

# *Komponenten für PHP*

## PHP-Applikationen



mit PEAR

# Über mich

- ◆ Stefan Neufeind, aus Neuss
- ◆ Zertifizierter PHP-Entwickler
- ◆ PEAR-Maintainer seit 2 Jahren
- ◆ Tätig für SpeedPartner GmbH
  - ◆ Webhosting, Serverhousing, Rackspace
  - ◆ Business-DSL, Einwahl/Roaming
  - ◆ Domains
  - ◆ Consulting
  - ◆ Entwicklung (auch PHP mit PEAR)

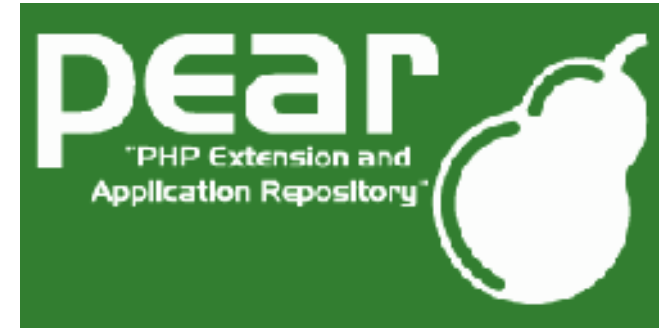


# Agenda

- ◆ Was ist PEAR?
- ◆ PEAR-Pakete
- ◆ PEAR installieren / Der PEAR-Installer
- ◆ Neu in PEAR 1.4.x
- ◆ PEAR-Beispiel
- ◆ PEAR-Website
- ◆ Hilfe zu PEAR
- ◆ Links

# Was ist PEAR?

## PHP Extension and Application Repository



- ◆ DAS Repository für PHP
- ◆ Gegründet 1999 von Stig S. Bakken
- ◆ Sammlung von hochqualitativen PHP-Komponenten
- ◆ 485 Paketen (stark steigend) in 41 Kategorien
- ◆ 252 Paket-Betreuer, 877 Entwickler
- ◆ 100% Open Source (Lizenzen: PHP, Apache, BSD, LGPL)
- ◆ Tools für Kommunikation und Zusammenarbeit

# Was ist PEAR?

Besteht aus:

- ◆ Website (Präsentation, Backend für Installer, ...)
- ◆ Installer (Kommandozeile, Web, GUI)
- ◆ Paketen
- ◆ Dokumentation
- ◆ Support
- ◆ Qualitätssicherung (PEAR-QA)

# PEAR-Pakete

- ♦ Keine Applikationen (fast keine :-) )  
sondern Komponenten für einzelne Aufgaben
  - ♦ Datenbankabstraktion
  - ♦ Webservices
  - ♦ Internationalisierung
  - ♦ Netzwerk / Internet
  - ♦ Grafikerzeugung / -bearbeitung
  - ♦ Prüfroutinen (Emailadressen, IBAN, Kreditkarten, ...)

# PEAR-Pakete

- ◆ Komponenten universell einsetzbar
- ◆ Kooperation statt konkurrierende Pakete
- ◆ „Sauberes“ Design
- ◆ Klare Regeln zur Qualitätssicherung und Wartbarkeit
- ◆ Verwendung in zahlreichen Applikationen
- ◆ Business-ready

# PEAR installieren

- ♦ PEAR-Installer seit PHP 4.3.0 bundled
- ♦ Automatisch verfügbar, auch auf Windows :-)
- ♦ Standardmäßig auch beim selbst-kompilieren aktiviert
- ♦ Für frühere PHP-Versionen / Distributionen ohne PEAR einfach von <http://go-pear.org> installieren
- ♦ z.B. `lynx -source http://go-pear.org | php -q`
- ♦ oder go-pear-Source speichern und im Browser öffnen
- ♦ Hinweis:  
PEAR-Pfad sollte im `include_path` (`php.ini`) enthalten sein



