yhOS documentation
aceinetx (c) 2022-2025

System calls

id (%eax)	%ebx	%ecx	%edx	description
SYS_WRITEC - 0	character	-	-	Prints a character to the screen
SYS_WRITE - 1	buffer	-	-	Prints a null terminated string to the screen
SYS_GETS - 2	buffer	length	-	Requests a string from the user
SYS_VFSWRITE - 3	filename (char*)	buffer (char*)	buffer_size (dword)	Writes a file to the virtual file system. If no file is found it will create it (if there is enough space). Returns 0 in eax if fails. Returns a content address if doesn't fail
SYS_VFSREAD - 4	filename (char*)	buffer (char*)	buffer_size (dword)	Reads a file from the virtual file system. Returns 0 in eax if fails. Returns a content address if doesn't fail

A writec system call example in flat assembler:

```
mov eax, SYS_WRITEC
mov ebx, 0x45
int 0x80
```

And in C:

```
syscall(SYS_WRITEC, 'E'); //Requires syscall.h
```

Virtual file system

yhOS has a mechanism called "Virtual file system". You can think of it like a virtual hard drive, it stores every file in RAM which unloads on restart.

Virtual file system is structured as a pointer to array of structures called vfs_file. This structure contains these variables: a char* filename, char* content, and dword size. Virtual file system is resizable at runtime via the dynamic memory allocator.

System calls that start with SYS_VFS are not for I/O but for the virtual file system