

## 7.6 - The PHP-CLI API

- The PHP-CLI API provides a binding to the TET C API
- All the functions provided by the API are referenced from a single PHP module `phptet.php`
- This module must be included at the start of the test set code

```
include "phptet.php"
```

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## Interface to the user-written code

- The PHP-CLI binding uses the TET dynamic interfaces, so unlike the Shell and Perl APIs you do not need to setup an iclist for the TCM to communicate with the code
  - Thereby simplifying the writing of test code

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## Defining a PHP-CLI Test Set

- The test set is contained in a single file consisting of an optional startup and cleanup function and a series of test functions.

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## Defining the startup and cleanup functions

- At the start of the test set are the optional startup and cleanup functions:

```
function startup()
{
    tet_infoline("Test startup");
}
```

```
function cleanup()
{
    tet_infoline("Test cleanup");
}
```

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## Defining the test methods

- The test functions are defined in sequence

```
test1()
{
    tet_infoline("Calling test 1")
}
```

```
test2()
{
    tet_infoline("Calling test 2")
}
```

```
...
```

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## Defining the test list array

- The test list is defined as an associative array

```
$testlist = array(1 => "test1", "test2", "test3");
```

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## Registering the test functions

- To run the tests you must register the test functions

```
phptet_init($testlist, "startup", "cleanup");
```

- If there is no startup or cleanup

```
phptet_init($testlist, TET_NULLFP, TET_NULLFP);
```

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## PHP-CLI API Features - Using the TET API

- Uses the same TET C API names

```
$myvar = tet_getvar("MY_CONFIG_VARIABLE");  
tet_infoline("output text goes here");  
tet_result(TET_PASS);  
tet_delete(1);
```

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## PHP-CLI API Features - TET Globals

- TET Globals must be declared before being referenced in a test function

```
function test1()
{
    global $tet_thistest;
    global $tet_pname;

    tet_infoline("This test is " . $tet_thistest);
    tet_infoline("This testset is " . $tet_pname);
}
```

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## PHP-CLI API Features - Handling Errors

- Errors are handled through return values

```
test1()
{
    $var = tet_getvar("MY_VAR");
    if ($var == "")
    {
        tet_infoline("Parameter MY_VAR is missing");
        return;
    }
}
```

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## Note

- The PHP-CLI TET API wrapper is generated using the SWIG toolkit that has some limitations which mean that not all the TET C API features are presently available in PhpTET API, e.g. `varargs (tet_printf())`

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## Building the phptet Module

- Need to have installed a supported version of TET and PHP
- Set `TET_ROOT` in the environment
- Check the settings of parameters in the Makefile
  - `PHP_DIR` - Location of the PHP include directory
- Build the `phptet` module using the `make` utility

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## Building the phptet Module

```
$ ls
Makefile  php.ini  phptet.php  phptet_dyn.php
Makefile.swig  php_phptet.h  phptet.ppt  phptet_profile
README    phptet.i    phptet_demo  phptet_wrap.c

$make
/usr/bin/gcc -I/usr/local/include/php -I/usr/local/include/php/main \
  -I/usr/local/include/php/Zend -I/usr/local/include/php/TSRM \
  -c phptet_wrap.c
/usr/bin/gcc -shared -fPIC -o php_tet.so phptet_wrap.o \
  /user2/tet/lib/tet3/tcm.o /user2/tet/lib/tet3/libapi.a
```

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## Setup for using the phptet module

- Edit the `php.ini` file
- Set `include_path` to the location of the phptet modules (`phptet.php` and `phptet_dyn.php`)
- Set `extension_dir` to the location of the shared library (`php_tet.so`)
- See the README for more detailed instructions

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## Using the PHP-CLI TET Module

- Include the `phptet.php` module
- Define the startup and cleanup functions (optional)
- Define the test functions
- Define the test list array

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## Using the PHP-CLI TET Module

- Register the test list, startup and cleanup methods with `phptet_init()`
- Invoke `tcc` to run the test cases

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## Example PHP-CLI test case

```
#!/usr/bin/env php
<?
include "phptet.php";

function test1()
{
    $var = tet_getvar("PHPTET_TC1_VAR");
    if ($var == "")
    {
        tet_Infoline("Failed to get a value for PHPTET_TC1_VAR");
        tet_result(TET_UNRESOLVED);
        return;
    }
    tet_Infoline("PHPTET_TC1_VAR is set to " . $var);
    tet_result(TET_PASS);
}

function test2()
{
    tet_result(TET_UNTESTED);
}

$testlist = array(1 => "test1", "test2");
phptet_init($testlist, TET_NULLFP, TET_NULLFP);
?>
```

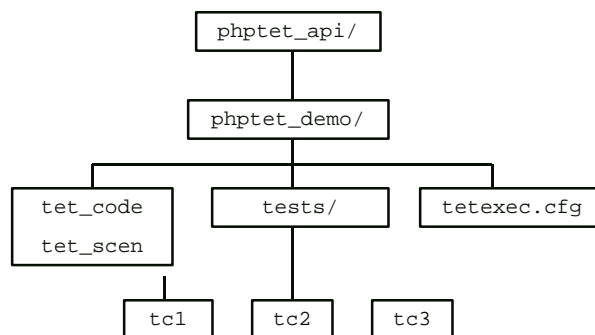
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## The phptet\_demo test suite

- phptet\_demo is an example test suite



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## Invoke tcc to run the phptet\_demo test suite

- Ensure that your environment is set, see `phptet_profile`
- Assuming `phptet_demo` is installed under `TET_ROOT`, change to the directory and invoke `tcc`:
  - `tcc -p -e`
- Otherwise set `TET_SUITE_ROOT` to where the `phptet_demo` directory is and invoke `tcc` (See next slide)

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## Running the phptet\_demo test suite

```
[phptet_demo] ls
results tests tet_code tet_scen tetexec.cfg
[phptet_demo] export TET_SUITE_ROOT=`pwd`
[phptet_demo] tcc -p -e .
tcc: journal file is /home/neil/work/phptet/phptet_demo/results/0001e/journal
11:58:08 Execute /tests/tc1
11:58:09 Execute /tests/tc2
11:58:10 Execute /tests/tc3
[phptet_demo]
```

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