# PEAR-Installer

- ◆ Einheitliche Installation-Umgebung für PHP-Code (PEAR) und C-Erweiterungen (PECL, <http://pecl.php.net>)
- ◆ Auf vielen Plattformen lauffähig (Linux, Windows, ...)
- ◆ Verschiedene Oberflächen:  
Kommandozeile, Web, GUI
- ◆ Verwaltung von Paket-Abhängigkeiten
- ◆ Tools für Entwickler

# PEAR-Installer

- ◆ Installation von Paketen (z.B. Kommandozeile) mit Überprüfung von Abhängigkeiten, Konflikten etc.:

```
# pear install Validate_Finance-alpha
Did not download dependencies: pear/Validate, use --alldeps or --
onlyreqdeps to download automatically
pear/Validate_Finance requires package "pear/Validate" (version >=
0.5.0)
No valid packages found
install failed
```

- ◆ Ermöglicht auch optionale Komponenten, Versionsabhängigkeiten, ...

# PEAR-Installer

## ◆ Installation von Paketen:

```
# pear install Validate-alpha
Did not download dependencies: pear/Date, use --alldeps or --
onlyreqdeps to download automatically
pear/Validate can optionally use package "pear/Date"
downloading Validate-0.5.0.tgz ...
Starting to download Validate-0.5.0.tgz (9,862 bytes)
.....done: 9,862 bytes
install ok: channel://pear.php.net/Validate-0.5.0

# pear install Validate_Finance-alpha
downloading Validate_Finance-0.5.0.tgz ...
Starting to download Validate_Finance-0.5.0.tgz (5,608 bytes)
.....done: 5,608 bytes
install ok: channel://pear.php.net/Validate_Finance-0.5.0
```

# Neu in PEAR 1.4.x

- ♦ Automatische Auflösung von Abhängigkeiten
  - ♦ `--onlyreqdeps / -o`
  - ♦ `--alldeps / -a`
- ♦ Abhängigkeiten auf externe Pakete
  - ♦ Verweise per URL
- ♦ Channels
  - ♦ Verwendung von mehreren Channels
  - ♦ Möglichkeit eigenen Channel zu eröffnen
- ♦ Mirroring

# Neu in PEAR 1.4.x

- ◆ Mehrere Module in einem Paket
- ◆ Post-install-Skripte (inkl. Interaktion), z.B. für
  - ◆ Initialisierung Datenbanken
  - ◆ Dateien ins Webroot verschieben
- ◆ ReST-Webservice
- ◆ PHAR-Support
  - ◆ Nur eine PHP-Datei inkl. Archiv, dynamischem Entpacken, ...
- ◆ Remote-Installation
- ◆ Installation von binären PECL-Paketen (z.B. auf Windows)

# PEAR-Channels

```
# pear list-channels
Registered Channels:
=====
Channel          Summary
pear.php.net     PHP Extension and Application Repository
pecl.php.net     PHP Extension Community Library
__uri            Pseudo-channel for static packages
```

- ◆ Weitere Kommandos für Channels:
  - ◆ `pear channel-discover http://example.com/channel.xml`
  - ◆ `pear channel-alias channel://... example`
  - ◆ `pear update-channels`
- ◆ Channel-Beschreibung per `channel.xml`

# PEAR-Channels

pearadise.net:  
Portal für  
PEAR-  
Channels



The screenshot shows the pearadise.net website. The header features the logo "pearadise.net" with a green pear icon and the text "The pear channel portal." in orange. Navigation links for "Search", "Browse", "Register", "Help", and "Credits" are visible. The main content area is titled "Search Pearadise" and includes instructions on how to use the search function. A search form is present with a dropdown menu set to "Package" and a text input field containing "patPortal". Below the search form, the results for "patPortal" are displayed, showing it is a "trac driven framework" last updated on 2005-11-15. The footer contains logos for "PEAR POWERED", "PHP POWERED", "W3C HTML 4.01", "W3C CSS", and "In progress".

pearadise.net

The pear channel portal.

Search Browse Register Help Credits

» Start » Search

### Search Pearadise

Search the pearadise.net crop for different items.

