Waycat - Scratch-Like Code Editor That Can Translate Blocks To Code and Vice Versa

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Nowadays programming has become more than a profession. It is a skill similar to math and writing. So many schools teach their students computer science. Even in elementary schools, teachers uses gamified approach and visual languages. And there is a problem, for some students learning a classical, text based programming language becomes hard and uninteresting after easy scratch-like language. Modern visual environments like Scratch, Snap, CoSpaces, Blockly can generate code from block representations. This may help students to understand programming languages, but this doesn't stimulate students to write actual code instead of blocks. Cause translation works in only one way. From blocks to text. In a suggested Waycat application, a text block translation is added, so user can not only save regular code, but also open a regular file with code in Waycat and edit it with blocks. Now Waycat can work with python code, but also has the ability to add another target language. Therefore students will not be limited to a single option. Waycat does not interact with compiler or interpreter directly. So external language libraries are supported out of the box. Further development involves adding new language frontends, optimizing language API, and adding ability for real-time block generation. Goal is creating an application that can help students move from visual languages to classical programming as easy as possible.

Awards Won:
Fourth Award of $500