

# Demonstration of Shell Process Accounting

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## 1 Descriptions

`ulimit` is useful to control the resource consumption of processes. Try `man ulimit`.

## 2 Demo

Let's see what's all configurable:

```
ulimit -a
```

Stack size is a configurable option. So let's play with it.

### 2.1 Compile

```
gcc -Wall stacklimit.c
ls -la a.out
file a.out
```

### 2.2 First try

```
ulimit -s 30
./a.out
echo
```

### 2.3 After increasing the stack

```
ulimit -s 50
./a.out
echo
```

### 2.4 For fun

When you set the `ulimit` too low, then nothing can be executed. Try `ulimit -s 20` in a separate terminal which you can close afterwards.

```
xterm -e /bin/bash
```

### 3 Sources

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```
#include <stdio.h>
#include <stdlib.h>

void recurse(int i) {
    printf("call #%d\n", i);
    recurse(i + 1);
}

int main() {
    recurse(0);
    exit(-1);
}
```

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Listing 1: Stacklimit.c