

# Systemes 2 — TD

---

Semestre 4



---

# Table des matières

---

<b>1</b>	<b>Introduction</b>	<b>4</b>
1.1	Exercice 1 . . . . .	4
1.2	Exercice 2 . . . . .	4
<b>2</b>	<b>Processus</b>	<b>6</b>
2.1	Exercice 3 . . . . .	6
2.2	Exercice 4 . . . . .	6
2.3	Exercice 5 . . . . .	6
2.4	Exercice 6 . . . . .	6
2.5	Exercice 7 . . . . .	6
<b>3</b>	<b>Gestion de la mémoire : mémoire virtuelle et allocation non contiguë</b>	<b>7</b>
<b>4</b>	<b>Structure interne du système de fichier d'Unix</b>	<b>8</b>
<b>5</b>	<b>Primitives Unix (POSIX.1) de manipulation des fichiers</b>	<b>9</b>

---

# Introduction

---

## 1.1 Exercice 1

```
1 #include <stdio.h>
2
3 int main(int argc, char** argv) {
4     int i;
5     for(i=1; i < argc; ++i) {
6         printf("%s\n", argv[i]);
7     }
8
9     return 0;
10 }
```

Listing 1.1 – Exercice 1 – Version portable

```
1 #define _POSIX_C_SOURCE 1
2
3 #include <stdio.h>
4
5 int main(int argc, char** argv, char** envp) {
6     int i;
7     printf("Argument : \n");
8     for(i=1; i < argc ; ++i) {
9         printf("argv[%d]=%s\n", i, argv[i]);
10    }
11    i=0;
12    while(envp[i] != NULL) {
13        printf("%s\n", envp[i++]);
14    }
15
16    return 0;
17 }
```

Listing 1.2 – Exercice 1 – Version Unix

## 1.2 Exercice 2

```
1 #define _POSIX_C_SOURCE 1
2
3 #include <stdio.h>
4 #include <string.h>
5
6 int main(int argc, char** argv) {
7     if(argc != 1 || !(strlen(argv[1]))) {
8         return 1;
9     }
10 }
```

```
10     printf("%s = %s\n", argv[1], getenv(argv[1]));
11
12     return 0;
13 }
14
```

Listing 1.3 – Exercice 2

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main(int argc, char** argv) {
5      char *valeur;
6
7      if(argc != 2) {
8          fprintf(stderr, "Usage : %s variable\n", argv[0]);
9          return (1);
10     }
11
12     valeur = getenv(argv[1]);
13
14     if(valeur == NULL) {
15         fprintf(stderr, "Variable %s inconnue \n", argv[1]);
16         return (2);
17     }
18
19     printf("%s=%s", argv[1], valeur);
20
21     return 0;
22 }
```

Listing 1.4 – Exercice 2

---

# Processus

---

2.1 Exercice 3

2.2 Exercice 4

2.3 Exercice 5

2.4 Exercice 6

2.5 Exercice 7

---

# Gestion de la mémoire : mémoire virtuelle et allocation non contiguë

---

# Structure interne du système de fichier d'Unix

---

4



---

# Primitives Unix (POSIX.1) de manipulation des fichiers

---