

# Enterprise PHP on IBM i (for everyone)

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# About me

**Alan Seiden: [aseiden@sbsusa.com](mailto:aseiden@sbsusa.com)**  
**PHP and Zend Framework Consultant**  
**Strategic Business Systems, Inc.**



**Sole non-IBM contributor to Redbook: *Zend Core for i5/OS***  
**Writer about PHP for IBM i community**  
**Mentor for teams learning Zend Framework**

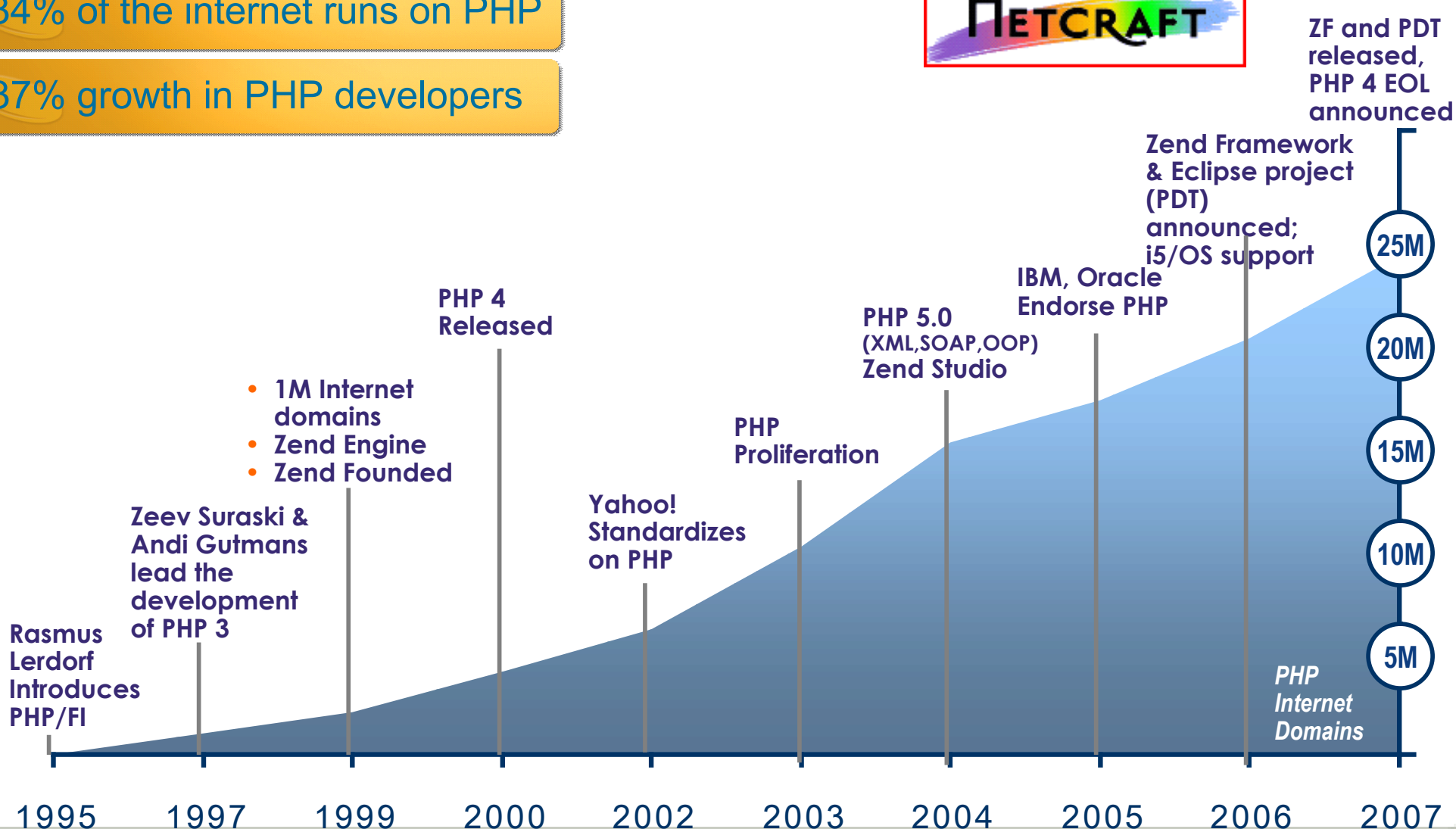
# About Strategic Business Systems

- **IBM partner, based in northern New Jersey (near NYC), since 1982**
- **IBM i (AS/400) software development and consulting**
  - Concentration in food & beverage and automotive industries
  - We developed with thick client Windows (VB) in the '90s
  - Web (LANSA, Net.Data) around '98-'04 replaced thick clients
- **PHP for web since 2005**
- **Partnered with Zend, “the PHP company,” in 2008**

