IEEE Standards Interpretations for IEEE Std 1003.2™-1992 IEEE Standard for Information Technology--Portable Operating System Interfaces (POSIX®)--Part 2: Shell and Utilities

Interpretation Request #139
Topic: getopts **Relevant Sections:** 4.27.2

The standard specifies (section 4.27.2, p291, lines 4658-4662) "when the end of options is encountered, the getopts utility shall exit with a return value greater than zero; the shell variable OPTIND shall be set to the index of the first nonoption- argument, where the first -- argument is considered to be an option-argument if there are no other non-option-arguments appearing before it, or the value $\#+1$ if there are no nonoption- arguments..." This has raised two problems when conformance testing; (i) The standard does not specify whether an argument that resembles an option but is not listed as an option to getopts should be classified as an option or not. (ii) The text quoted above appears to conflict with lines 4631-4633: "each time it is invoked, the getopts utility shall place the value of the next option in the shell variable specified by the name operand and the index of the next argument to be processed in the shell variable OPTIND". Based on the above what should be the value for OPTIND for the arguments "-a -b -c x y z" if only "-a" and "-b" are specified as valid options to getopts? Some conformance tests tests assume OPTIND should point to "x", but it seems equally reasonable to expect it to point to "-c".

Interpretation Response
The standard does not speak to this issue, and as such no conformance distinction can be made between alternative implementations based on this. This is being referred to the sponsor.

Rationale for Interpretation
None.