



The PHP Company

Toolkits for PHP Web Application Consolidation

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Agenda

- Open Source Toolkit
- Compatibility Wrapper
- Application Deployment
- Q&A

Zend Server 5.6 - General Updates

- GA Toolkit
- Application Deployment
- PHP version 5.3.8
- ZF version 1.11.10
- PTF Update as well as full package distribution

Zend Server 5.6 for IBM i

Key Features

- ▶ Shipping with IBM i 6.1 & 7.1
- ▶ New Open Source Toolkit *****GA*****
- ▶ Performance enhancements
- ▶ PHP 5.3.8
- ▶ Zend Framework 1.11.3



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Open Source Toolkit

Why a new toolkit

- Open Source is the plan
- Open Source languages using an Open Source toolkit
 - ▶ Makes sense to me...
- opportunity for community involvement
- Created enhancements beyond previous toolkit
- No effect on DB2 functions, only the i5 functions are impacted.

But I liked the old one, what are my options?

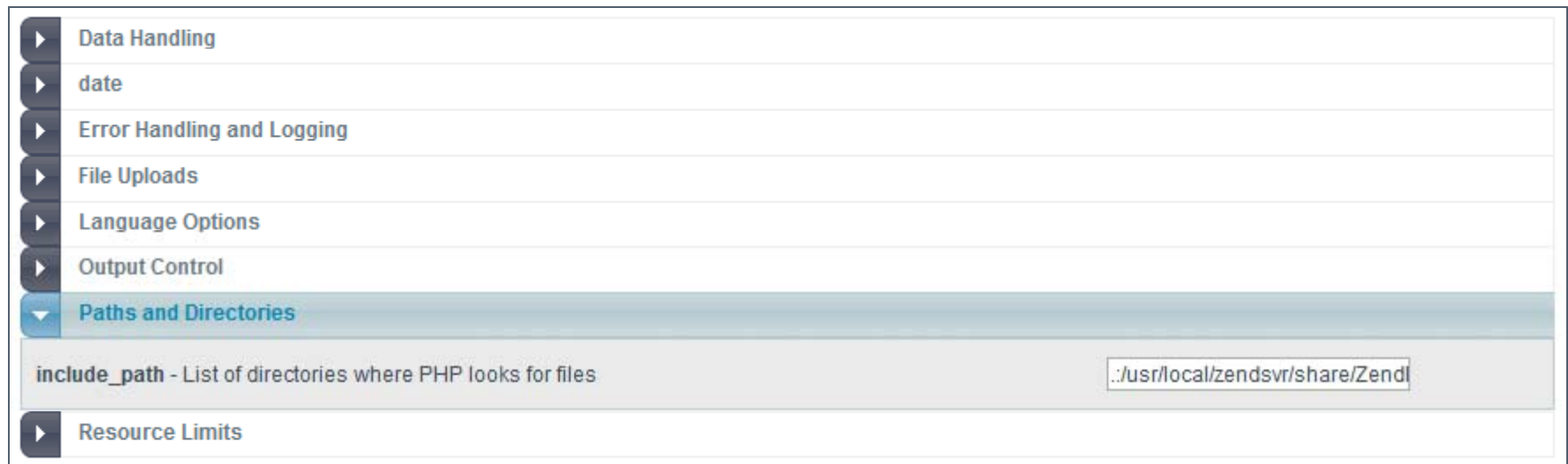
- Upgrade customers
 - ▶ Can continue to use Easycom or the new toolkit
 - ▶ PTF upgrade process will not remove Easycom
 - ▶ Support from Aura
- New download customers
 - ▶ New Open Source toolkit
 - ▶ Easycom no longer ships with Zend Server 5.6 and higher
 - ▶ Compatibility Wrapper...
 - intercepts i5 function calls
 - Passes to new toolkit, transparently

New toolkit FAQ

- Zend official position and response is in the forums
- Zend forums are a wonderful source of PHP info
- Forum PHP on IBM i → Zend Server for IBM i → New Toolkit
 - ▶ <http://forums.zend.com/viewtopic.php?f=113&t=41648>
- Contact Zend with questions.