# PHP's growth as a web development language

34% of the internet runs on PHP

37% growth in PHP developers



# Reasons for PHP's success

- **Open source**
  - Managed by Zend, “the PHP company”
- **Cross-platform**
- **Easy way to get data to Web**
  - Powerful web services functionality too
- **Offers gradual path of mastery**
  - grass roots
  - pilot project
  - enterprise

# Who uses PHP?

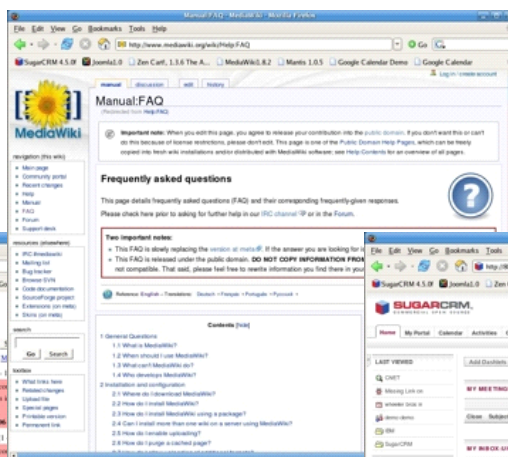
- **Yahoo, eBay, Wikipedia, Mazda, Disney, Facebook**
  - I bet it's used somewhere in your company
- **Open source developers – 10,000+ projects**
- **Strong community worldwide**
- **7 million+ developers**

# Packaged business applications available in PHP (they run fine on i5/OS!)

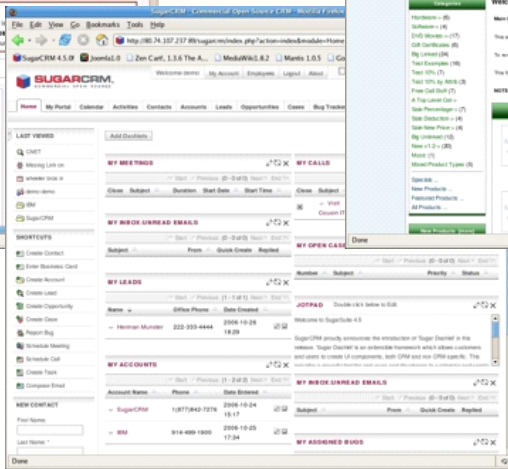
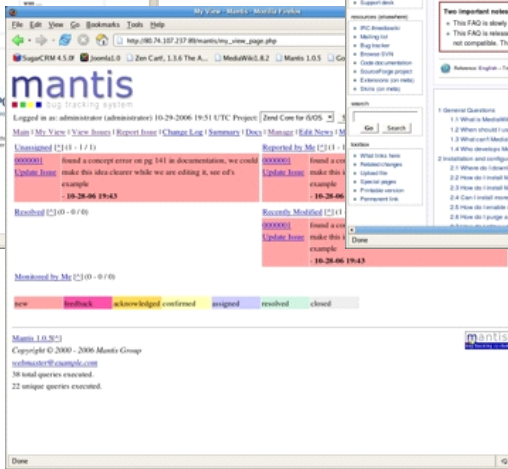
## Content Management



## Wiki



## E-Commerce



## Bug Tracking

## CRM

# PHP on i—a short history

- **i5php.net**
  - Unofficial PHP binary, for the daring
  - Based on open source PHP
- **Zend Core for i5/OS**
  - 2006: official support with IBM's blessing
  - i5 Toolkit and SMTP support
  - Apache module (good performance)
  - Professionally supported
- **Productivity tools: Zend Studio and Platform**
- **Zend Framework**
  - 2008: Support for i

