

[3.18] Swap list elements

There is no built-in function to swap two list elements. This function exchanges the elements of *list* at locations *i1* and *i2*:

```
listswap(list,i1,i2)
func
@(list,i1,i2) list[i1]<->list[i2]
©Swap list elements
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local x

list[i1]→x
list[i2]→list[i1]
x→list[i2]

list

Endfunc
```

For example,

```
listswap({a,b,c,d},1,4)
```

returns {d,b,c,a}.

This is a well known way to exchange two elements. I include it only because you might be tempted, as I was, to do it in a more convoluted way. Note that this function takes advantage of the fact that you can write to the function arguments. In this case, the elements of *list* are written directly to *list*, then *list* is returned.

This function executes in about 0.17 seconds on a TI92+ with AMS 2.05. For even better speed, don't call the function, just use the three lines that perform the swap. Those three lines execute in about 0.099 seconds.