

Foundations in Perl Programming – for experienced programmers

Week Five

This weeks topics

- **Walk-through your completed projects**
- **Brief Intro to Modules and Packages**
- **What else is there in Perl**

Project Walk-throughs

Approx
2 hours

Brief Introduction to modules and packages

I do not want to leave this foundations course without briefly addressing this subject. There is a lot to this subject (that would fit nicely into a next course). If you are into reuse, will be using Perl a lot, or will be writing large programs, or programs that could have use by other programmers then you want to delve into this subject.

What is a package?

What is a module?

Tell me about CPAN.

Approx
90 mins

Brief Introduction to modules and packages

PACKAGE:

“A namespace for global variables, subroutines and the like, such that they can be separate from like-named symbols in other namespaces. In a sense only the package is global, since the symbols in the package’s symbol table are only accessible from code compiled outside the package by naming the package. But, in another sense, all package symbols are also globals they’re just well organized globals.”

- Glossary “Programming in Perl 3rd Edition”

Brief Introduction to modules and packages

MODULE:

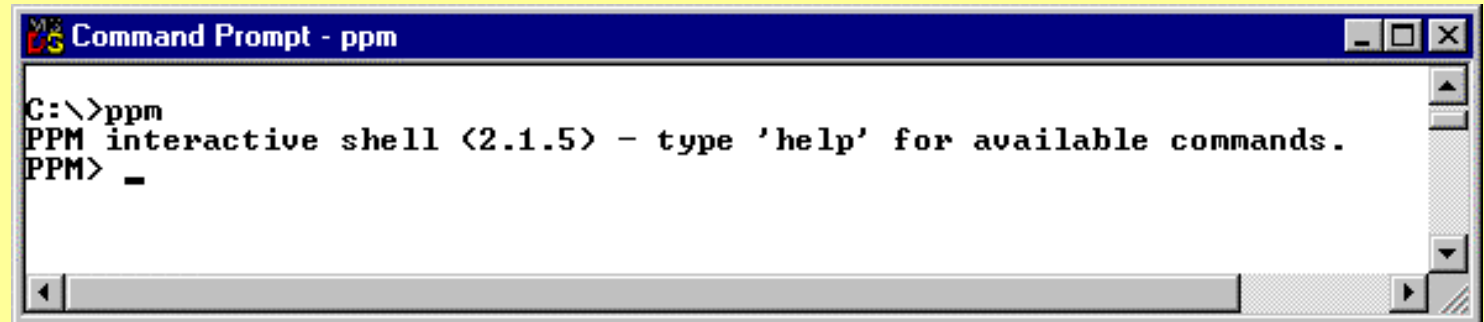
“A file that defines a package of (almost) the same name, which can either export symbols or function as an object class. (A module’s main .pm file may also load in other files in support of the module.)

- Glossary “Programming in Perl 3rd Edition”

Brief Introduction to modules and packages

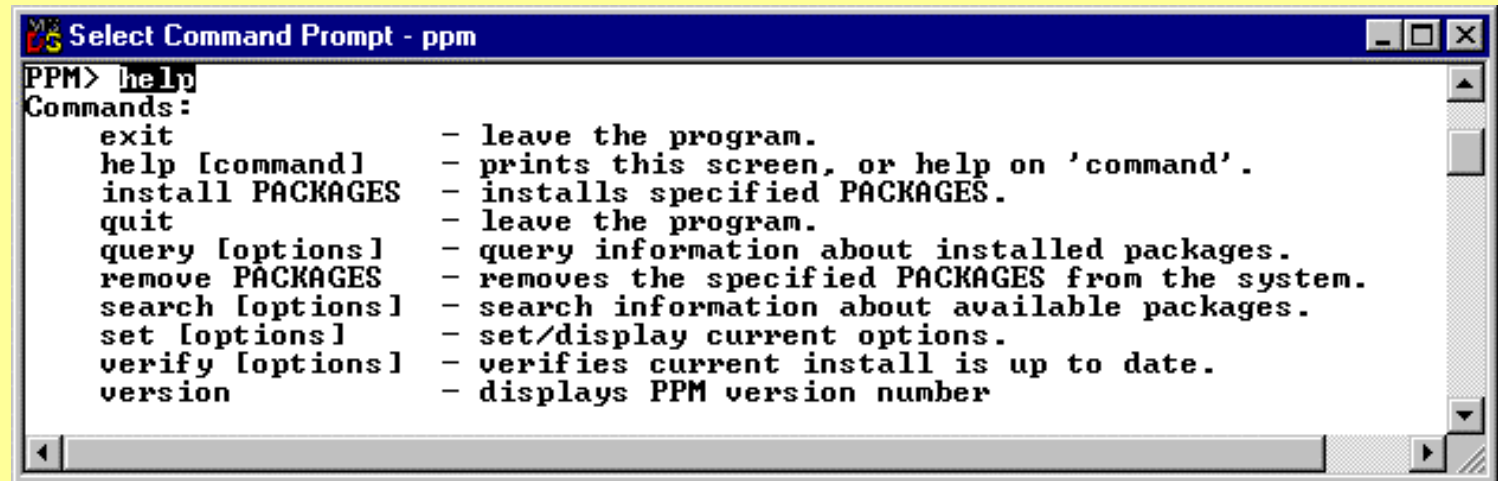
- <http://www.cpan.org/>
- ppm

starting



```
C:\>ppm
PPM interactive shell (2.1.5) - type 'help' for available commands.
PPM> _
```

