

Why “&” is not used for strings in scanf() function?

Below is syntax of Scanf. It requires two arguments:

```
scanf("Format Specifier", Variable Address);
```

Format Specifier: Type of value to expect while input

Variable Address: [&variable returns the variable's memory address.](#)

In case of a string (character array), the variable itself points to the first element of the array in question. Thus, there is no need to use the ‘&’ operator to pass the address.

```
// C program to illustrate not using "&"  
// in scanf statement
```

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

```
int main()
```

```
{
```

```
    char name[25];
```

```
    // Syntax to scan a String
```

```
    scanf("%s", name);
```

```
    // Comparing base address of String with address
```

```
    // of first element of array which must return
```

```
    // true as both must be same
```

```
    printf("(Is Base address = address of first element)? \n %d",  
           (name == &name[0]));
```

```
}
```

Output:

```
(Is Base address = address of first element)?
```

```
1
```

Important Points

1. '&' is used to get the address of the variable. C does not have a string type, String is just an array of characters and an array variable stores the address of the first index location.
2. By default the variable itself points to the base address and therefore to access base address of string, there is no need of adding an extra '&'