

Easy PEAR package creation

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Revision History

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1. About

Here's a fairly simple way of creating PEAR package so you can distribute your application or library as a PEAR package.

2. Premise

Let's assume you've written an application or library called *MyApp*. The following is a possible directory structure layout:

```
myapp/  
  |- MyApp.php  
  \- MyAap/  
      \- MyApp/MyLib.php
```

3. Install the PackageFileManager

Since writing a package file by hand is way too much work, we first install the PEAR_PackageFileManager utility. This PEAR package includes a commandline utility which will guide you through the steps needed to create a proper package.xml file for your application or library.

```
# pear install PEAR_PackageFileManager_Cli-0.3.0
```

```
Ignoring installed package pear/pear  
No releases available for package "pear.php.net/install"  
Cannot initialize 'channel://pear.php.net/install', invalid or missing package file  
WARNING: channel "pear.php.net" has updated its protocols, use "channel-update pear.php.net"  
Did not download optional dependencies: pear/PHP_CompatInfo, use --alldeps to download auto  
pear/PEAR_PackageFileManager can optionally use package "pear/PHP_CompatInfo" (version >= 1  
downloading PEAR_PackageFileManager_Cli-0.3.0.tgz ...  
Starting to download PEAR_PackageFileManager_Cli-0.3.0.tgz (8,051 bytes)  
.....done: 8,051 bytes  
downloading PEAR_PackageFileManager-1.6.3.tgz ...  
Starting to download PEAR_PackageFileManager-1.6.3.tgz (82,393 bytes)
```

```
...done: 82,393 bytes
Package "channel://pear.php.net/install" is not valid
install ok: channel://pear.php.net/PEAR_PackageFileManager-1.6.3
install ok: channel://pear.php.net/PEAR_PackageFileManager_Cli-0.3.0
```

If your PEAR is outdated, you will see something like:

```
pear/PEAR_PackageFileManager requires PEAR Installer (version >= 1.8.0alpha1), installed ve
```

In that case, you can upgrade your PEAR like so:

```
# pear channel-update pear.php.net

Updating channel "pear.php.net"
Update of Channel "pear.php.net" succeeded

# pear upgrade PEAR

...
upgrade ok: channel://pear.php.net/PEAR-1.8.1
```

You may also run into problems with alpha/beta state packages required for installation of the PackageFileManager CLI package. For instance, I got the following error: Failed to download pear/XML_Serializer within preferred state "stable", latest release is version 0.19.2, stability "beta", use "channel://pear.php.net/XML_Serializer-0.19.2" to install

In that case, you must manually install the beta packages:

```
# pear install channel://pear.php.net/XML_Serializer-0.19.2

downloading XML_Serializer-0.19.2.tgz ...
Starting to download XML_Serializer-0.19.2.tgz (39,703 bytes)
.....done: 39,703 bytes
downloading XML_Parser-1.3.2.tgz ...
Starting to download XML_Parser-1.3.2.tgz (16,260 bytes)
...done: 16,260 bytes
install ok: channel://pear.php.net/XML_Parser-1.3.2
install ok: channel://pear.php.net/XML_Serializer-0.19.2
```

4. Generate a package.xml file

You can now use the PackageFileManager command-line utility to bootstrap a package.xml file for your PEAR package.

Change to the directory that is the root of your package:

```
$ cd myapp/

myapp$ ls
MyApp  MyApp.php

myapp$ pfm

PEAR Package File Manager Command Line Tool

Please enter the location of your package [.]*: .

Creating a new package file ...

Enter the base install directory*: .

Enter the name of the package [myapp]*: MyApp

Channel or URI based package? [c] (c,u)*: u

Enter the package URI*: http://www.example.com/download/PEAR/

Enter a 1 line summary*: My first PEAR example application.

Enter a description* (2 blank lines to finish):
MyApp is my first PEAR example application.
It rocks.

Enter the release version*: 0.1.0

Enter the API version [0.1.0]*:

Choose a release stability [alpha] (alpha,beta,stable)*:

Choose an API stability [alpha] (alpha,beta,stable)*:

Enter any release notes* (2 blank lines to finish):
Initial release

Enter the minimum PHP version [5]*:

Enter the minimum PEAR Installer version [1.4.0]*:

Please choose a license from one of the following options

    1) Apache
    2) BSD Style
    3) LGPL
    4) MIT
    5) PHP

Please choose an option: 4

How many maintainers?*: 1
```

```
What type of maintainer is #1? [lead] (lead,developer,contributor,helper)*:
```

```
Enter maintainer #1's name*: Ferry Boender
```

```
Enter maintainer #1's username*: fboender
```

```
Enter maintainer #1's email [fboender@php.net]*: ferry.boender@example.com
```

```
PEAR Package File Manager Command Line Tool
```

```
1. Package name           [MyApp]
2. Channel/URI            [URI: http://www.example.com/download/PEAR/]
3. Summary                [My first PEAR example application.]
4. Description            [MyApp is my first PEAR example applic...]
5. Maintainers
6. Version                [Release: 0.1.0 API: 0.1.0]
7. Stability              [Release: alpha API: alpha]
8. License                [MIT]
9. Notes                  [Initial release]
10. Dependencies
11. Tasks
12. Regenerate contents
13. Echo package file to stdout
14. Save & Quit
15. Quit without saving   (ctrl-c)
```

```
Please choose an option from the menu: 14
```

```
Analyzing MyApp/MyLib.php
```

```
Analyzing MyApp.php
```

This generates a `package.xml+install` for you, containing details for the PEAR package creation.

5. Create a PEAR package

PEAR can use this `package.xml` file to create a PEAR package for you:

```
myapp$ pear package package.xml
```

```
Analyzing myapp/MyApp.php
```

```
Analyzing myapp/MyApp/MyLib.php
```

```
Package MyApp-0.1.0.tgz done
```

6. Testing and (un)installing your package

Test the installation of the package:

```
myapp$ pear install ./MyApp-0.1.0.tgz
pear install ./MyApp-0.1.0.tgz
install ok: channel://__uri/MyApp-0.1.0
```

It appears to work. Make sure to check the PEAR directory to see if it placed the files in the right spot:

```
myapp$ ls /usr/share/php/
Archive  MyApp      OS   PEAR.php  Structures  adodb  doc   pearcmd.php  php-shell-cmd.php
Console  MyApp.php  PEAR  PHP       System.php  data  docs  peclcmd.php
```

The `MyApp.php` file, and the `MyApp` directory have been added to the PEAR library directory. If their `PHP include_path` is set correctly, users of your package should now be able to include it using:

```
include('MyApp.php');
```

You can uninstall the package using the `pear uninstall` command:

```
$ pear uninstall channel://__uri/MyApp-0.1.0
uninstall ok: channel://__uri/MyApp-0.1.0
```

7. Distribute your package

You can now put your PEAR package online, and point users to it by mentioning they can install it using PEAR with the command:

```
$ pear install http://www.example.com/download/PEAR/MyApp-0.1.0.tgz
```

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