



NASA SBIR 2009 Phase I Solicitation

X13.01 An Automated Tool for Human Factors Evaluations

Lead Center: JSC

Participating Center(s): ARC

This subtopic calls for a Small Business Innovative Research project to develop an automated tool to assist non-human factors engineers to conduct human factors evaluations. Human factors evaluations are essential in gathering human performance data and analyzing the usability of new design concepts. These evaluations are generally carried out by human factors experts due to the level of expertise required. However, in some cases, it would both save time and cost if a tool is available for non-human factors engineers to carry out a standardized evaluation procedure to obtain the needed data and with comparable quality.

The tool therefore shall provide a comprehensive set of measurement methods and guide non-human factors engineer to carry out human factors evaluations. The tool development shall include defining a comprehensive set of commonly used human factors evaluation methods that allow engineers to gather relevant human factors data. Through a user-friendly interface, the tool shall recommend evaluation metrics, provide step-by-step guidance for setting up the evaluation, and summarize/store evaluation data. The ability for the tool provide interfaces for human factors data acquisition systems is highly desirable.

An algorithm for the tool is expected as the deliverable for Phase 1 and a prototype is expected should the project continue on to Phase 2.