

Table-Oriented Programming

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3 pm.

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The talk presents a new paradigm of programming: table-oriented programming. The basic objects are structured tables and documents (tabments). Tabments use the very old notions of arbitrarily nested repeating groups, which are the same as hierarchical structures from logical point of view. These old structures are handled by new powerful operations. Our language is called o++o or more precise ottoProgrammingScript, which is described at ottops.de.

In many situations, calculating with tables is simpler than calculating with numbers, therefore we believe that it is possible to use our operations not only in school of higher classes, but already in classes 1,2,... . We made already successful tests with preschool children. Contrary to other programming languages we do not need loops and even the general notion of recursion. A program with 3 nested loops is hard to write and even to understand. An understanding of general recursion can be reached in our opinion only by very qualified people. Corresponding o++o-programs consist often of very few independent lines, where each line can be understood separately.

o++o was originally designed to improve the database language SQL. Later it was generalized to documents. Therefore there is no need to learn XQuery. We plan to apply o++o to the Wikipedia and to relational databases, ..., and hopefully later also to search engines.

In the talk I will present o++o by many short examples of the mathematics curriculum of nearly all classes and by queries to whole databases. We believe for example that the basic application of the integral calculus can be taught not only in the "Gymnasium" (Germany), but also in every school.