SyncDET User Manual
(work in progress...)

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Chapter 1   Installation

1.1 System Requirements

Running SyncDET requires one or more UNIX or Linux systems. The requirements for *each* system are as follows:

1. Python 2.4+ installed.

2. A remote login server installed, such as `rlogin`, `telnet`, and `ssh`. Remote users should be able to login without entering a password.

3. Commands `ps`, `grep`, and `sed` installed. `ps` must support the option `-eo pid,cmd`, which lists all processes with a PID and a command line per row.

Chapter 2   The Scenario File

2.1 Concepts

A symbol can be a case module name, a group name, or a scenario name.

2.2 Directives

```
:serial[,count]
:repeat[,count]
```

Execute items sequentially. Each item will be executed sequentially *count* times before proceeding to the next case. If *count* is zero, only the first item will be executed, and will be executed infinite times until the program is terminated. The default value for *count* is one. The two directives are interchangeable.

```
:parallel[,count]
```

Execute all items in the block in parallel. Each item will be copied *count* times and all copies will be executed in parallel with copies of other items. *count* must *not* be zero. Its default value is one.

```
:shuffle[,count]
```

Execute items sequentially, but in a random order. All items will be executed exactly once unless *count* is non-zero, when *count* items will be executed. If *count* is greater than the number of items, some items will be executed more than once. The default value for *count* is zero.

```
:opening
```

nofail inforced.

```
:closing
```

```
:scn[,nofail] name
```

```
:group name
```

```
:include path
```

```
name()
```

2.3 Use of Directives

In this section, we list some typical uses of the directives. To loop over a list of items for 10 times:

```
:repeat,10
    :serial
        item1
        item2
        item3
```

To execute a random item in a list:

```
:shuffle,1
    item1
    item2
    item3
```

To randomly pick ten items from a list, and execute all of them in parallel:

```
:parallel,10
    :shuffle,1
        item1
        item2
        item3
```

Note that in the above case, one item may have multiple instances executing in parallel.

Chapter 3   Writing Test Cases

3.1 Defining the `spec` data structure

3.2 Writing test functions

Return values will be printed after 'OK' in the log and report files.

3.3 Test Case API

3.4 Synchronization

3.4.1 Cascading