Please select the type of item you want to search for. The search performs a (subdomain sensitive) full text search on several channels of the element type you selected. Search terms are considered additive. To restrict your search to a specific channel or category you can use the following keyword-syntax:

```
[channel:<channel url>] [category:<category name>]
```

Package

« ← 1 → »

**patPortal**

trac driven framework  
Last updated on 2005-11-15 08:14

« ← 1 → »

PEAR POWERED PHP POWERED W3C HTML 4.01 W3C CSS In progress

# ReST-Webservice

- ♦ PEAR <=1.3 verwendete XML-RPC für Repository-Zugriff
  - ♦ Etabliert, aber teilweise komplex
- ♦ PEAR 1.4 verwendet ReST
  - ♦ Text-basiert, statische Files möglich
  - ♦ Weniger Traffic
  - ♦ Schnellere Antwortzeiten
  - ♦ Vereinfachte API
  - ♦ Wesentlich flexibler



# Post-install Skripte

- ◆ Ermöglichen umfangreiche Aktionen nach Installation
  - ◆ Sehr flexible API
  - ◆ Skript-Aufrufe in package2.xml definiert
  - ◆ Aufgaben können an bestimmte Dateien gebunden werden
  - ◆ Vordefinierte Aktionen verfügbar
  - ◆ Eigene Aktionen über PHP-Skripte implementierbar
  - ◆ Abarbeitung in einzelne Schritte gegliedert
  - ◆ Interaktion zwischen Benutzer / PEAR installer

# PEAR-Beispiel

- ◆ Nutzung von PEAR-Paketen,  
z.B. Grapherzeugung mit PEAR::Image\_Graph:

```
require_once 'Image/Graph.php';

// create the graph
$Graph =& Image_Graph::factory('graph', array(400, 300));
// add a TrueType font
$Font =& $Graph->addNew('font', 'Verdana');
// set the font size to 11 pixels
$Font->setSize(8);

$Graph->setFont($Font);

[...]
```

# PEAR-Beispiel

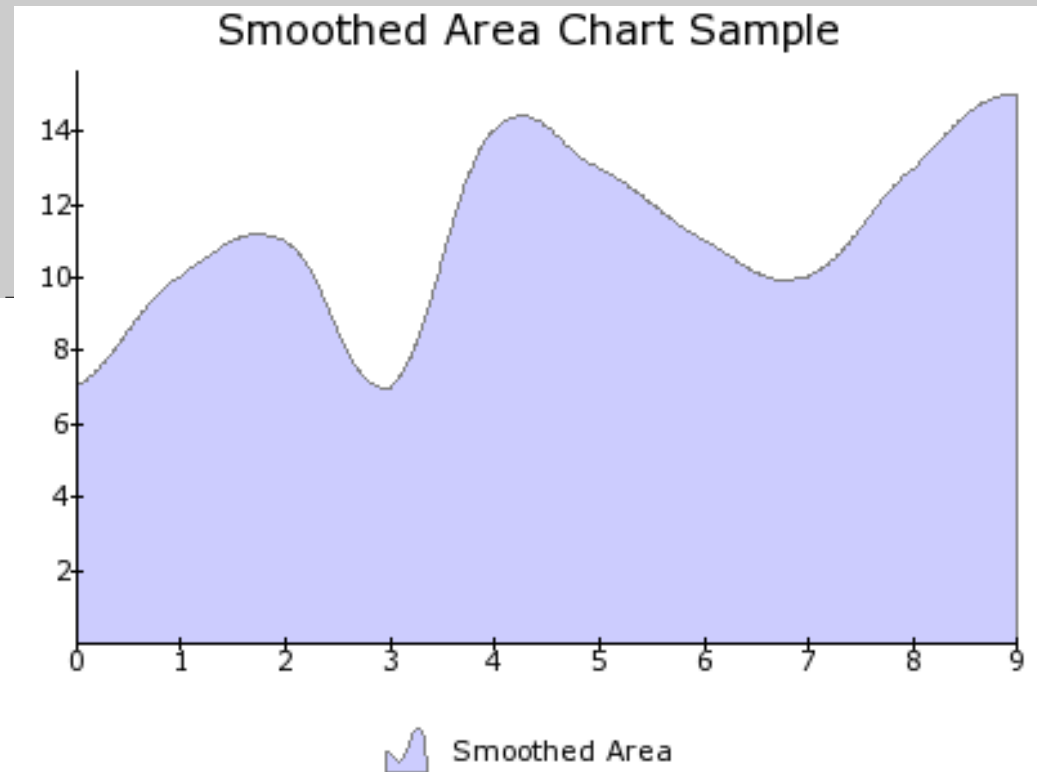
```
$Graph->add(  
    Image_Graph::vertical(  
        Image_Graph::factory('title',  
            array('Smoothed Area Chart Sample', 12)),  
        Image_Graph::vertical(  
            $Plotarea = Image_Graph::factory('plotarea'),  
            $Legend = Image_Graph::factory('legend'), 90),  
        5)  
    );  
  
$Legend->setPlotarea($Plotarea);  
  
// create the dataset  
$Dataset =& Image_Graph::factory('random',  
    array(10, 2, 15, true));  
  
// create 1st plot as smoothed area chart using the 1st dataset  
$Plot =& $Plotarea->addNew('Image_Graph_Plot_Smoothed_Area',  
    array(&$Dataset));
```

