ABSTRACT

THE AFFECT OF VARIOUS COMBINATIONS OF DATA TYPES IN VARIABLE TOWARD *RUNNING TIME* PROGRAM

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Running time is the time or period required for executing a program. One of the factors that affect running time is data type in a variable. The purpose of this research is to know the affect of the use of various kinds of data types in a variable toward running time program. This research analyzed the affect of various combinations of data types to the running time program with a case study membalik_deretan_karakter program. The program is derived from a collection of the national computer olympics. The twenty-five combinations of integer data type is used, then the program was running on Free Pascal software of Ubuntu 11.04. After that, the speed of running time was analyzed by using the Turbo Profiler application, then the result were analyzed graphically using boxplot of Minitab 16 software. Based on the result, it can be concluded that the combination of integer data types affected the running time program, such as the combination of Byte-Byte has the fastest running time speed and Longint-Longint has the longest running time speed.

Keywords: data type, running time, turbo profiler, boxplot