Notes on installation (PTF update only)

- Best to update Include_Path in php.ini
 - ▶ PTF does not change it, first do no harm...
- Head to Server Setup → Directives → Paths & Directories
- Add: `:/usr/local/zendsvr/share/ToolkitAPI`

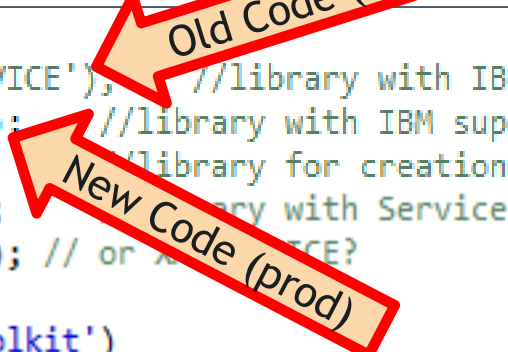


The screenshot shows a web-based configuration interface for PHP. On the left, there is a vertical menu with several categories: Data Handling, date, Error Handling and Logging, File Uploads, Language Options, Output Control, Paths and Directories (which is highlighted in blue), and Resource Limits. The main content area shows the 'include_path' directive, described as 'List of directories where PHP looks for files'. The value entered in the text box is `:/usr/local/zendsvr/share/Zend`.

Bug in demos...sort of...

- Current toolkit default to library XMLService (test lib)
- Utilities are loaded into ZENDSVR. (production lib)
- Need to tweak a file setting.
- File : *[/usr/local/zendsvr/share/ToolkitAPI/ToolkitServiceSet.php](#)*

```
4
5 //define('XMLSERVICELIB', 'XMLSERVICE'); //library with IBM support objects
6 define('XMLSERVICELIB', 'ZENDSVR'); //library with IBM support objects
7 define('DFTLIB', 'QGPL'); //library for creation of temprorary objects (was QGPL)
8 define('ZSTOOLKITLIB', 'ZENDSVR'); //library with Service program
9 define('ZSTOOLKITPGM', 'ZSXMLSRV'); // or XMLSERVICE?
10 define('DBPROTOCOL', 'ibm_db2');
11 define('XMLINTERNALKEY', '/tmp/Toolkit')
```



