

Proiect cu operatorul economic S.C. DPR Draexlmaier Procese de Productie Romania SRL

Contract nr. : 6/21.01.2014, Nr. Inreg. 5/24.01.2014

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## Test of speaker system regarding feasibility, quality and cost. Theoretical evaluation & documentation of concept RequSpec (LH) External Version

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The subject of the research contract is to evaluate and develop a method and a system for testing the parallel loudspeakers in an car. The research must be focused on the aspects regarding:

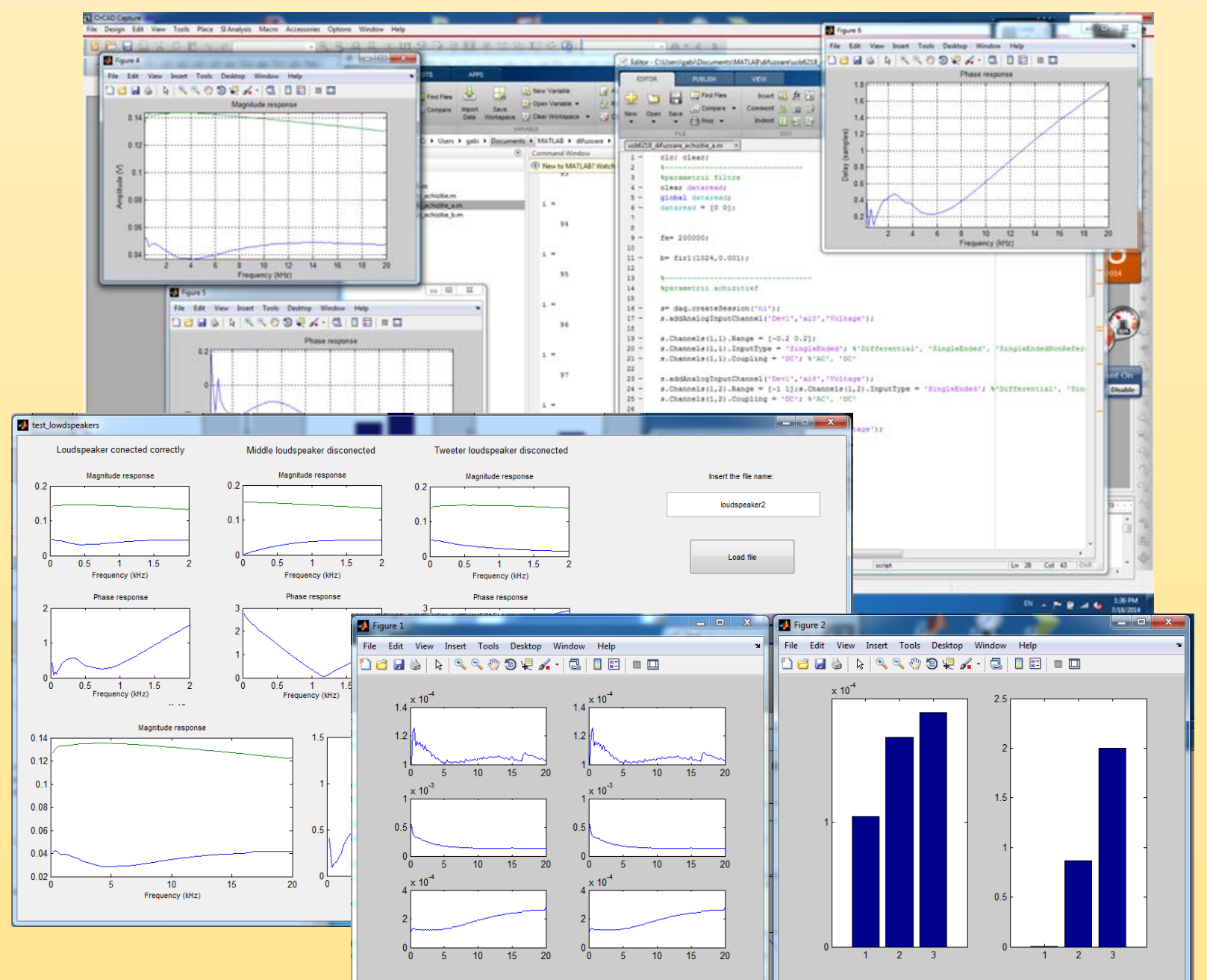
- feasibility: can be implemented in good conditions in Drăxlmaier plants, in an industrial environment;
- reliability: measure all the features of the loudspeakers;



