

```
def user(cond, dic, key):
    logging.debug('Starting user thread')
    with cond:
        while not key in dic:
            logging.debug("KEY UNAVAILABLE: \' + key
+ "\' not available! Waiting...")
            cond.wait()
        logging.debug("KEY AVAILABLE: " + key + ' == '
+ dic[key])
```

```
def editor(cond, dic, key, val):
    logging.debug('Starting editor thread')
    with cond:
        logging.debug('EDIT A KEY: ' + key + ' = ' + val)
        dic[key] = val
        cond.notifyAll()
```

```
def main():
    condition = threading.Condition(); dic = {}
```

```
    u1 = threading.Thread(name='u1', target=user,
args=(condition,dic,'hello'));
    .... u2 with 'hello', u3 with 'world', e1 with hello =
world, and e2 with world = hello
```

```
07:23:52,075 (u1) Starting user thread
07:23:52,076 (u2) Starting user thread
07:23:52,076 (u1) KEY UNAVAILABLE: 'hello' not
available! Waiting...
07:23:52,076 (u2) KEY UNAVAILABLE: 'hello' not
available! Waiting...
07:23:52,076 (u3) Starting user thread
07:23:52,076 (u3) KEY UNAVAILABLE: 'world' not
available! Waiting...
07:23:52,076 (e1) Starting editor thread
07:23:52,076 (e1) EDIT A KEY: hello = world
07:23:52,077 (u1) KEY AVAILABLE: hello == world
07:23:52,077 (u3) KEY UNAVAILABLE: 'world' not
available! Waiting...
07:23:52,077 (e2) Starting editor thread
07:23:52,077 (u2) KEY AVAILABLE: hello == world
07:23:52,077 (e2) EDIT A KEY: world = hello
07:23:52,077 (u3) KEY AVAILABLE: world == hello
```