nectar THESIS **PROJECT**

Asterios Chantes AD10-ID12 Master Thesis in Industrial Design, AAU, spring 2009 Workstation for open public spaces Product report

TITLE PAGE

Architecture & Design, Master thesis in Industrial Design (4th semester) Aalborg University

Project title: Nectar

Project subject: Design of an inflatable public work station

Project period: February 1st - June 3rd 2009

Supervisor: Nicola Morelli

Pages: 30

Number of prints: 5

Asterios Chantes

Introduction

The product report presents the outcome of Nectar, a project concerning an inflatable workstation for public parks. The product report describes the information about Nectar that are essential to somebody in order to understand the concept and the idea behind the product.

The report is divided in two main parts. The first part introduces Nectar as a service from the management point of view and afterwards the product and how it is used from the final user.

READING GUIDANCE

Reading guidance

The thesis is documented in two reports: A process report and product report. The process report contains four phases. Phase 1, 2, 3 and 4 dealing with the research, development and realization of the project.

The product report is a detailed presentation of the product that has been designed and is divided in three chapters, the introduction, the service, and the product.

All the diagrams in the product are report are of own production.

A digital format of the report can be found in the CD on the back of the process report. The CD also contains pictures, sketches and diagrams that have been collected during the design process.

CONTENTS

Phase 0: Introduction		Phase 1: The service		Phase 2: The product	
Nectar Vision and value Introduction Target	6 8 10 11	User case Use cases Systemic map	14 16 20	Scenario Specifications The potato The ballon	24 26 28 29

NECTAR

The prodcut positioned in the natural environment, a green park



The need for a place outside the house or the office, where you can use your laptop for office work or mainly for personal pleasure, it is obvious and it is strongly veriffied every day with people sitting at the benches all around the public parks. People are trying to get out in the nature, be inspired from it and relax in it, enjoy the sun and have some hours of "work" with friends or family in the park. The Nectar gives them all they need to do that without isolating them in a selter or something that looks like an office table. It provides internet, power supply and a soft - flexible surface to sit on, move around, lay down next to it and be one with the grass and the nature while surfing on the web.



VALUES AND VISION

The values and vision for the project are illustrated through images and words





NECTAR

The chapter is a short introduction of nectar and the thoughts behind the product

Nectar is a product that is plant under the ground and used as a workstation when activated, offering electricity, internet and sitting. If we see on the reverse, the Nectar dosen't only offer the user what he needs in order to "work" with his computer in a park but it creates a whole new experience that rises the use with it in another level. The whole idea of the Nectar is inspired from the parks, the flowers and the insects acting around them. If there are no insects in a field, there is no noise and if there is no noise it means there is no life around. The field needs movement in order to become alive, as the park needs the people, it needs them to interact with and change it's view.

Imagine walking in an empty green park early in the morning. There are no people around, and the park seems to be motionless. While the time passes, people are acting in the park, trying to find their own Nectar in a specific point, (one far away from the others, or in middle of the park etc), affecting drastically the image of the park. Imagine the park with Nectars of different color and shapes, creating flower-beds all around the park, creating the feeling to the user of being part of whole view of the park, that interacts with it and he can see the result.



10^{tr}

THE TARGET GROUP

The target is defined in the following chapter

The main target group is defined as the group of people that are mainly of young age and have a need for a special designed place in the park in order to use their laptop for long time.

Based on that fact, the target group is defined through two main parameters. Age and level of technology knowledge. The target could be described in a more abstract level, as the group of people who want to operate their laptops in a park, regardless age or other determinations.





This section describes Nectar as a service from the management point of view, analyzing at the same time the front and the back office. The concept is described through use and user cases. The systemic map and the links behind the actors are also presented here.

NECTAR HE SERVICE

USER CASE

This chapter presents the actions operated from a user in order to use a nectar



The user is informed about the availability of the nectars, either through the system and the web page or on the spot by checking the lid. The user books a nectar through the web page.

The user receives a confirmation message for the reservation, either on his mail box or his mobile phone. The user locates the number of his booking nectar in the label with the map of the park. The user sends a message through his mobile phone to the system with the number indicated in the nectar.

The user receives a message with a code.

At the following page nectar is described step by step of how to use the product starting from booking at home to the payment for the service. The primary objects that the user interacts with are highligted in the diagram with blue color.



or type the code again in the lid.

USE CASES

Three use cases are presented in order to show the user interaction with the system and how the system responses

The diagram creates an overview of the service. The use line, is divided to phases, pre use, which contains the steps operated from distance, post use, which is the direct interaction with the product and post use, the actions after the use.

In the following pages, are presenting three use cases, booking, activate and pay, since they are consider the important steps of the use line.

