

ABSTRACT. Object of research—modern high-performance microcomputer devices, whose development makes it possible the usage of high-level object-oriented programming language; highly developed Java technology is in order to identify optimal parameters and configuration of microcomputer system. The aim of research—to get results regarding the use of the Java programming language for creating microcomputers software. Identification of the main features of different versions of Java platforms for use on microcomputers. The results—evaluation of the performance of Oracle Java SE 8 (with Java FX) and Open JDK Java on microcomputers Raspberry Pi; the impact frequency of the processor performance on microcomputer platform Java; dependence on the speed of Java microcomputer system that uses a multicore processor; evaluation of characteristics Java ME and Java SE platforms; sequence design software for GPIO control and creation of web server technology with Java Server Pages.