# Why PHP on i

- **Powerful, flexible, popular**
- **Runs completely on your good old “i”**
- **Has backing & support of IBM**
- **Allows your teams to work together**
  - Re-use RPG logic, called from PHP
  - Consolidate departmental solutions (Excel spreadsheets!) into your reliable db2 database

# Typical stages of PHP on i

- **Grass roots**
  - Prove to yourself how well PHP works on i
- **Pilot project(s)**
  - Obtain some buy-in from management
- **Enterprise PHP**
  - Important project developed with experience

# Grass roots stage

# Grass roots stage

- **Go ahead, kick the tires!**
  - Download and install Zend Core (free)
  - Create a simple web page reading/writing to db2
  - Try open source software (such as Mantis/400)
  - Prove it to yourself before “selling” to manager
- **Example: IBM’ers used PHP for internal projects for rapid “prototyping” but ended up keeping the result!**
- **Fancy tools are optional at this point**
  - Even Notepad will do, but Zend Studio is free on IBM i

# Grass roots resources

- **Zend Core:**  
<http://zend.com/en/products/core/downloads>
- **One year of free “silver” support from Zend**
  
- **PHP Manual:** <http://php.net>
- ***Zend Core for i5/OS* Redbook**
- **Dev Zone:** <http://devzone.zend.com>
- **Forums (look for i5 forums):**  
<http://forums.zend.com>

# Pilot project

# Pilot project: how to pick one

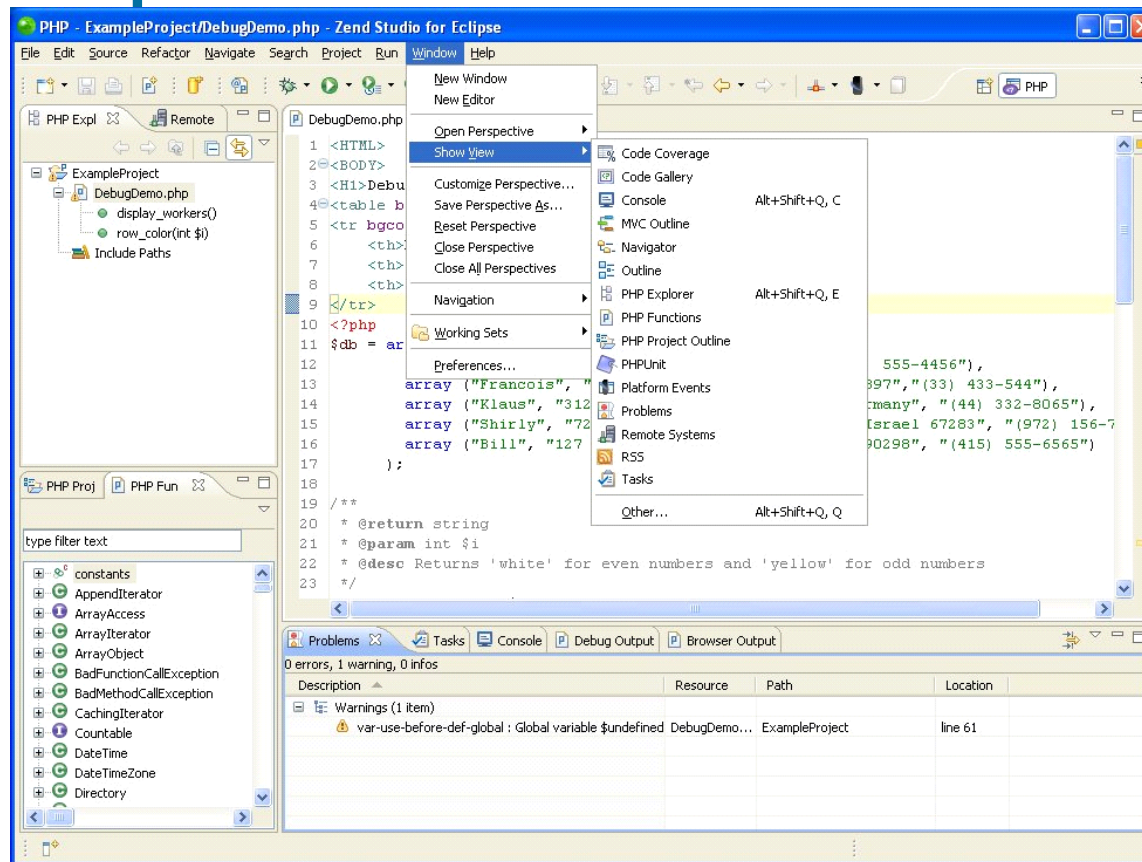
- **Well defined, useful, with modest scope**
- **Accesses IBM i resources**
  - db2
  - RPG calls (optional)
- **Could be a new application or extension of an existing one to the web**

