**Title:** Using Model Driven Architecture to Design Test Management Systems

**Question:** Can you build a test management system by using the MDA approach?

**Objective:** My objective is to prove that one can build a system, using a MDA tool, which manages test cases. The system should also report failures as well as send the failures to the r_tester.

**Purpose:** The purpose for me doing this research is to show the many benefits of Model Driven Architecture and prove that it can be implemented into other infrastructures displaying many benefits.

**Introduction:** Model Driven Architecture was developed by the Object Management Group to help organizations rapidly adopt new technologies and concepts without necessitating a rewrite of their entire system. MDA uses the Unified Modeling Language that uses diagrams or models to design and describe software applications. MDA attempts to broaden the benefits of using models with mode1-to-mode1 transformation giving the ability to generate entire application without writing a single line of code. Portability, Productivity, and the ability to reuse code are just some of the benefits of any MDA designed system. This test management system will keep track of results of software programs, however some of the models and code can be reused to design a totally different system.

**Relevancy:** This system is relevant to my research because MDA is applied to many other program languages such as nEE, COREA, and XML. MDA will be able to operate across any platform and middleware.

**PLAN:** Background information includes UML, MDA, OMG, the benefits of MDA and a test management system. Design different models (PIMs and PSMs). Use different diagrams to explain the system (use case, sequential, object...). Develop code from models using Compuware's OptimalJ MDA tool. Prove that a test management system can be efficiently constructed using the MDA approach.

**Conclusion:** Give results of test management system. Discuss businesses that are investing in the MDA approach and their expectations it in the future. Explain how models are easier to understand to the majority of people and how it is only nature for MDA to succeed.

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**References:** Many journal articles, websites, books (included on poster and PowrPnt)