

Programming with Grammars

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Abstract : DGL is a context free grammar-based tool for generating random data. Many types of simulator input data require some computation to be placed in the proper format. For example, it might be necessary to generate ordered triples in which the third element is the sum of the first two elements, or it might be necessary to generate random numbers in some sorted order. Although DGL is universal in computational power, generating these types of data is extremely difficult. To overcome this problem, we have enhanced DGL to include features that permit direct computation within the structure of a context free grammar. The features have been implemented as special types of productions, preserving the context free flavor of DGL specifications.

Keywords : DGL, Enhanced Context Free Grammars, Programming Constructs, Random Data Generation

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