# Pilot project: goals and resources

- **Small scale lets you do it right**
  - Set standards for future
  - Safe space to get experience
- **You need these free tools**
  - Zend Core
  - Zend Studio
- **And one or more of these:**
  - Training/Support
  - A PHP framework (e.g. Zend Framework, which is free)
  - Mentoring, coached development
    - Greatly accelerate progress, save staff time
    - Especially when starting with a framework
  - Zend Platform (try 60-day trial)

# Zend Studio for Eclipse (IDE)

- **Highlights errors, offers interactive debugging, and speeds creation of Zend Framework projects**



# Zend Framework

- **A starting point for your applications, providing**
  - Security features
  - Modular design
- **A collection of over 70 PHP components to simplify common tasks, including some for:**
  - Form creation (and reuse)
  - Logging
  - Database access
- **A demonstration of PHP 5 best practices**
- **It provides standards and great functionality but will not cramp your style. Your development is not limited in any way**

# Zend Platform

Provides caching (fast!), debugging and event tracking, integration with Zend Studio (IDE)

The screenshot displays the Zend Platform dashboard interface. At the top, there is a navigation bar with the following items: Platform, PHP Intelligence, Performance, ZDS, Job Queues, and Integration. Below this, a secondary navigation bar includes Dashboard, Status, Preferences, User Management, and Cluster Manager. The main content area is titled 'Dashboard' and features a section 'Events at a Glance'. This section contains a 'Load Filter' dropdown menu currently set to 'Recent Events', with other options like '--Select Filter--', 'Severe Common Events', and 'Common Events'. To the right of the filter is a 'Show All' button and a search field labeled 'Find Event by Id:' with a 'Find' button. Below these controls is a table with the following columns: Id, Event, Count, Last Occurrence, Location, URL, and Severity. The table lists five event entries.

Id	Event	Count	Last Occurrence	Location	URL	Severity
34	Slow Script Execution (Absolute)	329	07 Apr 2009 20:42:05	localhost	.../QuickOrder	Moderate
9	Slow Script Execution (Absolute)	234	07 Apr 2009 19:47:51	localhost	.../index.php	Moderate
32	Slow Script Execution (Absolute)	153	07 Apr 2009 18:41:58	localhost	.../chard+napa+750	Severe
33	PHP Error	16	07 Apr 2009 16:28:24	localhost	.../5531043	Moderate
47	PHP Error	304	07 Apr 2009 16:25:59	localhost	.../advancedsearch	Moderate

# Pilot project case study

- **FIDM: student course configuration system**
  - Training
    - “PHP for RPG programmers”
    - Zend Framework introduction
  - Mentoring in Zend Framework
    - Invited certified consultant (me)
    - They invited me after doing some development, which generated good questions
    - “What we did together in 3 days, we couldn’t have done alone in 3 months.”

# But what is Enterprise PHP?

# Enterprise PHP is:

- **Grown-up development**
- **Think of your mature RPG processes**
  - Consistent
  - Reliable
- **You know how to do that**

# Enterprise PHP in detail

- **Design/development cycle**
  - Standards
  - Security
  - Focus on easy maintainance
  - Reusable functionality (not just copy and paste)
  - Procedures that ensure quality
- **Deployment**
  - Need tools to help support app in live environment
  - Predictable, consistent performance

# Enterprise case study

## Allied Beverage Group: Wine catalog/ordering system



Welcome,  
Angel Wong #105

[Home](#) > [Search Product Catalog](#) > Search Results (5 products found), order for PORTLAND W & L (000262)

PRICING MONTH: **April 2009**

### Advanced Search

Search for item:  [?]  
 with bottle price  [?] to  [?] (optional)  (proof °)

