certification

VERSION 2.0

The long-anticipated Zend PHP 5 Certification program was launched at the php|works conference, last month. In this article, we'll cover the history of Zend PHP Certification, and the ways the new exam has evolved since its previous incarnation.

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by DHWANI VAHIA

First, let's talk about this article. *php|architect* asks, in its article submission guidelines, that a writer compose an article with a "conversational" tone to fit the more relaxed attitude of *php|architect's* readers. I've taken that advice to heart. This definitely isn't an article for the Wall Street Journal, but that was the point. The idea is to be informative and light-hearted. By the time you've finished reading this, hopefully you will have gotten the information you need, and hopefully you will understand why we did what we did and why the new exam is as it is. This exam is for the PHP community; and this article is for the sub-community of Zend Certified Engineers, present and future.

The Questions

"PHP 5 has been around for 2 years, so why is the exam still covering only PHP 4?"

"Everyone's still using PHP 4. So why is there now an exam for PHP 5?"

"I'm certified in PHP 4. So now I have to be certified in PHP 5 too?"

For the past two years, questions about a PHP 5 certification have consistently arisen in one form or another. When I started working with Zend in September 2004, the Zend Certification exam covering PHP 4 was only a few months old, but the newly released PHP 5 was what all of the buzz was about. A new scripting engine, a new object-oriented model, improved functionality, more power, better performance...so if PHP 5 was so great, why did it take two years to create an exam dedicated to it? Why did we decide to launch the exam now? If qualifications in the high-tech industry are on the decline, why bother creating one? The questions kept pouring in, and I scrambled to get answers.

Two years later, I think I finally have the answers to just about any question posed to me about the exam. On the slim chance that I don't have an answer, no fear, I'll make one up. Well, maybe not exactly - after research, analysis, and careful deliberation, I'll come back with some sort of reasonable (or at least semi-reasonable) solution, or at least theoretically. All jokes aside, creating this exam has been one of the most challenging things I've ever done. From the process of learning all about the exam creation process from my predecessor, the exam's original designer, Daniel Kushner; to getting twelve Subject Matter Experts located on three different continents to come up with definitions and write exam questions; to getting the exam analyzed by psychometricians (yes, that is spelled correctly), I think I have learned more about the creation of an exam than I had ever imagined there would be to learn in the first place. So hopefully I'm qualified to answer your questions, or at least come up with some (semi-) reasonable solutions.

Every day I receive dozens of emails, phone calls, and MSN/AIM/Skype chats from current and would-be Zend Certified Engineers (ZCEs) with questions, comments and concerns about the certification exam. In an effort to address commonly held beliefs, opinions and inquiries, consider this article as homage to the ZCE community, and those in the process of becoming part of the ZCE community. It is full of frequently asked questions, and in the style of *php|architect's* articles, full of in-depth answers (very in-depth...this is a 4000 word article!). So you will soon know almost as much about this exam as I do, whether you want to or not.

The Beginning

Before I begin my question-answering tirade, it is important to understand what the exam is all about, and how it came to be, in the first place. To understand the new certification exam, it is important to first understand the previous one. The original Zend PHP Certification Exam was launched on July 26, 2004, and was touted as

being "For the Community, By the Community," a mantra that continues to this day, and will continue indefinitely. As was stated in an article previously published in this magazine about the history of the exam, "*The Making of 1000 Zend Certified Engineers*" (March 2006), the PHP community is one of the strongest and most active in the open source world. The idea was that, since PHP has evolved over the years as the result of the work and efforts of a vibrant community, that community should not be neglected when it came to creating an exam designed explicitly for it. It was on that note that the certification's mantra was coined, and why a group of twelve acknowledged PHP experts were brought on board to help create the exam. Having a group of people from various countries and backgrounds write the exam was not only a good way to acknowledge the collaborative nature of PHP itself, but was also a way to get the input of foremost experts, regarding what a person proficient in PHP should know, and the skills he or she should possess.

Just a few short months after the initial certification concept was dreamed up, the exam was launched at one of the biggest open source-specific conferences, around—the O'Reilly Open Source Convention, commonly referred to as OSCON. This was the perfect venue to introduce the new exam, as OSCON is renowned for bringing out the best in the open source world. Armed with mobile test centers, PHP professionals were tracked down and encouraged to take the exam (yes, "encouraged"—any accusations of coercion have been greatly exaggerated). One of the main reasons for launching the exam at this particular conference was to call attention to it in the Mecca of the open source world. Hundreds of developers were made aware of the new offering, and a brave few decided to venture out and see what it was all about. The consensus was pretty clear; it was about time that a recognizable qualification was created specifically for PHP professionals, and it couldn't have come soon enough. Soon after the launch, the blogosphere started buzzing. With the support of not only the PHP experts that created the exam, but also the PHP visionaries that first attempted to pass it at the conference, word began to spread.