help

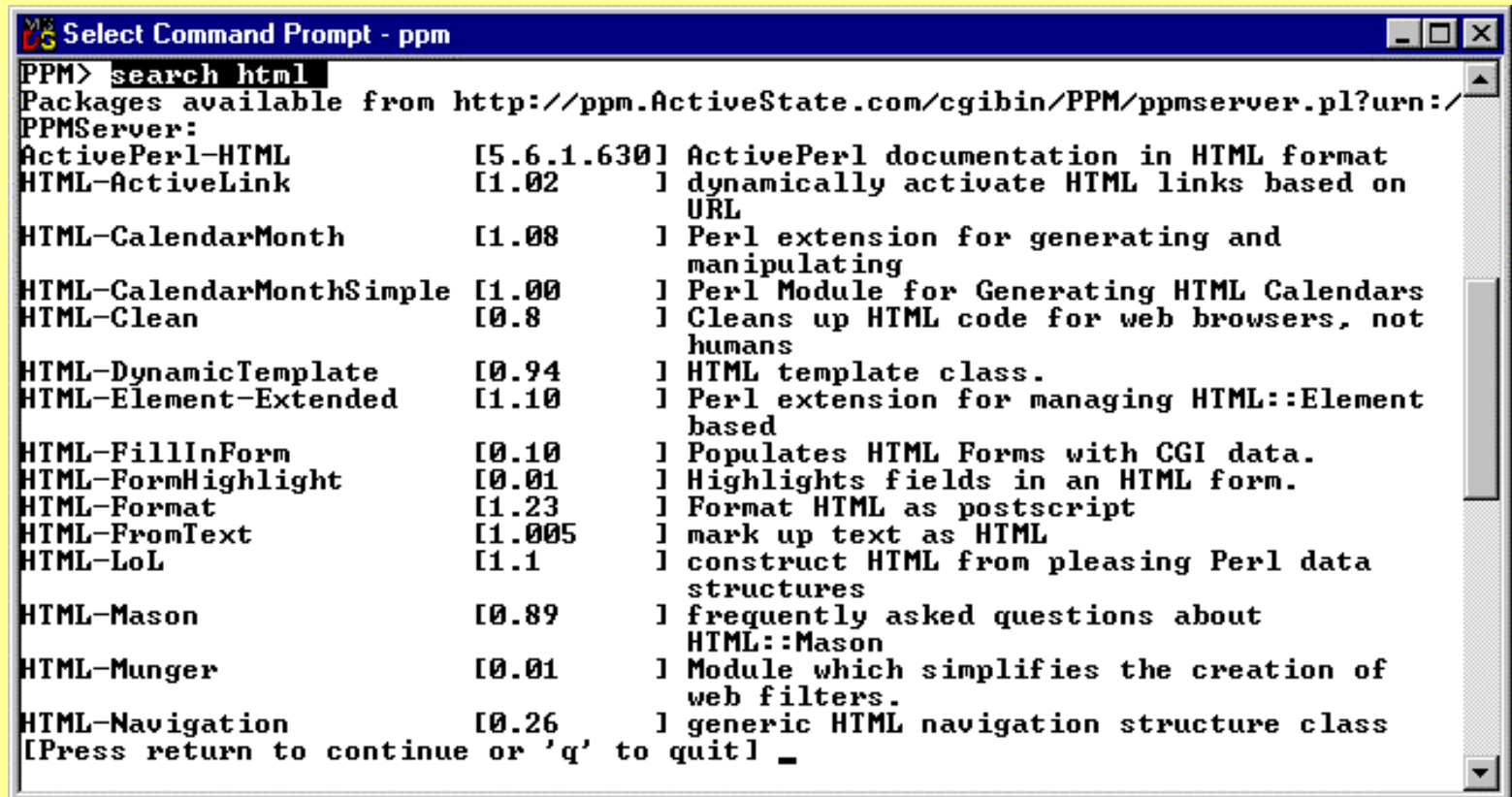


```
PPM> help
Commands:
  exit                - leave the program.
  help [command]     - prints this screen, or help on 'command'.
  install PACKAGES   - installs specified PACKAGES.
  quit               - leave the program.
  query [options]    - query information about installed packages.
  remove PACKAGES    - removes the specified PACKAGES from the system.
  search [options]   - search information about available packages.
  set [options]      - set/display current options.
  verify [options]   - verifies current install is up to date.
  version            - displays PPM version number
```

