

Wskaźniki

1

```
int var; // deklaracja zmiennej
int *p; // deklaracja wskaźnika
var; // wartość
&var; // adres gdzie znajduje się wartość
p // wskaźnik na adres pamięci
*p; // wartość, na którą wskazuje wskaźnik,
```

Wskaźniki

```
1 int nbr = 64;  
  printf("Value: %d\r\n", nbr);  
  printf("Address: %p\r\n", &nbr);
```

```
2 int nbr = 64;  
  int *p = &nbr;  
  printf("Value: %d\r\n", *p);  
  printf("Address: %p\r\n", p);
```

Tablice

1

```
char ary[4]; // OK
char ary[]; // ERR
char ary[4] = {1, 2, 4, 8}; // OK
char ary[ ] = {1, 2, 4, 8}; // ERR
```

2

1	2	4	8	Value
0xFF01	0xFF02	0xFF03	0xFF04	Address

Tablice

1

```
char ary2d[2][2] = {1, 2, 4, 8};  
char ary2d[2][2] = {{1, 2}, {4, 8}};
```

2

1 0xFF01	2 0xFF02
4 0xFF03	8 0xFF04

Value
Address

Tablice

1

```
char x, ary[4], ary2d[2][2];
```

```
x = ary[0]; // OK
```

```
x = ary[0][0]; // ERROR
```

```
x = ary2d[0][0]; // OK
```

```
x = ary2d[0]; // OK
```

Łańcuchy znaków

1

```
char str1[100] = "Hello\0";  
char str2[] = "Hello";  
char str3[6] = { 'H', 'e', 'l', 'l', 'o', '\0' };  
char str4[] = { 'H', 'e', 'l', 'l', 'o', 0 };  
char str5[] = { 72, 101, 108, 108, 111, 0 };  
char str6[] = { 0x48, 0x65, 0x6C, 0x6C, 0x6F, 0x00 };
```

2

'H'	'e'	'l'	'l'	'o'	0
0xFF01	0xFF02	0xFF03	0xFF04	0xFF05	0xFF06

Łańcuchy znaków

```
1 char str[] = "Hello";
```

```
2 printf("%s\n", str); // Hello  
printf("%c\n", str[0]); // H  
printf("%u\n", str[0]); // 72  
printf("0x%x\n", str[0]); // 0x48
```

Łańcuchy znaków

```
1 char str[] = "Hello";
```

```
printf("%c\n", *str); // H
```

```
printf("%c\n", str[2]); // l
```

```
2 printf("%s\n", str + 2); // llo
```

```
printf("%c\n", *(str + 2)); // l
```

```
printf("%s\n", &str[2]); // llo
```


0	0x00	[NULL] \0	16	0x10	[DATA LINK ESCAPE]
1	0x01	[START OF HEADING]	17	0x11	[DEVICE CONTROL 1]
2	0x02	[START OF TEXT]	18	0x12	[DEVICE CONTROL 2]
3	0x03	[END OF TEXT]	19	0x13	[DEVICE CONTROL 3]
4	0x04	[END]	20	0x14	[DEVICE CONTROL 4]
5	0x05	[ENQUIRY]	21	0x15	[NEGATIVE ACKNOWLEDGE]
6	0x06	[ACKNOWLEDGE]	22	0x16	[SYNCHRONOUS IDLE]
7	0x07	[BELL]	23	0x17	[END OF TRANS BLOCK]
8	0x08	[BACKSPACE]	24	0x18	[CANCEL]
9	0x09	[HORIZONTAL TAB]	25	0x19	[END OF MEDIUM]
10	0x0A	[LINE FEED] \n	26	0x1A	[SUBSTITUTE]
11	0x0B	[VERTICAL TAB]	27	0x1B	[ESCAPE]
12	0x0C	[FROM FEED]	28	0x1C	[FILE SEPARATOR]
13	0x0D	[CARRIAGE RETURN] \r	29	0x1D	[GROUP SEPARATOR]
14	0x0E	[SHIFT OFF]	30	0x1E	[RECORD SEPARATOR]
15	0x0F	[SHIFT IN]	31	0x1F	[UNIT SEPARATOR]

32 0x20 [SPACE]	48 0x30 0	64 0x40 @	80 0x50 P	96 0x60 `	112 0x70 p
33 0x21 !	49 0x31 1	65 0x41 A	81 0x51 Q	97 0x61 a	113 0x71 q
34 0x22 "	50 0x32 2	66 0x42 B	82 0x52 R	98 0x62 b	114 0x72 r
35 0x23 #	51 0x33 3	67 0x43 C	83 0x53 S	99 0x63 c	115 0x73 s
36 0x24 \$	52 0x34 4	68 0x44 D	84 0x54 T	100 0x64 d	116 0x74 t
37 0x25 %	53 0x35 5	69 0x45 E	85 0x55 U	101 0x65 e	117 0x75 u
38 0x26 &	54 0x36 6	70 0x46 F	86 0x56 V	102 0x66 f	118 0x76 v
39 0x27 '	55 0x37 7	71 0x47 G	87 0x57 W	103 0x67 g	119 0x77 w
40 0x28 (56 0x38 8	72 0x48 H	88 0x58 X	104 0x68 h	120 0x78 z
41 0x29)	57 0x39 9	73 0x49 I	89 0x59 Y	105 0x69 i	121 0x79 y
42 0x2A *	58 0x3A :	74 0x4A J	90 0x5A Z	106 0x6A j	122 0x7A z
43 0x2B +	59 0x3B ;	75 0x4B K	91 0x5B [107 0x6B k	123 0x7B {
44 0x2C ,	60 0x3C <	76 0x4C L	92 0x5C \	108 0x6C l	124 0x7C
45 0x2D -	61 0x3D =	77 0x4D M	93 0x5D]	109 0x6D m	125 0x7D }
46 0x2E .	62 0x3E >	78 0x4E N	94 0x5E ^	110 0x6E n	126 0x7E ~
47 0x2F /	63 0x3F ?	79 0x4F O	95 0x5F _	111 0x6F o	127 0x7F [DEL]

polskie znaki