As this happened, the value of the certification began to build. Getting initial support for the exam was one of the hardest things to accomplish. For something like a certification, perceived value means everything, and value can only be attained after gaining support. The only reason to have a qualification in the first place is because there is some sort of worth placed in it, both by the would-be certified professional, and by his peers and higher ups. As a rather grandiose comparison, it's like

currency that has departed the backing of gold or another precious commodity. Without something with intrinsic value supporting it, the currency's worth is basically concocted by people who believe in its power. That same sort of logic applies to certification. Like paper money, the certificate itself has value only when someone sees value in it. When the exam gained the support of some of the biggest names in the industry, it became something worth looking into.

a company has just about doubled in size since the first exam was launched, it would have been relatively easy to have our in-house talent write an exam (actually, that would have been a lot easier!)—but why take the easy route, when we knew that the more arduous way would reap better results? It really wasn't ever an option to create the exam in-house, and the mere idea of that was never even raised.

Once again, we embarked on the mission of finding

Getting initial support for the exam was one of the hardest things to accomplish.

Two Years Later

This brings us to January 2006—a year and a half after the launch of the Zend PHP Certification exam, when Zend celebrated its 1000th Zend Certified Engineer. For the company, this was a huge milestone, as it clearly showed that the time, energy and money spent on creating, promoting, and establishing value for the exam was worth it. The program began to be compared to Red Hat's RHCE program, which happened to have a similar adoption rate to the ZCE program. For the community, the increasing acceptance and adoption of the exam meant that there was definitely value in becoming certified. After all, to the thousandth ZCE, 999 fellow PHP developers believed in the power of the certificate as well. The Zend PHP Certification exam was well on its way to becoming the industry standard qualification for the PHP community, and by now was backed by a reputable institution, a group of industry leaders and—most importantly—hundreds of PHP developers. With this backing and support, the stage was set for the ZCE designation to stand out on résumés and CVs.

I believe that what really helped the Zend PHP Certification take off was the exam's fundamentally community-oriented philosophy. The whole idea was that this exam was not to be just another Zend product, but a community product that Zend just happened to oversee. The success of the certification would, therefore, be a success for the PHP community at large.

Relatively soon after its release, the Certification became *the* qualification a PHP developer would strive to attain. So, as not to mess with success, the same community-oriented philosophy has guided the creation of the Zend PHP 5 Certification Exam. Given that Zend as

a group of 12 PHP experts, as too small a group would diminish the “community” effect, and too large a group would result in utter chaos. This time, the Education Advisory Board—as we call the team of test writers—was comprised of previous Advisory Board members and a few new people. The idea was to get a mix of people who already were well versed on the entire test creation procedure, but also to get some new input. So it was that Christian Wenz, Ilia Alshanetsky, Tobias Schlitt, Matthew Weir O'Phinney and Mike Naberezny joined Chris Shiflett, Marco Tabini, Marcus Boerger, Martin Jansen, Andi Gutmans and Zeev Suraski on the Education Advisory Board for PHP 5 certification.

Tobias, in particular, was asked to join the group, not simply because he happens to be highly visible in the wider PHP community, but because he was known to have strong opinions about the exam. Specifically, he had written some strongly worded messages to me, expressing concern that as Certification grew in popularity, and more and more PHP developers became certified, the uniqueness and bragging rights of the relatively few current ZCEs would diminish. It was obvious from this statement that he felt strongly about the value of the qualification, and about the effect of its success on those who would seek it; and so he was invited to help write the new exam, and to make sure that the focus on the community's needs and requirements would remain throughout. For inquiring minds—in response to Tobias's inquiry about how certification's growth would “water down” the pool of ZCEs—our answer was that, as the reputation of the qualification grows and is more widely accepted, that obscure ZCE designation on someone's resume/CV would hold more meaning. As more and more

people become certified, more and more employers will understand what it means, and eventually, the Zend PHP Certificate will become a requirement to fill certain positions—as has been the case with other programming qualifications, such as Java Certified Developer or MSCD.