Brief Introduction to modules and packages

- ppm

searching

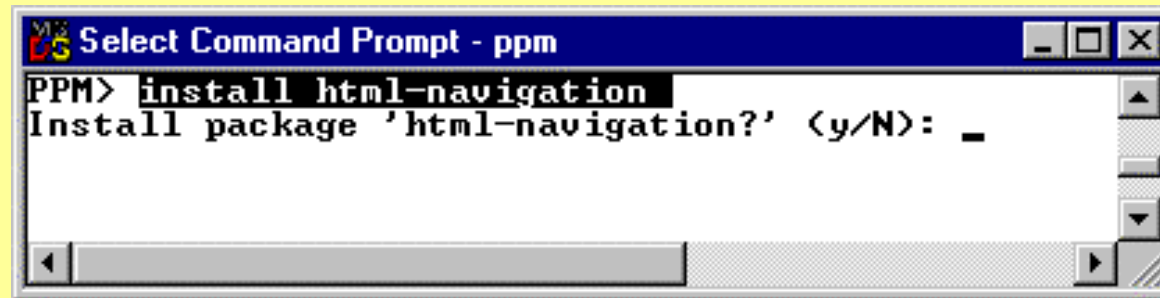


```
PPM> search html
Packages available from http://ppm.ActiveState.com/cgi-bin/PPM/ppmserver.pl?urn:/
PPMServer:
ActivePerl-HTML      [5.6.1.630] ActivePerl documentation in HTML format
HTML-ActiveLink      [1.02      ] dynamically activate HTML links based on
                   URL
HTML-CalendarMonth   [1.08      ] Perl extension for generating and
                   manipulating
HTML-CalendarMonthSimple [1.00     ] Perl Module for Generating HTML Calendars
HTML-Clean           [0.8       ] Cleans up HTML code for web browsers, not
                   humans
HTML-DynamicTemplate [0.94     ] HTML template class.
HTML-Element-Extended [1.10     ] Perl extension for managing HTML::Element
                   based
HTML-FillInForm      [0.10     ] Populates HTML Forms with CGI data.
HTML-FormHighlight   [0.01     ] Highlights fields in an HTML form.
HTML-Format          [1.23     ] Format HTML as postscript
HTML-FromText        [1.005    ] mark up text as HTML
HTML-LoL             [1.1      ] construct HTML from pleasing Perl data
                   structures
HTML-Mason           [0.89     ] frequently asked questions about
                   HTML::Mason
HTML-Munger          [0.01     ] Module which simplifies the creation of
                   web filters.
HTML-Navigation      [0.26     ] generic HTML navigation structure class
[Press return to continue or 'q' to quit] _
```

Brief Introduction to modules and packages

- ppm

installing



```
MS-DOS Select Command Prompt - ppm
PPM> install html-navigation
Install package 'html-navigation?' (y/N): _
```

Brief Introduction to modules and packages

Creating your own packages Example1

pkg1.pl

use_pkg1.pl

```
package one;  
$str = "";  
  
package two;  
$str = "hmmmm";
```

Brief Introduction to modules and packages

Creating your own packages

Example2

pkge2.pl

use_pkge2.pl

```
package pkge2;
my $left;
my @even;
my @odd;
sub evenbrs
{
  for (my $i=0; $i<@_; $i++)
  {
    $left = $_[ $i ]%2;  #% is modulus (remainder) operator
    unless ($left) #if $left not = 0
    {
      push (@even, $_[ $i ]);  #then push value into @even
    }
  }
  @even = sort(@even);
  return @even;
}
1; #return true for sub call
...
```

Brief Introduction to modules and packages

A very, very, very brief intro to modules

The point here is to provide a breathing example of the definition we just covered. This subject is much more robust than this and beyond the scope of this particular class, other than a cursory introduction.

pkg1.pm

pkge2.pm

Brief Introduction to modules and packages

A very, very, very brief intro to modules

Using others ... a few examples

ftp

ftp.pl

telnet

telnet3.pl

cgi

cgi1.pl

What else is there in Perl

Language elements to cover in much greater depth

- References
- Modules and packages
- More on predefined variables
- More built-in functions

Approx
60 mins

What else is there in Perl

Language elements/functionality still to learn about

- References
- Interprocess communication
- Threads
- Object oriented Perl programming
- Internet and Socket programming
- CGI programming
- Structured Database IO
- Using Perl for System Management

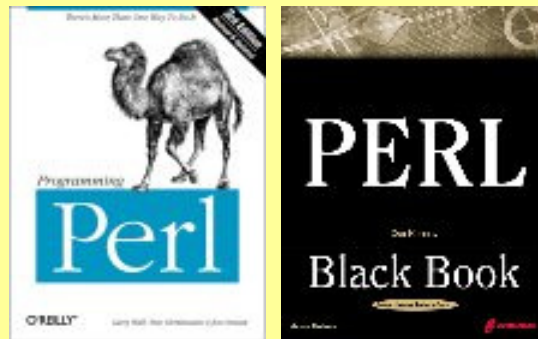
What else is there in Perl

Web Sources



Books Here are the names of some books that I can recommend. This is by no means an exhaustive list.

Starting out



More detail



Course Evaluation/Debrief

Approx
15 mins