

# Is there any disadvantage to using -cp compiler option for full pointer support?

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By default (i.e. without -cp), the isCOBOL compiler uses Java memory for all data items. The Java Virtual Machine safeguards programs that use purely Java memory and that do not call native functions. These programs cannot cause memory protection faults, bus errors, segmentation violations, stack corruption, illegal instructions, and other memory related problems.

- Pointer arithmetic
- All uses of "ADDRESS OF". For example:
  - SET ptr to ADDRESS OF data-item
  - SET ADDRESS OF lk-item TO ptr
  - SET ADDRESS OF lk-item TO ADDRESS OF data-item
  - IF ADDRESS OF data-item NOT = ZERO
- A COBOL program to receive and use memory addresses (pointers) from C language and other native functions that have allocated native memory.
- A C language or other native function to save passed addresses and use them outside of the context of the CALL statement (such as is done by some 3rd party software such as Pro\*COBOL)

- Allows the use of the figurative constant NULL

- Treats

```
USAGE POINTER  
as
```

```
USAGE HANDLE
```

- Treats

```
SET ADDRESS OF lk-item TO ptr  
as
```

```
SET HANDLE OF lk-item TO ptr
```

- Treats

```
SET ADDRESS OF lk-item TO ADDRESS OF data-item  
as
```

```
SET HANDLE OF lk-item TO HANDLE OF data-item
```

- Does not allow the following syntax:

```
SET ptr TO ADDRESS OF data-item
```