Components for Pen-Based Mathematical Interfaces

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Abstract

Any robust system for pen-based mathematical computation will comprise a number of components, many of which are sophisticated software systems in their own right. We present the components of our pen-based interface for mathematics, and describe the relationship among them. We present in some detail (i) our approach to recognition of characters from large sets of mathematical symbols, (ii) our use of empirical sub-expression frequency data, and (iii) our portable architecture for a pen-based component that may be embedded in Maple or Microsoft Office.