

# Re: void pointer cast segfaults

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*Source:* [http://coding.derkeiler.com/Archive/C\\_CPP/comp.lang.c/2005-05/msg00294.html](http://coding.derkeiler.com/Archive/C_CPP/comp.lang.c/2005-05/msg00294.html)

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- *From:* "Peter Nilsson" <[airia@xxxxxxxxxxxx](mailto:airia@xxxxxxxxxxxx)>
  - *Date:* 4 May 2005 20:55:07 -0700
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Andreas Schmidt wrote:

> I am trying to understand the behavior of void pointers.

You're really trying to explain why accessing random addresses causes your machine to segfault.

> Can someone explain to me why I get a segfault for the  
> following program?

>

> #include <stdio.h>

>

> void\* plusone(void\* i){

> int\* arg = (int\*)i;

The (int \*) cast is unnecessary. But the conversion may fail if the resulting pointer is not suitably aligned for an int.

> int result = (\*arg + 1);

You're trying to get an int value from memory you probably don't own.

> return (void\*)result;

The conversion of an int to a void \* is implementation defined.

> }

> int main(){

> void\* w1 = (void\*)10;

Again the conversion is implementation defined. It is utterly useless in portable programming because you have *\_no idea\_* what 10 will represent when converted to a pointer.

> void\* result = plusone(w1);

> printf("%d", \*(int\*)result);

Again you try and grab an int value from memory you don't own.

Also, without a trailing \n, you have no guarantee of output anyway.

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> }  
>  
> According to gdb, the cast in the first line of plusone gives  
> the segfault.  
> Why??

What are you actually trying to do? If it is implementation specific,  
then ask in an implementation specific newsgroup.

If you're just trying things, then realise that C is probably the  
\_worst\_ language to learn through pure experimentation.

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Peter

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• *Follow-Ups:*

- ◆ [Re: void pointer cast segfaults](#)  
◇ From: Andreas Schmidt

• *References:*

- ◆ [void pointer cast segfaults](#)  
◇ From: Andreas Schmidt
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