

Variable inheritance

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In the previous chapter, we saw how to define a *variable* for a *task*. When all the tasks of the same *family* share the same variable value, the value could be defined at the family level.

This is termed *variable inheritance*

In the examples below the *variable* could have been defined at the level of the *suite*, achieving the same results.

Variables are inherited from the parent node.

If a variable is redefined lower in the tree, it is said to be overridden.

In this case, the new definition is the one being used.

It is possible to override the generated variables.

This is not recommended and you should understand all the consequences if you decide to do so.

Text

```
# Definition of the suite test.
suite test
  edit ECF_INCLUDE "$HOME/course" # replace '$HOME' with the path to your home directory
  edit ECF_HOME      "$HOME/course"
  family f1
    edit SLEEP 20
    task t1
    task t2
  endfamily
endsuite
```

Python

\$HOME/course/test.py

```
import os
from ecflow import Defs,Suite,Family,Task,Edit

def create_family_f1():
    return Family("f1",
        Edit(SLEEP=20),
        Task("t1"),
        Task("t2"))

print("Creating suite definition")
home = os.path.join(os.getenv("HOME"), "course")
defs = Defs(
    Suite("test",
        Edit(ECF_INCLUDE=home,ECF_HOME=home),
        create_family_f1()))
print(defs)

print("Checking job creation: .ecf -> .job0")
print(defs.check_job_creation())

print("Saving definition to file 'test.def'")
defs.save_as_defs("test.def")
```

Quiz

Let us have a quiz. Consider the following suite:

```

suite test
  edit SLEEP 100
  family f1
    edit SLEEP 80
    task t1
    task t2
    edit SLEEP 9
  family g1
    edit SLEEP 89
    task x1
    edit SLEEP 10
    task x2
  endfamily
endfamily
family f2
  task t1
  task t2
  edit SLEEP 77
  family g2
    task x1
    edit SLEEP 12
    task x2
  endfamily
endfamily
endsuite

```

Here is the value for SLEEP for the above suite. Make sure you understand this.

node	SLEEP
/test/f1/t1	80
/test/f1/t2	9
/test/f1/g1/x1	10
/test/f1/g1/x2	89
/test/f2/t1	100
/test/f2/t2	77
/test/f2/g2/x1	12
/test/f2/g2/x2	100

What to do

1. Do the modifications
2. Replace the [suite](#)
python: python3 test.py
python3 client.py
text: ecflow_client --suspend=/test; ecflow_client --replace=/test test.def
3. Watch in [ecflow_ui](#).

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