

EMP

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1 Introduction

EMP (Extended Mathematical Programming) is an experimental framework for automated mathematical programming reformulations such as

- Bilevel Programs
- Disjunctive Programs
- Extended Nonlinear Programs
- Embedded Complementarity Systems
- Variational Inequalities

The idea behind EMP is that new upcoming model types which cannot be solved reliably yet are reformulated into model of established math programming classes in order to use mature solver technology. Examples showing how to use EMP are made available through the GAMS EMP Library which is included in the GAMS Distribution. EMP has been developed jointly by Michael Ferris of UW-Madison, Ignacio Grossmann of Carnegie Mellon University and GAMS Development Corporation.

EMP comes free of charge with any licensed GAMS system but needs a subsolver to solve the generated models.