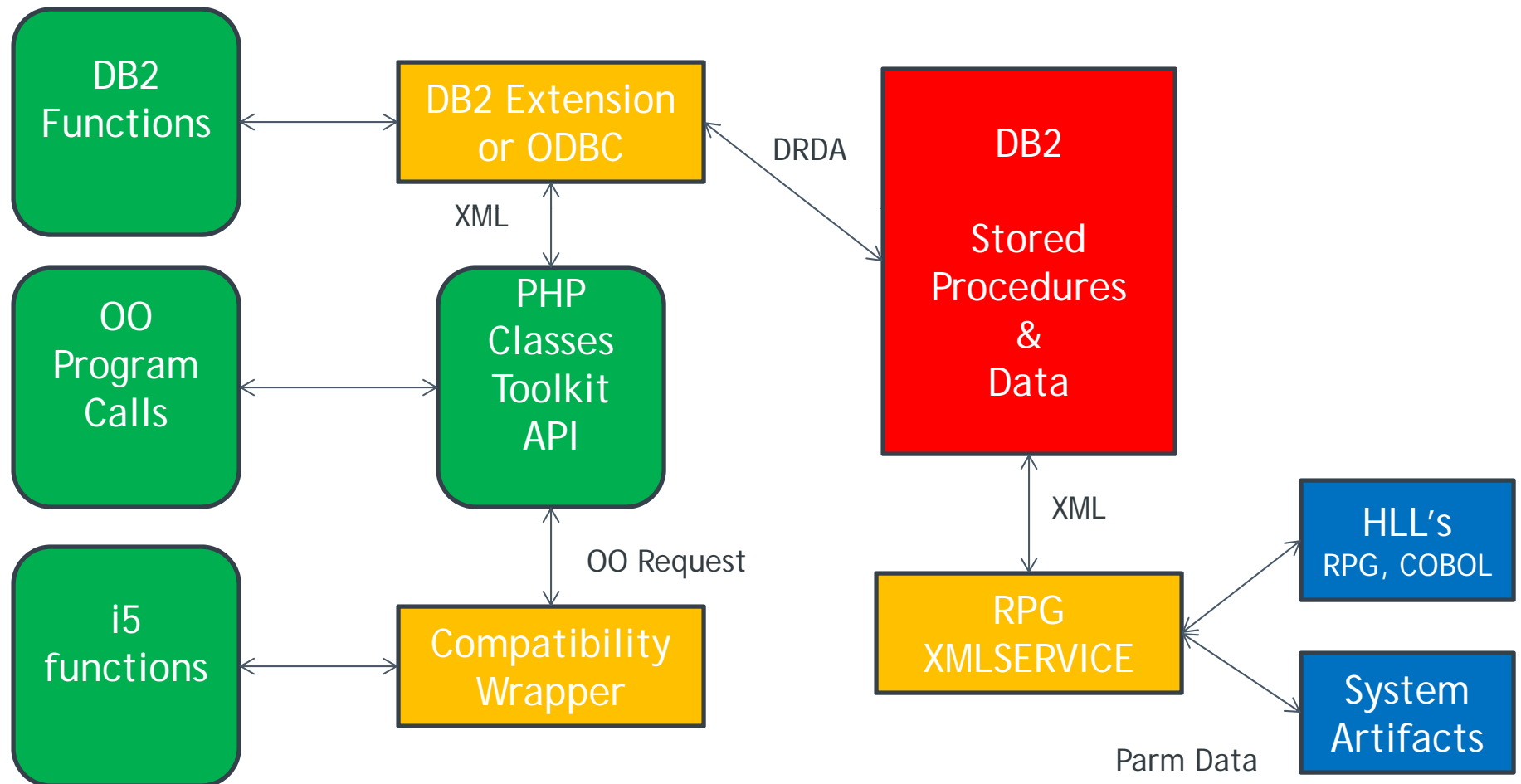
New toolkit is Object Oriented

- Series of classes that “wrap” the IBM project
- All PHP but Object Oriented...(wait, there’s more!)
- Zend built the PHP wrapper

- Sam Pinkhasov, Zend



Toolkit Plumbing from 10,000 feet



XML Service

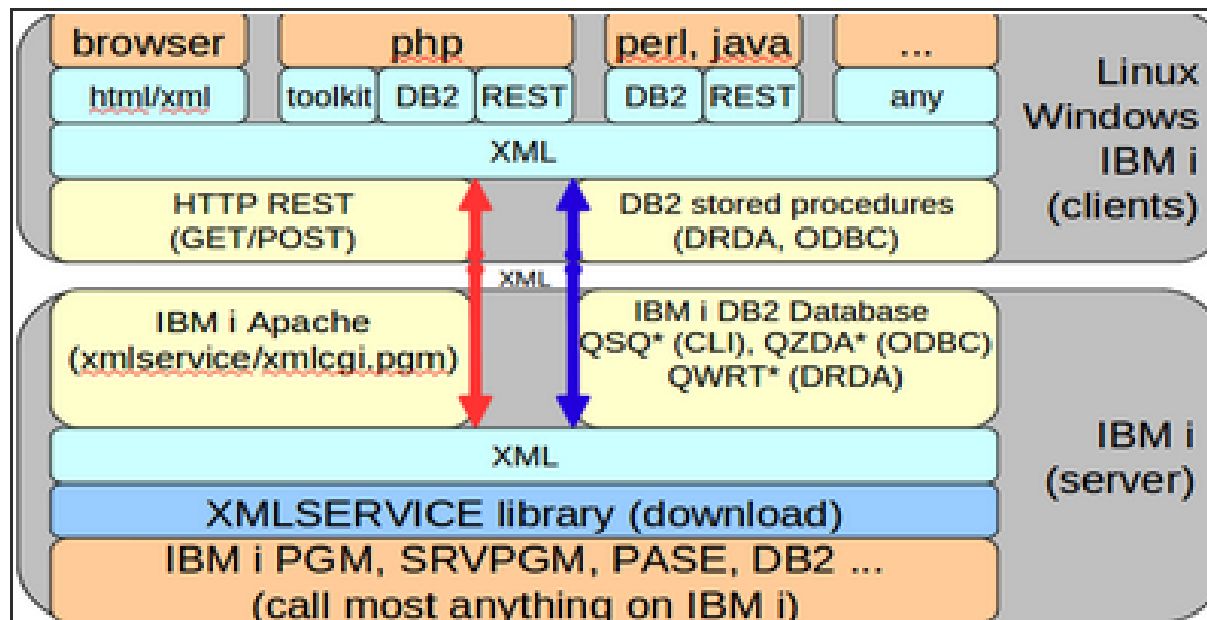
- IBM has open sourced XMLService.
- First Open Source project on IBM i. (that I know of...)
- Made up of RPG, CL and DB2 stored procedures (SQL)

