

**PROSPECTS FOR CREATING UNIVERSAL SERVICE FOR REMOTE ENSEMBLE CALCULATIONS
OF DYNAMIC MODELS OF CULTIVATED PLANT PRODUCTION PROCESS**

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One of the modern trends in the practice of modeling the production process of cultivated plants is ensemble calculations. They allow considering one calculation of the production process model as a repetition in a computational computer experiment. Often the same computational computer experiments are carried out with several models of the production process, but they are not automated: each crop simulation model developer has to use its own infrastructure to support his model for the polyvariant calculations. Polyvariant calculation system developed in crop simulation laboratory of the Agrophysical Research Institute allows carrying out the computer experiments with several models, however, it is not fully adapted for ensemble calculations. The aim of the current work was to develop the new version of APEX with special architecture for ensemble calculations, which allows model users from all over the world to connect to APEX server and perform their research. The paper describes this architecture and also discusses several conventions for the use of the new APEX version and potential abilities for problem solutions. Currently, several tasks to create such a universal product have already been solved. For example, AgMIP format support has already been implemented. This is the international standard format for input and output data for crop simulation models. The conditions in which this development could be applied in practice are also considered.

Key words: modelling, plant production process, ensemble calculations