# PEAR-Beispiel

```
// set a line color
$Plot->setLineColor('gray');

// set a standard fill style
$Plot->setFillColor('blue@0.2');

// output the Graph
$Graph->done();
?>
```



# PEAR-Beispiel

Gradient Filled Donut/Pie Chart

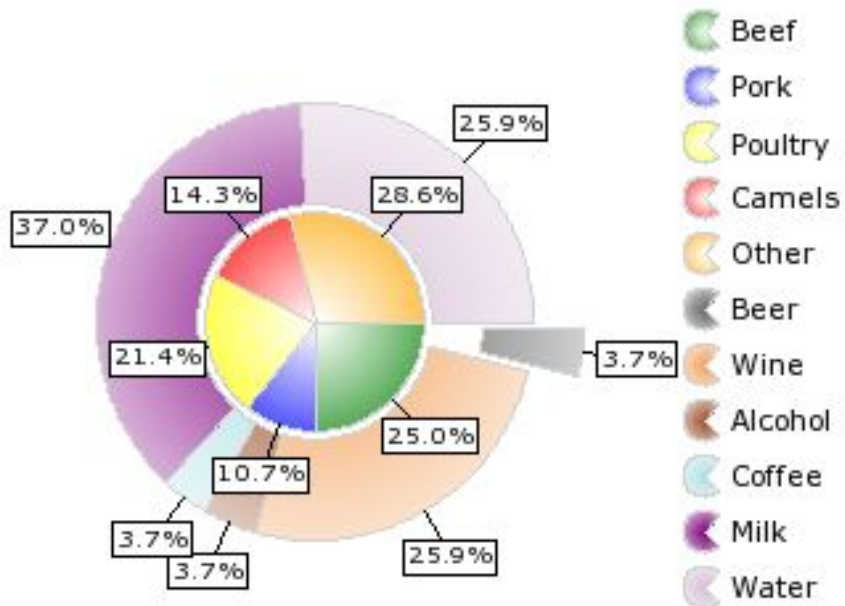
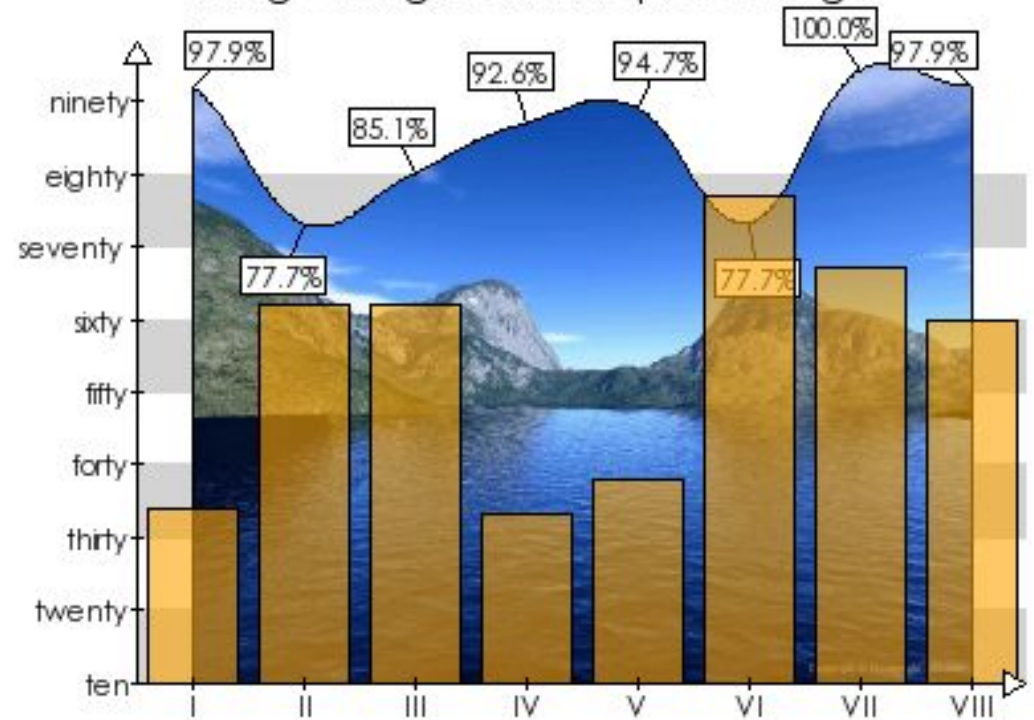


