
Subject: Parameter passing in PV-Wave

Posted by [Bob Fletcher](#) on Mon, 04 Nov 1996 08:00:00 GMT

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I'm trying to understand the parameter passing in Wave.

In the programmers manual it says

1: 'Variables are passed by reference.' (P. 241)

On page 242 it says: (bullet 5)

2: 'values of parmeters passed by reference are _copied back into corresponding variables_'

So what really happens.

In fortran call by reference I can say

```
REAL a(10000000000)
```

```
call addit(a)
```

```
....
```

```
subroutine addit(b)          PRO, addit,b
```

```
b(999999999) = b(999999999)+1      b(999999999) = b(999999999)+1
```

```
return                      RETURN
```

```
end                          end
```

and I only have to store the big array once. The pass by reference just passes the address of a, and the subroutine just finds the right memory location and does it's thing. (which allows all those ugly fortran cheats passing parts of multidim. arrays.)

If I do this in Wave what happens? Quote 1: makes me think that it's like fortran, but quote 2: makes me think that I have to copy the whole array into a separate memory location. (Bad thing)

Do I end up storing A twice? Does it depend on the variable type of a? (List? assoc array? structure?)

The more general question is, what are the preformance penalties of calling functions and procedures. (And does the compiler do anything smart. Inlining for instance?)

Any ideas?

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