

Autonomous Power Management	
Project Plan	Date: July 29, 2014

Autonomous Power Management Project Plan

1 Introduction

This project plan describes the realization of a process simulation effort in which the PosoMAS process is applied to a case study from Autonomous Power Management. The simulation has been conducted on three days in July and August 2014. Information about the process simulation is made available at <http://posomas.isse.de>. This document is the final version of the project plan after completion of the simulation.

2 Project organization

Table 1: Assignment of Roles to Members of the Development Team

Role	Team Member
Analyst	Person B
Architect	Person H
Product Owner	Person J
Project Manager	Person H
Process Engineer	Person J
Tester	Person B
Developer	Person H, Person J
Stakeholder	Person J

Other projects: Deployment of measuring infrastructure, contracts with owners/operators of distributed energy resources, Secure communication between power infrastructure

Communication Channels: Regular meetings, exchange of progress, common work groups

3 Project practices and measurements

PosoMAS practices for MAS and SO, OpenUP practices for lifecycle and development

ADELFE: Mas Adequacy Confirmation

Burndown reports for project and iteration, velocity

4 Project milestones and objectives

Iteration	Primary objectives (risks and use case scenarios)	Scheduled start or milestone	Target velocity
Inception I	<ol style="list-style-type: none"> Fully understand vision Generate comprehensive system goals model, glossary and domain model Define high-impact system goals for initial architecture Customise and set up process 	July 29, 2014 9:30 – 12:30 Actual: 9:30 – 12:40 13:15 – 13:45	9

Autonomous Power Management	
Project Plan	Date: July 29, 2014

	Lifecycle Objectives Milestone: Understand objectives and scope of the project		
Elaboration I	<ol style="list-style-type: none"> 1. Design System Architecture 2. Design Agent Architecture 3. Define Agent Organisation 4. Define Test Cases 	<p>July 29, 2014 13:30 – 15:30 16:00 – 17:00</p> <p>Actual: 13:45 – 15:45 16:00 – 17:30</p>	9
	Milestone: Deliver prototype capable of basic scheduling		
Elaboration II	<ol style="list-style-type: none"> 1. Define Trust-based Interactions 2. Design Self-Organisation Algorithm 3. Prepare Model Transformations 	<p>July 29, 2014 17:00 – 17:30 July 30, 2014 9:00 – 10:30 13:30 – 14:00</p> <p>Actual: July 30, 2014 10:00 – 11:00 13:30 – 14:15</p>	7.5
	<p>Lifecycle Architecture Milestone:</p> <ul style="list-style-type: none"> • Complete most important aspects of design of all architectural areas • Provide solutions for highest-impact requirements • Deliver prototype capable of using predictions in scheduling process 		
Construction I	<ol style="list-style-type: none"> 1. Implement and Test Solution 2. Develop Deployment Plan 3. Prepare Product Documentation 	<p>July 30, 2014 14:00 – 15:45 16:30 – 17:15</p> <p>Actual: July 30, 2014 14:30 – 16:00</p>	5
	<p>Initial Operational Capability Milestone:</p> <ul style="list-style-type: none"> • Deliver prototype capable of full scheduling and stabilisation of network frequency 		
Transition I	<ol style="list-style-type: none"> 1. Finalise Release Preparations 2. Deploy Product 	<p>July 30, 2014 16:15 – 17:30</p> <p>Actual: August 7, 2014 10:45 – 11:45</p>	4
	Product Release Milestone		

Autonomous Power Management	
Project Plan	Date: July 29, 2014

5 Deployment

Staged deployment to a small number of distributed generators, field tests

6 Lessons learned

Agree on metrics to measure effort and progress with all stakeholders before the project is started instead of during the inception phase.

Instead of extending the iterations, a clear cut-off time/date should be defined and re-scoping should take place when objectives can no longer be met in the allotted time.