1 Apache2::Directive - Perl API for manipulating the Apache configuration tree
1.1 Synopsis

use Apache2::Directive ();

my $tree = Apache2::Directive::conf_tree();

my $documentroot = $tree->lookup('DocumentRoot');

my $vhost = $tree->lookup('VirtualHost', 'localhost:8000');
my $servername = $vhost->{'ServerName'};

use Data::Dumper;
print Dumper $tree->as_hash;

my $node = $tree;
while ($node) {
    print $node->as_string;

    #do something with $node

    my $directive = $node->directive;
    my $args = $node->args;
    my $filename = $node->filename;
    my $line_num = $node->line_num;

    if (my $kid = $node->first_child) {
        $node = $kid;
    } elsif (my $next = $node->next) {
        $node = $next;
    } else {
        if (my $parent = $node->parent) {
            $node = $parent->next;
        } else {
            $node = undef;
        }
    }
}

1.2 Description

Apache2::Directive provides the Perl API for manipulating the Apache configuration tree

1.3 API

Apache2::Directive provides the following functions and/or methods:
1.3.1 args

Get the arguments for the current directive:

```perl
$args = $node->args();
```

- **obj:** $node (**Apache2::Directive object**)
- **ret:** $args (**string**)

Arguments are separated by a whitespace in the string.

- **since:** 2.0.00

For example, in `httpd.conf`:

```conf
PerlSwitches -M/opt/lib -M/usr/local/lib -wT
```

And later:

```perl
my $tree = Apache2::Directive::conftree();
my $node = $tree->lookup('PerlSwitches');
my $args = $node->args;
```

$args now contains the string 

```
-M/opt/lib -M/usr/local/lib -wT
```

1.3.2 as_hash

Get a hash representation of the configuration tree, in a format suitable for inclusion in `<Perl>` sections.

```perl
$config_hash = $conftree->as_hash();
```

- **obj:** $conftree (**Apache2::Directive object**)

  The config tree to stringify

- **ret:** $config_hash (**HASH reference**)
- **since:** 2.0.00

For example: in `httpd.conf`:

```conf
<Location /test>
  SetHandler perl-script
  PerlHandler Test::Module
</Location>
```

And later:

```perl
my $tree = Apache2::Directive::conftree();
my $node = $tree->lookup('Location', '/test');
my $hash = $node->as_hash;
```
$hash now is:

```perl
{
    'SetHandler' => 'perl-script',
    'PerlHandler' => 'Test::Module',
}
```

### 1.3.3 `as_string`

Get a string representation of the configuration node, in `httpd.conf` format.

```perl
$string = $node->as_string();
```

- **obj:** $node *(Apache2::Directive object)*
  
The config tree to stringify
- **ret:** $string *(string)*
- **since:** 2.0.00

For example: in `httpd.conf`:

```xml
<Location /test>
    SetHandler perl-script
    PerlHandler Test::Module
</Location>
```

And later:

```perl
my $tree = Apache2::Directive::conftree();
my $node = $tree->lookup('Location', '/test/');
my $string = $node->as_string;
```

$string is now:

```xml
SetHandler perl-script
PerlHandler Test::Module
```

### 1.3.4 `conftree`

Get the root of the configuration tree:

```perl
$conftree = Apache2::Directive::conftree();
```

- **obj:** Apache2::Directive *(class name)*
- **ret:** $conftree *(Apache2::Directive object)*
- **since:** 2.0.00
1.3.5 directive

Get the name of the directive in $node:

$name = $node->directive();

- obj: $node (Apache2::Directive object)
- ret: $name (string)
- since: 2.0.00

1.3.6 filename

Get the filename the configuration node was created from:

$filename = $node->filename();

- obj: $node (Apache2::Directive object)
- ret: $filename (string)
- since: 2.0.00

For example:

my $tree = Apache2::Directive::conftree();
my $node = $tree->lookup('VirtualHost', 'example.com');
my $filename = $node->filename;

$filename is now the full path to the httpd.conf that VirtualHost was defined in.

If the directive was added with add_config(), the filename will be the path to the httpd.conf that triggered that Perl code.

1.3.7 first_child

Get the first child node of this directive:

$child_node = $node->first_child;

- obj: $node (Apache2::Directive object)
- ret: $child_node (Apache2::Directive object)

Returns the first child node of $node, undef if there is none

- since: 2.0.00
1.3.8 line_num

Get the line number in a *filename* this node was created at:

```perl
$lineno = $node->line_num();
```

- **obj**: `$node` (*Apache2::Directive object*)
- **arg1**: `$lineno` (*integer*)
- **since**: 2.0.00

1.3.9 lookup

Get the node(s) matching a certain value.

```perl
$node  = $conftree->lookup($directive, $args);
@nodes = $conftree->lookup($directive, $args);
```

- **obj**: `$conftree` (*Apache2::Directive object*)
  - The config tree to stringify
- **arg1**: `$directive` (*string*)
  - The name of the directive to search for
- **opt arg2**: `$args` (*string*)
  - Optional args to the directive to filter for
- **ret**: `$string` (*string / ARRAY of HASH refs*)
  - In LIST context, it returns all matching nodes.
  - In SCALAR context, it returns only the first matching node.

If called with only `$directive` value, this method returns all nodes from that directive. For example:

```perl
@Alias = $conftree->lookup('Alias');
```

returns all nodes for `Alias` directives.

If called with an extra `$args` argument, it returns only nodes where both the directive and the args matched. For example:

```perl
$VHost = $tree->lookup('VirtualHost', '_default_:8000');
```

- **since**: 2.0.00
1.3.10 next

Get the next directive node in the tree:

```perl
$next_node = $node->next();
```

- obj: $node (Apache2::Directive object)
- ret: $next_node (Apache2::Directive object)

Returns the next sibling of $node, undef if there is none

- since: 2.0.00

1.3.11 parent

Get the parent node of this directive:

```perl
$parent_node = $node->parent();
```

- obj: $node (Apache2::Directive object)
- ret: parent_node (Apache2::Directive object)

Returns the parent of $node, undef if this node is the root node

- since: 2.0.00

1.4 See Also

mod_perl 2.0 documentation.

1.5 Copyright

mod_perl 2.0 and its core modules are copyrighted under The Apache Software License, Version 2.0.

1.6 Authors

The mod_perl development team and numerous contributors.
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