Image Filling / Data Preprocessing



# PEAR-Website

Überblick über einige Dienste/Features:

- ▶ Struktur des Repository (Pakete)
- ▶ Paket-/Release-Verwaltung
- ▶ Abstimmungstool: PEAR Proposal-System („PEPr“)

[... ausführliche Live-Demo am PEAR-Stand ...]

# PEAR-Website

## Struktur des Repository (Pakete)

### [Authentication](#) (9)

[Auth](#), [Auth\\_Enterprise](#), [Auth\\_HTTP](#), [Auth\\_PrefManager](#) »

### [Caching](#) (2)

[Cache](#), [Cache\\_Lite](#)

### [Console](#) (6)

[Console\\_Color](#), [Console\\_Getargs](#), [Console\\_Getopts](#), [Console\\_Progressbar](#) »

### [Date and Time](#) (3)

[Calendar](#), [Date](#), [Date\\_Holidays](#)

### [Event](#) (1)

[Event\\_Dispatcher](#)

### [File System](#) (4)

[File](#), [File\\_Find](#), [File\\_ScreenSpace](#), [VFE](#) »

### [HTML](#) (30)

[HTML\\_Ajax](#), [HTML\\_BooCodeParser](#), [HTML\\_Common](#), [HTML\\_Common2](#) »

### [Images](#) (19)

[Image\\_3D](#), [Image\\_Barcode](#), [Image\\_Canvas](#), [Image\\_Color](#) »

### [Logging](#) (1)

[Log](#)

### [Math](#) (15)

[Math\\_Base64](#), [Math\\_BinaryUtils](#), [Math\\_Complex](#), [Math\\_Financial](#) »

### [Benchmarking](#) (1)

[Benchmark](#)

### [Configuration](#) (1)

[Config](#)

### [Database](#) (29)

[DB](#), [DBA](#), [DBA\\_Relational](#), [DB\\_ace](#) »

### [Encryption](#) (3)

[Crypt\\_Blowfish](#), [Crypt\\_CBC](#), [Crypt\\_CHAP](#), [Crypt\\_MAC](#) »

### [File Formats](#) (22)

[Archive\\_Tar](#), [Archive\\_Zip](#), [Contact\\_AddressBook](#), [Contact\\_Contact\\_Build](#) »

### [Gtk Components](#) (4)

[Gtk\\_FileDrag](#), [Gtk\\_ScrollingWheel](#), [Gtk\\_Styled](#), [Gtk\\_Verdama](#) »

