enhance its reliability, readability, and maintainability. Its capabilities might include the transformation of large procedures to a set of smaller ones or the transformation of a program to make it "structured" (for example, to eliminate goto statements).

(3) A programming style transformer could transform an Ada source program to a program meeting a set of style requirements.

(4) A debugging preprocessor could transform an Ada source program to enhance its readability and maintainability. The preprocessor would perform useful actions, such as fully qualifying homographs.

Future application of the design methodology at Stanford will include implementation of a transforming tool for use with Anna (Annotated Ada). This tool will accept as input an Annotated Ada source program and provide as output the same Ada source program with the annotations converted to executable Ada checking code.

Experience with DIANA at Stanford has proven that it offers several advantages to the Ada transformation tool designer. These advantages should be exploited to make the task of implementing Ada transformation tools more efficient and less time-consuming.

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References


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