Now that you know a little bit about the exam, what it is intended to accomplish, and how it came about in the first place, we can get to the questions people tend to ask.

Why should I become certified?

The single question I receive the most often, by far, is the basic one of the benefits one can receive from being certified, and how certification might help someone's career. Along similar lines, one of the other questions I am asked, often, is what use is an IT qualification? It seems that, over the years, the value of certification in general has dropped; qualifications, of any kind, are no longer an indicator that an employee prospect is going to know how to jump in and develop complex applications. At the end of the day, an exam is not a complete replacement for experience. After all, it is highly unlikely that a recent college graduate would be able to jump straight into a senior management position. It is only after years of experience in the company that she would be able to understand the complexities of the position. The same applies to certification: it doesn't make up for lack of experience, and should not be touted as such, but—combined with a solid resume and solid experience—it should help an employment prospect stand out in a sea of his peers. Additionally, it demonstrates the dedication, commitment and focus

perhaps power their blogs, or implement readily-available open source tools. Simply knowing how to tweak a few lines of code doesn't make one a PHP expert. That being the case, when someone writes that he knows PHP on his resume, how can a prospective employer have any indication of the level of his actual skills? That's where certification comes in. Anyone passing the Zend PHP Certification exam definitely should know enough PHP to write an application or build a project from scratch. When an employer sees the ZCE designation, he can be reasonably assured of the candidate's PHP skills and can focus on other aspects of the interview.

What will Zend PHP Certification do for my career?

Simply, a qualification offers recognition of your ability in a specific field. It provides a way for employers to separate your abilities and talent quickly from a pool of otherwise similar resumes. For those of you who own your own development or application company, it provides a way for customers to help verify that you have experience, and a way for you to set yourself apart from your competitors.

One of the things that Zend does, is put the ZCE's profiles in the Zend Yellow Pages of PHP professionals. Every Zend Certified Engineer can jot down information about their company, show their geographic location, and upload their photo. Moreover, there's a contact button next to each ZCE listing that enables potential recruiters or customers to contact a ZCE in their area. In fact, this has been one of the most popular aspects of certification, and has led to a few job offers. In case you

Anyone passing the Zend PHP Certification exam should know enough PHP to build a project from scratch.

of the person that attained the certification, in just the same way that a college degree can demonstrate that a would-be employee has the dedication and commitment required to study, pass classes, and focus on attaining a specific goal.

Those two buzzwords, "dedication" and "commitment," are particularly important when it comes to PHP users. For the longest time, PHP was considered to be a language used by hobbyists to quickly put together Web pages and

are a manager who has gotten your team of developers certified and you're afraid of them being recruited away, don't worry—just contact Zend, and we'll make sure your precious resources aren't squandered on answering emails and turning away recruiters.

Why is the PHP 5 exam coming out now?

Another question that I'm often asked is why Zend has waited so long to release the PHP 5 certification exam.

The reason is quite simple: PHP 4 is still the most widely used distribution of PHP. That's just a simple, undisputed fact. PHP 5 is slowly gaining momentum, particularly in the enterprise, where the improved object oriented model is very appealing to developers. Additionally, Zend as a company is pushing PHP 5 adoption in its own

To show how important the ZCE community is to the exam's mere existence, I'll bring up an example. I had asked the community to submit an online form providing input about what they thought about the previous (PHP 4) version of the exam. Particularly, the Education Advisory Board and I were looking for feedback on the

PHP 5's improved functionality and richer feature set warranted its own exam, and so an entirely new exam was created.

products, such as the Zend Framework and Zend Core. Still, two years after its initial release, PHP 5 still hasn't fully taken off, as indicated by the predominance of PHP 4 usage. The reasons for this are beyond the scope of this article.

That said, PHP 5 has finally been gaining momentum since the release of PHP 5.1, and we at Zend figured it was time to release a new exam specifically for PHP 5. It has been two years since the release of the original exam, and that time differential is perfect based on industry standards for exam release. So, with PHP 6 just around the corner, does that mean that the exam for that version will be out, two years from now? Well, I can't really say—that will depend on the adoption rates for PHP 5 and PHP 6. It's possible that both versions will exist simultaneously for quite a while.

What will happen to the current exam?

This brings us to another commonly asked question—what exactly will happen to the PHP 4 exam? When will it be discontinued, and why discontinue it, if PHP 4 still is the most commonly used PHP distribution?

