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Various product constructions have been one of the major tools for building models of theories in algebra and logic. The effective (algorithmic) ultrapower construction for computable structures is a computability-theoretic analog of the classical ultrapower construction. In the effective ultrapowers, the role of an ultrafilter is played by an infinite set of natural numbers, which cannot be split into two infinite parts by any algorithmically enumerable set. While the elements of the classical ultrapower of structures are equivalence classes of sequences of elements of structures, in the effective case, these sequences are partial computable, and in some cases computable. In this talk, we will explain the background and the framework for our recent results on certain directed graphs. (Received August 26, 2021)