



Project „Flexible Assembly Processes for the Car of the Third Millennium (MyCar)“

Problem Description (High Level)

Intelligent algorithm for rapid setup of new welding parameters



Context

The major joining technology in automotive body in white is resistance spot welding because it is

- Cheap
- Reliable
- Save

However, the number of materials used is increasing and the materials are more difficult to weld.

For finding proper welding parameters, a lot of welding tests have to be done in advance. This is time intensive and costly.



Industrial needs

A system for easy and rapid finding of welding parameters is urgently required. The systems capabilities should cover:

1. Easy finding of parameters also for non-experts
2. Rapid finding of parameters within a minimum time
3. The number of test material should kept at a minimum
4. The parameters shall be tailored to a specific machine and environment
5. The parameters shall be stable also for varying conditions



Material A + Material B = ? Set of Welding parameter