### [HTTP](#) (12)

[HTTP\\_Client](#), [HTTP\\_Download](#), [HTTP\\_Header](#) »

### [Internationalization](#) (5)

[i18n](#), [i18Nv2](#), [i18n\\_UnicodeString](#), [Translation](#) »

### [Mail](#) (6)

[Mail](#), [Mail\\_IMAP](#), [Mail\\_IMAPv2](#), [Mail\\_Mbox](#) »

### [Networking](#) (42)

[Net\\_CheckIP](#), [Net\\_Curl](#), [Net\\_Cyrus](#), [Net\\_Dial](#) »

# PEAR-Website

## Struktur des Repository (Pakete)

### Numbers (2)

[Numbers\\_Roman](#), [Numbers\\_Words](#)

### PEAR (9)

[PEAR](#), [PEAR\\_Delegate](#), [PEAR\\_ErrorStack](#), [PEAR\\_frontend\\_Bak](#) »

### Processing (1)

[PEM](#)

### Semantic Web (4)

[RDF](#), [RDF\\_NS](#), [RDF\\_Template](#), [RDF\\_XML](#) »

### Structures (5)

[Game\\_Cheer](#), [GIF](#), [Structures\\_DataFile](#), [Structures\\_Graph](#) »

### Text (10)

[Text\\_CAPTCHA](#), [Text\\_DIF](#), [Text\\_Eggs](#), [Text\\_Highlighter](#) »

### Validate (4)

[Validate\\_A](#), [Validate\\_XML](#), [Validate\\_BF](#) »

### XML (29)

[XML\\_Deautifier](#), [XML\\_CSSML](#), [XML\\_DTD](#), [XML\\_FastCreate](#) »

### Payment (3)

[Payment\\_Client](#), [Payment\\_DTA](#), [Payment\\_Process](#)

### PHP (9)

[PHP\\_G](#), [PHPDoc](#), [PHP\\_Archive](#), [PHP\\_Beautiful](#) »

### Science (1)

[Science\\_Chemistry](#)

### Streams (2)

[Stream\\_SFM](#), [Stream\\_Var](#)

### System (5)

[System\\_Mount](#), [System\\_Procwait](#), [System\\_StandMemory](#), [System\\_Socket](#) »

### Tools and Utilities (7)

[Testing](#), [Version Control](#), [CodeGen](#), [CodeGen\\_MYSQL\\_UDF](#) »

### Web Services (16)

[Services\\_Amazon](#), [Services\\_Develop](#), [Services\\_DynDNS](#), [Services\\_ Ebay](#) »

Total number of packages: 343

**Note:** A number of other PHP projects do provide packages of their software, which are installable via the PEAR infrastructure. A list of them can be found in the [clients section](#)



# PEAR-Website

## Paket-/Release-Verwaltung

Top level: [Tränge](#)

### Package Information: [Image\\_Graph](#)

[Main](#) [Download](#) [Documentation](#) [Bugs](#) [Trackbacks](#)

#### >> Summary

A package for displaying (numerical) data as a graph/chart/plot

#### >> License

[L3FL](#)

#### >> Current Release

[0.7.1](#) (alpha) was released on 2005-10-05 ([Changelog](#))

#### >> Description

Image\_Graph provides a set of classes that creates graphs/plots/charts based on (numerical) data.

Many different plot types are supported: Bar, line, area, step, impulse, scatter, radar, pie, map, candlestick, band, box, whisker and smoothed line area and radar plots.

The graph is highly customizable, making it possible to get the exact look and feel that is required.

The output is controlled by a Image\_Canvas, which facilitates easy output to many different output formats, amongst others, GD (-IMG, JPLG, GJ, WJMP), FDI (Using FDI\_Lib), Scalable Vector Graphics (SVG).

Image\_Graph is compatible with both PHP4 and PHP5.