The PHP 4 version of the exam will be available at least through the end of this year. Its life span may even be extended, depending on the feedback we receive from the ZCE community. The community of Zend Certified Engineers is truly remarkable. They are constantly pushing and asking for improvements, complimenting things that are well done, and generally just incredibly proud of their status (as indeed they should be). Therefore, when they say that for their career development/enhancement they need the original Certification's life to be extended, we'll do what we can to oblige.

types of questions that were present in the last exam; what should be kept, and what should be modified for the PHP 5 version. So, when we received feedback that the first exam asked too many questions that no one would really know the answers to without having the PHP manual handy, we decided to work on that. We paid special attention to the way the questions were asked, and to the subtle differences between memorizing function syntax and actually knowing how to actually apply the particular function. There were other things our respondents said were done very well—such as having a wide array of topics covered. Although some topic areas might not be used in day-to-day coding, the fact that they were covered in the exam provided a way to review rusty skills (often decided with the help of the Certification Study Guide and Practice Test book) beforehand, or brush up on them after the exam was taken. As someone said, taking the Zend PHP Certificate and perhaps even more importantly, preparing for it, helped make him a better programmer.

How do I prepare for the new exam?

One of the biggest gripes that I've heard over the last two years, and one that the original exam creators soon began to hear thanks to the online feedback form, was that the study materials didn't adequately prepare candidates for the exam. In order to address that issue, this time, in conjunction with *php|architect*, we've decided to release an online mock exam. This will provide the examinee the opportunity to get feedback on his/her strengths and weaknesses, thus allowing him or her to better prepare for the actual exam. In addition to the online test, there will also be a newly minted Study Guide. A PHP 5 Certification Training Course will soon follow.

I've already been certified once, so why do I have to be certified again?

Certification is intended for the career enhancement of those that attain it, and it is entirely up to you whether you want to keep your certification up to date. If your company is running PHP 4, and there is no migration plan for PHP 5 in sight, then you might be happy with just having PHP 4 certification. However, if your company is planning on moving to PHP 5, or you know that you will be using it in the near future, it may be beneficial for you to take the exam, now.

In general, as with other industrial qualifications, it is recommended that you stay up to date with certification releases—but the decision of whether to do so or not is completely in your hands. Zend PHP Certification never expires, but if you are going to use a particular PHP version in your place of work, it is best for you to be certified in that version (granted that the exam is actually available of course).

What does the new exam cover?

I'm finally getting to the question that everyone's probably been waiting for. What exactly, you may ask, is in this new exam, and how is it different from the last one?

First and foremost, you should know that the exam has been entirely re-written. This is not just an "update" version with a few additional topics thrown in to cover the nuances of PHP 5. Yes, it is true that some other IT certifications offer update exams, but that just wasn't a viable option here. PHP 5's improved functionality and richer feature set warranted its own exam, and so an entirely new exam was created.

Some of the topics covered in the original exam carry through to this version, but the questions covered in the old exam have not carried through. So, if you've memorized the syntax of some obscure function that appeared in the last exam, don't count on it appearing in the new one.

The new topics are:

- **PHP Basics** (including Syntax, Operators, Variables, Constants, Control Structures)
- **Functions** (including Syntax, References, Returns, Variable Scope)
- **Object Oriented Programming** (including Instantiation, Modifiers, Exceptions)
- **Design and Theory** (including Design Patterns, Code Reuse and OOP Theory)
- **Security** (including Configuration, Cross-Site Scripting, SQL injection)

- **Databases and SQL** (including Joins, Analyzing Queries, Prepared Statements)
- **XML and Web Services** (including XML basics, SimpleXML, XPath, SOAP, REST)
- **Arrays** (including Enumerative Arrays, Array Iteration, Array Functions, SPL)
- **Strings and Patterns** (including Quoting, Matching, Extracting, Searching, PCRE)
- **Web Features** (including Sessions, Forms, Get & Post Data, Cookies, HTTP Headers)
- **PHP 4/5 Differences** (including Object Orientation, References vs. Object Handles)
- *Streams and Network Programming* (including Files, Reading, Writing, Streams)

For a complete list of topics, please visit: www.zend.com/certification.