- Tony Cairns, IBM Rochester



XML Service

- Cross platform
- Language agnostic
- Basic plumbing for all open source languages



Compatibility Wrapper

- Intercepts existing i5 function requests
- Passes them on to OO PHP which then...
- Passes on to XML Service



- Alan Seiden, SBS & alanseiden.com



PHP Classes

- Class where all wrapper functions start
 - ▶ Yes, this is OO but not too bad...
 - ▶ Look at it and poke around, It's OK!
 - ▶ This is why we need the path set correctly

```
include_once 'ToolkitService.php';
```

Housekeeping...

- Need to set the extension and instantiate the object
 - ▶ Singleton pattern
 - ▶ Try & Catch
 - ▶ Can put this in your own include

```
21 $extension='ibm_db2';
22 try {
23     $ToolkitServiceObj = ToolkitService::getInstance($db, $user, $pass, $extension);
24 }
25
26 catch (Exception $e)
27 {
28     echo $e->getMessage(), "\n";
29     exit();
30 }
31
32
33 $ToolkitServiceObj->setToolkitServiceParams(array('InternalKey'=>"/tmp/$user"));
34 $code = $_POST ['code'];
35 $desc = '';
```

Now the program call

- Set parameters based on function
 - ▶ Call program
 - ▶ Output results

```
37 $param[] = $ToolkitServiceObj->AddParameterChar('both', 10, 'CODE', 'CODE', $code);
38 $param[] = $ToolkitServiceObj->AddParameterChar('both', 10, 'DESC', 'DESC', $desc);
39
40 $result = $ToolkitServiceObj->PgmCall("COMMONPGM", "ZENDSVR", $param, null, null);
41
42 if($result){
43     showTable( $result['io_param']);
44 }
45 else
46     echo "Execution failed.";
```

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Demo ToolkitService.php

Why the compatibility wrapper?

- In the past 6 years many folks have invested in i5 functions
- New toolkit is OOP but i5 functions support procedural code
- Smooth the transition from Easycom to Open Source toolkit
- Currently in beta

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Open Source Integration Demo

Look at an Open Source application...

- Concrete 5
 - ▶ Open Source CMS
 - ▶ Written in Zend Framework
 - ▶ Runs natively on IBM i
 - ▶ MySQL backend
- Demo will integrate a simple file listing and maybe more!

Wrap it up...

- Advantages?
 - ▶ Toolkits blend the best of both worlds
 - ▶ Continuing evolution allows IBM i to remain relevant
 - ▶ Lots of ways to deliver content to users using free/open source
 - ▶ IBM is not waiting, tools are here TODAY!

Q&A

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