

Princeton University
COS 217: Introduction to Programming Systems
Trace of testexec

```
% gcc217 hello.c -o hello
% gcc217 testexec.c -o testexec
```

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Trace of testexec

```
% ./testexec
```

```
22440
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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```
% ./testexec
```

```
22440
```

```
int main(int argc, char *argv[])
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    execvp("./hello", apcArgv);
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```

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```
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```
22440
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int) getpid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

Writes:

```
22440 testexec
```

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Trace of testexec

```
% ./testexec
```

```
22440
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
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22440
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```
int main(int argc, char *argv[])
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    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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```
22440
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "hello";
    apcArgv[1] = NULL;
execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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```
22440
```

```
int main(void)
{
    pid_t iPid;
    iPid = getpid();
    printf("%d hello\n", (int)iPid);
    return 0;
}
```

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```
22440
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```
int main(void)
{
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```
int main(void)
{
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    iPid = getpid();
    printf("%d hello\n", (int)iPid);
    return 0;
}
```

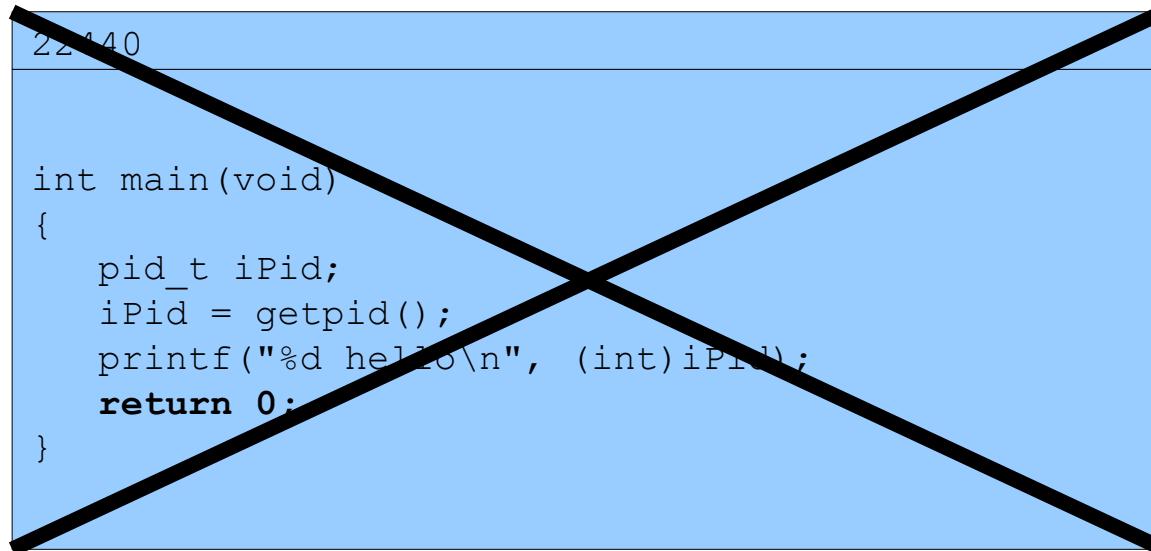
Writes:

```
22440 hello
```

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Trace of testexec

% ./testexec

```
22440
int main(void)
{
    pid_t iPid;
    iPid = getpid();
    printf("%d hello\n", (int)iPid);
    return 0;
}
```

A large black 'X' is drawn across the entire code block, indicating that the trace has been terminated or is invalid.

