1 APR:PerlIO -- An APR Perl IO layer

1.1 SYNOPSIS

```
# under mod_perl
use APR::PerlIO ();

sub handler {
    my $r = shift;

    die "This Perl build doesn’t support PerlIO layers"
        unless APR::PerlIO::PERLIO_LAYERS_ARE_ENABLED;

    open my $fh, ">:APR", $filename, $r->pool or die $!;
    # work with $fh as normal $fh
    close $fh;

    return Apache::OK;
}

# outside mod_perl
% perl -MApache2 -MAPR -MAPR::PerlIO -MAPR::Pool -le \
’open my $fh, ">:APR", "/tmp/apr", APR::Pool->new or die "$!"; \
 print $fh "whoah!"; \
 close $fh;’
```

1.2 DESCRIPTION

`APR::PerlIO` implements a Perl IO layer using APR’s file manipulation as its internals.

Why do you want to use this? Normally you shouldn’t, probably it won’t be faster than Perl’s default layer. It’s only useful when you need to manipulate a filehandle opened at the APR side, while using Perl.

Normally you won’t call open() with APR layer attribute, but some mod_perl functions will return a filehandle which is internally hooked to APR. But you can use APR Perl IO directly if you want.

1.3 Constants

1.3.1 PERLIO_LAYERS_ARE_ENABLED

Before using the Perl IO APR layer one has to check whether it’s supported by the used perl build.

```
die "This Perl build doesn’t support PerlIO layers"
    unless APR::PerlIO::PERLIO_LAYERS_ARE_ENABLED;
```

Notice that loading `APR::PerlIO` won’t fail when Perl IO layers aren’t available since `APR::PerlIO` provides functionality for Perl builds not supporting Perl IO layers.

1.4 API

Perl Interface:

1.4.1 open()

To use APR Perl IO to open a file the four arguments open() should be used. For example:

```
  open my $fh, ">:APR", $filename, $r->pool or die $!;
```

where:

the second argument is the mode to open the file, constructed from two sections separated by the `:` character: the first section is the mode to open the file under (>, <, etc) and the second section must be a string *APR*.

the fourth argument must be an `APR::Pool` object.

the rest of the arguments are the same as described by the *open()* manpage.

1.4.2 seek()

```
  seek($fh, $offset, $whence);
```

If `$offset` is zero, `seek()` works normally.

However if `$offset` is non-zero and Perl has been compiled with with large files support (`-Duselargefiles`), whereas APR wasn’t, this function will croak. This is because largefile size `Off_t` simply cannot fit into a non-largefile size `apr_off_t`.

To solve the problem, rebuild Perl with `-Uuselargefiles`. Currently there is no way to force APR to build with large files support.

1.5 C API

The C API provides functions to convert between Perl IO and APR Perl IO filehandles.

META: document these

1.6 SEE ALSO

The *perliol(1)*, *perlapio(1)* and *perl(1)* manpages.

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