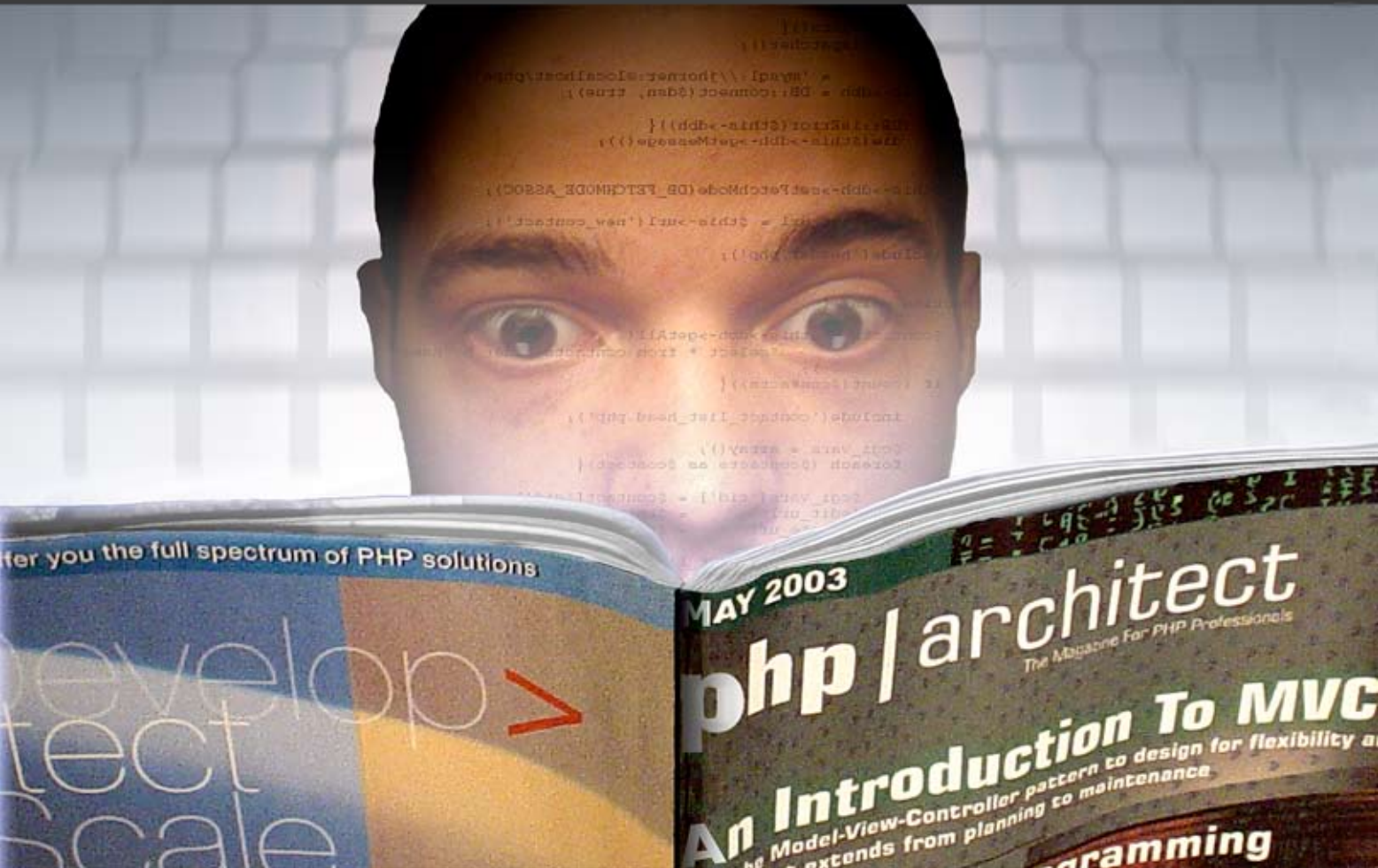
What's next?

In keeping with the emphasis on the community, Zend are in the process of implementing a new ZCE community site, in which we'll place ZCEs stories, a forum, contests, job opportunities, and more. The idea is to help nurture the sub-community beneath the larger PHP community umbrella. Think of it as a great place to get tips and information, and as somewhere you can network with other professionals dedicated to PHP. This community site will be implemented in the near future—but as to the future of the exam itself, there are some questions that I just cannot answer, even with the help of a deck of tarot cards.

I cannot say whether the exam for PHP 6 will come out in 2 years; I cannot say whether the next available Zend PHP Certification will be for "Advanced" developers; and I definitely cannot say when we're going to reach our next huge milestone of 10,000 Zend Certified Engineers—at which point we will know that the certification program has truly gained acceptance in the enterprise. What I *can* say is that, no matter what comes next, Zend PHP Certification in all of its incarnations will always be there primarily for the amazing community it serves. ■

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