

```
Long Jump
 Normal Appl Progression
                                        Appl Progression via
                                        Long Jump
  proc_a processing
                                          proc_a processing
  proc_b( )
                                          proc_b( )
     proc\_b\ processing
                                             proc_b processing
     proc\_c(\ )
                                             proc_c( )
        proc_c processing
                                               proc_c processing
        proc\_d(\ )
                                               proc\_d(\ )
         proc_d processing
                                                  proc_d processing
         return
                                                  long jump
        more proc_c processing
                                          more proc_a processing
        return
     more proc_b processing
     return
  more proc_a processing
```



Long Jump

- Long jumps truncate the application call stack
- Sometimes referred to as nonlocal gotos
- The long jump must be primed via setjmp, which saves the application context at the time of invocation
- The long jump is executed via longjmp, which restores the application context



Long Jump

- When the application context is restored, the appearance is that setimp is returning
- To determine whether the return is via the initial setjmp call, test the setjmp return value
- http://faculty.washington.edu/sproedp/advc/csamples/less20.c.html