NAME

pkgenv – simple package environment manager

SYNOPSIS

pkgenv [-hv] [-p *pkgdir*] [-s *shell*] { add | del | list | avail } [*package* ...]

DESCRIPTION

The **pkgenv** utility automatically configures the shell environment for software packages via package environment descriptor ('.pkgenv') files. **pkgenv** is a leaner, simpler alternative to the **Environment Modules** package.

A pkgenv descriptor file is a simple text file containing directives that describe how the shell environment should be modified for the corresponding software package. The following directives are available:

`adjust` *path* `[` *path* `...` `]`
: Indicates that the default adjustments should be made to the listed *path* environment variable(s). The supported path environment variables, and the default adjustments that are made to them, are as follows:

PATH	Prepend the package's 'bin' directory, if it exists.
LD_LIBRARY_PATH	Prepend the package's 'lib' directory, if it exists.
DYLD_LIBRARY_PATH	The Mac OS X equivalent of **LD_LIBRARY_PATH**.
MANPATH	Prepend the package's 'man' and/or 'share/man' directories, whichever exist.
PKG_CONFIG_PATH	Prepend the package's 'lib/pkgconfig' directory, if it exists.
ACLOCAL_PATH	Prepend the package's 'share/aclocal' directory, if it exists.

(The `adjust` directive cannot be used with environment variables other than those listed above.)

For most software packages, the modifications provided by this directive will be sufficient. If they are not, more fine-tuned control is possible with the remaining directives.

variable = *value*
: Sets the environment variable *variable* to the value *value*. Only variables other than the path variables supported by the `adjust` directive may be used; this is to prevent accidental clobbering of those variables.

path += *value*
: Prepends the directory *value* to the path environment variable *path*, which must be one of the path environment variables listed above.

path `.=` *value*
: Appends the directory *value* to the path environment variable *path*, which must be one of the path environment variables listed above.

For all three of the assignment directives ('=', '+=', and '.='), variable substitution is performed on *value*. A variable is referenced as '`${`*name*`}`', where *name* may be one of the following, or the name of any environment variable.

`root`	The root directory of the software package, for example '/pkg/gcc-3.3'.
`prefix`	Equivalent to `root`.
`name`	The name of the package, for example 'gcc'.

`version` The version of the package, for example '3.3'.

Any lines in the descriptor file consisting of only whitespace, or containing non-whitespace text that begins with a '#' character, are ignored.

OPTIONS

The following options are recognized:

-h Display a command synopsis and copyright message and exit.

-v Display version information and exit.

-V Enable verbose mode.

-p *pkgroot* Specify *pkgroot* as the package root. The default package root is '/pkg'.

-s *shell* Specify *shell* as the shell for which environment statements will be output. Possible values are 'sh', 'bash', 'ksh', 'zsh', 'csh', and 'tcsh'.

COMMANDS

The commands supported by the **pkgenv** utility are as follows:

`add` Adds the named package(s) to the environment.

`del` Removes the named package(s) from the environment.

`list` Prints a list of packages that are currently active in the environment.

`avail` Prints a list of available packages that match the listed names, or if no names are specified, a list of all available packages.

FILES

To be used with **pkgenv**, software packages must be installed on the system under a common package root directory, which by default is '/pkg', but may be overridden via either the **-p** command line switch or the **PKGENV_ROOT** environment variable. Each package should be installed beneath the package root within its own directory, with a name that reflects the package name and version in the form *name-version*, e.g., 'gcc-3.3'.

The descriptor files must reside in a subdirectory of the package root named 'PKGENV'. Each descriptor file must have a name of the form *name-version*.pkgenv, e.g., 'gcc-3.3.pkgenv'.

pkgenv writes the shell commands for modifying the environment into the file '.pkgenv' in the user's home directory. These must then be executed by the shell for the changes to take effect. This is done by defining a shell alias which runs **pkgenv** and then evaluates the contents of the resulting file.

For **csh/tcsh** the alias is:

```
alias pkg 'pkgenv \!* && eval `cat ~/.pkgenv`'
```

For **sh/bash** the alias is:

```
function pkg ()
  { pkgenv $@ && eval "`cat "$HOME/.pkgenv"`"; }
```

For **zsh** the alias is:

```
alias pkg='pkgenv $@ && eval `cat ~/.pkgenv`'
```

For **ksh** the alias is:

```
pkg ()
```

```
{ pkgenv $@ && eval "`cat "$HOME/.pkgenv"`"; }
```

ENVIRONMENT VARIABLES

pkgenv uses the following environment variables:

SHELL To determine the user's shell. Overridden by the **-s** switch.

PKGENV_ROOT
The package root directory. Overridden by the **-p** switch.

PKGENV_CURRENT
To maintain the list of currently active packages.

EXAMPLES

The following example shows a possible pkgenv descriptor for Sun's JDK. This descriptor would be stored in a file with a name like */pkg/PKGENV/jdk-1.5.0.pkgenv*.

```
adjust PATH MANPATH

LD_LIBRARY_PATH += ${root}/jre/lib/i386:${root}/jre/lib/i386/server
LD_LIBRARY_PATH += ${root}/jre/lib/i386/native_threads

JAVA_HOME = ${root}
```

NOTES

The **aclocal** program does not normally recognize the **ACLOCAL_PATH** environment variable; the *automake* package must be patched to add this support. The patch is available here: *http://www.nabble.com/ACLOCAL_PATH-t4271240.html*

The default installation directory for man pages, as specified by the GNU Coding Standards, was previously 'man'; it is now 'share/man'.

SEE ALSO

tcsh(1), **bash(1)**

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