**ADD LIQ. & WINE CORP. (000262)**

DBA PORTLAND W & L  
 22 PORTLAND AVE., BERGENFIELD NJ, 07621  
 Phone: 201-384-4294

Off Premise Terms: NET

Total List: \$1734.84

Total Disc: \$ 79.68

**Est Total Net: \$ 1655.16**

Cases: 7 Bottles: 0

Results for **Keywords: CHARD NAPA 375**

Product	Code	Size	Pack	Qty	Cs/Bt	Add Items	Price		Inventory		Vintage	Info	\$ Best Buy
							\$ Case	\$ Bottle	Case	Bottle			
<a href="#">Acacia Chardonnay A By Acacia</a>	5607061	375 MI	12	<input type="text" value="2"/>	<input type="button" value="cases"/>	<input type="button" value="Add"/>	63.96	5.85	6	0	NV		
<a href="#">Cakebread Cellars Chardonnay Napa Valley</a>	7433065	375 MI	12	<input type="text"/>	<input type="button" value="cases"/>	<input type="button" value="Add"/>	216.00	18.52	out of stock	out of stock	2007		
<a href="#">Grgich Hills Cellar Chardonnay</a>	5544265	375 MI	12	<input type="text"/>	<input type="button" value="cases"/>	<input type="button" value="Add"/>	215.88	18.51	8	11	2006		
<a href="#">Schramsberg Blanc</a>	4056064	375 MI	12	<input type="text"/>	<input type="button" value="cases"/>	<input type="button" value="Add"/>	168.00	14.52	19	3	2005		

# Enterprise case study ingredients

- **For Allied, PHP brings people and resources together on the “i”**
  - db2 database provides reliable, consistent product catalog and order data
  - No extra servers needed
  - Re-using RPG logic
  - Everyone on the same team
  - PHP is “superglue”: plans afoot to connect other systems, too
- **In the wine distribution industry, a solid reputation is important**
  - For their first high-profile project, asked Strategic (us) to develop the system
- **Consistency, standards, security, reusability**
  - Zend Framework
- **Speed critical for sales reps in the field**
  - (Being compared to green screen speed!)
  - Zend Platform
    - Also allows monitoring of production environment

**How do we get  
there?**

# Tools that help (3 of them are free)

Grass roots

Consistent & Predictable

Enterprise



- Consistent commercial versions of PHP, extensions, database drivers, libraries
- Timely updates of security patches, bug fixes, new extensions/drivers
- Configuration Management across entire production infrastructure



- Pre-built components for rapid development
- Best Practices
- Iterative development cycles
- Higher deployment success rates results from rigorous testing by Zend & PHP community



- Reusability
- Remote Debugging in Production
- Development best practices
- Repeatable, uniform testing
- Standards for deployment
- Root Cause Analysis
- Replicate Production problems in developer's environment



- Improved Scalability
- High performance via Caching
- Defining/measuring performance & scalability metrics
- Proactive Monitoring & Management

# Get help to smooth the learning curve

Grass roots

Consistent & Predictable

Enterprise

**Support**

## Gold Support

Business Hour Phone Access  
4 hr Priority Response

## Platinum Support

24/7 Phone Access  
4 hr Priority Response/2 hr on P1

**Training**

PHP I: Foundations  
PHP for RPG Prog  
PHP for Exp Prog  
Studio w/ Platform

PHP II: Higher Structures  
Building Apps w/ Framework  
Zend Certifications

Zend Platform for SysAdmins  
Building Secure Apps

**Consulting**

Architecture & Design  
SmartStart Rapid App Dev  
Coached Development

Remote Install & Admin  
PHP Performance Audits  
PHP Security Audits

App Migration

**Enjoy the ride...**

# Enjoy the ride...

## ...on the path to Enterprise PHP!

- **Start with grass roots: experiment**
- **Get training and move on to pilot project**
- **As your confidence grows, use Zend Framework and other tools. Consider mentoring to accelerate progress, avoid pitfalls**
- **Call us for guidance or to sign up for training, mentoring, or to purchase Zend's productivity tools**
  - 1-800-727-7260 Say you saw Alan's presentation at NEUGC

# Questions?

## See you at lunch!



**Blog and PHP/i articles: <http://alanseiden.com>  
1-800-727-7260 | [aseiden@sbsusa.com](mailto:aseiden@sbsusa.com)**