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TECHNOLOGY FOR REMOTE DEBUGGING OF CONTROL SOFTWARE IN THE DEVELOPMENT OF AUTONOMOUS UNDERWATER VEHICLES

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A technique for debugging the software control system (SCS) for an autonomous underwater vehicle (AUV) is presented. The SCS is located on the remote instrumental-software modeling framework (test bench). At the same time, two geographically separated groups of developers carry out the SCS debugging, and an Internet connection is used for the interaction of developers with the test bed. The process of remote debugging is considered from the point of view of the structural organization of the SCS and the test bench. The procedure for setting up the interaction of the components of the test bench is described. The main stages of debugging are also considered, including offline debugging, remote debugging of drivers, and complex remote debugging. The debugging technique was used in the development of the SCS for one of the projects carried out by the IMTP FEB RAS.

Keywords: autonomous underwater vehicle (AUV), software control system (SCS), instrumental-software modeling framework, joint software development, remote debugging of programs.

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