

Return Value from `isort` Indicates Success or Failure

Returns 1 on success, or 0 on failure.

```
int32_t isort
(void* base,
 int32_t n_elts,
 size_t size,
 int32_t (*is_smaller)
 (void* t1, void* t2));
```

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Function Pointer: a Function Signature, Plus an Asterisk

Focus now on the function pointer argument:

Function pointer's identifier preceded by * and surrounded by parentheses.

```
int32_t (*is_smaller)
(void* t1, void* t2)
```

return type argument list

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Function Pointer Meaning Must Be Documented

Meaning of the function pointer argument

- **must be documented**,
- just like other parameters!

`is_smaller`

- compares two array elements, `t1` and `t2`
- and returns
 - non-zero (true) if `t1 < t2`,
 - 0 (false) if `t1 ≥ t2`.

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Change Variables to Support “Things” of Any **size**

Now for code (based on the integer version):

```
array pointer for pointer arithmetic
(base has type void*)

char* array = base;
void* current;
int32_t sorted;
int32_t index;
```

space for one “thing”
(size varies, so space is
allocated dynamically)

same loop indices as
used for sorting integers

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