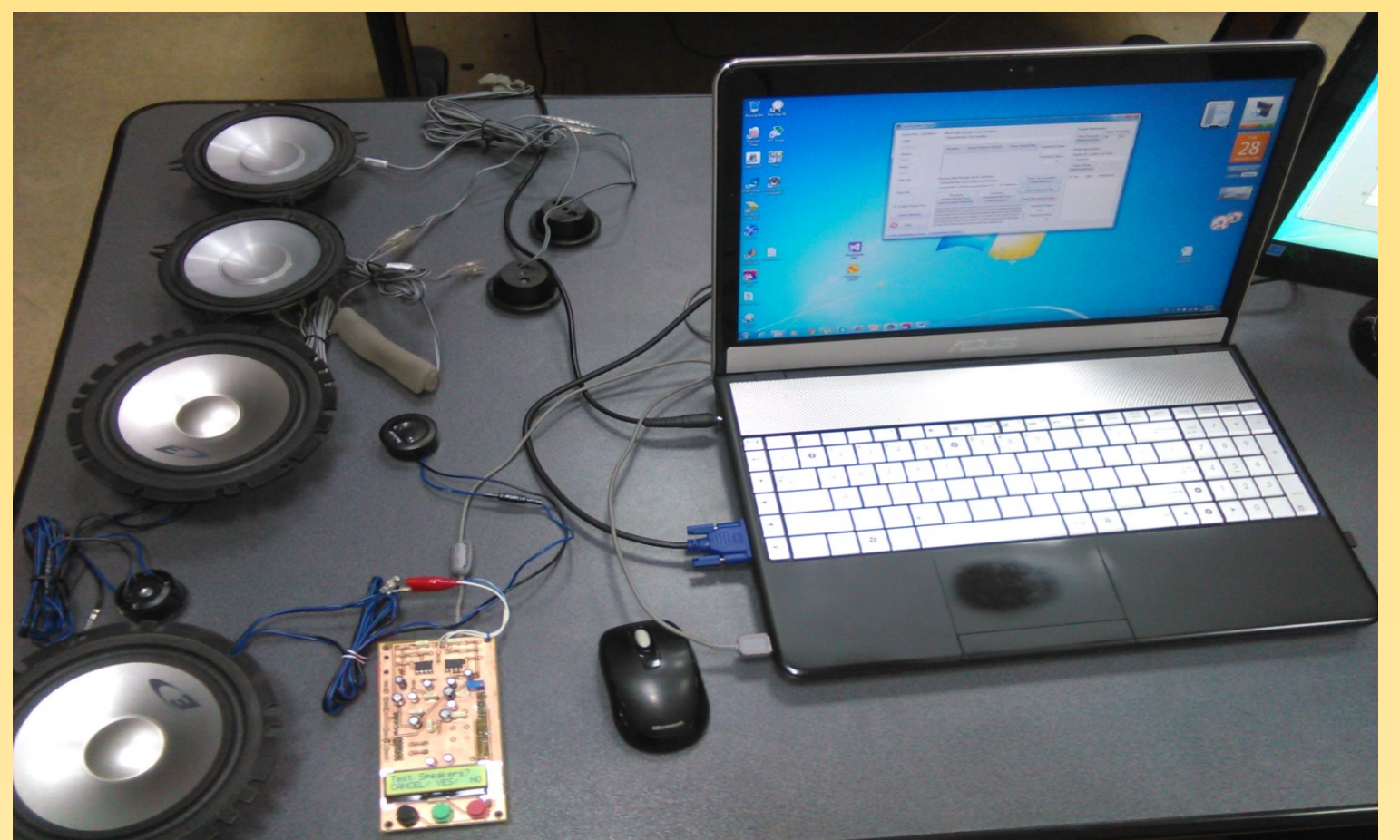
Laboratory system to verify the methods and algorithms

### Work packages and activities:

- Documentation, design and study of experimental
  - a) Systems analysis that need to be tested
  - b) Documentation about systems and technologies that can be used in the project topic and determining the best solutions that can be applied and specify the strengths and weaknesses of them
  - c) Study the test requirements and system specifications
  - d) Define the basic configuration
  - e) Designing solution of the experimental system
  - f) Simulation and evaluation of system solution
- The development of experimental system
  - a) Realization of the experimental system
  - b) Inspection and testing of experimental hardware and correct design specifications
  - c) Testing and measurement making with the experimental system in laboratory conditions
- Development of speaker system (prototype)
  - a) Finalize the design specifications of the prototype
  - b) Developing prototype
  - c) Checking the functional prototype
  - d) Testing the system at a workstation place



Testing results in MATLAB



Final prototype for test of speaker system