#### >> Maintainers

- Stefan Neufeind (lead)
- Tobias Enlitt (wishlist) (lead)
- Jesper Moggerby (cod)

#### >> More Information

- [External Package Homepage](#)
- [Browse the source tree](#)
- [RSS release feed](#)
- [View Download Statistics](#)

**SPEED PARTNER**

Stefan Neufeind

LinuxWorld 2005, Infobühne  
2005, Frankfurt

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# PEAR-Website

## Paket-/Release-Verwaltung

[Top Level](#) : [Traces](#)

### Package Information: **Image\_Graph**

[Main](#) | [Download](#) | [Documentation](#) | [Bugs](#) | [Trackbacks](#)

Show All Changes

>> **Version**

0.7.0

>> **Information**

[Download](#)

Release date: 2005-10-03 21:12 UTC

Release state: alpha

**Changelog:**

- \* Fixed [Jug #3413](#): "Axis's wrong when plot is Job/Scatter"
- \* Fixed [Jug #5007](#): "X Axis Labels align to right"
- \* Fixed a problem with horizontal plots and axis labels and titles not showing/aligning properly
- \* Fixed a problem with horizontal Step plot

**Dependencies:**

- \* PEAR Package: [PEAR\\_Installer](#) 1.3.1 or newer
- \* PEAR Package: [Image\\_Canvas](#) 0.2.1 or newer
- \* PEAR Package: [Numbers\\_Roman](#) (optional)
- \* PEAR Package: [Numbers\\_Words](#) (optional)

0.7.0 2005-09-30 alpha

0.6.0 2005-03-27 alpha

0.5.0 2005-03-03 alpha

**SPEED PARTNER**

Stefan Neufeind

LinuxWorld 2005, Infobühne  
2005, Frankfurt

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*PHP-Applikationen mit PEAR*

# PEAR-Website

## Abstimmungstool: PEAR Proposal-System („PEPr“) Proposal for "HTML\_AJAX"

Main Comments Votes

### » Metadata

- Category: HTML\_
- Proposer: Joshua E. Chern
- License: P-P

### » Status

- Status: Finished
- Result: Accepted
- Sum of Votes: 21 (0 conditional)
- Search registered package

### » Description

HTML\_AJAX provides AJAX capabilities to PHP (AJAX allows your browsing using JavaScript to communicate with the server without causing a page reload).

A JavaScript library that provides AJAX functionality and some other basics, this library can be used standalone if wanted.

The PHP codes provides direct RPC style mapping of PHP functions to JavaScript. This is provided through the generation of OO proxy classes in JavaScript.

A server which contains autoload type functionality for exported classes to help when using the implementation in large projects.

The basic feature list is:

- AJAX functionality
- Cross Browser XMLHttpRequest Wrapping
- Sync or Async calls
- Global Error handling
- Global event handling
- Automatic OO Proxy Generator

# PEAR-Website

## Abstimmungstool: PEAR Proposal-System („PEPr“)

### » Dependencies

- Service\_ISCK

### » Timeline

- First Draft: 2005-07-22
- Proposal: 2005-07-22
- Call for Votes: 2005-08-02

### » Links

- PEAR package file ([http](#))
- Package source file ([chlipsz.html](#))
- Package example ([chhp](#))
- Package example source ([chpos.html](#))

### » Changelog

- Ineska Finkern  
[2005-07-22 03:28 UTC]  
  
Update list to use wiki syntax: properly, preview would be great
- Ineska Finkern  
[2005-07-22 17:44 UTC]  
  
Get the package name something. Thanks Klaus
- Joshua Eichorn  
[2005-07-25 03:30 UTC]  
  
Upgrade coding event and error handling, also added a link to the js source directory on the example source page
- Joshua Eichorn  
[2005-07-25 13:31 UTC]  
  
