

User's Handbook

map.apps with MD2

Project Seminar

Model-driven Mobile Development

(University of Münster)

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1 Introduction

2 Modeler's Handbook

2.1 Installation

The following software is required prior to the next steps:

- map.apps 3.1.0
- Eclipse IDE for Java and DSL Developers (e.g. Version Kepler)
- NetBeans EE (e.g. Version 8.0)
- Apache Tomcat 7.0 with running map.apps runtime
- GlassFish 4.+

2.2 Getting Started

2.2.1 Developing a Single App

In this section it is described how an application can be developed based on the current (March 2015) state of the MD2 DSL. To this end, this section is structured according to the different layers which constitute MD2 model. Aside from the conventional MVC layers -- model, view and controller -- this includes an additional layer, which enables and models the generation of workflows within and across apps and was established during the project seminar.

Workflow

The workflow layer is an additional abstraction on top of the controller layer. It thereby allows to specify the general course of action of one or more apps with few simple and well understandable model language constructs. Furthermore, this abstract workflow representation is intended to serve as a basis for communication with customers, e.g. for requirements engineering and collaborative app development. In the workflow file of an MD2 model a workflow can be specified as a graph of workflow elements. Each workflow elements can fire one to many events. The respective event describes ... [to be continued]

Model

View

Controller

2.2.2 Deploying a Single App

Backend

map.apps

2.3 Development and Deployment of multiple Apps

2.3.1 Workflow across multiple Apps

2.3.2 Deployment on map.apps

2.4 Additional Features

2.4.1 Uploading, Saving and Displaying RESTful Web Services

2.4.2 Calling RESTful Web Service from the App

2.4.3 Control of Workflow by calling a RESTful Web Service

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A Sample Workflow