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Trace of testexec

%

Princeton University
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Trace of testexec

```
% mv hello nothello
```

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COS 217: Introduction to Programming Systems
Trace of testexec

```
% ./testexec
```

```
22454
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid);
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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Trace of testexec

```
% ./testexec
```

```
22454
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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Trace of testexec

```
% ./testexec
```

```
22454
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int) getpid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

Writes:

```
22454 testexec
```

Princeton University
COS 217: Introduction to Programming Systems
Trace of testexec

```
% ./testexec
```

```
22454
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
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    execvp("./hello", apcArgv);
    perror(argv[0]);
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}
```

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22454
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22454
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    char *apcArgv[2];
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    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

Writes:

```
./testexec: No such file or directory
```

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Trace of testexec

% ./testexec

```
22454
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int) getpid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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%

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Trace of testexec

```
% mv nothello hello
```

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Trace of testexec

```
% ./testexec
```

```
22463
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

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Trace of testexec

```
% ./testexec
```

```
22463
```

```
int main(int argc, char *argv[])
{
    char *apcArgv[2];
    printf("%d testexec\n", (int)getPid());
    apcArgv[0] = "./hello";
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    execvp("./hello", apcArgv);
    perror(argv[0]);
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}
```

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% ./testexec
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```
22463
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int main(int argc, char *argv[])
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    char *apcArgv[2];
    printf("%d testexec\n", (int) getpid());
    apcArgv[0] = "./hello";
    apcArgv[1] = NULL;
    execvp("./hello", apcArgv);
    perror(argv[0]);
    exit(EXIT_FAILURE);
}
```

Writes:

```
22463 testexec
```

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Trace of testexec

```
% ./testexec
```

```
22463
```

```
int main(int argc, char *argv[])
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22463
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int main(void)
{
    pid_t iPid;
    iPid = getpid();
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    return 0;
}
```

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22463
```

```
int main(void)
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    iPid = getpid();
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22463
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}
```

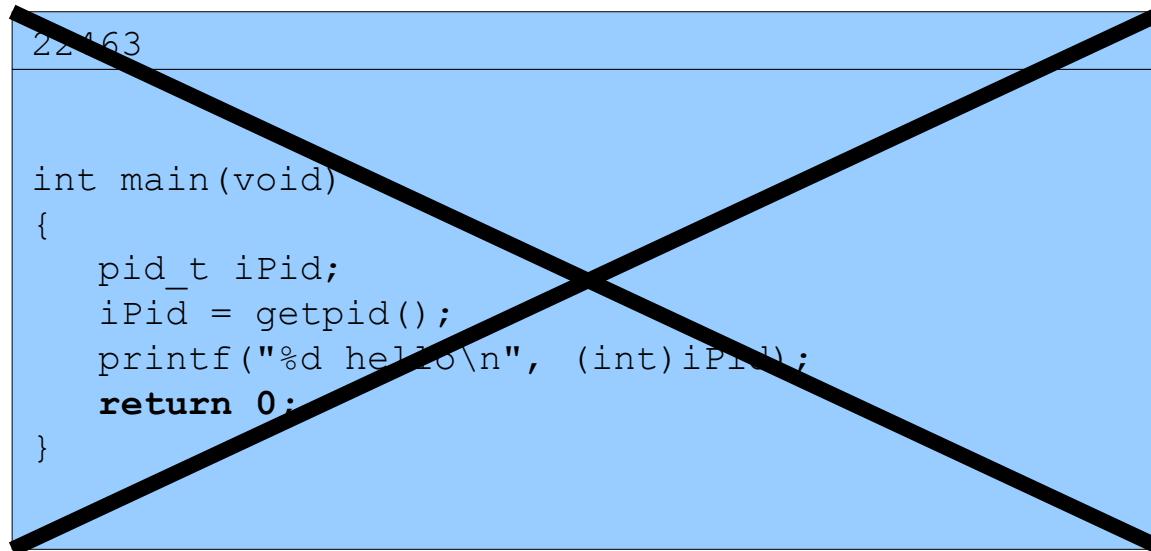
Writes:

```
22463 hello
```

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```
22463
int main(void)
{
    pid_t iPid;
    iPid = getpid();
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}
```

A large black 'X' is drawn across the entire code block, indicating that the trace has been disabled or is not applicable for this specific program.

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%

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