Does the Resource Compiler have a separate preprocessor or doesn't it?

devblogs.microsoft.com/oldnewthing/20240910-00

September 10, 2024



Some time ago, I noted that <u>the Resource Compiler's preprocessor is not the same as the C</u> <u>preprocessor</u>. Michal Necasek at the <u>OS/2 Museum</u> (highly recommended) <u>took issue with</u> <u>that statement</u>, noting that the strings in the <u>rcpp.exe</u> program reveal that it seems to be basically the same C preprocessor book with a different cover. So who's right?

We're both right.

The standalone rcpp.exe program may very well have begun as the C preprocessor, but it existed only in the 16-bit SDK. The 32-bit Resource Compiler uses a built-in preprocessor; there is no 32-bit rcpp.exe.

Even though a lot of the preprocessing machinery is the same, the two have diverged. For example, the only **#pragma** directive supported by the Resource Compiler is **#pragma** code_page(n), which is a pragma not supported by the C preprocessor at all.

Bonus chatter: Even though you can ask the C compiler to produce a preprocessed file, the C compiler internally doesn't write the output to a file and then read it back. That is just a waypoint in the overall process of compiling. Internally, the tokens in the preprocessed output have hidden attributes (known informally in standards circles as "<u>blue paint</u>") that don't show up in the output, so it is not strictly the case that taking the preprocessed output and feeding it back into the compiler is a full fidelity representation of the output of the preprocessor step.