New Release  
Fixes JavaScript compatibility problems with Firefox 1.0 and IE  
  
Also uses DIRECTORY\_SEPARATOR constant in e::getLocator

# PEAR-Website

## Abstimmungstool: PEAR Proposal-System („PEPr“)

### Proposal Votes for "HTML\_AJAX"

Main	Comments	Votes
» Votes		
+1	(Nicolas Holzhey)	2005-03-02 20:07 UTC
+1	(Bertrand Giegge)	2005-08-02 22:15 UTC
+1	(Finnar Wandavand)	2005-07-08 05:49 UTC
+1*	(Lucien Luvville)	2005-08-08 07:20 UTC
+1	(Dr. Volker Goebbels)	2005-03-03 10:53 UTC
+1	(Stephan Schmidt)	2005-08-03 11:27 UTC
+1*	(Nic. Miriano)	2005-08-03 12:00 UTC
+1	(Christian Weiske)	2005-00-03 12:22 UTC
+1	(James Stewart)	2005-08-03 19:02 UTC
+1	(Tobias Schif)	2005-08-03 19:57 UTC
+1	(Richard York)	2005-08-04 01:44 UTC
+1	(Clay Loveless)	2005-00-04 04:42 UTC
+1	(Helge Horner)	2005-08-04 12:18 UTC
+1*	(Dovey Smalik)	2005-08-04 15:15 UTC
+1	(Hannes Magnusson)	2005-00-04 19:11 UTC
+1*	(Hans Huecks)	2005-08-04 19:46 UTC
+1	(Armand Limbourg)	2005-08-04 20:02 UTC
+1*	(Hans Lallelid)	2005-08-04 20:46 UTC
+1	(Stefano F. Kersch)	2005-00-05 13:59 UTC
+1	(Matthaeo Honda)	2005-08-07 19:37 UTC
+1	(Tasner Vaggarty)	2005-08-08 17:32 UTC
Sum: 21 (Conditional)		
* Indicates if a vote is conditional.		
** Indicates the vote contains a comment.		

- ▶ Voting durch erfahrene PEAR-Entwickler
- ▶ Verwaltung abgegebener Stimmen
- ▶ Paket akzeptiert ab Summe von +5 Stimmen
- ▶ Tracking von Kommentaren

# PEAR-Website

- ◆ Website / Präsentation
  - ◆ Darstellung von Komponenten / Applikationen
  - ◆ Verwaltung von Downloads / Releases
- ◆ Mitgliederverwaltung
  - ◆ Verwaltung von Betreuern, Helfern, ...
- ◆ Dokumentation
  - ◆ Verwaltung von Dokumentationen
  - ◆ Automatische Generierung von Dokumentation (API-docs)
  - ◆ Bereitstellung von versch. Formen (Sprachen, Dateiformate)

# PEAR-Website

- ◆ Kommunikation
  - ◆ Mailinglisten / Foren
  - ◆ Chat (z.B. IRC)
  - ◆ Bugtracker
  - ◆ Abstimmungstool: PEAR Proposal-System („PEPr“)
- ◆ Versionsverwaltung (<http://cvs.php.net/pear/>)
  - ◆ Gemeinsames Arbeiten am „gleichen“ Code
  - ◆ Verwaltung von Versionsständen / Änderungen

# Hilfe zu PEAR

1. PEAR Website
2. Paket-Website  
<http://pear.php.net/package/<paketname>>
3. PEAR-Dokumentation: <http://pear.php.net/manual/en/>
4. Support-Mailingliste: [pear-general@lists.php.net](mailto:pear-general@lists.php.net)
5. IRC channel: #pear@EFNet
6. Direkter Kontakt zum Maintainer (siehe Paket-Website)
7. PEAR QA: [pear-qa@lists.php.net](mailto:pear-qa@lists.php.net)



# Links

- ◆ PEAR-Website: <http://pear.php.net/>
- ◆ PECL-Website: <http://pecl.php.net/>
- ◆ PEAR-Dokumentation: <http://pear.php.net/manual/en/>
- ◆ Support-Mailingliste: [pear-general@lists.php.net](mailto:pear-general@lists.php.net)
- ◆ IRC channel: #pear@EFNet
- ◆ Portal für PEAR-Channels: <http://pearadise.net/>
- ◆ Beispiele / Screenshots für PEAR::Image\_Graph:  
<http://pear.veggerby.dk/>
- ◆ Informationen zu ReST:  
<http://www.xfront.com/REST-Web-Services.html>

# Danke für Ihre Aufmerksamkeit!

Aktuelle Folien verfügbar unter:

<http://talks.speedpartner.de/>

Fragen?

neufeind (at) speedpartner.de