Pre Use	_	_	Post Use	_			Use	
								_
	ISign in	lBook		Activate	Work	Disactivate	IStatus	IPay
		1		1				1

Use case: Booking 1. Get availability info 2. Select a nectar 3. Choose status 4. Decide time Select your nectar in Select the time you want to book the park the nectar Front office Status: open • shared 14:00 - 18:30 Sclosed ⊙ open Select your nectar o shared the park © closed ____ --------The user enters the web site The user selects which of the The user decides if he wants The user sets the clock for to check the availability of nectars in the park wants to how long he wants to use to share the nectar or not the nectars the nectar use a. The user is registered by a. The system registers the a. The system registers the a. The system registers the requested time for the the system request request Back office b. The system sends data b. The data sent to the b. The data sent to the reservation for the availability of the server of the booking unit server of the booking unit b. The data sent to the nectars c. The nectar is marked as c. The nectar is marked server booked in the web site either as shared one or closed d. The indication lamp in the lid of the nectar becomes from green either yellow or red

17

-	1. Find the nectar	2. Send request	3. Type code
Front office		54	
	The user locates the nectar in the park	The user sends a message to the service with the num- ber indicated in the lid of the nectar	The user types the code to the lid
Back office		 a. The booking unit receives the request b. The server confirms the users data and the availability of the nectar and proceeds the activation c. The booking unit creates a password code for the request d. The code is send to the user by message 	 a. The system confirms the code b. The nectar is activated (inflation of the balloon) c. The booking unit records the activation time d. The internet and power provider start charging

Use case: Activation

Use case: Payment 1. Check status 2. Choose payment 3. Pay Select your payment method: Proceed payment: Pay by: Credit card Charge my phone Yes No ____ ----The user enters the web site The user decides if he wants The user confirms the payto check his account to pay instant with his credit ment card or through Giro a. The user is registered by If the user choose instant a. The user sends verificathe system payment: tion message to the user b. The system withdraws a. The system connects b. The system proceeds to data from the server with the bank server and the payment c. The system sends confirms the data (credit card number) feedback b. The server sends the ammount of money c. The card is charged If the user choose to charge the telephone a. The system sends the data to his mobile account

Front office

Back office

SYSTEMIC MAP

The map shows the main relations between the units and the actors behind the nectar





The diagram shows the actors and units behind the nectar. The management unit contains the administration of nectar. The booking unit consists of servers and databases. The unit is connected with the municipality and makes use of the citizens database (CPR numbers).

The management unit in combination with the booking unit, are the parts of the system that outsourced from the municipality to an external company.

This section describes Nectar as a product, presenting a scenario of installation. The technical parts of the product are shown and the specifications of both the potato and the balloon are described.

NECTAR HE **PRODUCT**

SCENARIO

The scenario presents the steps for the installation of the nectar

Receipt

Nectar is highlighted for the ability to be tranfered and be storaged easily until is installed. The scenario shows a serial of steps from the factory that is produced to the moment it is installed and ready to use.



The nectar is light and compact so it can be carried easily from one point to another. The structure has special embed handles in two sites so as to help the man carrying it. The picture shows the receipt of the product from the factory.

Transportation



The nectar is easy to storage and tranfer to the place that is gone be used. The rentagle closed shape eliminates the destroys of the product while being transfered.

Plant



A whole at the size of the nectar has to

be digged in the ground in order to plan

the product. The material of the nectar is

durable to resist the erosion from the wet ground and at the same time is 70% recyclable. No other protective materials need

to be plant around the nectar.

Cable installation



During the plant, also the cables for the power supply and the internet are installed.

Ready to use



The nectar is installed and ready for use.

THE POTATO

The potato is the part of the product that is plant under the ground

The potato hides the balloon and the mechanism of the product. When it is activated there is motion on the system. The potato includes the inflating system, the wireless system, the lifting mechanism, the balloon, and the cables



The dimensions of the potato



Parts of the nectar

THE BALLOON

The ballon is the inflated part that is used as sitting for the user

The balloon is storaged in the potato when not in use. When the nectar is activated, the central core, which contains the electricity sockets comes out and the balloon is inflated.





The dimensions of the balloon

The balloon has been designed in such a way that it will offer to the user as many combinations of sitting as possible.



SPECIFICATIONS

The nectar can cover four users at the same time since there are 4 electrics sockets and balloon can be used from several persons







The upper and the under part



The operation of the potato can be divided to 4 steps

When the nectar opens a wireless internet connection is created in an area of 5 meters radius around the base.



The comprased air makes the balloon to inflate outside the potato. The reverse procedure is followed when the product is deactivated.



Two rings trap the balloon in the potato. The rings are easy to remove and change the broken balloon or even replace it with another one with a new shape or color.

VZI

